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DENTON,H.R. Office of Nuclear Reactor Regulation, Director

SUBJECT: Forwards response to safety evaluation on environ qualification of safety-related electrical equipment transmitted in NRC 810526 ltr,per IE Bulletin 79-01B. Submittal does not reflect Generic Ltr 82-09.

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June 11, 1982
AEP:NRC:0578B

Donald C. Cook Nuclear Plant Unit Nos. 1 and 2
Docket Nos. 50-315 and 50-316
License Nos. DPR-58 and DPR-74
RESPONSE TO SER ON ENVIRONMENTAL QUALIFICATION
OF SAFETY-RELATED ELECTRICAL EQUIPMENT

Mr. Harold R. Denton, Director
Office of Nuclear Reactor Regulation
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Dear Mr. Denton:

This letter and its attachments constitute our response to the Safety Evaluation Report on Environmental Qualification of Safety-Related Electrical Equipment transmitted in a letter dated May 26, 1981 from Steven A. Varga to John E. Dolan. This submittal supersedes all our previous responses.

This letter does not reflect Generic Letter No. 82-09, which we received on April 26, 1982. We are in the process of reviewing it and if it affects the information presented in this submittal, we will address it in a future letter.

There are fifteen attachments to this letter, each of which pertains to a specific topic which was identified in the Safety Evaluation Report formation meeting held in Washington, D. C.. They are summarized as follows:

Attachment	Topic
1	Display Instrumentation
2	Spray Chemical Characteristics
3	Flood-up Tubes
4	Updated Equipment Summary Sheets, Unit 1
5	Updated Equipment Summary Sheets, Unit 2

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6.	QA Procedures
7.	Aging
8.	Disabling Single-Component Failure of Containment Spray System
9.	Upper Compartment Temperature
10.	Submergence Outside Containment
11.	Master List of Major Equipment
12.	Master Sheets of Equipment and Auxiliaries Unit I
13.	Master Sheets of Equipment and Auxiliaries Unit II
14.	Reference Lists
15.	General Notes

In order to clearly understand the information presented in Attachments 4 and 5, it is necessary to begin with Attachments 12 and 13. It is also necessary to refer to the documents listed in Attachment 14.

The references listed in Attachment 14 are available in the New York office of American Electric Power Service Corporation.

Due to the large volume of detailed data presented in this submittal, we are continuing to review it, and any inconsistencies found will be brought to your attention promptly.

This letter also responds to Mr. Steven A. Varga's letter of May 3, 1982. The six items discussed in that letter are being sent to Mr. Cyril J. Crane at the Franklin Research Center with a copy of this cover letter.

This document has been prepared following Corporate procedures which incorporate a reasonable set of controls to insure its accuracy and completeness prior to signature by the undersigned.

Very truly yours,

R. S. Hunter
Vice President

/os

cc: John E. Dolan - Columbus
R. W. Jurgensen
W. G. Smith, Jr. - Bridgman
R. C. Callen
G. Charnoff
Joe Williams, Jr.
NRC Resident Inspector at Cook Plant - Bridgman
C. J. Crane - Franklin Research Center

Attachment No. 1 to AEP:NRC:0578B
Donald C. Cook Nuclear Plant Unit Nos. 1 and 2
Response to NRC SER on IE Bulletin 79-01B
Display Instrumentation

Section 3.1 of the SER required that "... a complete list of all display instrumentation mentioned in the LOCA and HELB emergency procedures..." be included in this submittal. The attached lists provide the requested information.

In a number of instances, the procedure(s) call for verification of functions automatically performed through the Reactor Protection System/Engineered Safety Features Actuation System (RPS/ESFAS) logic without making reference to specific display instrumentation. It should be pointed out that the procedure(s) which call for verification of these automatic functions also call for manual actions to effect completion of the functions if there is any doubt that they are not performed automatically. This instrumentation is summarized in Table 1. In performing these verifications, operators are instructed to consult multiple plant parameters.

The remaining display instrumentation referenced in the LOCA and (or) MSLB procedures is contained in Table 2 with three exceptions, as noted below:

(1) The MSLB procedure makes reference to trends in indicated wide-range steam generator water level. The wide-range level channels perform no safeguards or reactor trip function and serve as backup indication to the narrow range level channels. As noted in our response to FSAR question 7.29, the narrow-range level channels perform the same function as the wide-range devices which are excluded from the Table.

(2) Reference is made in the LOCA procedure to monitoring the Auxiliary Building Radiation Monitors to detect potential ECCS leakage during the recirculation mode. The monitors could be subjected to an adverse environment following a HELB outside containment but serve no safety related function for such an event.

(3) The LOCA procedure calls for verification that power is available to the pressurizer PORV block valves. Instrumentation is provided in 600V safety buses from which the block valves are powered. In addition, valve position indication lights effectively provide an indication of power availability.

TABLE 1

Function	Display Instrumentation	Purpose of Display	Safety Related	Potentially Exposed to Adverse Environment	Potential for providi Misleading Information
Reactor Trip	Reactor Trip Breaker Position Indication Lights	Verification of Reactor Trip Initiated By the RPS/ESFAS	No	No	
	Rod Bottom Lights		No	Yes	No
	Control Rod Drive Motor Circuit Set Breaker Position Lights		No	No	See Note (1
Turbine Trip	Turbine Stop Valves' Closure Alarm	Verification of Turbine Trip Initiated By the RPS/ESFAS	No	No	No
	Loss of Load Indicator		No	No	See Note (2
	Turbine Trip System Pressure Indicator		No	Yes	
Feedwater Isolation	Position Indication Lights on FRV-210, 220, 230, and 240 and FMO-201, 202, 203, and 204	Verification of Feedwater Isolation Initiated By the RPS/ESFAS	No	Yes	No See Note (3

TABLE 1 (cont'd.)

Function	Display Instrumentation	Purpose of Display	Safety Related	Potentially Exposed to Adverse Environment	Potential for Providi Misleading Information
Containment Isolation (Phase 'A' and/or Phase 'B')	Position Indication Lights on Each Power Operated Containment Isolation Valve	Verification of Containment Isolation Initiated By the RPS/ESFAS	No	Yes (for valves/ Cabling in LOCA/HELB Areas)	No See Note (4

Notes for Table 1

(1) Reactor Trip signals are generated by qualified safety-related devices used in the Reactor Protection System/Engineered Safety Features Actuation System (RPS/ESFAS) for all design basis accidents involving high energy line ruptures. The display instrumentation available to verify Reactor Trip is not safety related and failure of such instrumentation would not provide misleading information to the extent that the operators would take actions adverse to safety. For example, in the event that the Reactor Trip Breaker position lights did not indicate a trip subsequent to a trip initiated by the RPS/ESFAS, the emergency operating procedures (EOPs) would require that the operator manually trip the reactor.

(2) A turbine trip is automatically achieved through the balance-of-plant (BOP) channels. In the event that any or all of the display instrumentation were to provide false information subsequent to a turbine trip, the operator would manually initiate a trip, as required by the EOPs. Such actions are obviously not adverse to safety. The high-energy line break (HELB) which could conceivably have an adverse effect on the display instrumentation channels noted in Table 1 is a Main Steam Line Break (MSLB) in the Turbine Building.

(3) Feedwater isolation is achieved automatically through the RPS/ESFAS subsequent to the receipt of a safety injection (SI) signal.

Although an adverse environment outside containment could conceivably affect the channels used to indicate feedwater isolation, the automatic isolation would not be impaired.

(4) Containment isolation is achieved automatically through the RPS/ESFAS. Position indication lights are provided for all power operated containment isolation valves (CIVs). These lights are provided as aids to the operators and are not safety-related.

In addition, it is not possible for a single HELB to simultaneously subject all CIVs to an adverse environment.

TABLE 2

Function	Display Instrumentation	Purpose of Display	Safety Related	Potentially Exposed to Adverse Environment	Potential for providin Misleading Information
Containment Conditions	Containment Pressure Monitor	- Diagnostic - PAM - RPS/ESFAS - Use in Actuation of RHR Sprays	Yes	Yes (see Note 1)	No (see Note 1)
	Containment Radiation Monitor	- Diagnostic - PAM	TMI Item	No (note 11)	No
	Containment Humidity Monitor	- Diagnostic	No	Yes	No
	Containment Temperature	- Diagnostic	No	Yes	No
Auxiliary Feedwater System Status	Motor Driven Pumps-Breaker Position Indication Lights	Verify Power Available to Pump	No	No	No
	Motor Driven Pumps-Motor Ammeters	Verify Pump Operation	No	No	No

TABLE 2 (cont'd.)

Function	Display Instrumentation	Purpose of Display	Safety Related	Potentially Exposed to Adverse Environment	Potential for providin Misleading Information
Auxiliary Feedwater System Status (cont'd.)	Auxiliary Feedwater Flow Indication	- Verify System Performance - Used for isolation of faulted loop during MSLB	Yes	Yes	No (see No 2)
	Steam Generator Narrow Range Level Indication	- RPS/ESFAS - PAM - Verify AFS Performance	Yes	Yes	No (see Note 2)
	Condensate Storage Tank Level Indication and "Lo-Lo" Level Alarm	- Operator information for use in Transfer of AFS Suction to ESW	No	No	No (see Note 2)
Secondary System Status	Main Steam Pressure Indication	- RPS/ESFAS - PAM - Diagnostic	Yes	Yes	No (see Note 3)

TABLE 2 (cont'd.)

Function	Display Instrumentation	Purpose of Display	Safety Related	Potentially Exposed to Adverse Environment	Potenti for provi Misleadi Informati
Secondary System Status (cont'd.)	Main Steam Isolation Valve Position Indication Lights	Verify Steamline Isolation Initiated by RPS/ESFAS	No	Yes	No (see Note
—	Main Steam PORV Position Indication Lights	Verify Valve Position for Plant Cooldown	No	Yes	No (see Note
	MSIV Dump and Bleed-Off Valves' Position Indication Lights	Verify Steamline Isolation Initiated by RPS/ESFAS	No	Yes	No (see Note
	Main Steam Flow Indication	- RPS/ESFAS - Diagnostic - Verify Steam-line Isolation	Yes	Yes	No (see Note
Emergency Core Cooling Systems' Status	Centrifugal Charging Pumps - Breaker Position Indication Lights	Verify Power Available to Pump	No	Yes	No (see Note

TABLE 2 (cont'd.)

Function	Display Instrumentation	Purpose of Display	Safety Related	Potentially Exposed to Adverse Environment	Potential for providir Misleading Information
Emergency Core Cooling Systems' Status (cont'd.)	Centrifugal Charging Pumps - Motor Ammeters	Verify Pump Operations	No	Yes	No (see Note 4)
	Safety Injection Pumps-Breaker Position Indication Lights	Verify Power Available to Pump	No	No	No (see Note 4)
	Safety Injection Pumps - Motor Ammeters	Verify Pump Operation	No	No	No (see Note 4)
	Residual Heat Removal Pumps - Breaker Position Indication Lights	Verify Power Available to Pump	No	No	No (see Note 4
	Residual Heat Removal Pumps - Motor Ammeters	Verify Pump Operation	No	No	No (see Note 4

TABLE 2 (cont'd.)

Function	Display Instrumentation	Purpose of Display	Safety Related	Potentially Exposed to Adverse Environment	Potential for providing Misleading Information
Emergency Core Cooling Systems' Status (cont'd.)	Boron Injection Flow Indicators	Verify Charging Pump Operation	Yes	Yes	Yes (see Note 4)
	Letdown Line Flow Indication	Verify Letdown Isolation	No	No	No (see Note 5)
	Safety Injection Flow Indicators	Verify Safety Injection Pump Operation	Yes	No	Yes (see Note 4)
	Residual Heat Removal Flow Indication	Verify RHR Pump Operation	Yes	No	Yes (see Note 4)
	RHR Spray Flow Indicators	Verify RHR Spray Flow	Yes	No	Yes (see Note 6)
	Position Indicator Lights on Valves IMO-340, 350, 360 361, and 362, and ICM 305 and 306	Verify ECCS Realignment to Sump Recirculation	No	No	No (see Note 6)

TABLE 2 (cont'd.)

Function	Display Instrumentation	Purpose of Display	Safety Related	Potentially Exposed to Adverse Environment	Potential for providir Misleading Information
Emergency Core Cooling Systems' Status (cont'd.)	RWST Level Indication and "Lo" and "Lo-Lo" Level Alarms	Used for Alignment of ECCS to Sump Recirculation	Yes	No	No (see Note 7)
	Containment Water Level Indication	- Used for Alignment of ECCS to Sump Recirculation Mode - PAM	Yes	Yes	No (see Note 7)
Containment Spray System Status	Containment Spray Pumps - Breaker Position Indication Lights	Verify Power Available	No	No	No (see Note 8)
	Containment Spray Pumps - Motor Ammeters	Verify Pump Operation	No	No	No (see Note 8
	Containment Spray Pumps - Discharge Pressure Indication	Verify System Operation	Yes	No	No (see Note 8

TABLE 2 (cont'd.)

Function	Display Instrumentation	Purpose of Display	Safety Related	Potentially Exposed to Adverse Environment	Potential for providin Misleading Information
Service Water Systems Status	Component Cooling Water Pumps - Breaker Position Indication Lights	Verify Power Available to Pump	No	No	No
	Component Cooling Water Pumps - Motor Ammeters	Verify Pump Operation	No	No	No
	Essential Service Water Pumps - Breaker Position Indication Lights	Verify Power Available to Pump	No	No	No
	Essential Service Water Pumps - Motor Ammeters	Verify Pump Operation	No	No	No
Reactor Coolant System Status	Pressurizer Pressure Indication	RPS/ESFAS Diagnostic PAM	Yes	Yes	Yes (see note 12)
	Pressurizer Level Indication	Diagnostic PAM	Yes	Yes	No (see note 13)
	RCS Wide Range Pressure Indication	PAM Input to Subcooling Meter	Yes	Yes	Yes (see note 12)

TABLE 2 (Cont'd.)

Function	Display Instrumentation	Purpose of Display	Safety Related	Potentially Exposed to Adverse Environment	Potential for providing Misleading Information
Reactor Coolant System Status	RCS Wide Range Temperature Indication (Hot & Cold Leg RTDs)	PAM Input to Subcooling Meter	Yes	Yes	Yes (see note 12)
	RCS Narrow Range Temperature Indication	RPS/ESFAS Diagnostic	Yes	Yes	No
	Pressurizer PORV Position Indication Lights (Limit Switches & Acoustic Monitor on Header)	Verify Valve Position and RCS Isolation	TMI Item	Yes	No
	Pressurizer PORV Block Valve Position Indication Lights	Verify Valve Position and RCS Isolation	TMI Item	Yes	No
	Reactor Coolant Pumps - Breaker Position Indication Lights	Verify Power Available to Pump	No	Yes	No (See Note 9)
	Reactor Coolant Pumps - Motor Ammeters	Verify Pump Operation	No	Yes	No (See Note 9)
Emergency Power	Emergency Diesel Generators - Output Watt Meter	Verify Proper EDG Operation	Yes	No	No (See Note 10)
	Emergency Diesel Generators - Load Meter	Verify Proper EDG Operation	Yes	No	No (See Note 10)

NOTES FOR TABLE 2

(1) The transmitters used in containment pressure monitoring channels are located outside containment and are not adversely affected by the environment associated with the hypothetical events during which they are needed to function; namely a LOCA or MSLB inside containment.

(2) The auxiliary feedwater flow monitors and their associated indication channels may be subjected to an adverse environment due to a MSLB outside containment. At most, two monitors/indication channels can be affected by a single HELB. For such events, the safety grade narrow-range steam generator water level monitors (located inside containment) provide redundant indication of proper auxiliary feedwater system performance. The redundant condensate storage tank (CST) level indication and alarms serve to alert the operators of the need to transfer auxiliary feedwater pump's suction from the CST to the essential service water system. Failure of the CST level indication and (or) level alarms would not compromise the auxiliary feedwater system as each pump is automatically tripped on low suction pressure.

(3) Steamline isolation is achieved automatically through the RPS/ESFAS. A hypothetical HELB in the vicinity of the main steam isolation valves(MSIVs)(the east or west main steam enclosures) could, at most, adversely affect the indication channels for the MSIVs, their associated dump and bleed-off valves, and the control channels for the PORVs on two secondary loops. For such events, steamline isolation can be verified by use of the safety-grade main steam flow transmitters located inside containment. For postulated HELBs inside containment redundant verification of steamline isolation is provided by the steam flow, steam generator narrow range level, and main steam pressure indication channels.

(4) Indication of pump breaker position and motor amperage is provided in the control room for each emergency core cooling pump. These indications are useful as operator aids subsequent to automatic starting of the pumps on the appropriate safeguards signal. These indication channels also serve to provide the operator with information concerning pump motor status during the long-term recirculation mode.

The indication channels on the centrifugal charging pumps are potentially subjected to the environment associated with a letdown line break (see Appendix 'O' to the Cook Plant FSAR for further details). All other ECCS pumps are not in HELB areas. Safety grade indication of ECCS flow is provided by flow meters on the boron injection paths, the safety injection paths, and the residual heat removal paths. The boron injection flow meters are located inside containment and safety injection flow meters and the residual heat removal flow indicators are located in the auxiliary building.

(5) Letdown isolation is achieved automatically through the RPS/ESFAS. Verification of isolation is provided by the letdown flow indicator.

(6) ECCS realignment to the sump recirculation mode involves manual repositioning of the indicated valves. Although position indication lights are provided for these valves the safety grade indication of proper valve alignment is provided by the flow indicators mentioned in Note (4) above. In addition, flow meters are provided to provide verification of proper systems operation in the event RHR sprays are initiated.

(7) Refueling Water Storage Tank (RWST) level indication and level alarms are used in conjunction with containment water level indication to facilitate ECCS switchover from the injection to the sump recirculation mode. The containment water level indication and RWST level indication can not both be subjected to an adverse environment from a single HELB. In fact, the RWST level indication instrumentation is not located in a HELB area.

(8) Indication of pump breaker position and motor amperage is provided in the control room for each containment spray pump. These indications are useful as operator aids subsequent to automatic starting of the pumps on the appropriate safeguards signal. These indications also serve to provide the operator with information concerning pump status during the long-term recirculation mode. Positive indication of proper spray system operation is provided by pressure indicators on the discharge of each pump.

(9) Indication is provided for reactor coolant pump's breaker position and motor amperage. As the pumps themselves are not considered to be safety related per se, indication of pump status is not classified as safety-related either. These indications do provide verification of pump trip subsequent to manual actions based on decreasing primary system pressure.

(10) Indication of output wattage and load are provided for each emergency diesel generator (EDG). Further verification of proper EDG operation is effectively provided by the motor ammeters provided for the safety-related pumps loaded on the diesel.

(11) The existing containment radiation monitoring system (RMS) does not utilize devices exposed to an adverse environment. The RMS is being modified pursuant to the requirements of NUREG-0578. The modified system will utilize devices exposed to an adverse environment.

(12) The hypothetical errors associated with exposure of those channels have been factored into the subcooling margin specified in the applicable procedure(s).

(13) The LOCA procedure explicitly requires that pressurizer level indication be used in conjunction with other available indications. Pressurizer level is not used by itself to initate any actions following a LOCA or MSLB inside containment.

Attachment No. 2 to AEP:NRC:0578B
Donald C. Cook Nuclear Plant Unit Nos. 1 and 2
Response to NRC SER on IE Bulletin 79-01B
Spray Chemical Characteristics

As noted in Section 3/4 6.2.2 of the Cook Plant Technical Specification bases, limits are imposed on the volume and concentration of sodium hydroxide (NaOH) in the spray additive tank. This ensures a pH value between 8.5 and 11.0 for the solution recirculated within containment following a design basis LOCA. Parametric studies performed varying NaOH addition rate, ECCS flow rate, ice inventory, ice melt, and auxiliary feedwater flow (applicable only to the MSLB) have verified that these limits will be maintained following a HELB inside containment. A summary of this study is provided in Table 1. As noted in the Technical Specification bases, this pH band minimizes the evolution of iodine and the effects of chloride and caustic stress corrosion on mechanical systems and components. The pH used for environmental qualification testing of safety-related components inside containment falls within this pH range except for the components noted below.

The limitorque motor operators for the following valves were subjected to an environment with a pH of 7.67 during qualification testing:

Unit No. 1	Unit No. 2
IMO-51, 52, 53, 54	IMO-51, 52, 53, 54
IMO-128	IMO-128
ICM-129, 111	ICM-129, 111
QCM-250	QCM-250
ICM-305, 306	ICM-305, 306

Valves IMO-51, 52, 53 and 54 are in the boron injection lines to each respective RCS loop. These valves are normally open during power operation and receive a signal to open following a Safety Injection. Cook safety analysis does not assume that any safety-related function is performed by these valves. Although the motor operators for these valves would reasonably be expected to remain operational when subjected to an environment with a pH between 8.5 and 11.0, their failure to do so in such an environment does not adversely impact any safety analysis conclusions.

IMO-128 and ICM-129 are the two in-series valves in the normal RHR letdown line and ICM-111 is in the normal RHR cooldown return line. These valves are not part of the ECCS and serve no safety function other than to maintain RCS isolation when pressure is above the RHR design pressure. These valves are normally closed during operation. Although the motor operators for these valves would reasonably be expected to remain operational when subjected to an environment with a pH between 8.5 and 11.0, their failure to do so in such an environment does not adversely impact any safety analysis conclusions.

Valve QCM-250 is the inboard containment isolation valve on the reactor coolant pump seal water return line. (Redundant isolation of the seal water return line is provided by valve QCM-350 in-series with QCM-250 and located outside containment.) Both of these valves are automatically closed as part of the Phase A Containment Isolation initiated by the RPS/ESFAS, and neither is required to change position following a design basis accident. Although the motor operator for valve QCM-250 would reasonably be expected to remain operational when subjected to an adverse environment with a pH between 8.5 and 11.0, failure to do so does not adversely impact any safety analysis conclusions.

Valves ICM-305 and 306 are the sump recirculation line isolation valves. These valves are located outside containment.

The cable between the terminal block and the solenoid on valve VCR-21 in Unit No. 1 (a containment isolation valve in the ice condenser glycol refrigeration system) was subjected to a pH between 8.0 and 8.5 during environmental qualification testing. Although the cable would reasonably be expected to remain operational when subjected to an adverse environment with a pH between 8.5 and 11.0, failure of the cable would result in de-energizing the solenoid and closure of VCR-21. In any case, VCR-21 would be automatically closed on a Phase A Containment Isolation signal and the hypothetical cable failure discussed above would be meaningless and would not adversely impact any safety analysis conclusions.

Note: The pH range of 9.0 to 11.0 specified on the applicable qualification summary sheets should be 8.5 to 11.0 to correspond with Technical Specification bases B 3/4 6.2.2 (Unit 2 reference).

Table 1

Long-Term sump pH for various HELBs inside containment

HELB	Major Assumptions	Long Term Sump pH
Large LOCA	- 50% ice melt - RCS initially at 500 ppm boron - BIT, RWST, SA tank, and Accumulators injected	9.0
Large LOCA	- 100% ice melt - RCS initially at 500 ppm boron - BIT, RWST, SA tank, and Accumulators injected	8.8
Large LOCA	- 100% ice melt - RCS initially at 0 ppm boron - BIT, RWST, SA tank and Accumulators injected	9.4
Large LOCA	- 100% ice melt - RCS initially at 1400 ppm boron - BIT, RWST, SA tank and Accumulators injected	9.2
Small LOCA	- Time dependent ice melt - RCS initially at 0 ppm boron - BIT, RWST, and SA tank injected	9.6
Small LOCA	- Time dependent ice melt - RCS initially at 1400 ppm boron - BIT, RWST and SA tank injected	9.4

MSLB	- 75% ice melted instantaneously and 25% over 60 min - spray flow rate 3,200 gpm and NaOH addition rate 20 gpm	9.48 (at 200 M
MSLB	- 75% ice melted instantaneously and 25% over 60 min - spray flow rate 6,400 gpm and NaOH addition rate 100 gpm	9.48 (at 60 mi

Acronyms

HELB - high energy line break
RCS - reactor coolant system
BIT - boron injection tank
RWST - refueling water storage tank
SA - spray additive (NaOH tank)

Attachment No. 3 to AEP:NRC:0578B
Donald C. Cook Nuclear Plant Unit Nos. 1 and 2
Response to NRC SER on IE Bulletin 79-01B
Flood-up Tubes

The Equipment Qualification Safety Evaluation Report stated that no evidence of qualification of the flood-up tubes was provided in our original submittal. A reference packet (Reference #61) has been prepared on this subject, and it is part of our equipment qualification central file. It is also being transmitted to the Franklin Research Center as requested.

In summary, the packet provides the following information.

The floodup tubes are stainless steel corrugated tubing (equipment specification sheet attached as reference #1 to Floodup Tube Packet) used to protect penetration kapton insulated feedthrough cables that service equipment required to operate on a long-term basis (greater than two hours). The floodup tube will protect the kapton insulated cable against submergence and direct chemical spray impingement.

Details of the penetration flood-up feedthrough assembly and its connection to the floodup tube are provided in Conax Corporation "Installation and Maintenance Manual for Electrical Penetration Assemblies". (Attached to the Floodup Tube Packet as reference #2).

The floodup tube installation assembly has been seismically qualified as described in EDS Nuclear, Inc., Report Number 02-0120-1022 of November, 1979. Calculations have also been performed on the radiation shielding ability of the floodup tubes.

Finally, the floodup tubes were included (though not in the configuration in which they are installed), in the electrical cables and splices environmental testing discussed in Westinghouse - Canada Test Report CWAPD-332. This test report is not attached to the Packet since it is already part of the equipment qualification central file as reference #13. The Floodup Tube Packet referred to above is being transmitted to Franklin Research Center as per your request.

The Floodup Tube Packet has been put together to provide information on the nature of the floodup tubes. The floodup tubes are environmentally qualified by their service ratings. In the same fashion, plant Class 1 piping is seismically qualified but also environmentally qualified by its service rating. Testing of the floodup tubes to demonstrate that they will not be damaged by the post-accident steam and radiation environment is not considered necessary. The metal-to-metal connection (penetration-to-floodup tube) is identical to those connections used for leak proof joints in liquid service. Testing to demonstrate that it is waterproof is not considered necessary.

In conclusion, the D. C. Cook penetrations cable, because it is enclosed in stainless steel tubing, is afforded greater post-accident environmental protection than would be the case if submergence were not a condition and the floodup tube were not a feature of our installation.

D. C. Cook Plant Floodup Tubes Information
Packet References

1. Technical Data on Containment Electrical Penetrations Floodup Tubing. Memorandum of 8/18/78 from E. Fisher - Conax, to T. E. King - AEP.

2. Installation and Maintenance manual for the Electrical Penetration Assemblies (IPS-60).

3. Letter of 4/7/80 form T. E. King to J. B. Brittain.

Attachment No. 4 to AEP:NRC:0578B
Donald C. Cook Nuclear Plant Unit No. 1
Response to NRC SER on IE Bulletin 79-01B
Environmental Qualification of Equipment Summary Sheets

DONALD C. COOK NUCLEAR PLANT UNIT NO. 1 DOCKET NO. 50-315 LICENSE NO. DPR-58

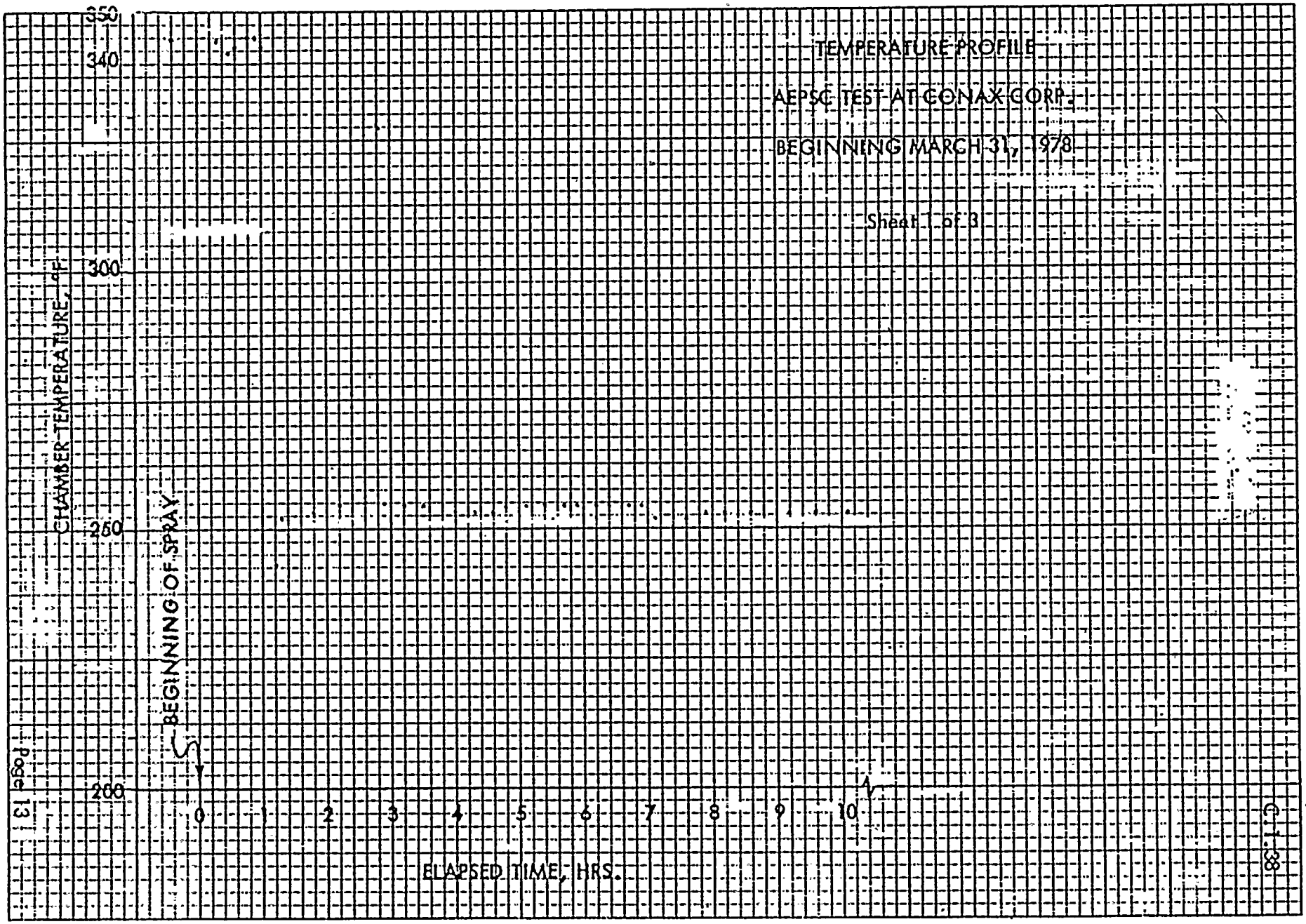
EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: VARIOUS	Operating Time	14 days	7:14 days	118	8. 63	Combination	NONE See Ref 63
PLANT ID NO: VARIOUS	Temperature (°F)	328.2	345	102	8	SEQUENTIAL	NONE
COMPONENT: CONTROL CABLE	Pressure (PSIA)	29.1	124.7	103	8	"	"
MANUFACTURER: CONTINENTAL	Relative Humidity (%)	100	100	102 103	8	"	"
MODEL NUMBER: ITEM #3119	Chemical Spray	2000 ppm B 1.14% wt Boric Acid PH 8.5-11	2500 ppm B 1.43 wt % Boric Acid PH 8.5-11	116'	8 72	CIMBINATION	NONE See Ref 72
FUNCTION: VARIOUS	Radiation (10^6 rads)	81	150	105	8	SEQ.	NONE
ACCURACY: SPEC: NA DEMON: NA	Aging (years)						
SERVICE: VARIOUS							
LOCATION: IN + OUT of CONTAINMENT							
FLOOD LEVEL ELEV: 614' ABOVE FLOOD LEVEL: NO	Submergence	SUBMERGED	Immersion	117	68	ENG. REVIEW	NONE See Ref 68

1-4 S7
7-8 S7
25-28 S3
215-S17
218-223 S17
226-229 S11 V2
5-6 S7

*Documentation References:

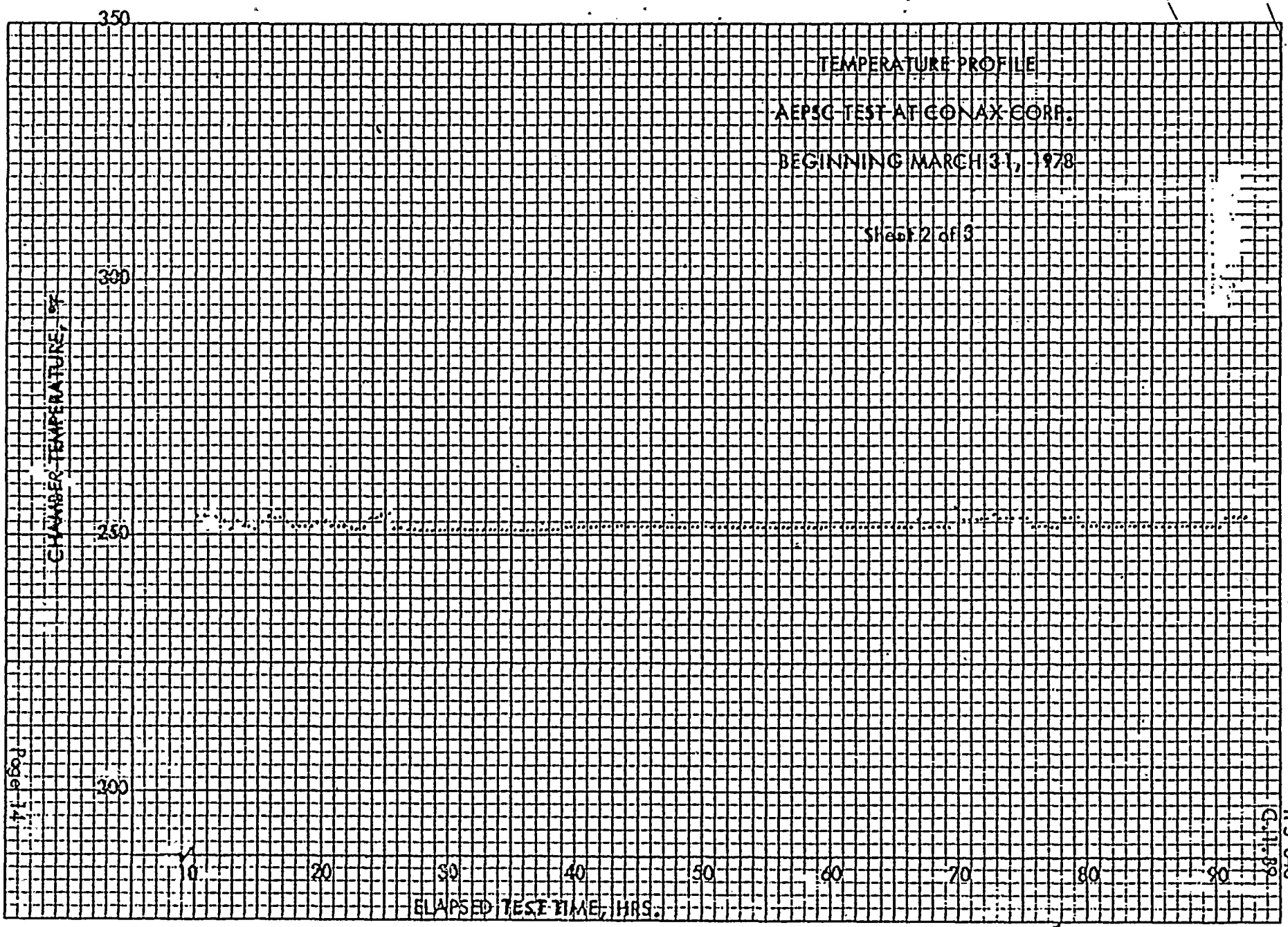
Notes:

from REF. #8



IPS-348

from Ref. #8

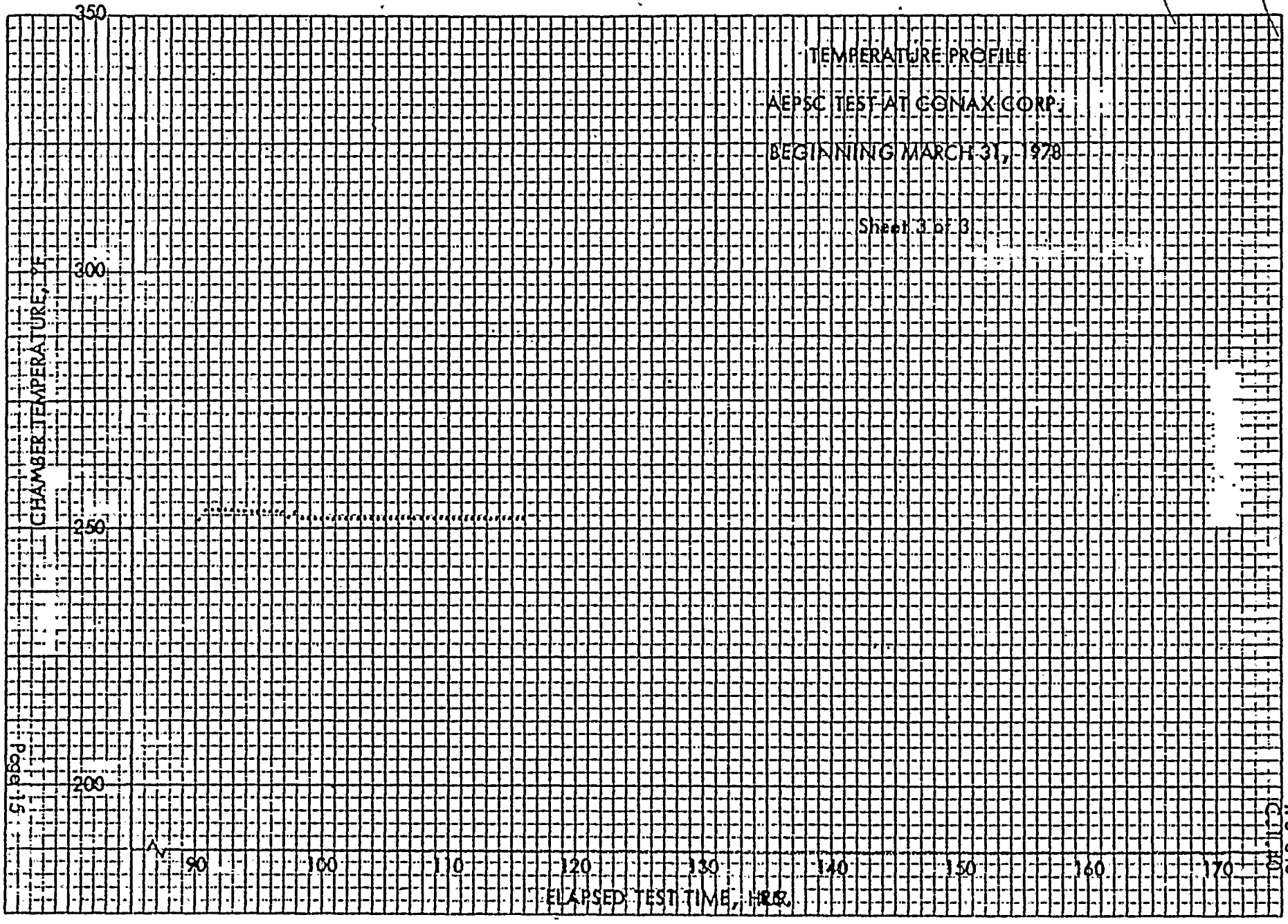


IPS-348 G.H. 8-2

Page 14

PAGE CC1-3

From Ref. #8


TEMPERATURE PROFILE
AEPSC TEST AT CONAX CORP.
BEGINNING MARCH 31, 1978
Sheet 3 of 3
CHAMBER TEMPERATURE, °F
350
300
250
200
90
100
110
120
130
140
150
160
170
ELAPSED TEST TIME, HRS.
IPS-348
CC1-40

DONALD C. COOK NUCLEAR PLANT UNIT NO. 1 DOCKET NO. 50-315 LICENSE NO. DPR-58

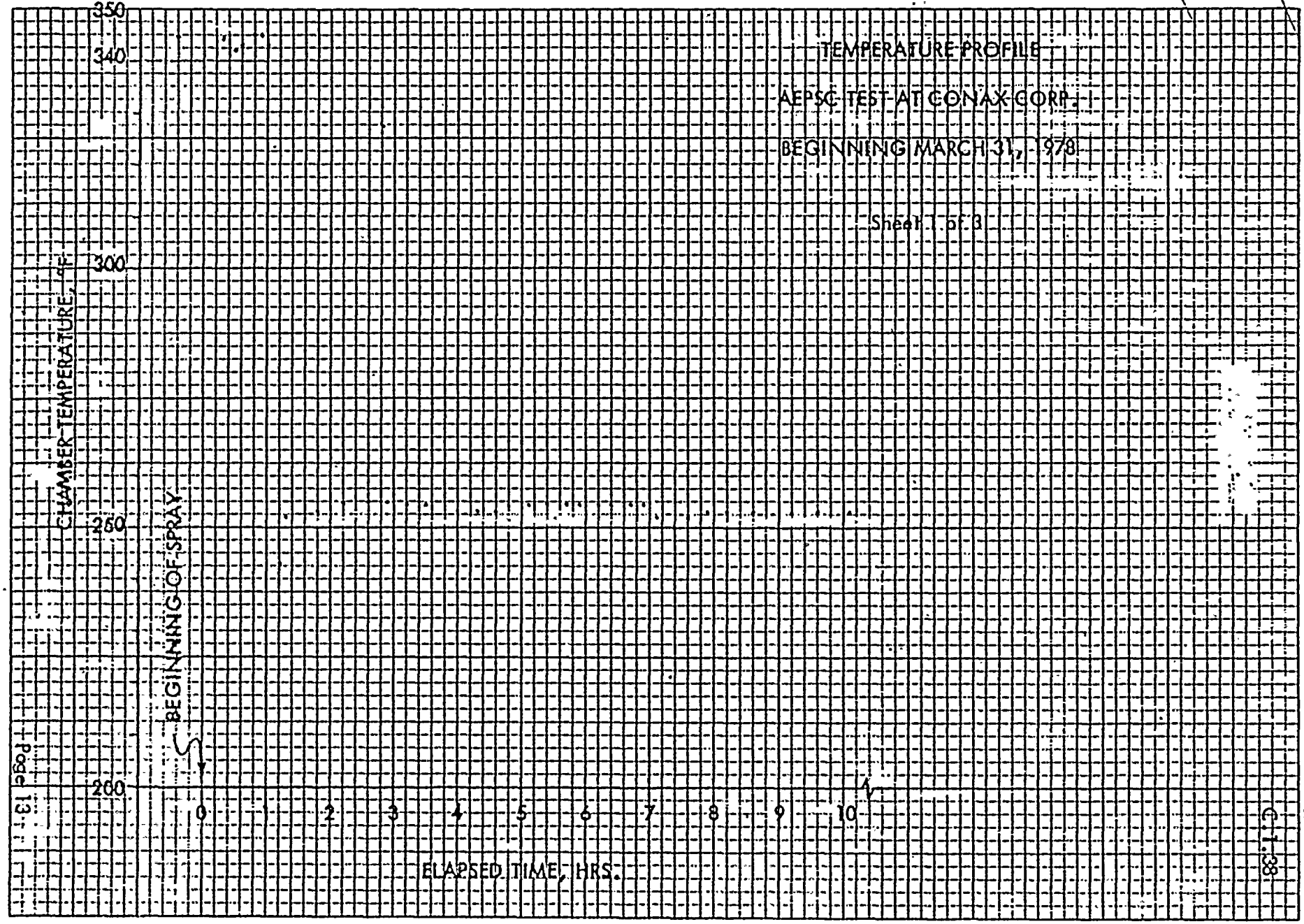
EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: VARIOUS PLANT ID NO: VARIOUS COMPONENT: CONTROL CABLE MANUFACTURER: CONTINENTAL MODEL NUMBER: ITEM # 3120 FUNCTION: VARIOUS ACCURACY: SPEC: NA DEMON: NA SERVICE: VARIOUS LOCATION: OUTSIDE CONTAINMENT	Operating Time	1 DAY	119HR.	110	8	SEQ.	NONE
	Temperature (°F)	230	345	107	8	"	"
	Pressure (PSIA)	26.2	124.7	107	8	"	"
	Relative Humidity (%)	100	100	107	8	"	"
	Chemical Spray	NA	2500 ppm B 1.43 wt % Boric Acid PH 8.5-11	NA	8 72	COMBINATION	NONE See Ref 72
	Radiation (10^6 rads)	4	150	106	8	SEQ.	NONE
	Aging (years)						
FLOOD LEVEL ELEV: NA ABOVE FLOOD LEVEL: NA	Submergence	NA	NA	NA	NA	NA	NA

17 V6
19 V6
21 V6
23 V6
49-50 V6

*Documentation References:

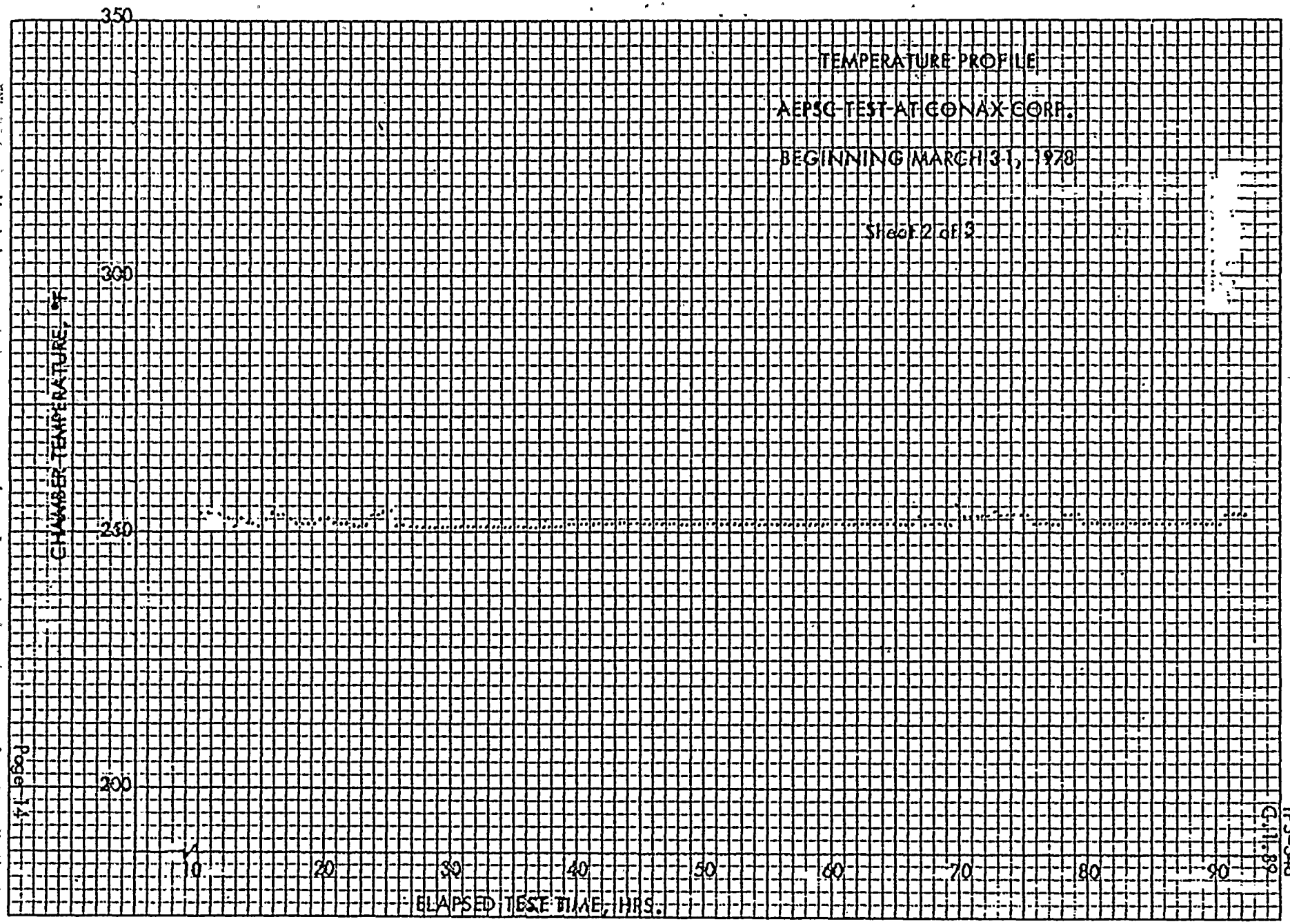
Notes:

from Ref. #8



PAGE CC2-2

from Ref. #8


TEMPERATURE PROFILE
AEPSC TEST AT CONAX CORP.
BEGINNING MARCH 31, 1978
Sheet 2 of 3
CHAMBER TEMPERATURE, °F
350
300
250
200
0
20
30
40
50
60
70
80
90
ELAPSED TEST TIME, HRS.
IPS-348
G.11.82
Page 14

From Ref. #8


TEMPERATURE PROFILE
AEPSC TEST AT CONAX CORP.
BEGINNING MARCH 31, 1978
Sheet 3 of 3
CHAMBER TEMPERATURE, °F
350
300
250
200
90
100
110
120
130
140
150
160
170
ELAPSED TEST TIME, HRS.
IPS-348
C.I. 410

DONALD C. COOK NUCLEAR PLANT UNIT NO. 1 DOCKET NO. 50-315 LICENSE NO. DPR-58

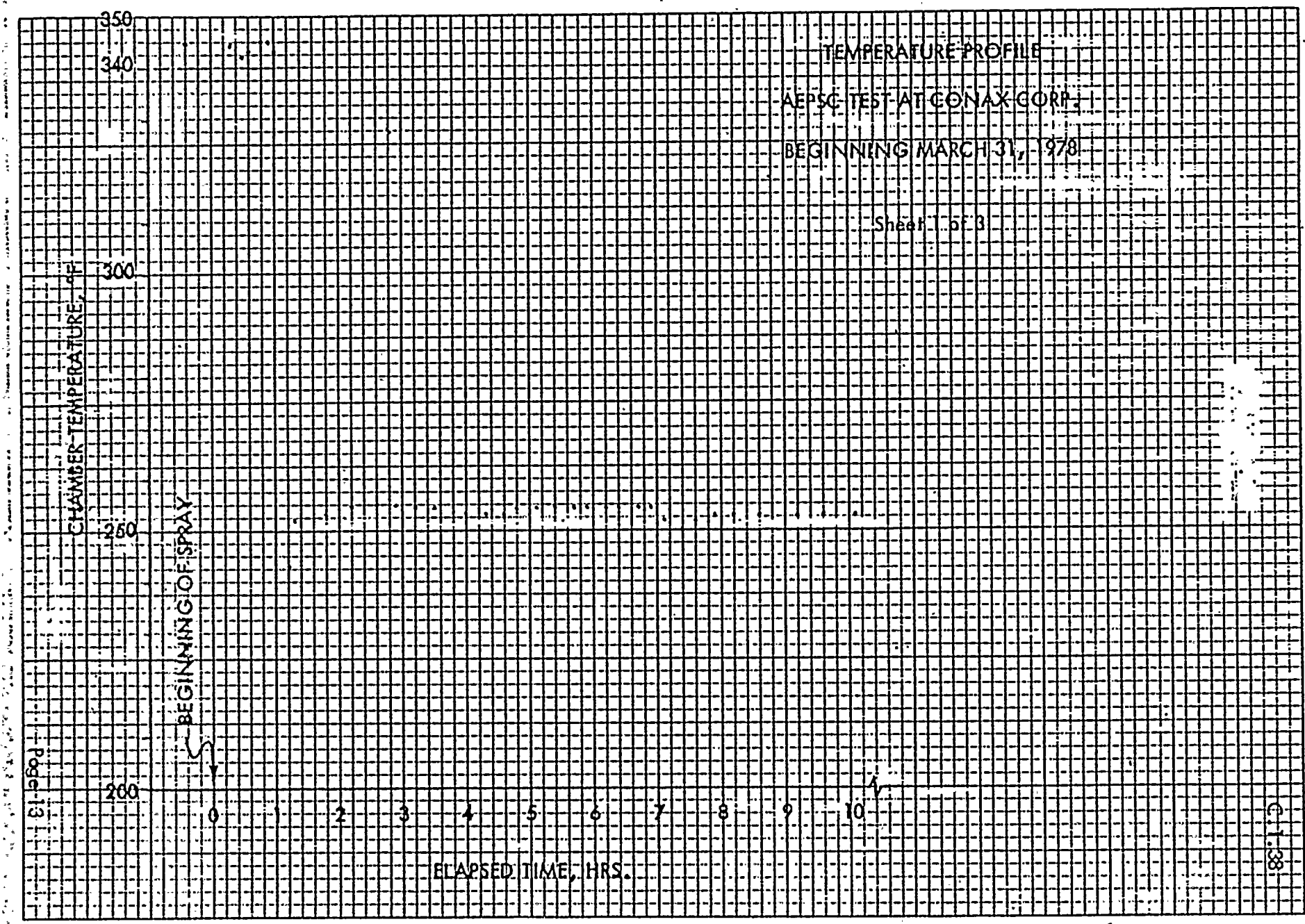
EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: VARIOUS PLANT ID NO: VARIOUS COMPONENT: CONTROL CABLE MANUFACTURER: GENERAL ELECTRIC MODEL NUMBER: ITEM #3120 FUNCTION: VARIOUS ACCURACY: SPEC: NA DEMON: NA SERVICE: VARIOUS LOCATION: OUTSIDE CONTAINMENT	Operating Time	24 HRS.	119 HRS.	110	8	SEQ	NONE
	Temperature (°F)	230	345	107	8	"	"
	Pressure (PSIA)	26.2	124.7	107	8	"	"
	Relative Humidity (%)	100	100	107	8	"	"
	Chemical Spray	NA	2500 ppm B 1.43 wt% BORIC ACID pH 8.5-11	NA	8 72	COMBINATION	NONE See Ref 72
	Radiation (10^6 rads)	4	150	106	8	SEQ.	NONE
	Aging (years)						
FLOOD LEVEL ELEV: NA ABOVE FLOOD LEVEL: NA	Submergence	NA	NA	NA	NA	NA	NA

17 V6
19 V6
21 V6
23 V6
49-50 V6.

*Documentation References:

Notes:

from REF. #8



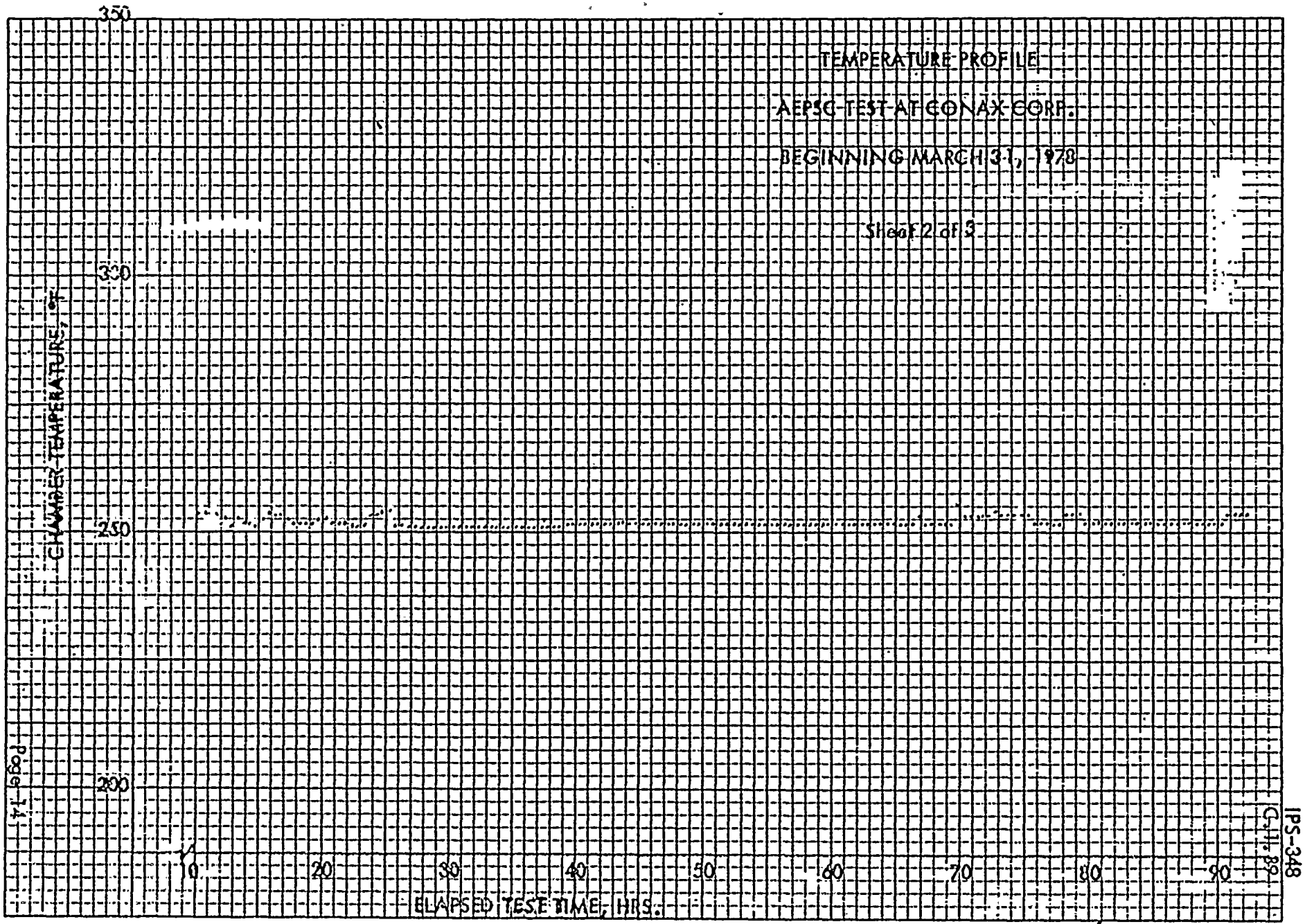
IPS-348

C-1-38

Page 13

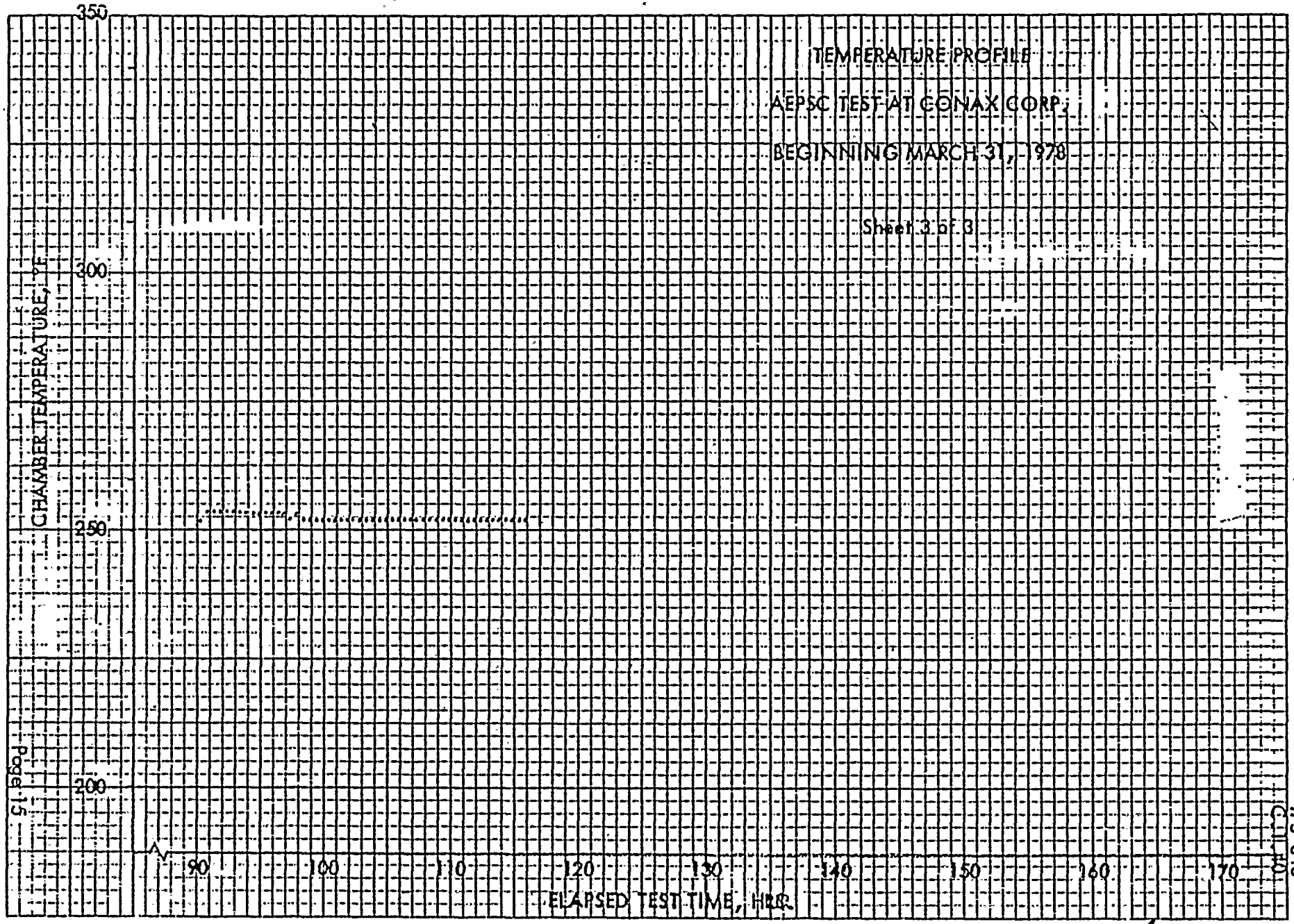
PAGE CC3-2

from REF. #8



IPS-348

From Ref. #8



Page 15

IPS-348

DONALD C. COOK NUCLEAR PLANT UNIT NO. 1 DOCKET NO. 50-315 LICENSE NO. DPR-58

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: VARIOUS PLANT ID NO: VARIOUS COMPONENT: CONTROL CABLE MANUFACTURER: ANACONDA MODEL NUMBER: ITEM # 3120 FUNCTION: VARIOUS ACCURACY: SPEC: NA DEMON: NA SERVICE: VARIOUS LOCATION: Outside Containment	Operating Time	1 DAY	14 DAYS	110	5	SIMUL.	NONE
	Temperature (°F)	230	340	107	5	"	"
	Pressure (PSIA)	26.2	119.7	107	5	"	"
	Relative Humidity (%)	100	100	107	5	"	"
	Chemical Spray	NA	3000 ppm B 1.72 WT% Boric Acid PH 8.5-11	NA	5. 72.	COMBINATION	NONE See Ref 72
	Radiation (10^6 rads)	4	200	106	5	SIMUL.	" NONE
	Aging (years)						
FLOOD LEVEL ELEV: NA ABOVE FLOOD LEVEL: NA	Submergence	NA	NA	NA	NA	NA	NA

17 V6
19 V6
21 V6
49-50 V6

*Documentation References:

Notes:

5. Qualified by Franklin Institute Research Laboratory (FIRL) Test Report #F-C3341, Jan. 1973.

Type of Test: Simultaneous, gamma radiation
steam
chemical spray

Test Profile:

.51 Mrads/hr, 200 Mrads
340°F, 105 psig for 3 hrs
320°F, 75 psig for 3 hrs
250°F, 15 psig for 4 days
210°F, 5 psig for 9 days

Chemical Spray: Solution of boric acid and Na OH , PH = 9.5

DONALD C. COOK NUCLEAR PLANT UNIT NO. 1 DOCKET NO. 50-315 LICENSE NO. DPR-58

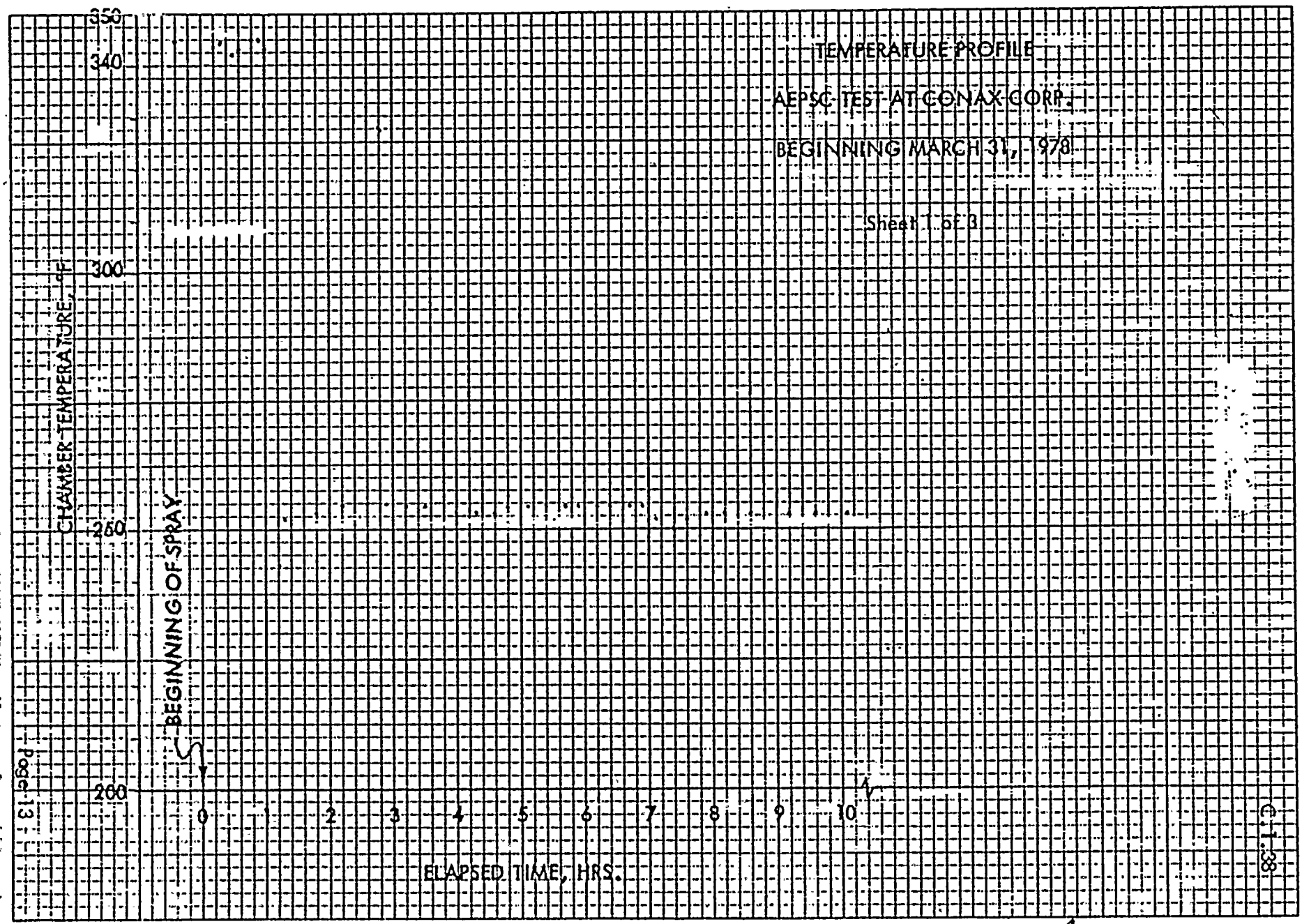
EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: VARIOUS PLANT ID NO: VARIOUS COMPONENT: CONTROL CABLE MANUFACTURER: CONTINENTAL WIRE & CABLE MODEL NUMBER: ITEM # 3121 FUNCTION: VARIOUS ACCURACY: SPEC: NA DEMON: NA SERVICE: VARIOUS LOCATION: IN + OUT CONTAINMENT	Operating Time	14 days	> 14 days	118	8 63	Combination	NONE See Ref 63
	Temperature (°F)	328.2	345	102	8	SEQUENTIAL	"
	Pressure (PSIA)	29.1	124.7	103	8	" "	"
	Relative Humidity (%)	100	100	102 103	8	"	"
	Chemical Spray	2000 PPM B 1.14 WT% BORIC PH 8.5-11 ACID	2500 PPM B 1.43 WT% BORIC PH 8.5-11 ACID	104	8 72	COMBINATION	NONE See Ref 72
	Radiation (10^6 rads)	81	150	105	8	SEQ.	NONE
	Aging (years)						
FLOOD LEVEL ELEV: 614' ABOVE FLOOD LEVEL: yes	Submergence	NA	NA	NA	NA	NA	NA

49-50 V6
226-228
SII, LSI

*Documentation References:

Notes:

from REF. #8

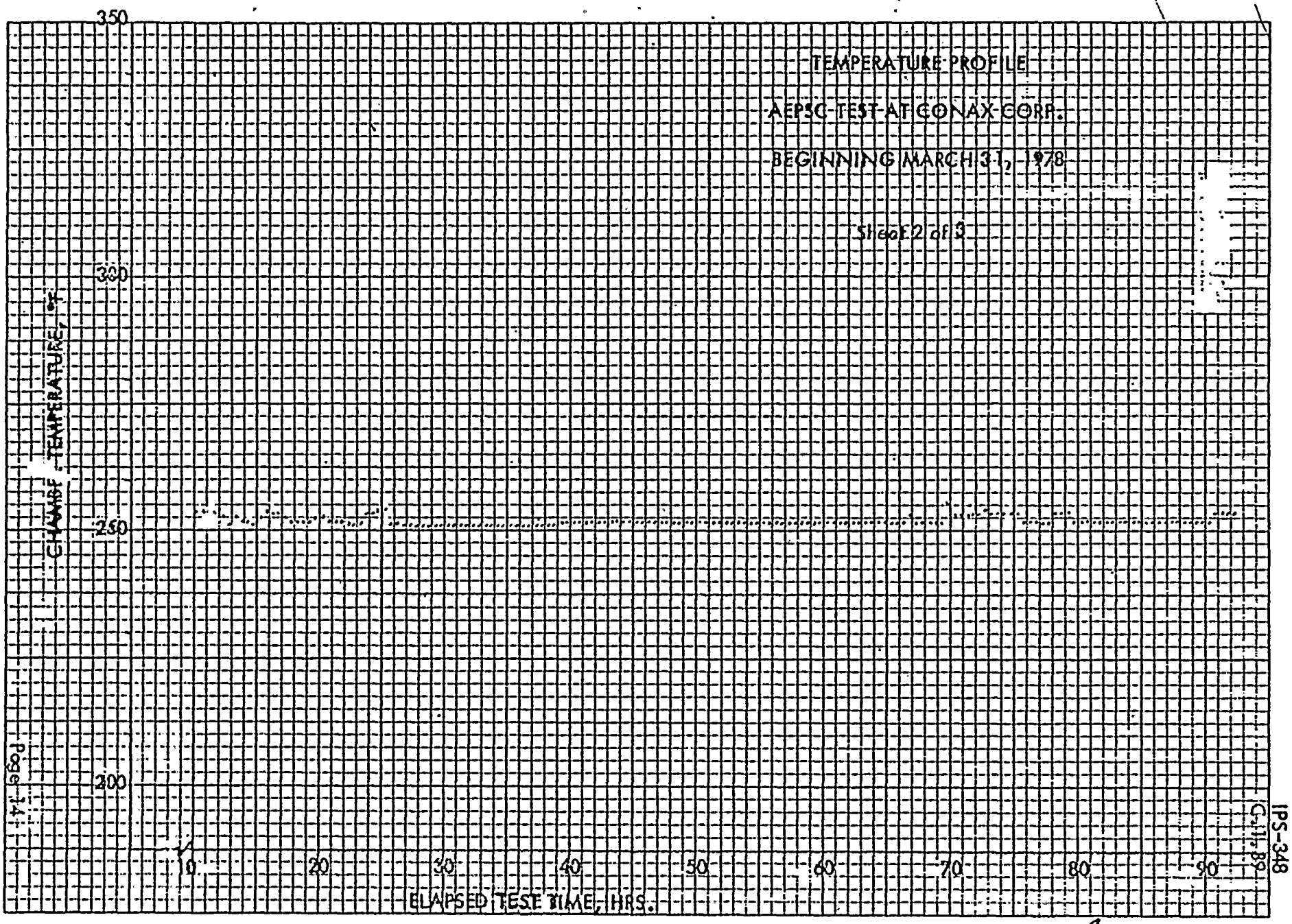


IPS-348

C-1-38

PAGE CC5-2

from REF. #8


TEMPERATURE PROFILE
AEPSC TEST AT CONAX CORP.
BEGINNING MARCH 31, 1978
SHEET 2 of 3
CHAMBER TEMPERATURE °F
350
300
250
200
0
10
20
30
40
50
60
70
80
90
ELAPSED TEST TIME, HRS.
IPS-348
G-11-89

from Ref. #8

Page 15

DONALD C. COOK NUCLEAR PLANT UNIT NO. 1 DOCKET NO. 50-315 LICENSE NO. DPR-58

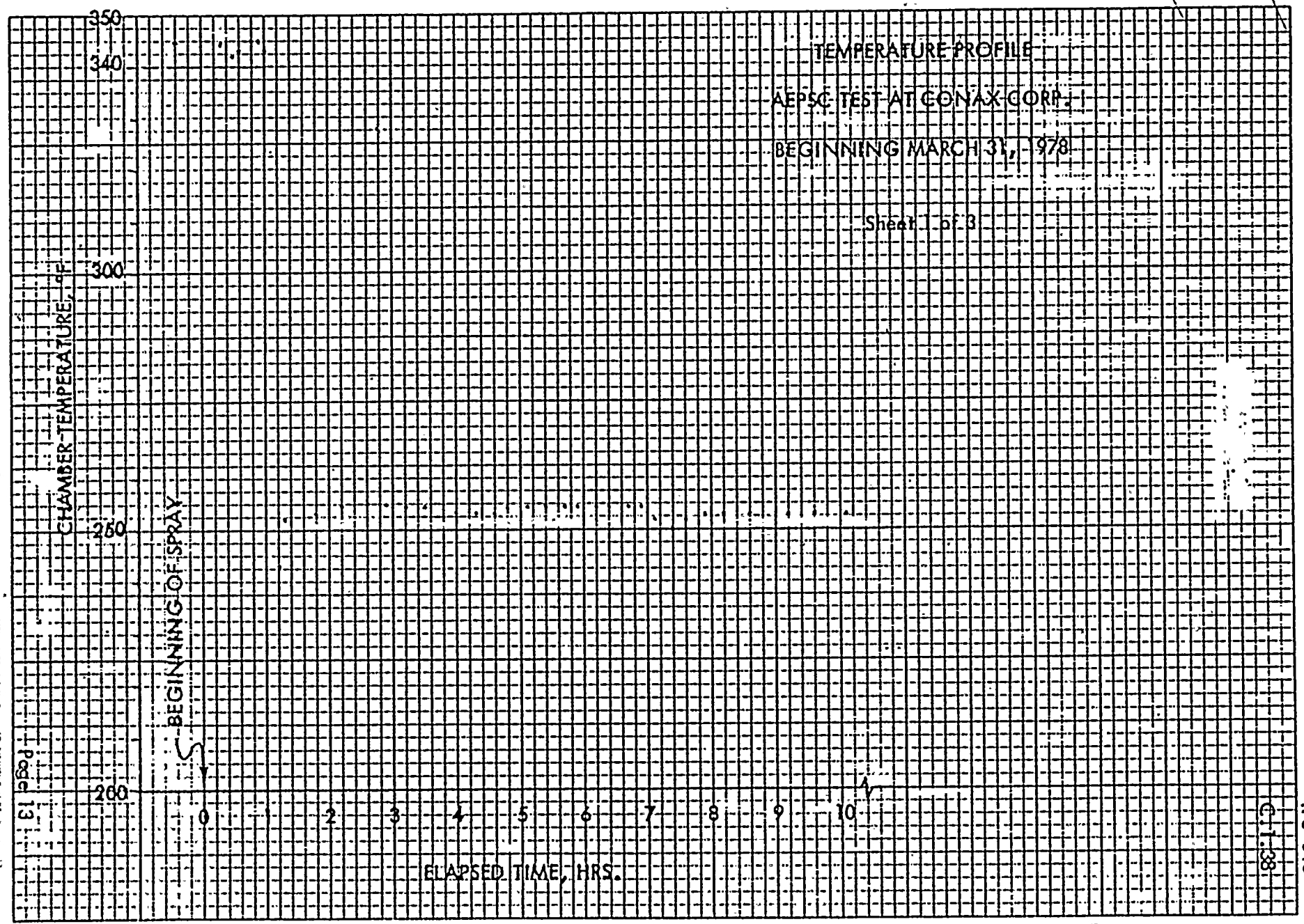
EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: VARIOUS PLANT ID NO: VARIOUS COMPONENT: CONTROL CABLE MANUFACTURER: GENERAL ELECTRIC MODEL NUMBER: ITEM # 3121 FUNCTION: VARIOUS ACCURACY: SPEC: NA DEMON: NA SERVICE: VARIOUS LOCATION: IN + OUT CONTAINMENT	Operating Time	14 days.	>14 days	118	8 63	Combination	NONE See Ref 63
	Temperature (°F)	328.2	345	102	8	Sequential	
	Pressure (PSIA)	29.1	124.7	103	8	"	"
	Relative Humidity (%)	100	100	102 103	8	"	"
	Chemical Spray	2000 ppm B 1.14 wt% Boric PH 8.5-11 ACID	2500 ppm B 1.43 wt% Boric ACID PH 8.5-11	104	8 72	COMBINATION	NONE See Ref 72
	Radiation (10^6 rads)	81.	150	105	8	SEQ.	NONE
	Aging (years)						
FLOOD LEVEL ELEV: 614' ABOVE FLOOD LEVEL: YES	Submergence	NA	NA	NA	NA	NA	NA

49-50 V6
226-228
S11, LS1

*Documentation References:

Notes:

from REF. #8

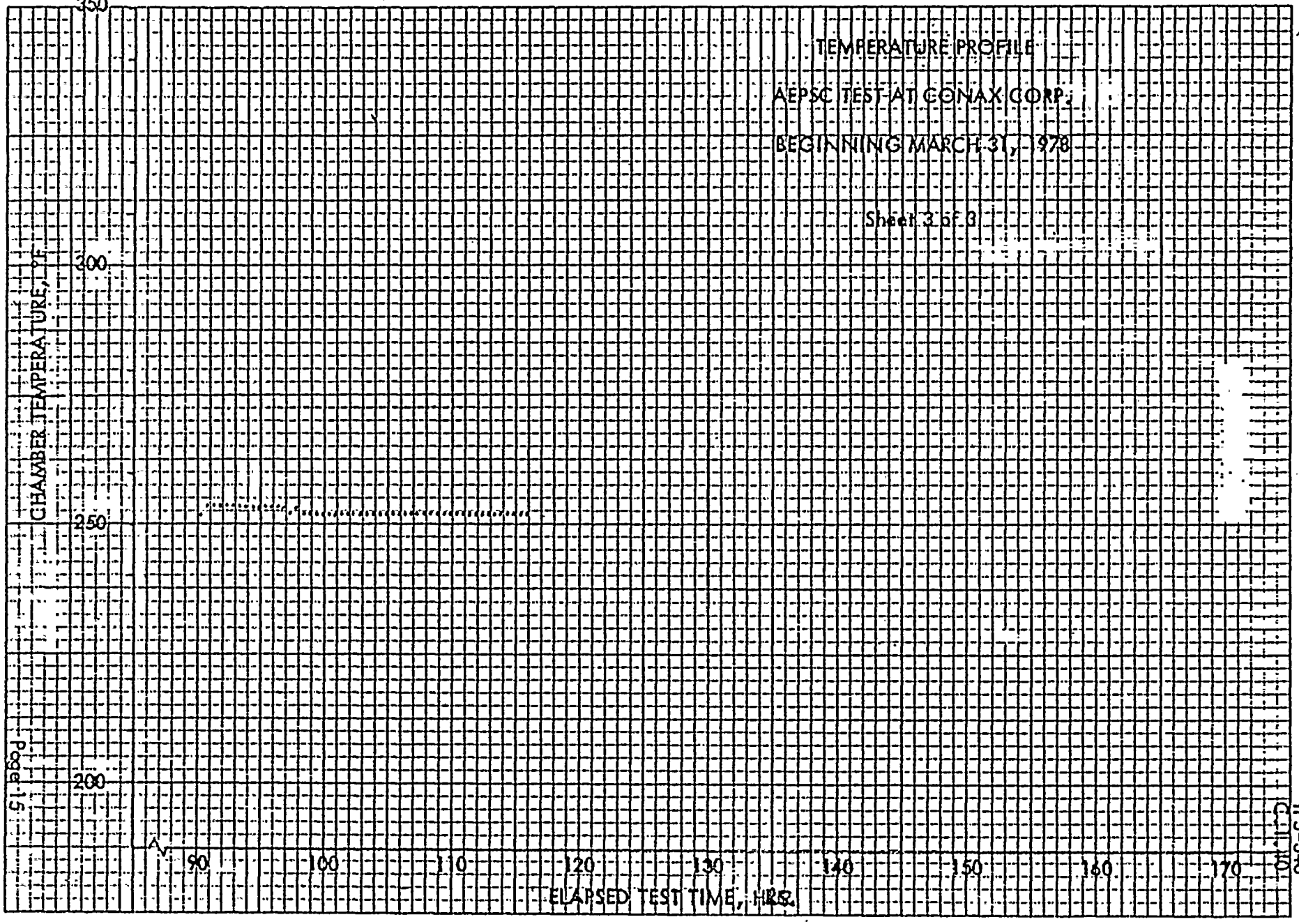


PAGE CC6-2

from REF. #8


TEMPERATURE PROFILE
AEPSC TEST AT CONAX CORP.
BEGINNING MARCH 31, 1978
Sheet 2 of 3
CHAMBER TEMPERATURE, °F.
350
300
250
200
10
20
30
40
50
60
70
80
90
ELAPSED TEST TIME, HRS.
IPS-348
G-11-89

From Ref. #8


TEMPERATURE PROFILE
AEPSC TEST AT CONAX CORP.
BEGINNING MARCH 31, 1978
Sheet 3 of 3
CHAMBER TEMPERATURE, °F
350
300
250
200
90
100
110
120
130
140
150
160
170
ELAPSED TEST TIME, HRS.
IPS-348
C-II-110

DONALD C. COOK NUCLEAR PLANT UNIT NO. 1 DOCKET NO. 50-315 LICENSE NO. DPR-58

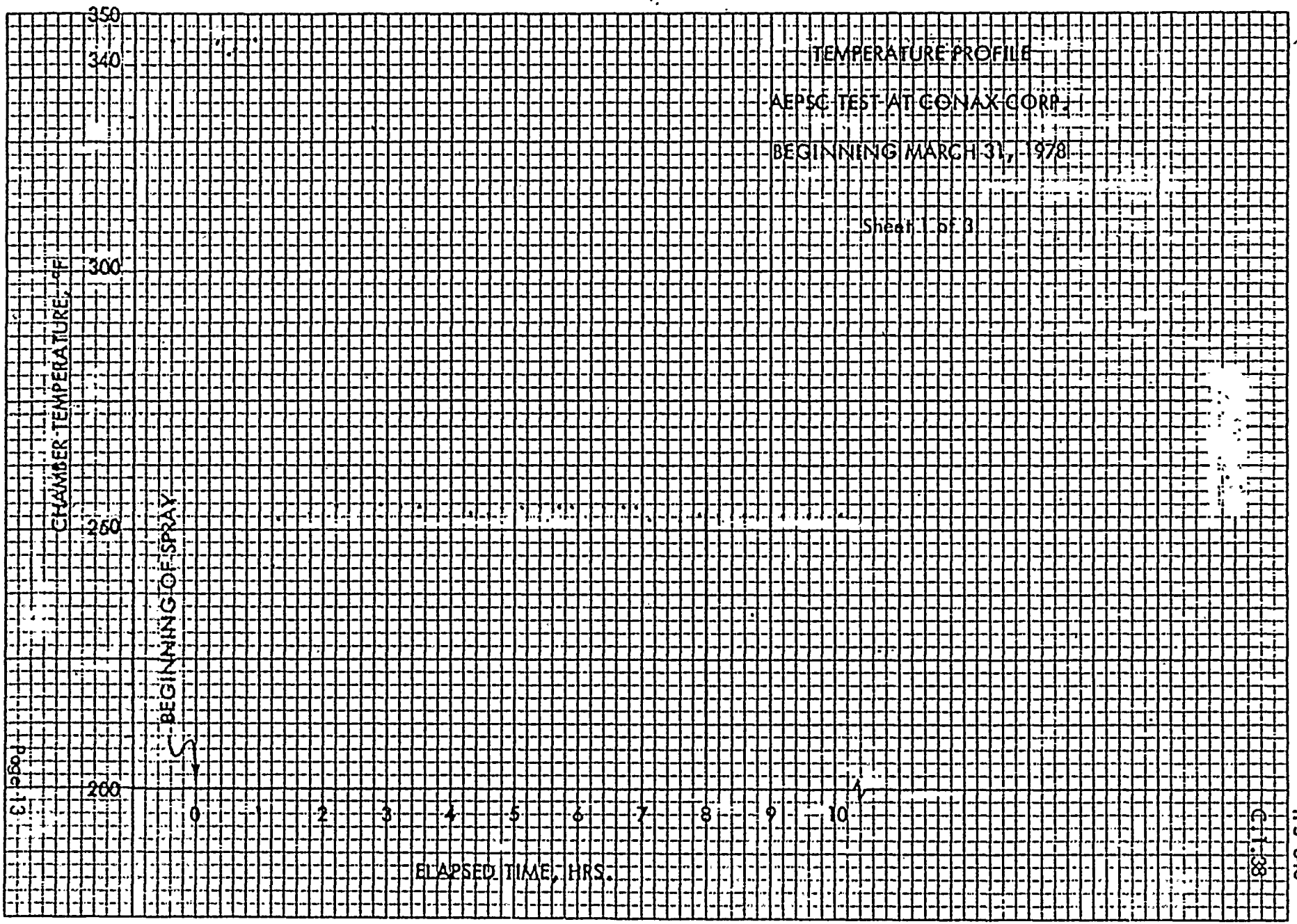
EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: VARIOUS PLANT ID NO: VARIOUS COMPONENT: CONTROL CABLE MANUFACTURER: CONTINENTAL WIRE & CABLE MODEL NUMBER: ITEM # 3122 FUNCTION: VARIOUS ACCURACY: SPEC: NA DEMON: NA SERVICE: VARIOUS LOCATION: In + Out Containment FLOOD LEVEL ELEV: 614 ABOVE FLOOD LEVEL: No	Operating Time	14 days	>14 days	118	8 63	Combination	NONE See Ref 63
	Temperature (°F)	328.2	345	102	8	Sequential	NONE
	Pressure (PSIA)	29.1	124.7	103	8	"	"
	Relative Humidity (%)	100	100	102 103	8	"	"
	Chemical Spray	2000 ppm B 1.14 wt% BORIC PH 8.5-11 ACID	2500 ppm B 1.43 wt% BORIC PH 8.5-11 ACID	114	8 72	COMBINATION	NONE See Ref 72
	Radiation (10^6 rads)	81	150	105	8	SEQ.	NONE
	Aging (years)						
	Submergence	Submerged	Immersion	117	68	ENG. REVIEW	NONE See Ref 68

1-4 S7
5-6 S7
7-8S7
30-33V6
35-38V6
43-44V6
49-50V6
61-70 (V6, V11)
71-92) (V2, V6, V7, V11)
101-108 V7
111-112 V4
204-207 (V-6)
210-213, 215-223) (V11, V6, S17)
227-228 (S11, LS1)
229-231 V9
57-60 V1 -
92A V1 -
202-203 V1 -
214 V5, -
17-24 V6
25-28 S2

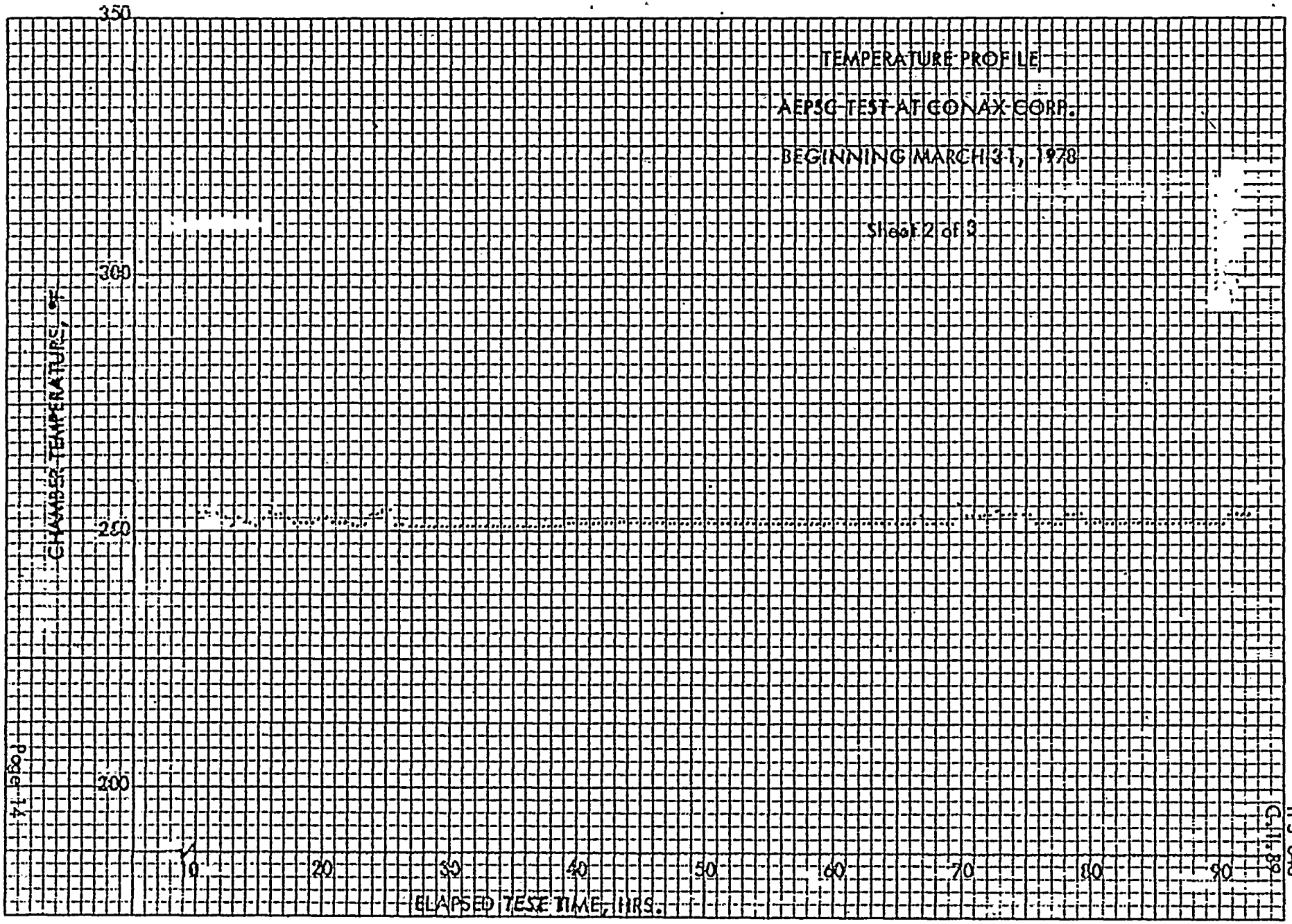
*Documentation References:

Notes:

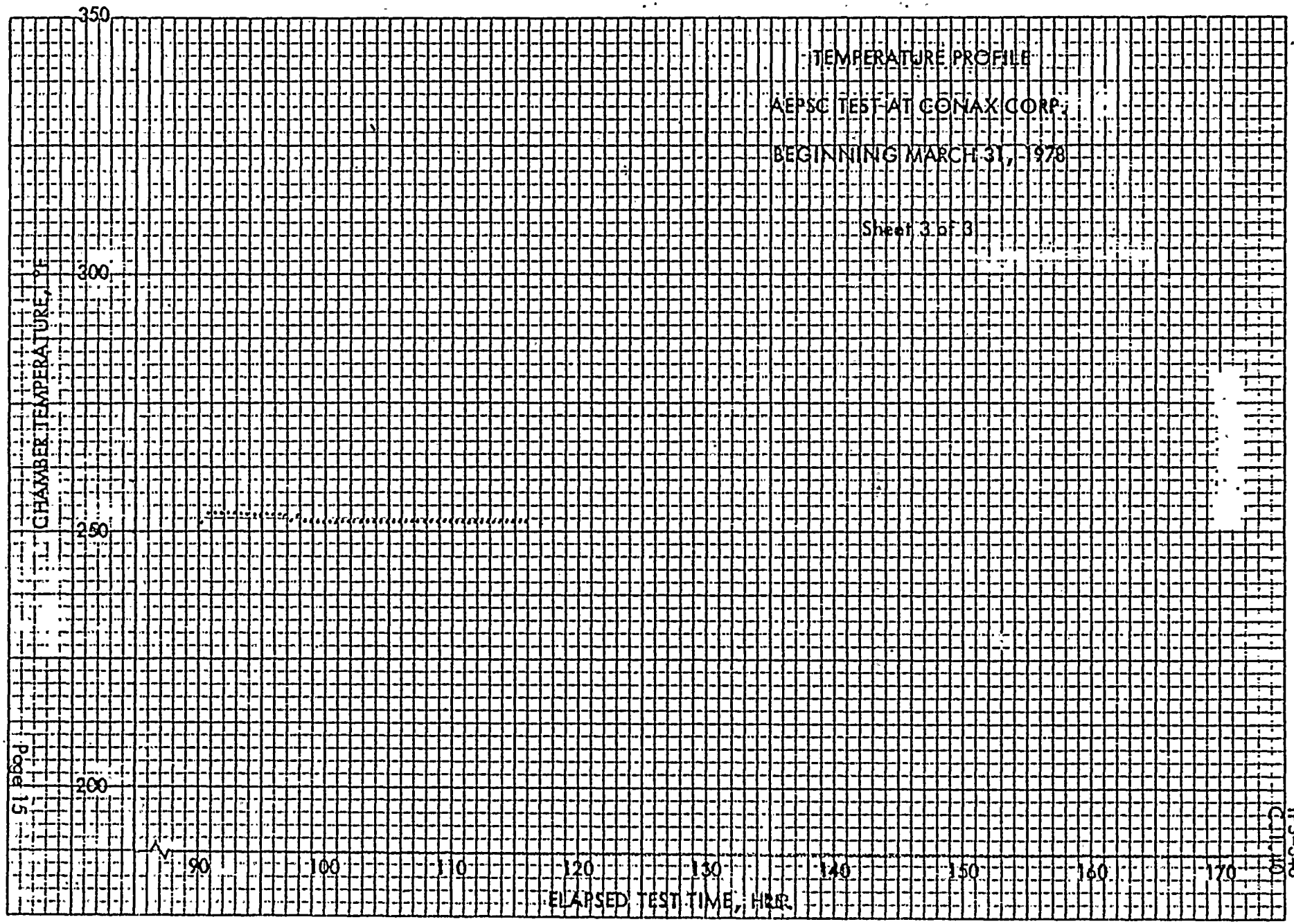
from REF. #8


TEMPERATURE PROFILE
AEPSC TEST AT CONAX CORP.
BEGINNING MARCH 31, 1978
Sheet 1 of 3
CHAMBER TEMPERATURE, °F
350
340
300
250
200
BEGINNING OF SPRAY
0
1
2
3
4
5
6
7
8
9
10
ELAPSED TIME, HRS.
C-1-88
IPS-348

from REF. #8


TEMPERATURE PROFILE
AEPSC TEST AT CONAX CORP.
BEGINNING MARCH 31, 1978
Sheet 2 of 3
CHAMBER TEMPERATURE, °F
350
300
250
200
0
20
30
40
50
60
70
80
90
ELAPSED TEST TIME, HRS.
IPS-348
G-11-88

From Ref. #8



IPS-348

DONALD C. COOK NUCLEAR PLANT UNIT NO. 1 DOCKET NO. 50-315 LICENSE NO. DPR-58

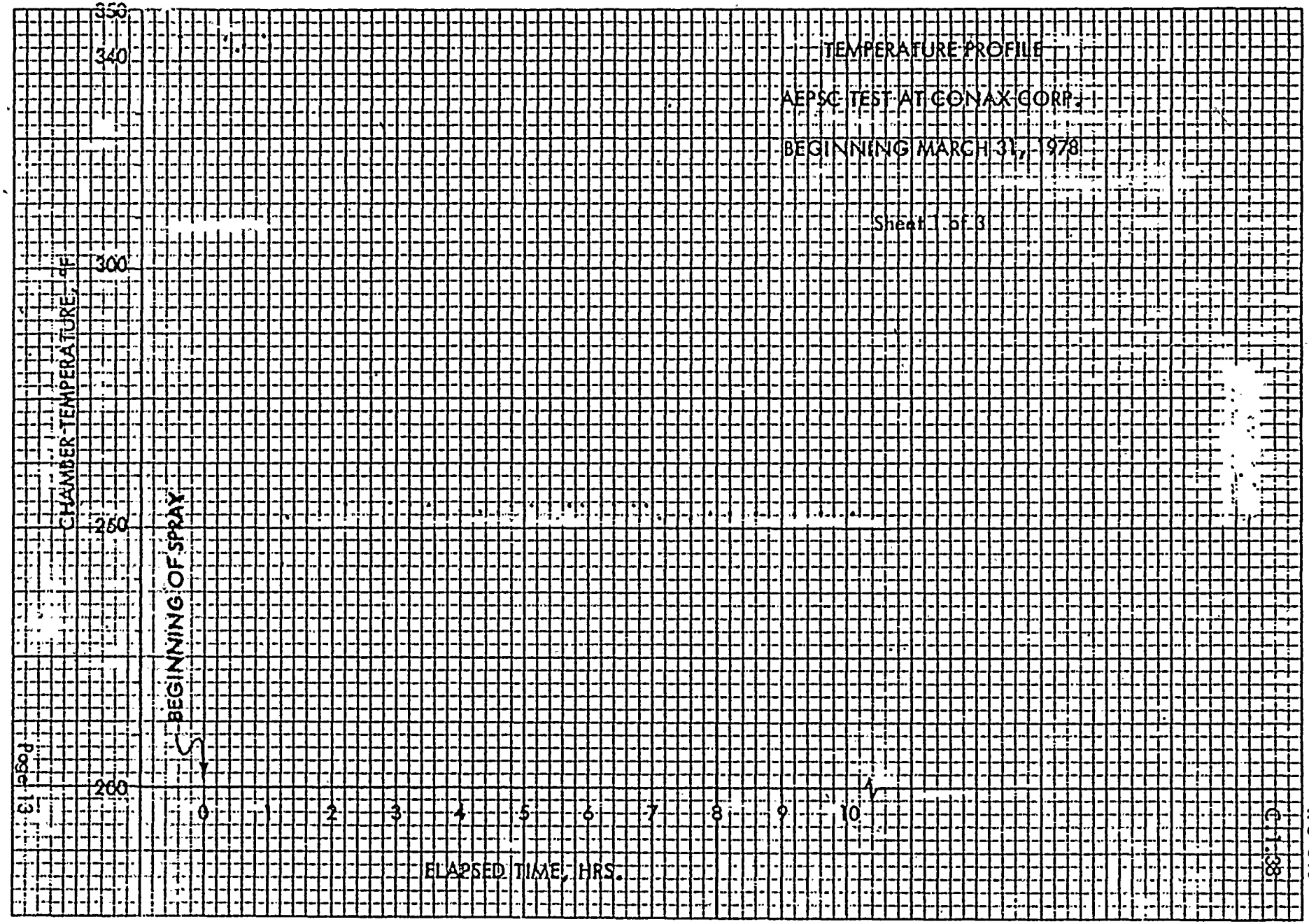
EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: VARIOUS PLANT ID NO: VARIOUS COMPONENT: CONTROL CABLE MANUFACTURER: GENERAL ELECTRIC MODEL NUMBER: ITEM #3122 FUNCTION: VARIOUS ACCURACY: SPEC: NA DEMON: NA SERVICE: VARIOUS LOCATION: IN + OUT CONTAINMENT	Operating Time	14 days	>14 days.	118	8 63	Combination	NONE See Ref 63
	Temperature (°F)	328.2	345	102	8	Sequential	NONE
	Pressure (PSIA)	29.1	124.7	103	8	"	"
	Relative Humidity (%)	100	100	102 103	8	"	"
	Chemical Spray	2000 ppm B 1.14 WT % BORIC PH 8.5-11 ACID	2500 ppm B 1.43 WT % BORIC ACID PH 8.5-11	114.	8 72	COMBINATION	NONE See Ref 72
	Radiation (10^6 rads)	81	150	105	8	SEQ.	NONE
	Aging (years)						
FLOOD LEVEL ELEV: 614' ABOVE FLOOD LEVEL: NO	Submergence	Submerged	Immersion	117	68	Eng. Review	NONE See Ref 68

*Documentation References:

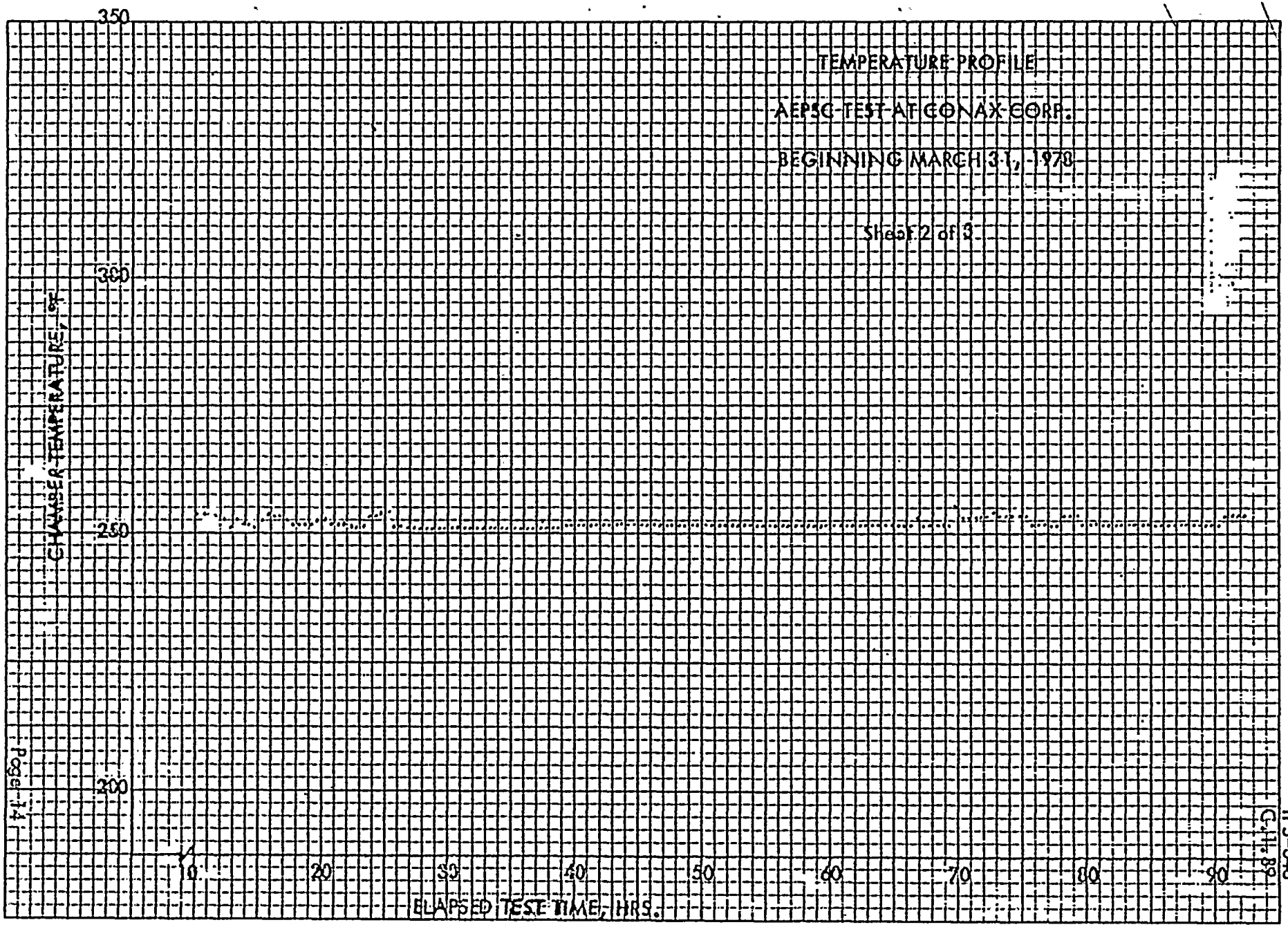
Notes:

1-2 S7
5-6 S7
7-8 S7
17-28 (V6, S3)
30-33 V6
35-38 V6
43-44 V6
49-50 V6
61-70 (V6, V11)
79-92 (V11, V2, V6, V7)
101-108 V7
111-112 V4
202-207 (V1, V6)
210-213, 215-223 (V11, V6, S17)
227-228 (S11, LS1)
229-231 V9
57-60 V1
92 AV1
214 V5
3-4

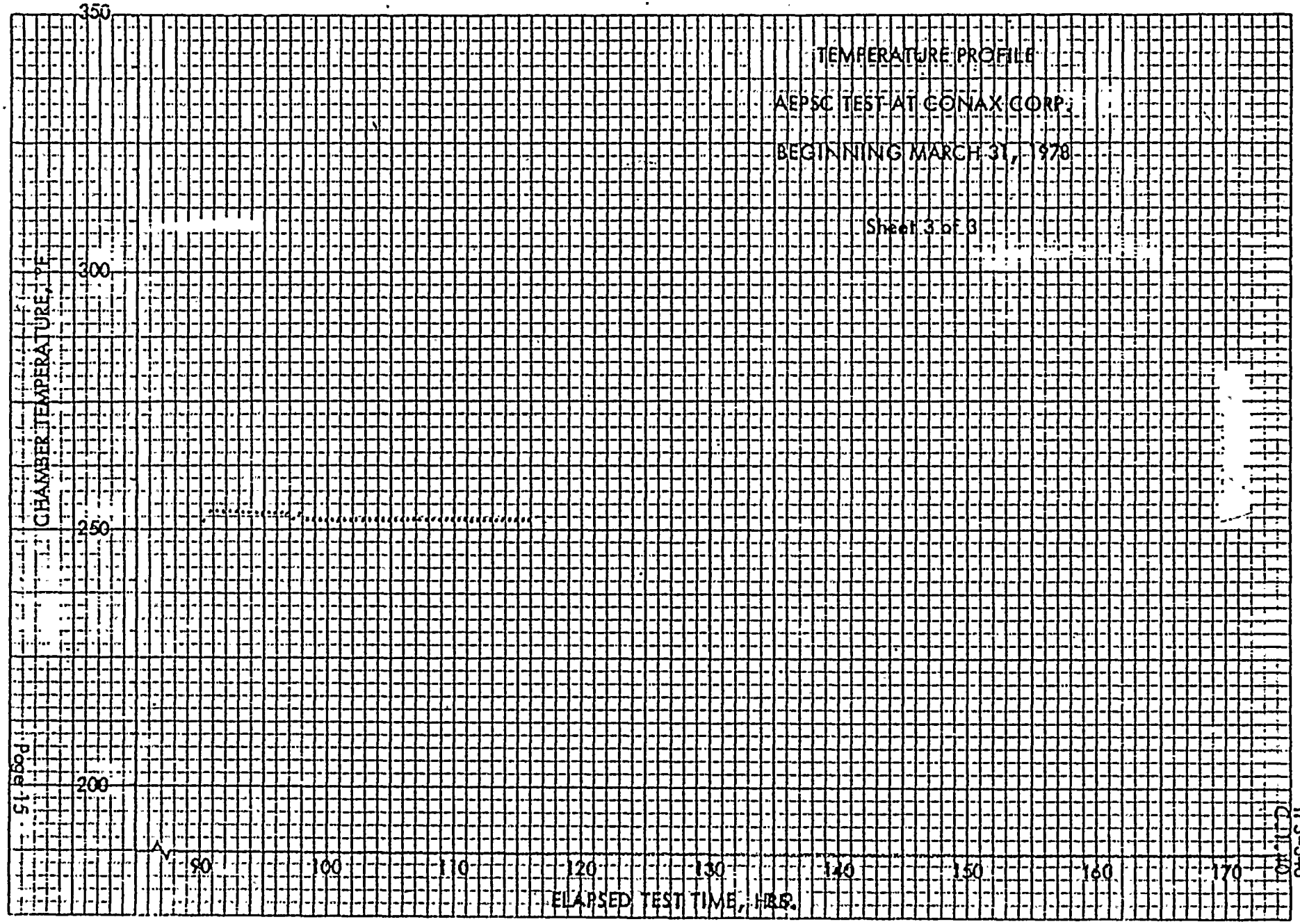
from REF. #8


TEMPERATURE PROFILE
AEPSC TEST AT CONAX CORP.
BEGINNING MARCH 31, 1978
Sheet 1 of 3
CHAMBER TEMPERATURE, °F
350
340
300
250
200
BEGINNING OF SPRAY
0
1
2
3
4
5
6
7
8
9
10
ELAPSED TIME, HRS.
IPS-348
C-1-38

from REF. #8


TEMPERATURE PROFILE
AEPSC TEST AT CONAX CORP.
BEGINNING MARCH 31, 1970
Sheet 2 of 3
CHAMBER TEMPERATURE, °F
350
300
250
200
10
20
30
40
50
60
70
80
90
ELAPSED TEST TIME, HRS.
IPS-348
G-11-89

From Ref. #8



PAGE CC8-4

DONALD C. COOK NUCLEAR PLANT UNIT NO. 1 DOCKET NO. 50-315 LICENSE NO. DPR-58

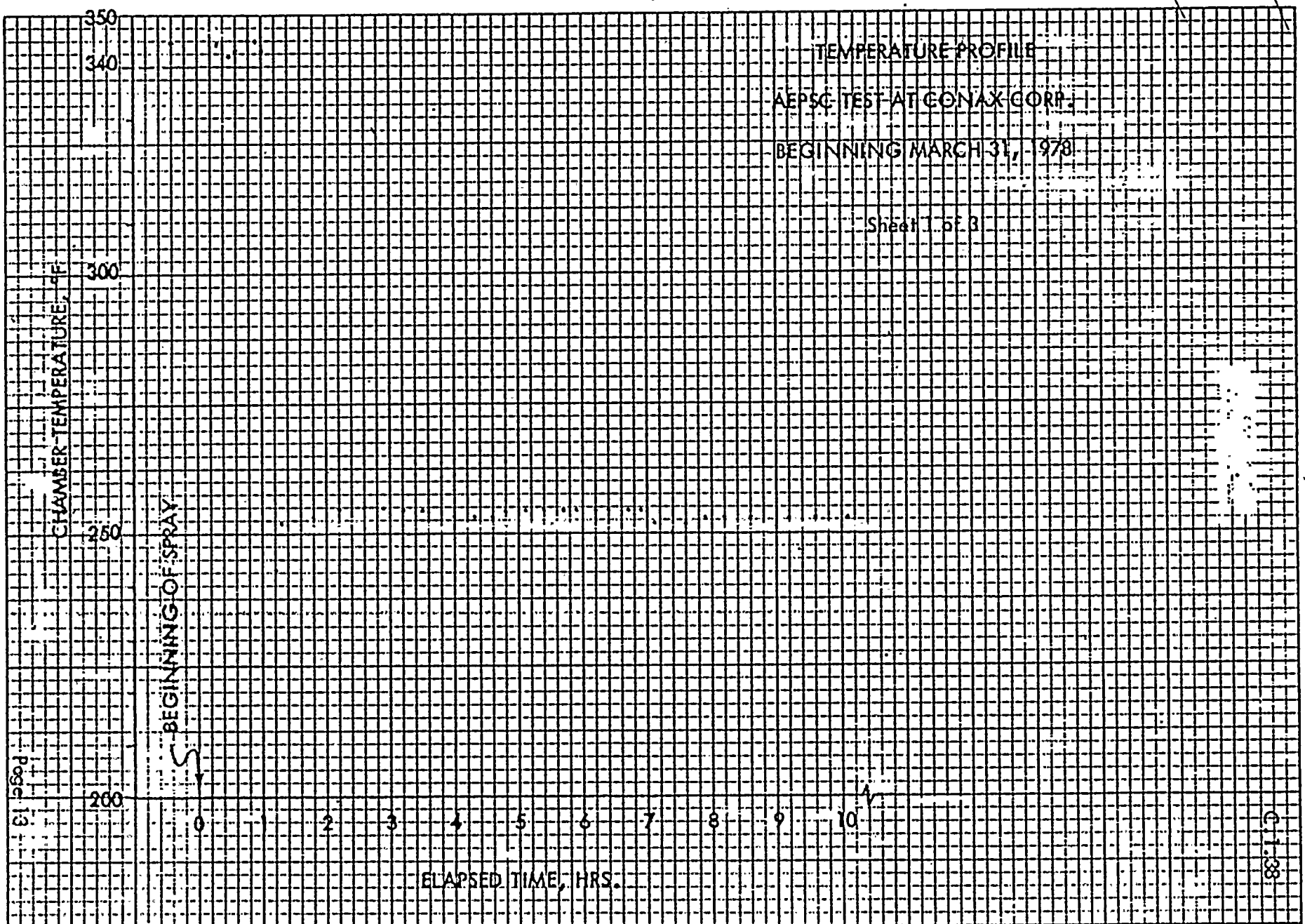
EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: VARIOUS PLANT ID NO: VARIOUS COMPONENT: CONTROL CABLE MANUFACTURER: CONTINENTAL WIRE & CABLE MODEL NUMBER: ITEM #3123 FUNCTION: VARIOUS ACCURACY: SPEC: NA DEMON: NA SERVICE: VARIOUS LOCATION: OUTSIDE CONTAINMENT	Operating Time	24HRS.	119 HRS.	110	8	SEQ	NONE
	Temperature (°F)	230	345	107	8	"	"
	Pressure (PSIA)	26.2	124.7	107	8	"	"
	Relative Humidity (%)	100	100	107	8	"	"
	Chemical Spray	NA	2500 PPM B 1.43 WT% BORIC PH8.5-11 ACID	NA	8 72	COMBINATION	NONE See Ref 72
	Radiation (10^6 rads)	4	150	106	8	SEQ.	NONE
	Aging (years)						
FLOOD LEVEL ELEV: NA ABOVE FLOOD LEVEL: NA	Submergence	NA	NA	NA	NA	NA	NA

41-42 VII
64-V6

*Documentation References:

Notes:

from REF. #8



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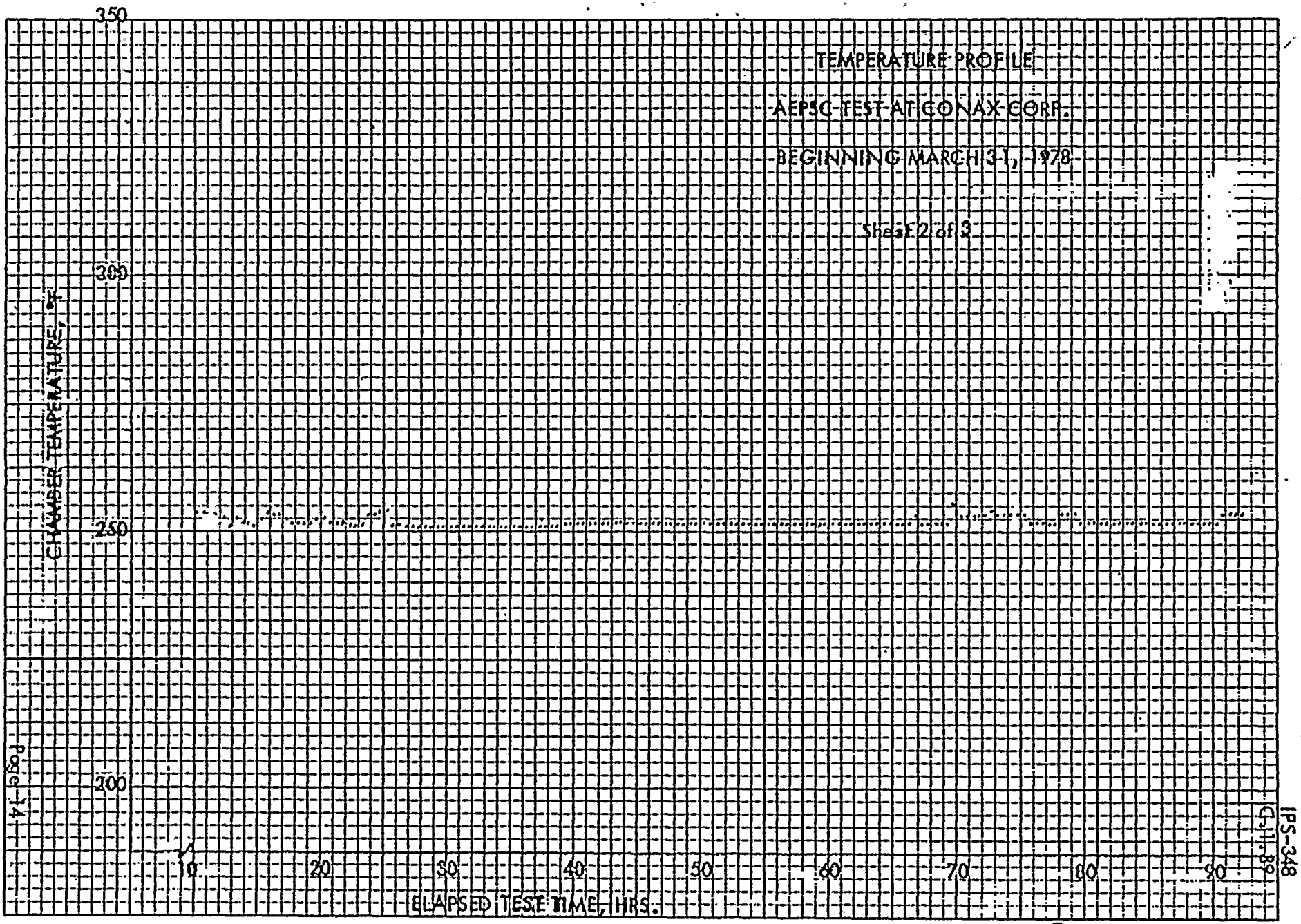
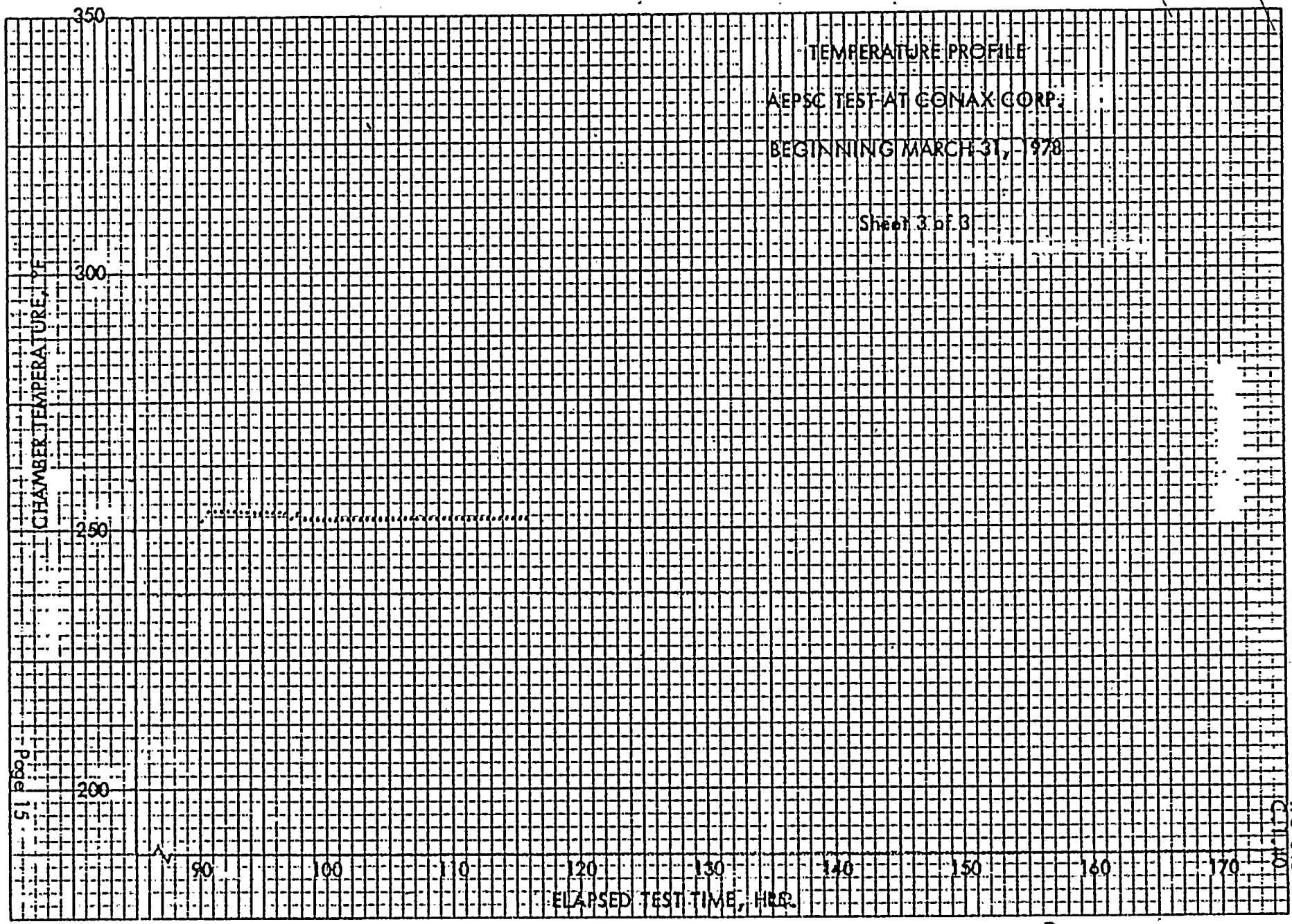
from Ref. #8



IPS-348

From Ref. #8



IPS-348

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PAGE CC9-4

DONALD C. COOK NUCLEAR PLANT UNIT NO. 1 DOCKET NO. 50-315 LICENSE NO. DPR-58

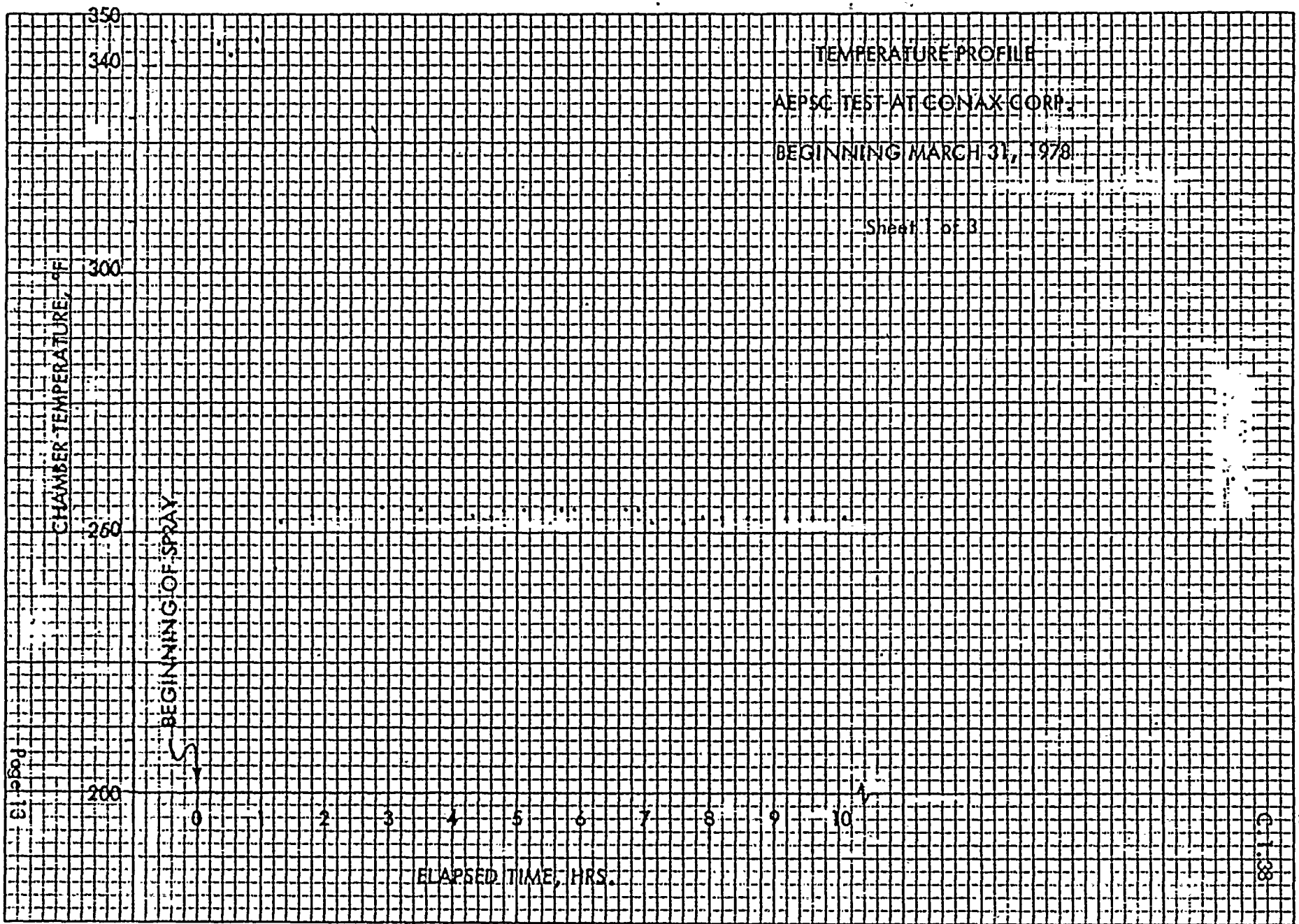
EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: VARIOUS PLANT ID NO: VARIOUS COMPONENT: CONTROL CABLE MANUFACTURER: GENERAL ELECTRIC MODEL NUMBER: ITEM #3123 FUNCTION: VARIOUS ACCURACY: SPEC: NA DEMON: NA SERVICE: VARIOUS LOCATION: OUTSIDE CONTAINMENT	Operating Time	24 HRS.	119 HRS.	110	8	SEQ	NONE
	Temperature (°F)	230	345	107	8	"	"
	Pressure (PSIA)	26.2	124.7	107	8	"	"
	Relative Humidity (%)	NA	100	107	8	"	"
	Chemical Spray	NA	2500 PPM B 1.43 WT% BORIC ACID PH 8.5-11	NA	8 72	COMBINATION	NONE See Ref 72
	Radiation (10^6 rads)	4	150	106	8	SEQ	NONE
	Aging (years)						
FLOOD LEVEL ELEV: NA ABOVE FLOOD LEVEL: NA	Submergence	NA	NA	NA	NA	NA	NA

41-42 VII
64 V6

*Documentation References:

Notes:

from REF. #8



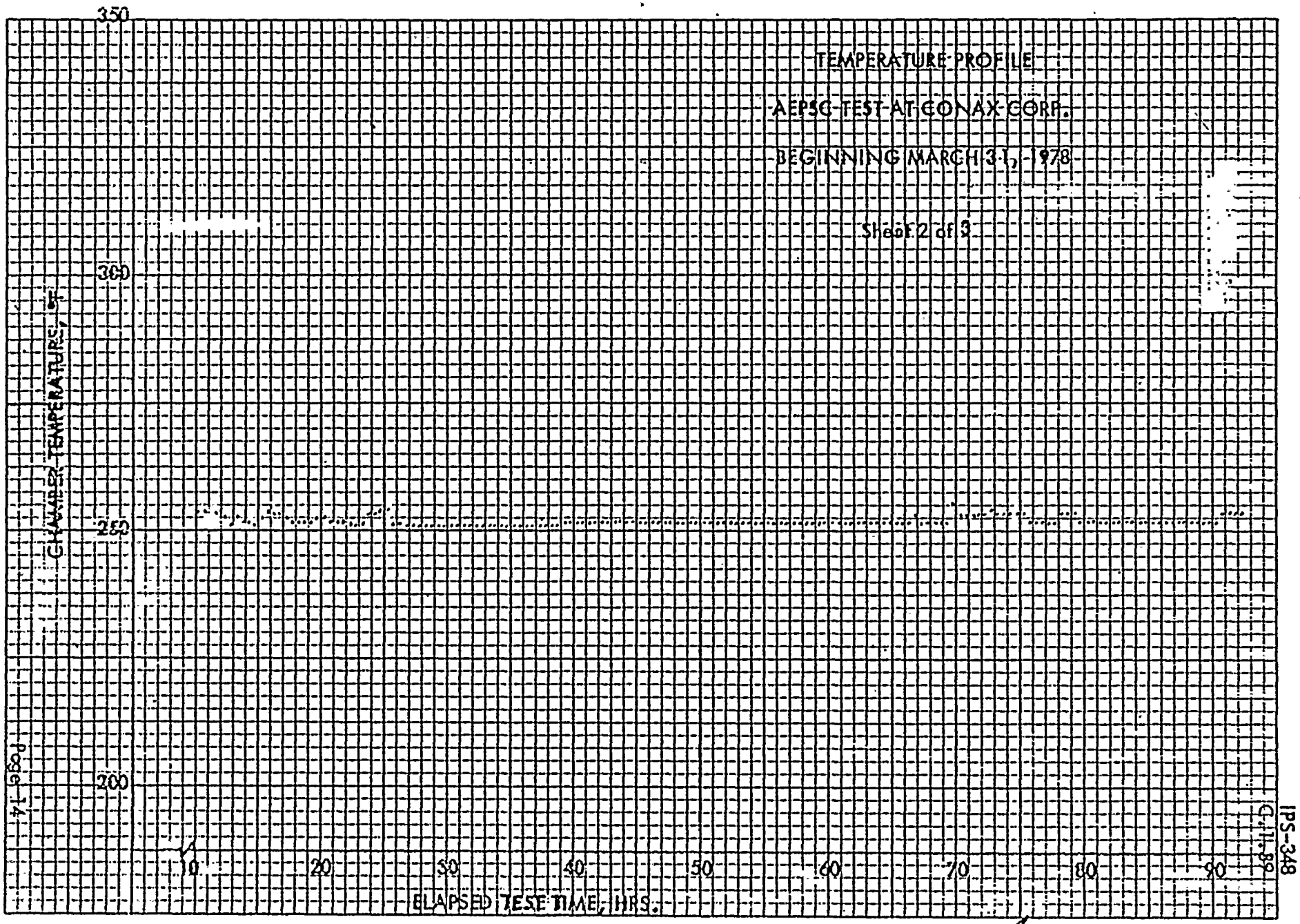
IPS-348

C.1.38

page 13

PAGE CC10-2

from REF. #8



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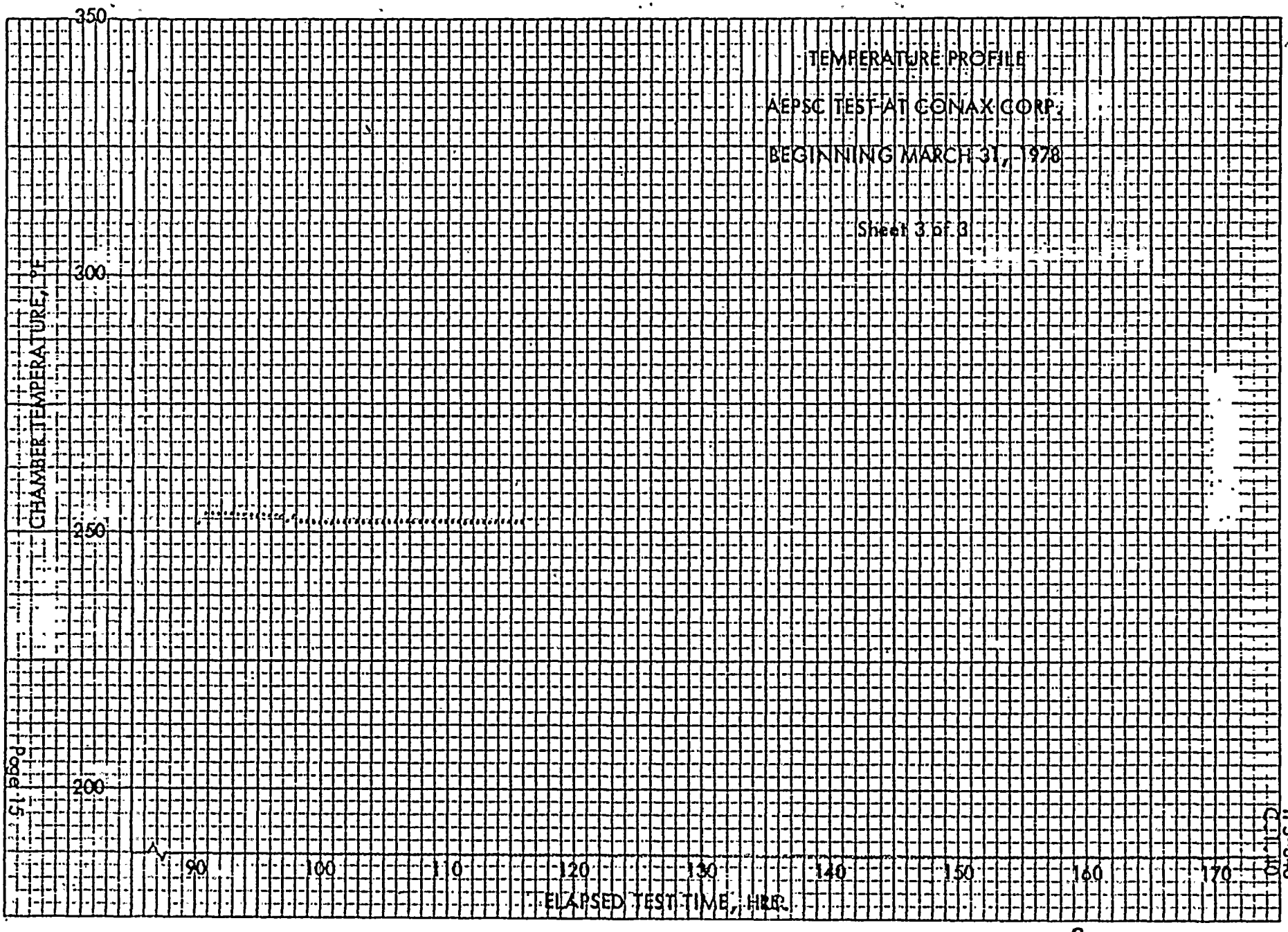
PAGE CC 10-3

From Ref. #8



IPS-348 C-II-10

DONALD C. COOK NUCLEAR PLANT UNIT NO. 1 DOCKET NO. 50-315 LICENSE NO. DPR-58

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: VARIOUS PLANT ID NO: VARIOUS COMPONENT: INSTRUMENT CABLE MANUFACTURER: BOSTON INSULATED WIRE CO. MODEL NUMBER: ITEM #3064- FUNCTION: VARIOUS ACCURACY: SPEC: NA DEMON: N/A SERVICE: VARIOUS LOCATION: IN CONTAINMENT	Operating Time	5 SEC.	10 days	101	31 32	SEQ.	NONE
	Temperature (°F)	244	300	102	31 32	"	"
	Pressure (PSIA)	29.1	59.7	103	31 32	"	"
	Relative Humidity (%)	100	100	102 103	31 32	"	"
	Chemical Spray	2000 PPM B 1.14 WT% BORIC ACID PH 8.5-11	2000 PPM B 1.14 WT% BORIC ACID PH 8.5-11	104	31 32 72	COMBINATION	NONE See Ref 72
	Radiation (10^6 rads)	6	200	105	31 32	SEQ.	NONE
	Aging (years)						
FLOOD LEVEL ELEV: 614' ABOVE FLOOD LEVEL: No	Submergence	Submerged	Immersion	117	68	Eng. Review	NONE See Ref 68

216-517

*Documentation References:

Notes:

31. Boston Insulated Wire Co. Item = 3064
Test No. 73C212

Test type: Sequential
Radiation: 100 MRADS
Profile:
290°, 45psig, 12 hr
220°, 5psig, 7 DAYS
Chem Spray: 1800 ppm B.

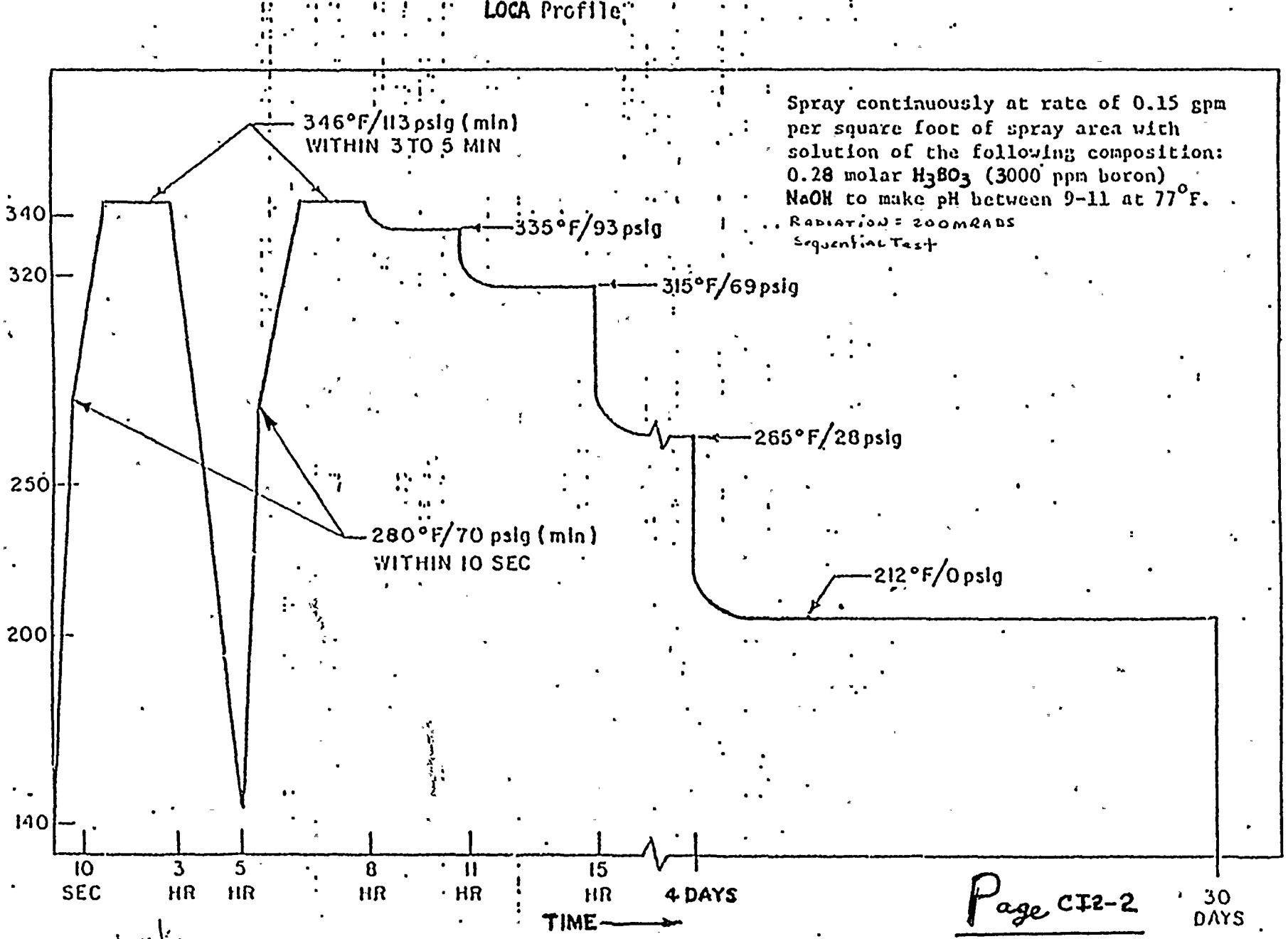
DONALD C. COOK NUCLEAR PLANT UNIT NO. 1 DOCKET NO. 50-315 LICENSE NO. DPR-58

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: VARIOUS PLANT ID NO: VARIOUS COMPONENT: INSTRUMENT CABLE MANUFACTURER: ROCKBESTOS MODEL NUMBER: ITEM # 3064 FUNCTION: VARIOUS ACCURACY: SPEC: NA DEMON: NA SERVICE: VARIOUS LOCATION: INSIDE CONTAINMENT	Operating Time	5 SEC.	30 days	101	34	SEQ.	NONE
	Temperature (°F)	328.2	346	102	34	"	"
	Pressure (PSIA)	29.1	127.7	103	34	"	"
	Relative Humidity (%)	100	100	102 103	34	"	"
	Chemical Spray	2000 PPM B 1.14 w% BORIC PH8.5-11 ACID	3000 PPM B 1.72 WT% BORIC PH8.5-11 ACID	104	34 72	COMBINATION	NONE See Ref 72
	Radiation (10^6 rads)	6 -	200	105	34	SEQ.	NONE
	Aging (years)						
FLOOD LEVEL ELEV: 614' ABOVE FLOOD LEVEL: No	Submergence	Submerged	Immersion	117	68	Eng. Review	NONE See Ref 68

216-517

*Documentation References:

Notes:



LOCA PROFILE

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7.

DONALD C. COOK NUCLEAR PLANT UNIT NO. 1 DOCKET NO. 50-315 LICENSE NO. DPR-58

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: VARIOUS PLANT ID NO: VARIOUS COMPONENT: INSTRUMENT CABLE MANUFACTURER: SAMUEL MOORE & CO. MODEL NUMBER: ITEM # 3075 FUNCTION: VARIOUS ACCURACY: SPEC: NA DEMON: NA SERVICE: VARIOUS LOCATION: IN + OUT CONTAINMENT FLOOD LEVEL ELEV: 614' ABOVE FLOOD LEVEL: NO	Operating Time	4 MO	>4.4 MO	101	63 10	COMBINATION	NONE
	Temperature (°F)	328.2	340	102	10	SEQ	"
	Pressure (PSIA)	29.1	119.7	103	10	"	"
	Relative Humidity (%)	100	100	102 103	10	"	"
	Chemical Spray	2000 ppm B 1.14 WT% BORIC PH 8.5-11 ACID	3000 ppm B 1.72 WT% BORIC PH 8.5-11 ACID	104	10 72	COMBINATION	NONE See Ref 72
	Radiation (10^6 rads)	119	200	105	10	SEQ.	NONE
	Aging (years)						
	Submergence	Submerged	SUBMERGENCE	117	68	COMBINATION	NONE See Ref 68

9-12, I4-39-40, I22, I23-51-52, I6, I7, I8, I9-75-78, I11-143-149, I28-151-197, I9, I20-I21, I24, I-18 I1, I3, I12, I14 I15 198-201 S9 224-225, I13 95-96 97-99-I29 100-I30

*Documentation References:

Notes:

FROM REF. #10

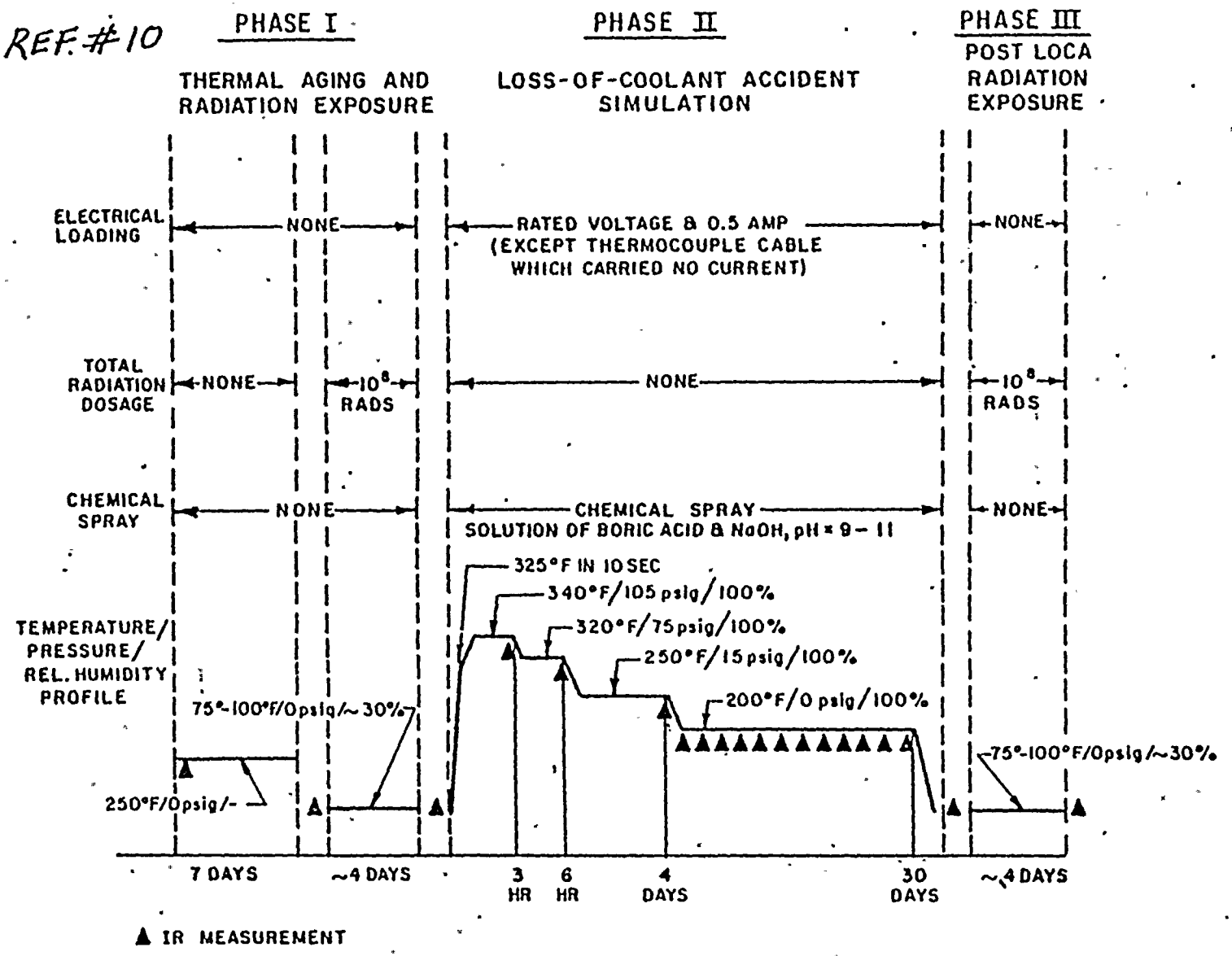


Figure 2. Profile of Test Phases

3-4

F-C3683

FROM REF. #11

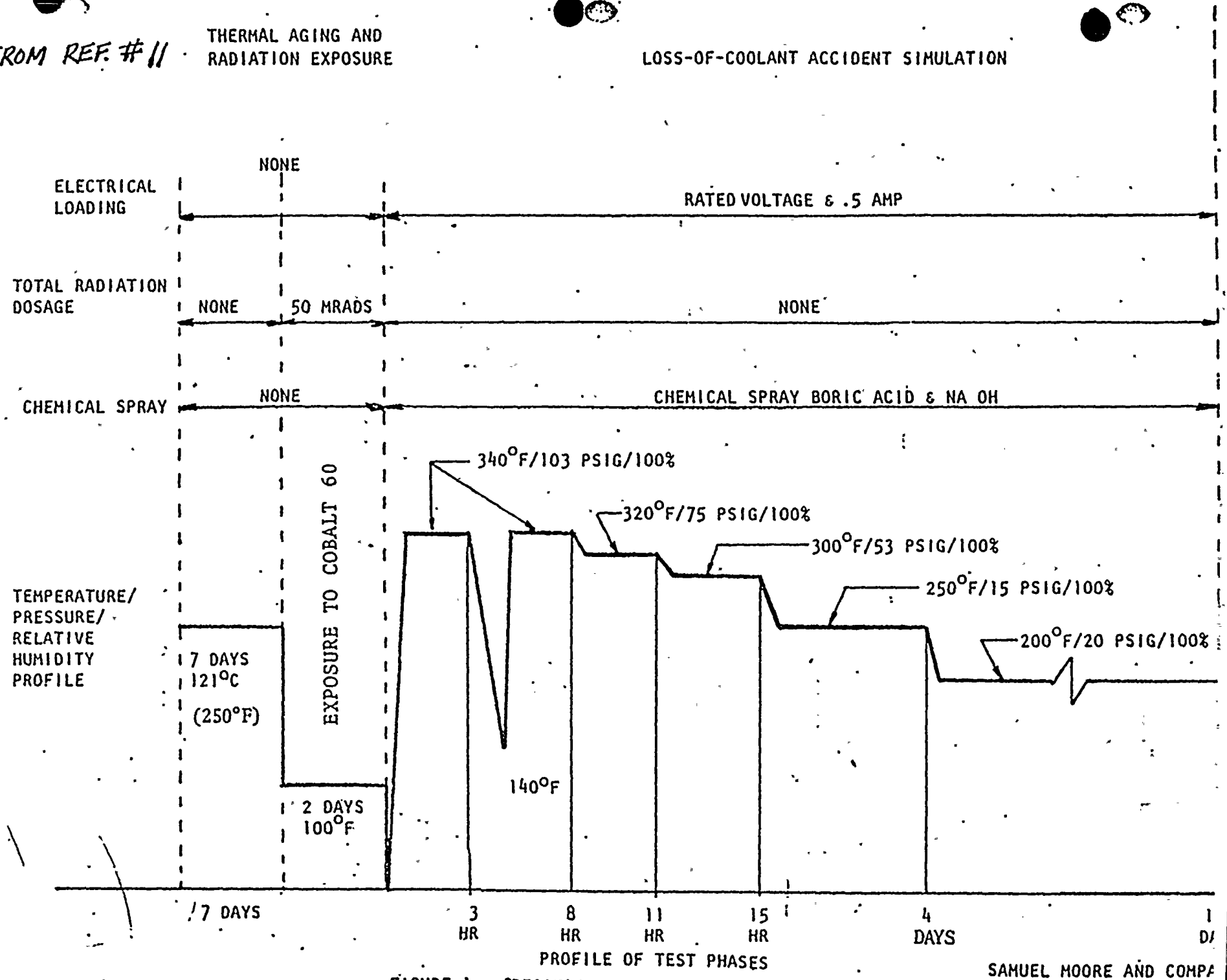


FIGURE 1 - SPECIFIED ENVIRONMENTAL EXPOSURE PROFILE

SAMUEL MOORE AND COMPA

DONALD C. COOK NUCLEAR PLANT UNIT NO. 1 DOCKET NO. 50-315 LICENSE NO. DPR-58

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: VARIOUS PLANT ID NO: VARIOUS COMPONENT: INSTRUMENT CABLE MANUFACTURER: CONTINENTAL MODEL NUMBER: ITEM # 3075 FUNCTION: VARIOUS ACCURACY: SPEC: NA DEMON: NA SERVICE: VARIOUS LOCATION: Outside Containment	Operating Time	4 MO.	>4.4 MO	101	63 33	COMBINATION	NONE See Ref 63
	Temperature (°F)	230	340	107	33	SEQ	NONE
	Pressure (PSIA)	26.2	114.7	107	33	"	"
	Relative Humidity (%)	100	100	107	33	"	"
	Chemical Spray	NA	NA	NA	NA	NA	NA
	Radiation (10^6 rads)	NA	10	106	33	SEQ	NA
	Aging (years)						
FLOOD LEVEL ELEV: NA ABOVE FLOOD LEVEL: NA	Submergence	NA	NA	NA	NA	NA	NA

9-12 I4
55-56 I9
75-78 I11
95-96
97-100, I29, I30
170-177 I3
186-201 (I14, I15, S9)
224-225 I13

*Documentation References:

Notes:

From Ref. 33

FIRL Test Report F-C 2935, Excerpt from

Type of Test: Sequential

Gamma Radiation

Steam /

.45 MRAD/HR; 10 MRAD

340°F; 100 psig; 2 Hrs.

161°F; ; 20 Hrs.

Item #3075, 3077 Continental Wire & Cable Co.

DONALD C. COOK NUCLEAR PLANT UNIT NO. 1 | DOCKET NO. 50-315 | LICENSE NO. DPR-58

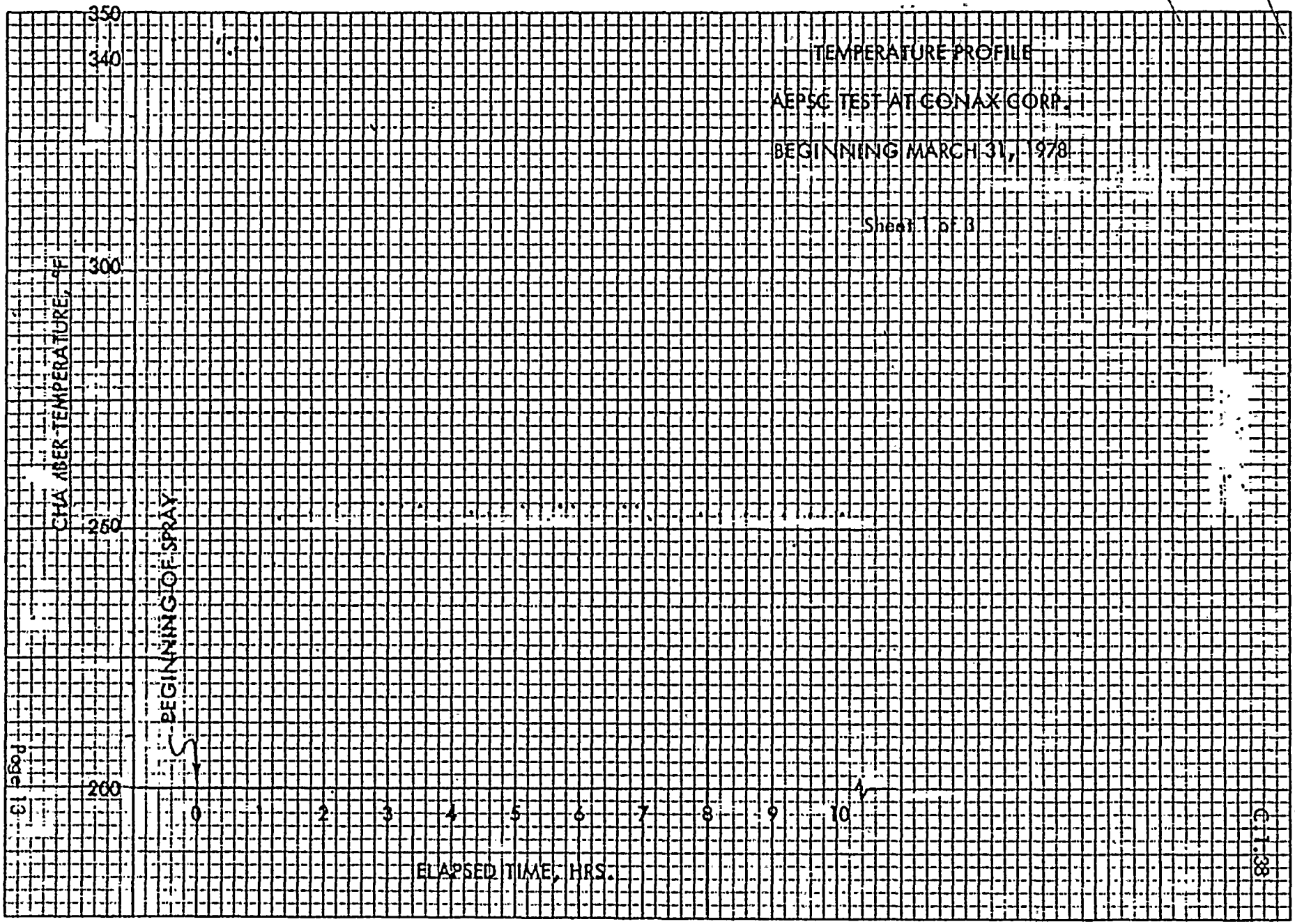
EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: VARIOUS PLANT ID NO: VARIOUS COMPONENT: INSTRUMENT CABLE MANUFACTURER: BOSTON INSULATED WIRE CO. MODEL NUMBER: ITEM #3075 FUNCTION: VARIOUS ACCURACY: SPEC: NA DEMON: NA SERVICE: VARIOUS LOCATION: IN AND OUT CONTAINMENT	Operating Time	4 MO.	>4.4 MO	101	63 8	COMBINATION	NONE See Ref 63
	Temperature (°F)	328.2	345	102	8	SEQ	NONE
	Pressure (PSIA)	29.1	124.7	103	8	"	"
	Relative Humidity (%)	100	100	102 103	8	"	"
	Chemical Spray	2000 PPM B 1.14 WT% BORIC ACID PH 8.5-11	2500 PPM B 1.43 WT% BORIC ACID PH 8.5-11	104	8 72	" COMBINATION	NONE See Ref 72
	Radiation (10^6 rads)	119	150	105	8	SEQ.	NONE
	Aging (years)						
FLOOD LEVEL ELEV: 614' ABOVE FLOOD LEVEL: No	Submergence	Submerged	SUBMERGENCE	117	68	Combination	NONE See Ref 68

9-12 I4
39-40 (I22, I23)
51-56 (I6, I7, I8, I9)
75-78 I11
95-96
97-100 I29, I30
151-153, I19, I20, I21
154 - I24
155-157-I18
158-169 I1
170-177 I3
178-185-I12
186-187-I14
[188, 191, 194, 197] I15
[189, 190, 192, 193, 195, 196] I14
198-201 S9
224, 225-I13
143-149 (I28)

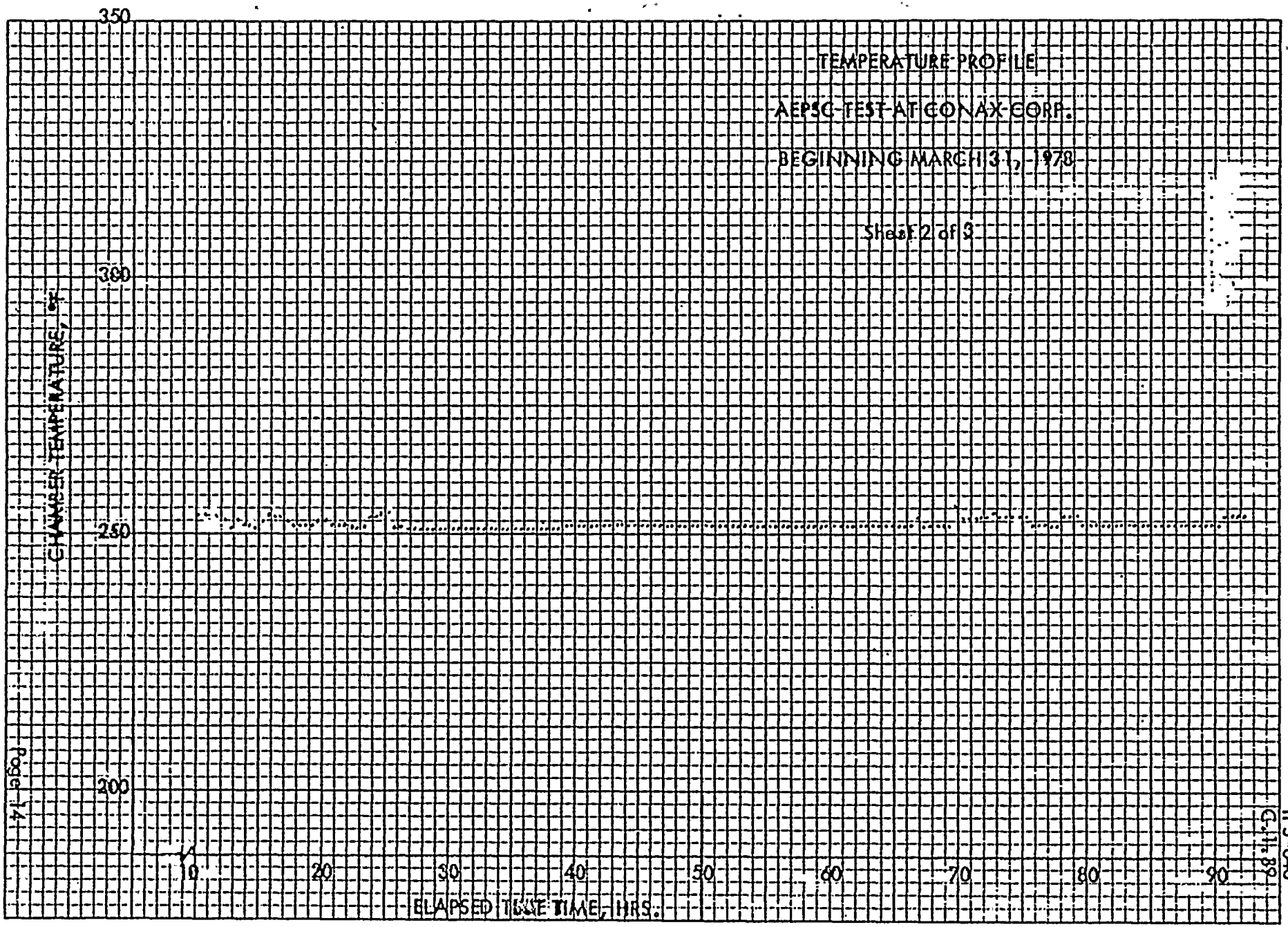
*Documentation References:

Notes:

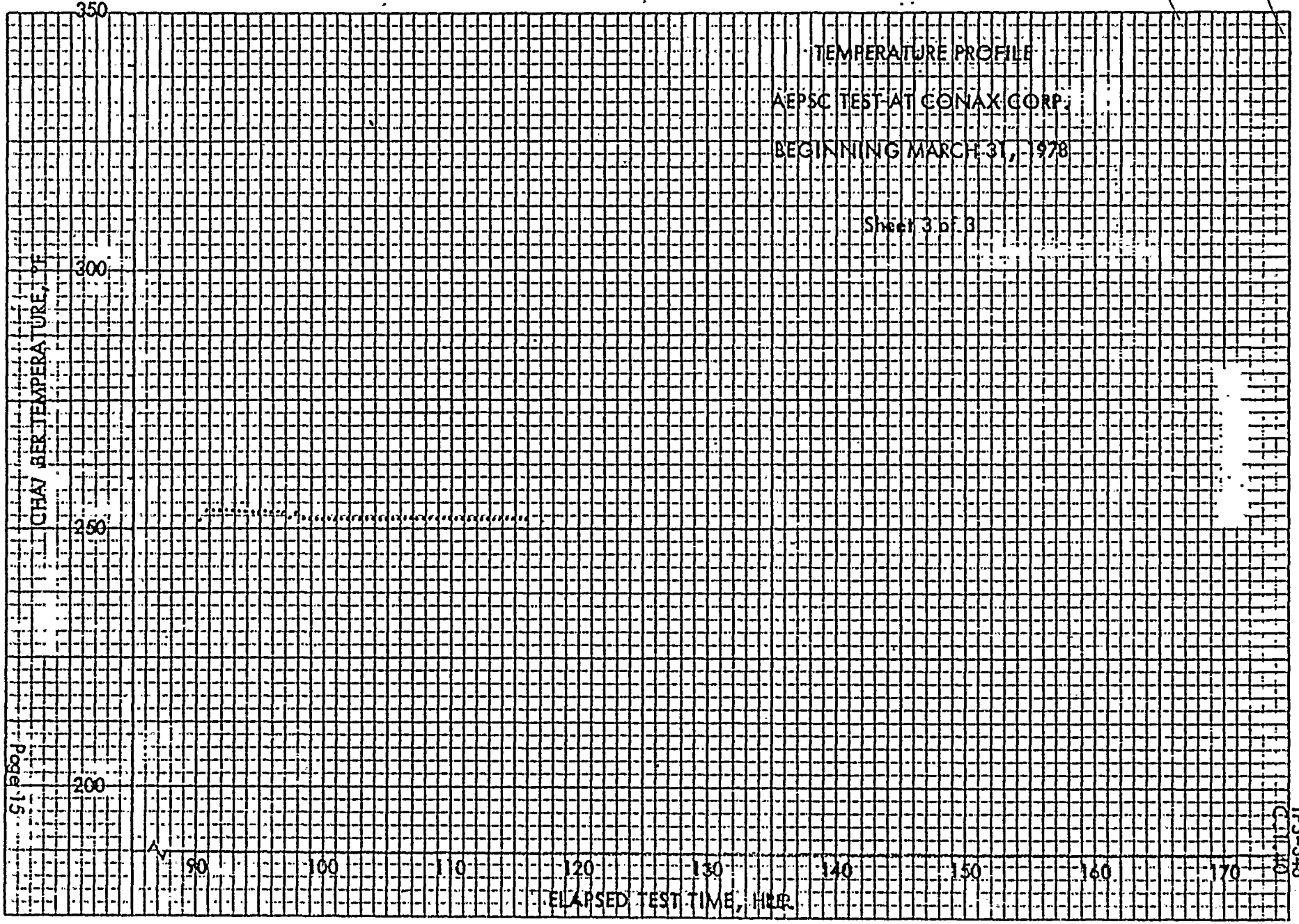
from REF. #8


TEMPERATURE PROFILE
AEPSC TEST AT CONAX CORP.
BEGINNING MARCH 31, 1978
Sheet 1 of 3
CHAMBER TEMPERATURE, °F
350
340
300
250
200
BEGINNING OF SPRAY
0
2
3
4
5
6
7
8
9
10
ELAPSED TIME, HRS.
IPS-348
C.I.38

from REF. #8


TEMPERATURE PROFILE
AEPSC TEST AT CONAX CORP.
BEGINNING MARCH 31, 1978
Sheet 2 of 3
CHAMBER TEMPERATURE, °F
350
300
250
200
10
20
30
40
50
60
70
80
90
ELAPSED TIME, HRS.
IPS-348
G-4L-89

From Ref. #8



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PAGE CI5-4

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DONALD C. COOK NUCLEAR PLANT UNIT NO. 1 DOCKET NO. 50-315 LICENSE NO. DPR-58

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: VARIOUS PLANT ID NO: VARIOUS COMPONENT: INSTRUMENT CABLE MANUFACTURER: CERRO WIRE & CABLE CO. MODEL NUMBER: ITEM # 3077 FUNCTION: VARIOUS ACCURACY: SPEC: NA DEMON: NA SERVICE: VARIOUS LOCATION: IN and Out Containment FLOOD LEVEL ELEV: 614' ABOVE FLOOD LEVEL: No.	Operating Time	4 MO.	>4.4 MO.	101	63 12	COMBINATION	NONE See Ref 63
	Temperature (°F)	328.2	346	102	12	SEQ	NONE
	Pressure (PSIA)	29.1	127.7	103	12	"	"
	Relative Humidity (%)	100	100	102 103	12	"	"
	Chemical Spray	2000 PPM B 1.14 WT% BORIC PH 8.5-11 ACID	3000 PPM B 1.72 WT% BORIC PH 8.5-11 ACID	104	12 72	" COMBINATION	NONE See Ref 72
	Radiation (10^6 rads)	119	200	105	12	SEQ.	NONE
	Aging (years)						
	Submergence	Submerged	Immersion	117	68	Eng Review	NONE

25-28 S3 ..
73-74 I5 ..

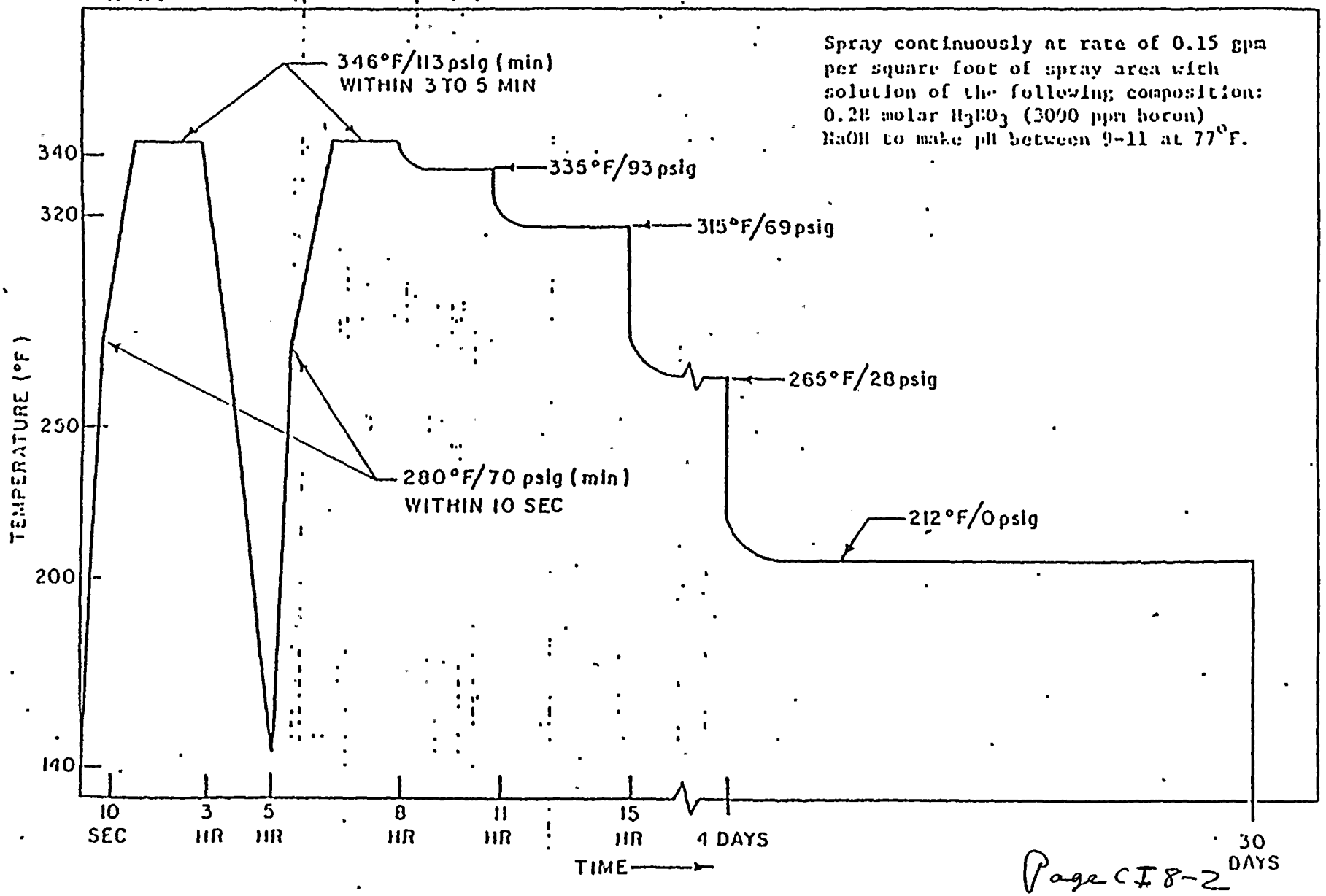
127-142 (I25, I26, I27)
150 I28

*Documentation References:

Notes:

LOCA Profile

from Ref. #12



LOCA PROFILE

7.

Page CI 8-2

DONALD C. COOK NUCLEAR PLANT UNIT NO. 1 DOCKET NO. 50-315 LICENSE NO. DPR-58

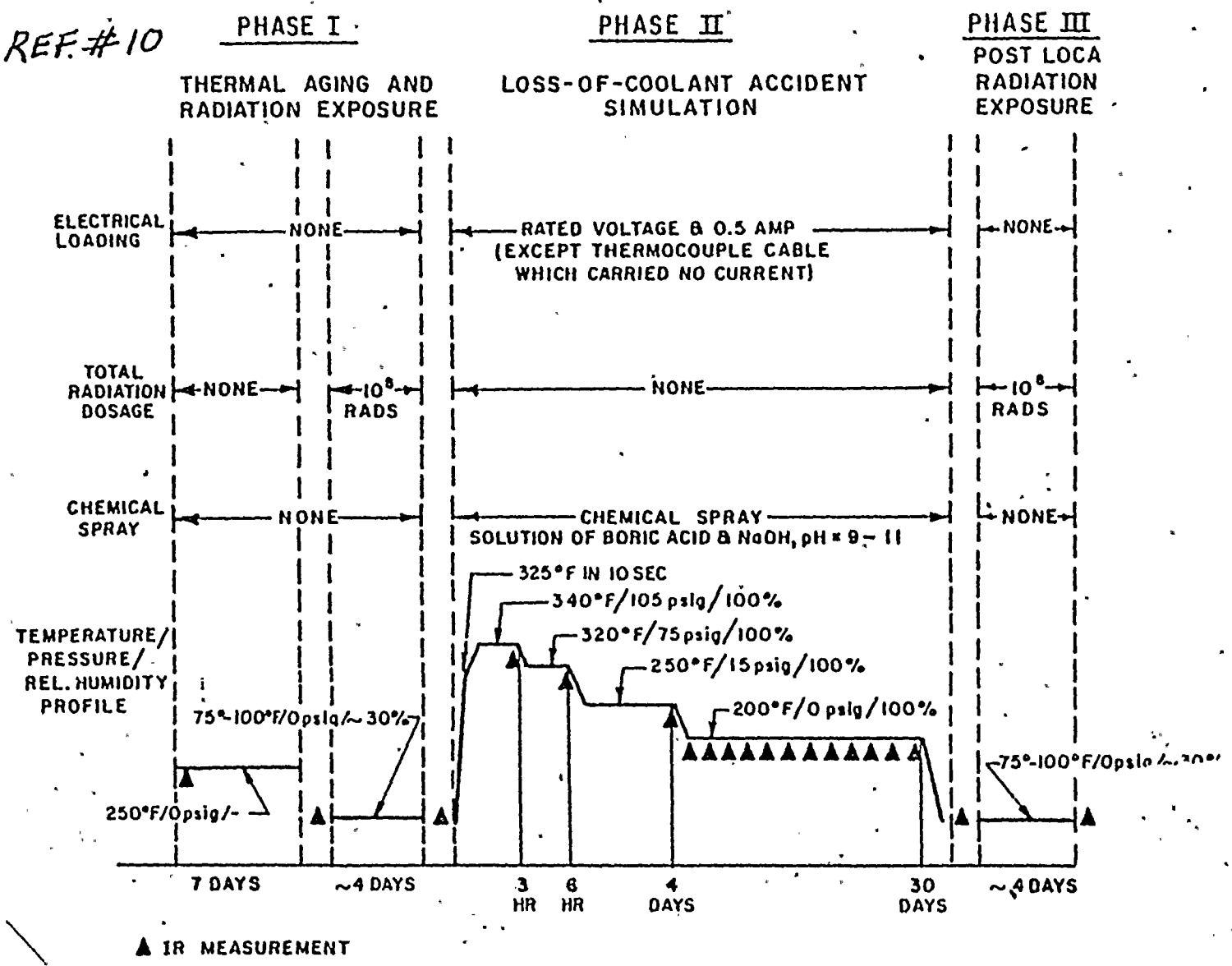
EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: VARIOUS PLANT ID NO: VARIOUS COMPONENT: INSTRUMENT CABLE MANUFACTURER: SAMUEL MOORE & CO. MODEL NUMBER: ITEM # 3077 FUNCTION: VARIOUS ACCURACY: SPEC: NA DEMON: NA SERVICE: VARIOUS LOCATION: In and Out Containment	Operating Time	4 MO.	>4.4 MO.	101	63 10	COMBINATION	NONE See Ref 63
	Temperature (°F)	328.2	340	102	10	SEQ	NONE
	Pressure (PSIA)	29.1	119.7	103	10	"	"
	Relative Humidity (%)	100	100	102 103	10	"	"
	Chemical Spray	2000 PPM B 1.14 WT % BORIC PH 8.5-11 ACID	3000 PPM B 1.72 WT % BORIC PH 8.5-11 ACID	104	11 72	COMBINATION	NONE See Ref 72
	Radiation (10^6 rads)	119	200	105	10	SEQ	NONE
	Aging (years)						
FLOOD LEVEL ELEV: 614' ABOVE FLOOD LEVEL: No	Submergence	Submerged	Immersion	117	68	Eng. Review	NONE See Ref 68

25-28 S3
73-74 I5
127-132 (I25, I26, I27)
134-142 (I25, I26, I27)
150 I28

*Documentation References:

Notes:

FROM REF. #10



Profile of Test Phases

FROM REF. #11

THERMAL AGING AND RADIATION EXPOSURE

LOSS-OF-COOLANT ACCIDENT SIMULATION

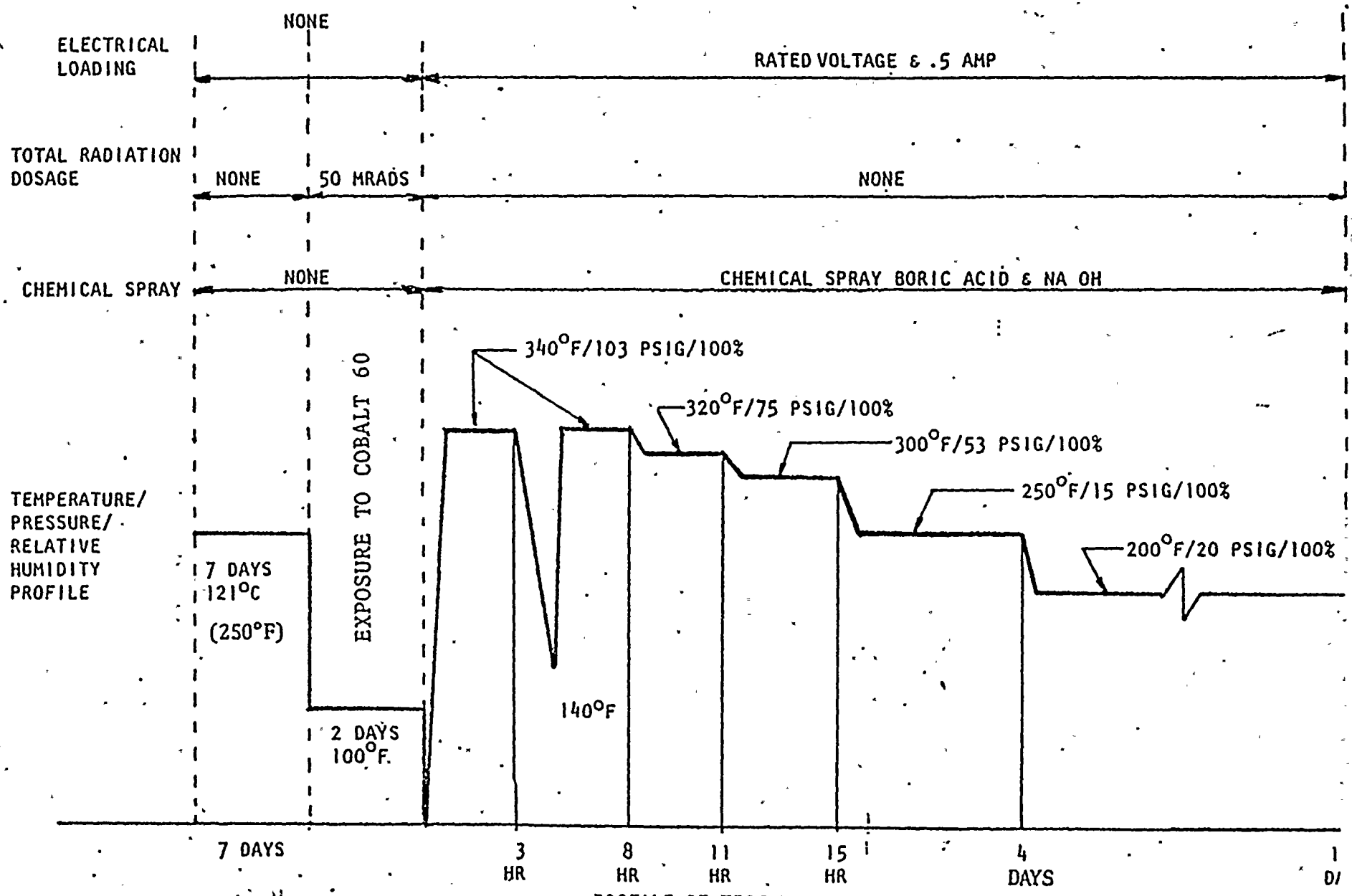


FIGURE 1 - SPECIFIED ENVIRONMENTAL EXPOSURE PROFILE

SAMUEL MOORE AND COMPA

PAGE CI9-3

DONALD C. COOK NUCLEAR PLANT UNIT NO. 1 DOCKET NO. 50-315 LICENSE NO. DPR-58

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: VARIOUS PLANT ID NO: VARIOUS COMPONENT: INSTRUMENT CABLE MANUFACTURER: CONTINENTAL MODEL NUMBER: ITEM #3077 FUNCTION: VARIOUS ACCURACY: SPEC: NA DEMON: NA SERVICE: VARIOUS LOCATION: Out of Containment	Operating Time	4 MO.	>4.4 MO	101	63 33	COMBINATION	NONE See Ref 63
	Temperature (°F)	230	340	107	33	SEQ	NONE
	Pressure (PSIA)	26.2	114.7	107	33	"	"
	Relative Humidity (%)	100	100	107	33	"	"
	Chemical Spray	NA	NA	NA	NA	NA	NA
	Radiation (10^6 rads)	NA	10	106	33	SEQ	NA
	Aging (years)						
FLOOD LEVEL ELEV: NA ABOVE FLOOD LEVEL: NA	Submergence	NA	NA	NA	NA	NA	NA

25-28 S3
73-74 I5

*Documentation References:

Notes:

From Ref. 33

FIRL Test Report F-C 2935, Excerpt from

Type of Test: Sequential

Gamma Radiation

Steam

. 45 MRad/HR; 10 MRad

. 340°F; 100 psig; 2 Hrs.

. 161°F; ; 20 Hrs.

—

Item #3075, 3077 Continental Wire & Cable Co.

DONALD C. COOK NUCLEAR PLANT UNIT NO. 1 | DOCKET NO. 50-316 | LICENSE NO. DPR-74

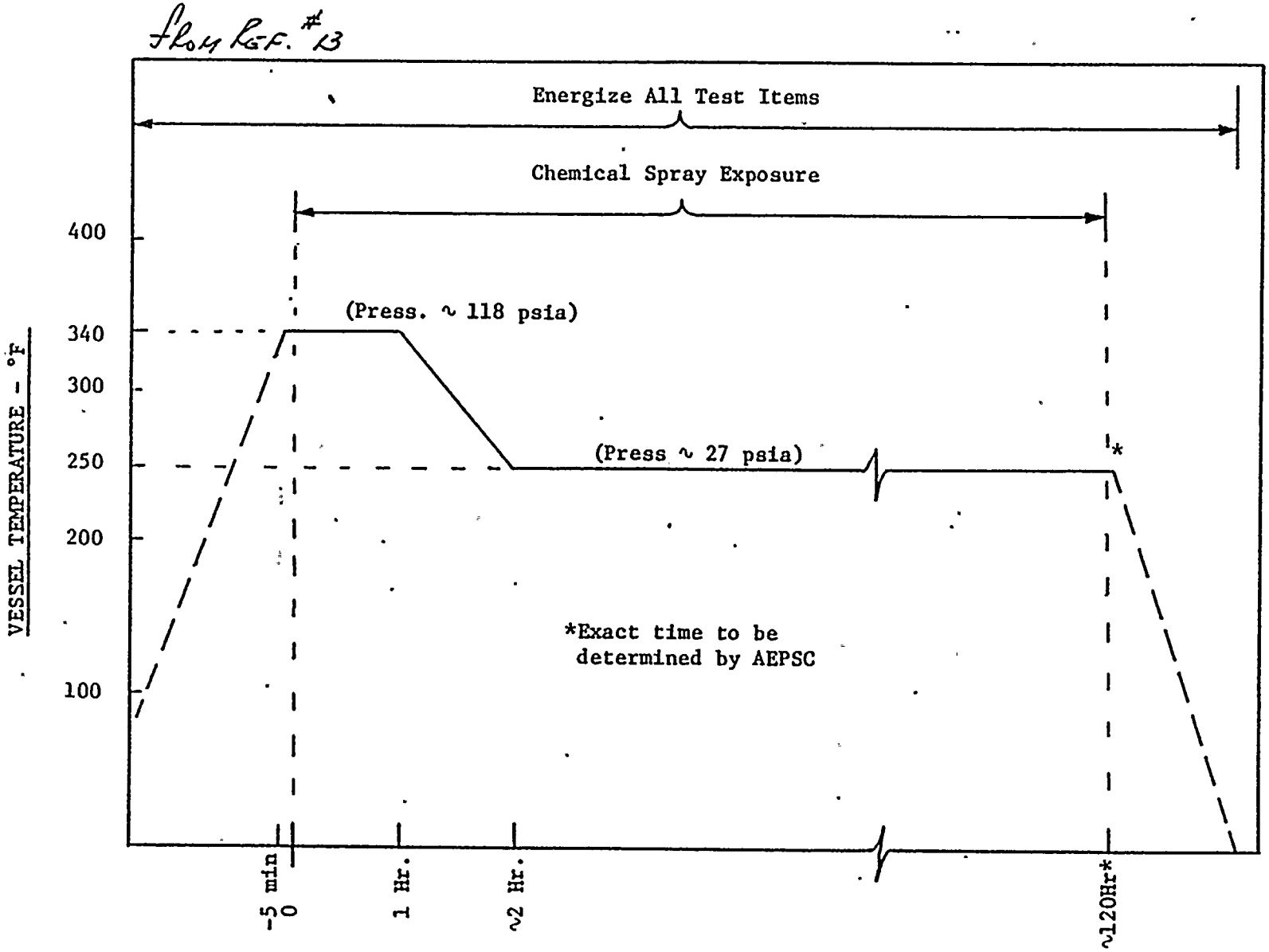
EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: All long term inside containm.	Operating Time	1 yr	Greater than 1.1 yrs	109	13 71	Combination	NONE See Ref 71
PLANT ID NO: N/A	Temperature (°F)	328	340	102	13	Sequential	Sequential
COMPONENT: Kapton insulated wire	Pressure (PSIA)	29.1	118	103	13	"	"
MANUFACTURER: HAVEG	Relative Humidity (%)	100%	100%	102 103	13	"	"
MODEL NUMBER: N/A	Chemical Spray	enclosed in Floodup tubes	2500 ppm B 1.43% B.A. PH=8.5-11	114	13 72	Combination	NONE See Ref 72
FUNCTION: Penetration feedthrough extension wire	Radiation (10^6 rads)	26.1	60	105	13	Sequential	NONE
ACCURACY: SPEC: DEMON: N/A	Aging (years)				71		
SERVICE: Power, control and instrument ckts	Submergence	not submerged	placed inside Floodup tubes	NA	13 61	Eng. Review	NONE See Ref 61
LOCATION: Inside containment							
FLOOD LEVEL ELEV: 614' ABOVE FLOOD LEVEL: No							

39-40 II22, II23
51-54 I6, I7, I8
57-60 V1
82-83 V2
87-88 V2
92A-V1
111-116 V4, F1, H1
143-150 I28
157-153 I19, I20, I21
155-169 I18, I1
202-203 V1
214 V5
226-231 S11, V9

*Documentation References:

Notes:

FIGURE 2 TEST PROFILE



DONALD C. COOK NUCLEAR PLANT UNIT NO. 1 | DOCKET NO. 50-316 | LICENSE NO. DPR-74

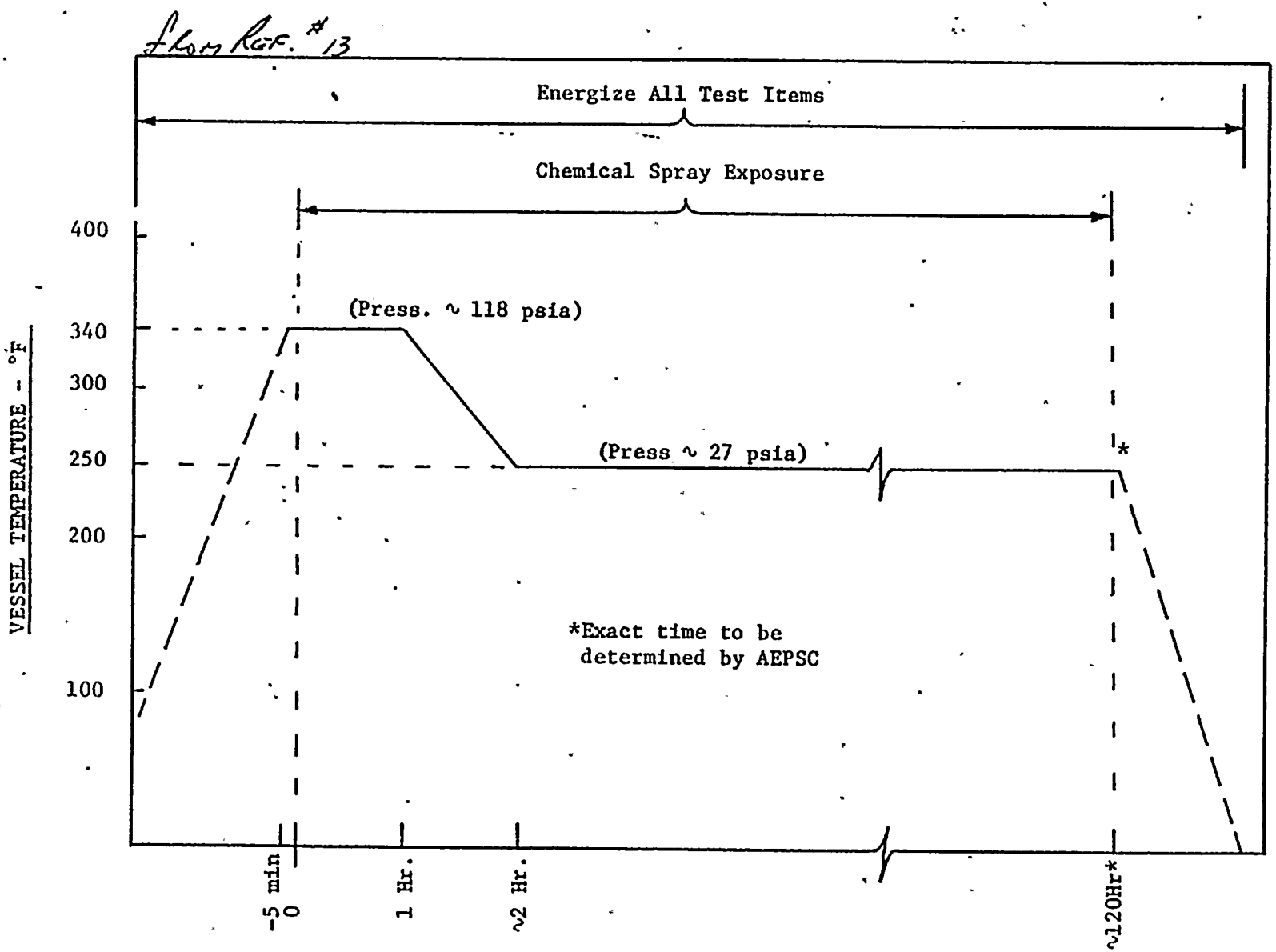
EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: Short term Instruments inside containment PLANT ID NO: N/A COMPONENT: Kapton insulated wire MANUFACTURER: Haveg MODEL NUMBER: N/A FUNCTION: penetration feedthru wire ACCURACY: SPEC: DEMON: N/A SERVICE: Instrument wire (short term) LOCATION: Inside Containm	Operating Time	10 secs	2 hrs	101	13	Sequential	NONE
	Temperature (°F)	328.	340	102	13		
	Pressure (PSIA)	29.1	118	103	13		
	Relative Humidity (%)	100%	100%	102 103	13		
	Chemical Spray	2000 ppm b 1.14 % wt BA PH 8.5 – 11	2500 ppm b 1.43 % wt BA PH 8.5-11	104	13 72	Combination	NONE
	Radiation (10^6 rads)	0.8	< 150	105	13	Sequential	NONE
	Aging (years)						
FLOOD LEVEL ELEV: 614 ABOVE FLOOD LEVEL: No	Submergence	submerged	Qualif. for short term submerg.	117	68	Combination	NONE see Ref 68

127-142 I25 I26, I27
154 I24
178-185 I12
215-223 S17

*Documentation References:

Notes:

FIGURE 2 TEST PROFILE



DONALD C. COOK NUCLEAR PLANT UNIT NO. 1 DOCKET NO. 50-315 LICENSE NO. DPR-58

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: VARIOUS PLANT ID NO: VARIOUS COMPONENT: POWER CABLE MANUFACTURER: OKONITE MODEL NUMBER: ITEM #324 FUNCTION: VARIOUS ACCURACY: SPEC: NA DEMON: NA SERVICE: VARIOUS LOCATION: OUTSIDE CONTAINMENT	Operating Time	1 month	130 days	118	49	SEQUENTIAL	NONE
	Temperature (°F)	230	346	107	49	SEQ.	"
	Pressure (PSIA)	26.2	127.7	107	49	SEQ.	"
	Relative Humidity (%)	100	100	107	49	SEQ.	"
	Chemical Spray	NA	3000ppmB 1.72 wt.% Boric Acid ph8.5-11	NA	49 72	COMBINATION	NA
	Radiation (10^6 rads)	4	200	106	49	SEQ.	NONE
	Aging (years)						
FLOOD LEVEL ELEV: NA ABOVE FLOOD LEVEL: NA	Submergence	NA	NA	NA	NA	NA	NA

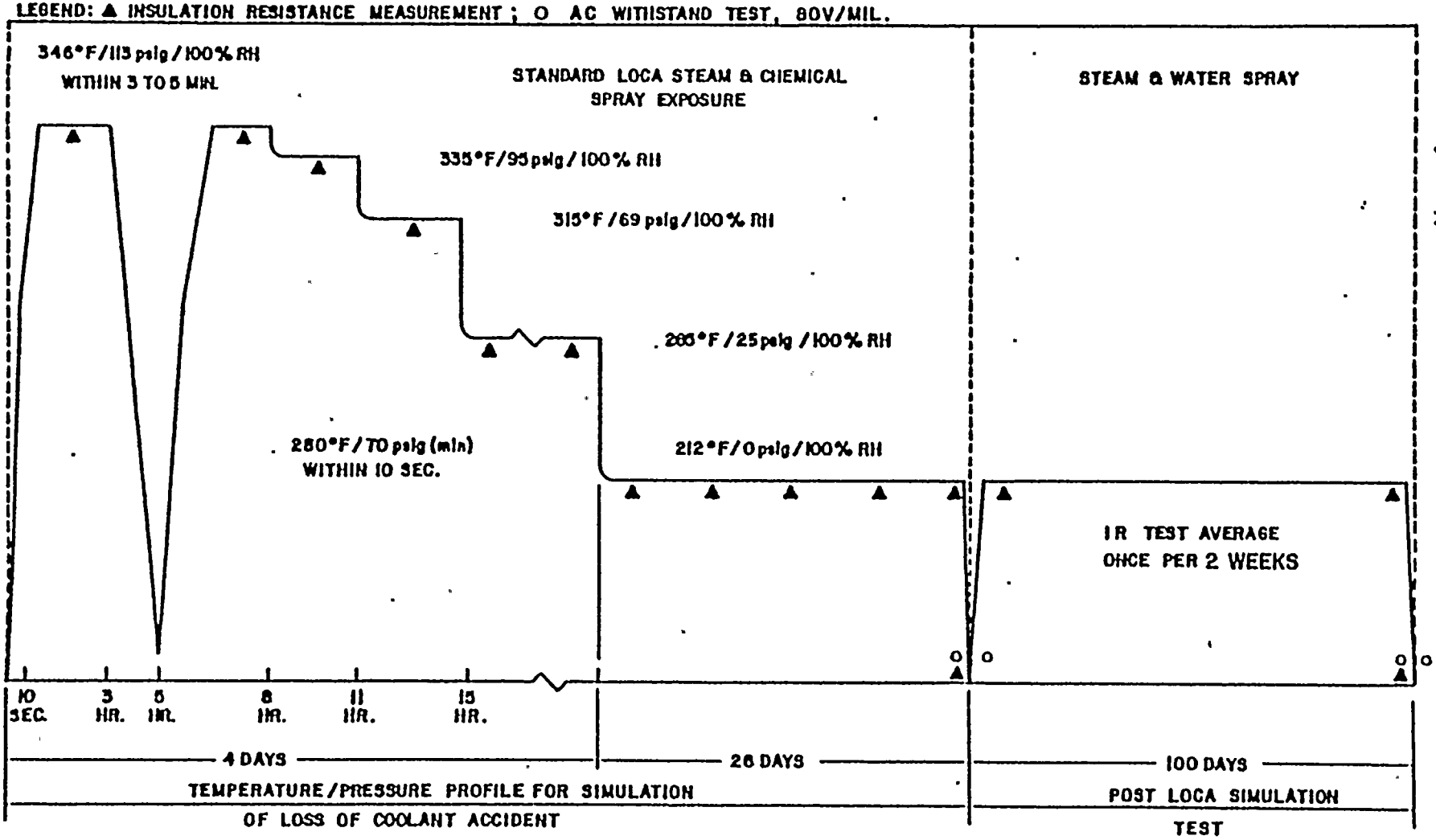
*Documentation References:

Notes:

~~18~~ VL
~~13-14~~, 18, 20
22 V6
24 V6
30-33 V6
35-38 V6
41-44 VII, V6
47-50 MI, V6
61-70 V6, VII
84-86 V6
89-92 V7, VII
101-108 V7
204-207 V6
210-213 V6, VII
79-81 VL

from Ref. # 49

FIGURE II CABLE QUALIFICATION TEST PROFILE FOR LIFE & LOCA CONDITIONS



Page CP1-2

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DONALD C. COOK NUCLEAR PLANT UNIT NO. 1 DOCKET NO. 50-315 LICENSE NO. DPR-58

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: VARIOUS PLANT ID NO: VARIOUS COMPONENT: POWER CABLE MANUFACTURER: ESSEX MODEL NUMBER: ITEM # 324 FUNCTION: VARIOUS ACCURACY: SPEC: NA DEMON: NA SERVICE: VARIOUS LOCATION: OUTSIDE CONTAINMENT	Operating Time	1/month	> 1 month	118	63	Engr. Review	NONE See Ref 63
	Temperature (°F)	230	> 250	107	65	"	NONE See Ref 65
	Pressure (PSIA)	26.2	> 26	107	65	"	"
	Relative Humidity (%)	100	100	107	65	"	"
	Chemical Spray	NA	NA	NA	NA	NA	NA
	Radiation (10^6 rads)	4	100	106	65	Engr. Review	NONE See Ref 65
	Aging (years)						
FLOOD LEVEL ELEV: NA ABOVE FLOOD LEVEL: NA	Submergence	NA	NA	NA	NA	NA	NA

~~13-16 V8~~
18 V6
20 V6
22 V6
24 V6
30-33 V6
35-38 V6
41-44 (V6, V11)
47-50 (M1, V6)
61-70 (V6, V11)
79-81 V6
89-92 (V7, V11)
101-108 V7
204-207 V6
210-213 (V6, V11)
84-86 V6

*Documentation References:

Notes:

DONALD C. COOK NUCLEAR PLANT UNIT NO. 1 DOCKET NO. 50-315 LICENSE NO. DPR-58

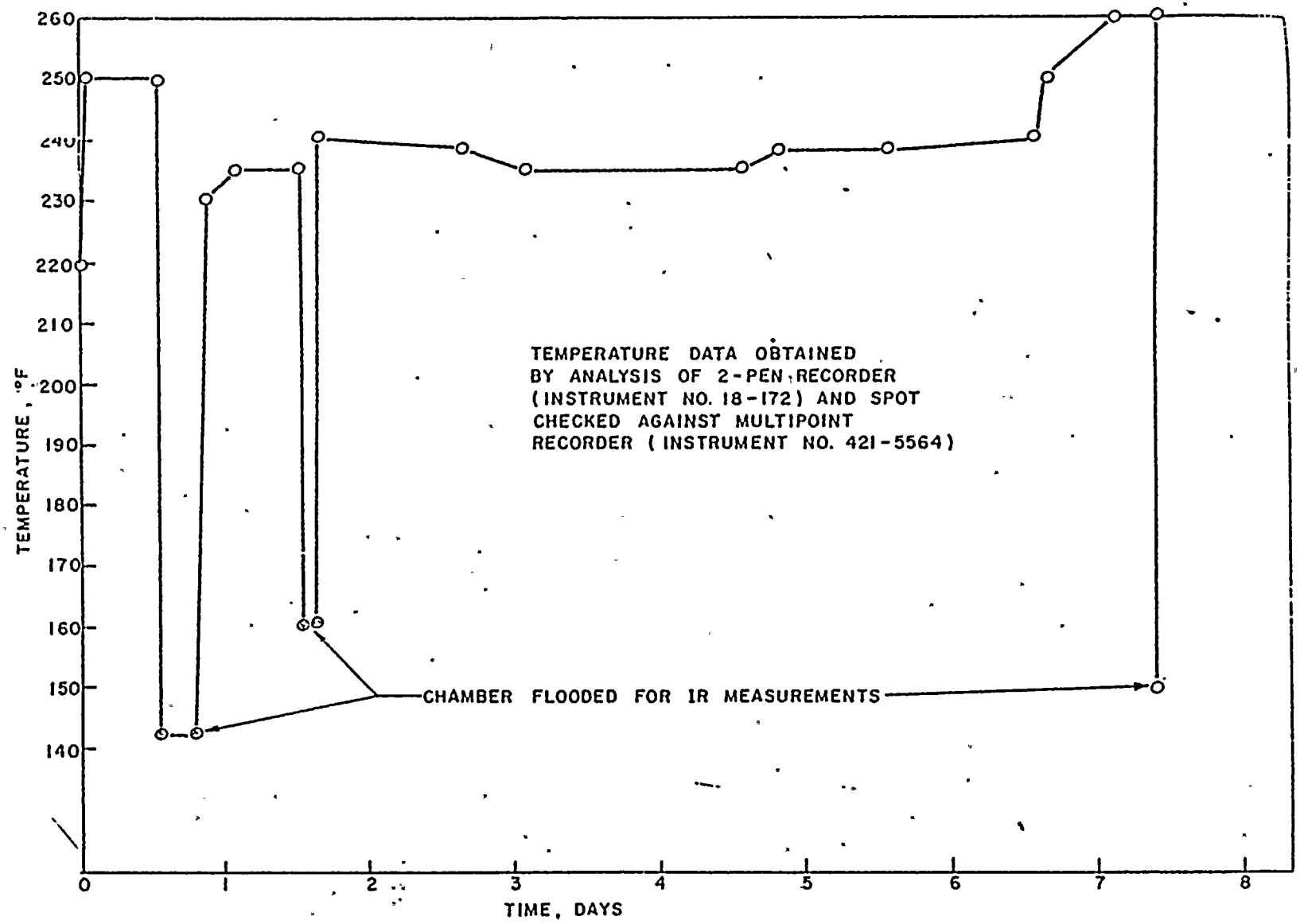
115-116 HI

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: VARIOUS PLANT ID NO: VARIOUS COMPONENT: POWER CABLE MANUFACTURER: OKONITE MODEL NUMBER: ITEM # 399 FUNCTION: VARIOUS ACCURACY: SPEC: NA DEMON: NA SERVICE: VARIOUS LOCATION: INSIDE CONTAINMENT FLOOD LEVEL ELEV: 614' ABOVE FLOOD LEVEL: YES	Operating Time	3 MO.	131 DAYS	109	6	SIMUL.	NONE
	Temperature (°F)	328.2	346	102	6	"	"
	Pressure (PSIA)	29.1	127.7	103	6	"	"
	Relative Humidity (%)	100	100	102 103	6	"	"
	Chemical Spray	2000 PPM B 1.14 WT% BORIC PH 8.5-11 ACID	2000 PPM B 1.14 WT% BORIC PH 8.5-11 ACID	114	6 72	COMBINATION	NONE See Ref 72
	Radiation (10^6 rads)	116	200	105	6	SIMUL.	NONE
	Aging (years)						
	Submergence	NA	NA	NA	NA	NA	NA

*Documentation References:

Notes:

FROM REF. #6

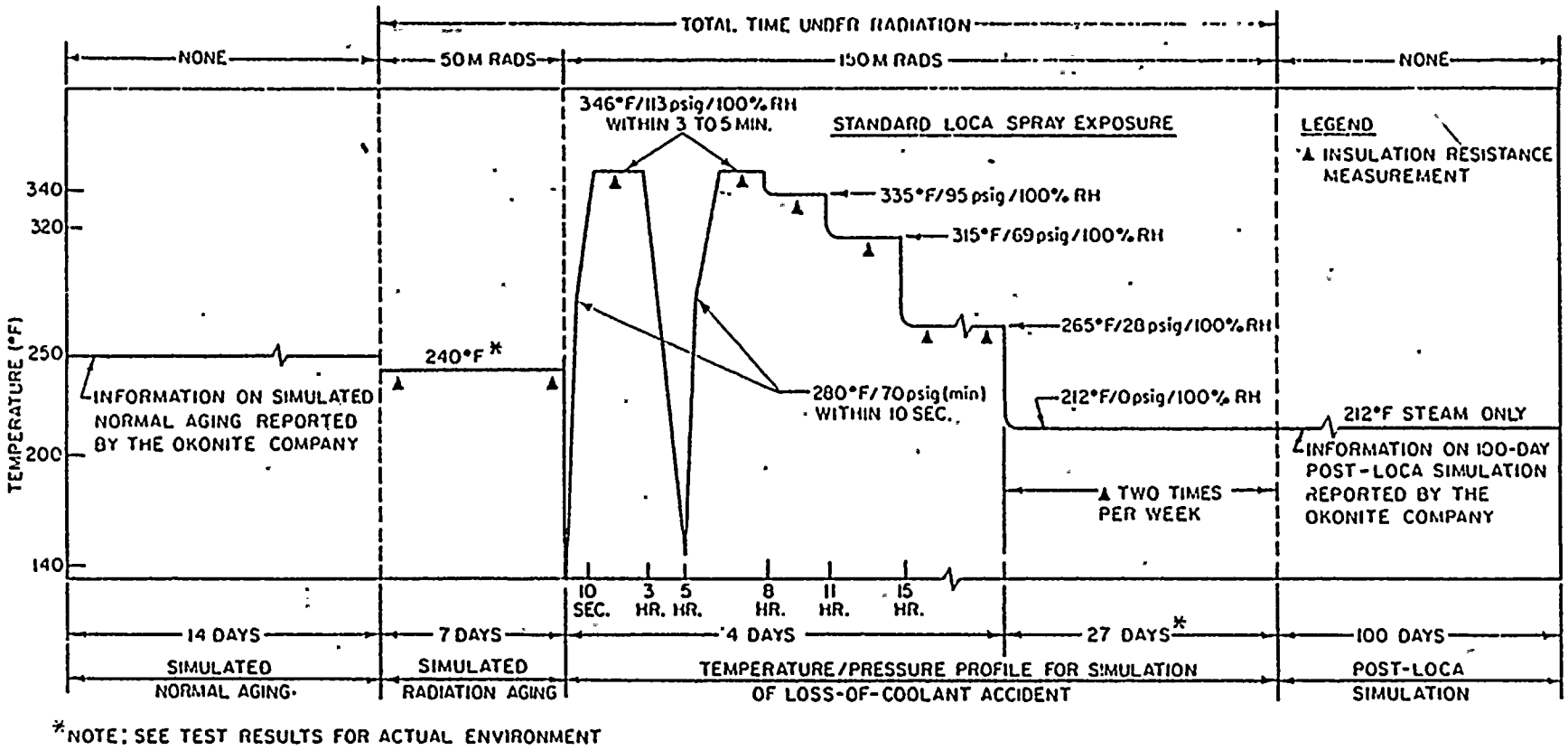


F-C3694

Figure 6. Actual Temperature Profile for Simultaneous Thermal Aging with Radiation

PAGE CP4-2

FROM REF. #6



*NOTE: SEE TEST RESULTS FOR ACTUAL ENVIRONMENT

Figure 1. Cable Qualification Test Profile for Life, LOCA and Post-LOCA Simulation

DONALD C. COOK NUCLEAR PLANT UNIT NO. 1 DOCKET NO. 50-315 LICENSE NO. DPR-58

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: VARIOUS PLANT ID NO: VARIOUS COMPONENT: POWER CABLE MANUFACTURER: ANACONDA MODEL NUMBER: ITEM # 3102 FUNCTION: VARIOUS ACCURACY: SPEC: NA DEMON: NA SERVICE: VARIOUS LOCATION: OUTSIDE CONTAINMENT	Operating Time	1 YR.	> 1.1 yr	118	36 63	Combination	NONE See Ref 63
	Temperature (°F)	NA	346	NA	36	SEQUENTIAL	NONE
	Pressure (PSIA)	NA	127.7	NA	36	"	"
	Relative Humidity (%)	NA	100	NA	36	"	"
	Chemical Spray	NA	3000 ppm b 1.72 % wt BH PH 8.5-11	NA	36 72	COMBINATION	NA
	Radiation (10^6 rads)	6	200	106	36	SEQ.	NONE
	Aging (years)						
FLOOD LEVEL ELEV: NA ABOVE FLOOD LEVEL: NA	Submergence	NA	NA	NA	NA	NA	NA

72 MI
93-94 MI

*Documentation References:

Notes:

FROM REF. #36

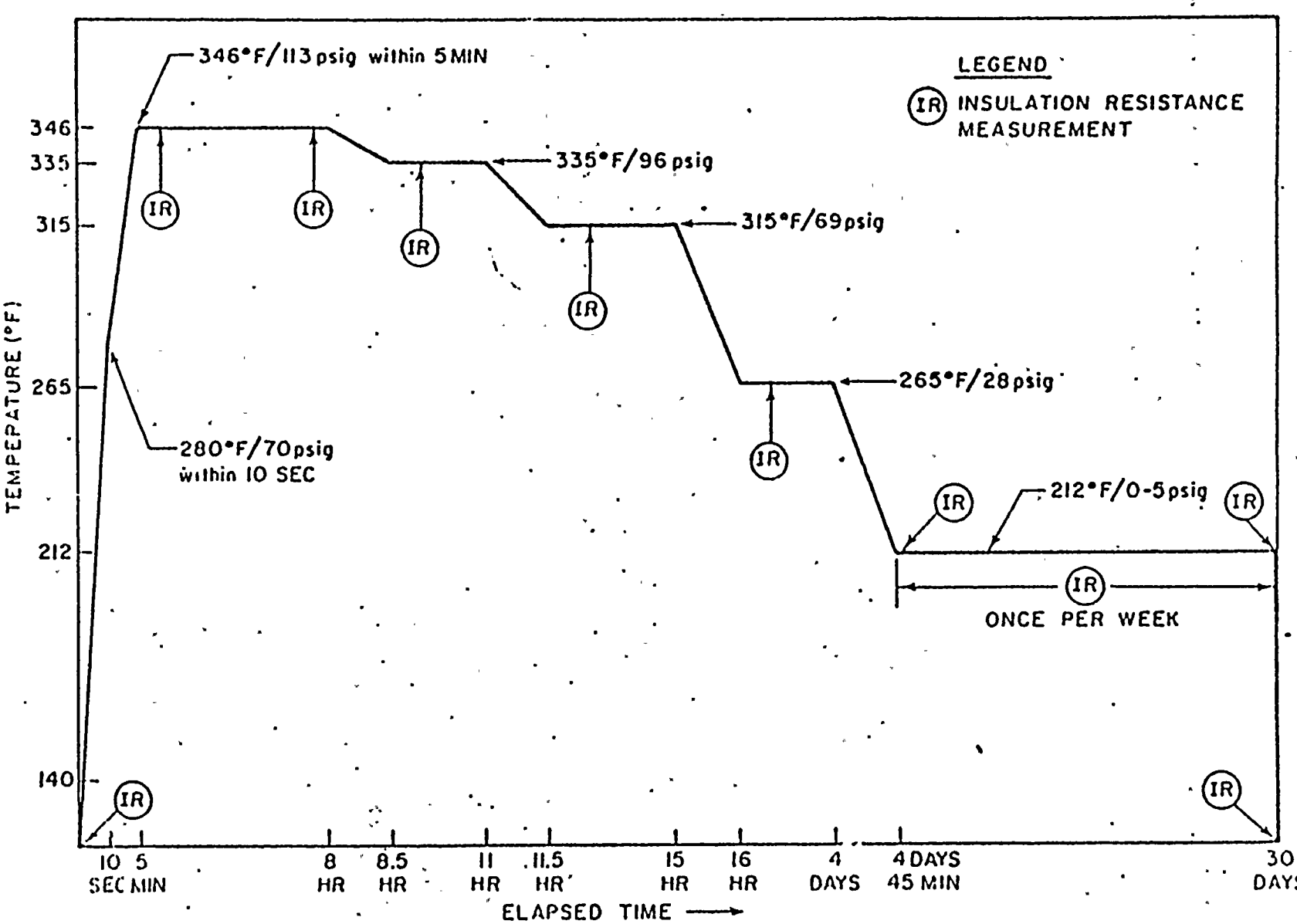


Figure 2. Temperature/Pressure Profile for Simulation of Loss-of-Coolant Accident (LOCA) Environment

F-C4350-3

PAGE CP5-2

DONALD C. COOK NUCLEAR PLANT UNIT NO. 1 DOCKET NO. 50-315 LICENSE NO. DPR-58

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: VARIOUS PLANT ID NO: VARIOUS COMPONENT: INSTRUMENT CABLE MANUFACTURER: OKONITE MODEL NUMBER: ITEM # 3102 FUNCTION: VARIOUS ACCURACY: SPEC: NA DEMON: NA SERVICE: VARIOUS LOCATION: Outside Containment	Operating Time	1 month	130 days	118	37	Sequential	NONE
	Temperature (°F)	NA	346	NA	37	SEQ	"
	Pressure (PSIA)	NA	127.7	NA	37	"	"
	Relative Humidity (%)	NA	100	NA	37	"	"
	Chemical Spray	NA	3000 ppm B 1.72 wt% Boric Acid PH 8.5-11	NA	37, 72	COMBINATION	NA
	Radiation (10^6 rads)	2	200	106	37	SEQ.	NONE
	Aging (years)						
FLOOD LEVEL ELEV: NA ABOVE FLOOD LEVEL: NA	Submergence	NA	NA	NA	NA	NA	NA

-71 M1

*Documentation References:

Notes:

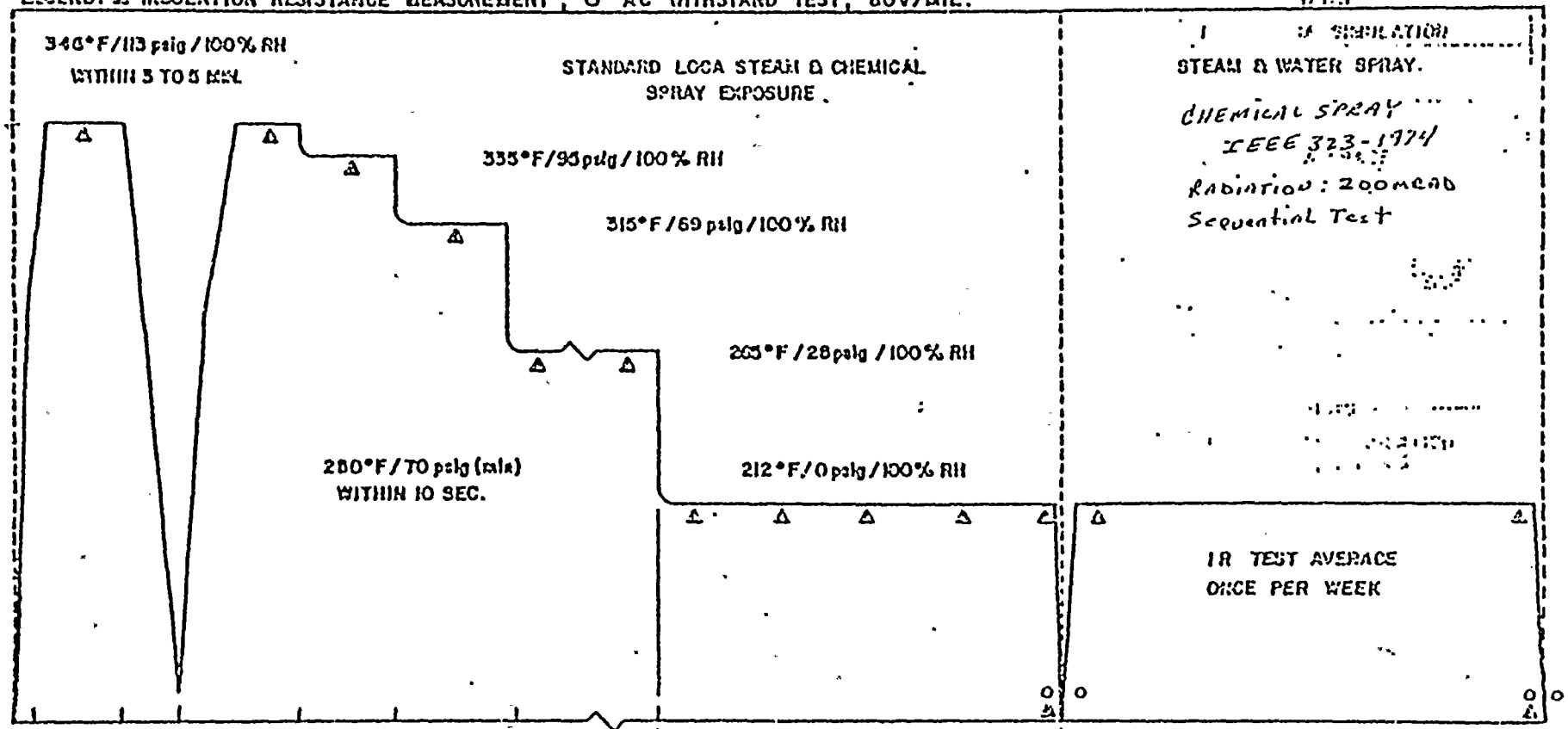
37

OKONITE Co. QUAL. of OKOGUARD Ethylene-Propylene Rubber Insulation for Nuclear Plant Service

FIGURE II CABLE QUALIFICATION TEST PROFILE FOR LIFE & LOCA CONDITIONS

from Ref. 37

LEGEND: Δ INSULATION RESISTANCE MEASUREMENT ; O AC WITHSTAND TEST, 80V/MIL.



Page CP6-2

DONALD C. COOK NUCLEAR PLANT UNIT NO. 1 DOCKET NO. 50-315 LICENSE NO. DPR-58

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: VARIOUS PLANT ID NO: VARIOUS COMPONENT: POWER CABLE MANUFACTURER: ANACONDA WIRE & CABLE MODEL NUMBER: ITEM # 3116 FUNCTION: VARIOUS ACCURACY: SPEC: NA DEMON: NA SERVICE: VARIOUS LOCATION: INSIDE CONTAINMENT	Operating Time	14DAY	2 Mo.	118	5	SIMUL.	NONE
	Temperature (°F)	328.2	340	102	5	"	"
	Pressure (PSIA)	29.1	119.7	103	5	"	"
	Relative Humidity (%)	100	100	102 103	5	"	"
	Chemical Spray	2000 PPM B 1.14 WT% BORIC PH 8.5-11 ACID	3000 PPM B 1.72 WT% BORIC PH 8.5-11 ACID	114	5 72	COMBINATION	NONE See Ref 72
	Radiation (10^6 rads)	92	200	105	5	SIMUL.	" NONE
	Aging (years)						
FLOOD LEVEL ELEV: 614' ABOVE FLOOD LEVEL: No	Submergence	Submerged	Immersion	117	68	Eng. Review	NONE See Ref 68

57-60 V1
82-83 V2
92A V1
111-112 V4
202-203 V1
214 V5
229-231 V9
87-88 V2

*Documentation References:

Notes:

from Ref. 5. Qualified by Franklin Institute Research Laboratory (FIRL) Test Report #F-C3341, Jan. 1973.

Type of Test: Simultaneous, gamma radiation
steam
chemical spray

Test Profile:

.51 Mrads/hr, 200 Mrads
340°F, 105 psig for 3 hrs
320°F, 75 psig for 3 hrs
250°F, 15 psig for 4 days
210°F, 5 psig for 9 days

Chemical Spray: Solution of boric acid and Na OH , PH = 9.5

DONALD C. COOK NUCLEAR PLANT UNIT NO. 1 DOCKET NO. 50-315 LICENSE NO. DPR-58

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: VARIOUS PLANT ID NO: VARIOUS COMPONENT: POWER CABLE MANUFACTURER: ESSEX INTERNATIONAL MODEL NUMBER: ITEM # 3116 FUNCTION: VARIOUS ACCURACY: SPEC: NA DEMON: NA SERVICE: VARIOUS LOCATION: INSIDE CONTAINMENT	Operating Time	14 DAYS	30 DAYS	1.18	25	SIMUL.	NONE
	Temperature (°F)	328.2	346	102	25	"	"
	Pressure (PSIA)	29.1	127.7	103	25	"	"
	Relative Humidity (%)	100	100	102 103	25	"	"
	Chemical Spray	2000 PPM B 1.14 WT% BORIC ACID PH 8.5-11	3000 PPM B 1.72 WT% BORIC ACID PH 8.5-11	114	25 72	COMBINATION	NONE See Ref. 72
	Radiation (10^6 rads)	83	200	105	25	SIMUL.	NONE
	Aging (years)						
FLOOD LEVEL ELEV: 614' ABOVE FLOOD LEVEL: No	Submergence	Submerged	Immersion	117	68	Eng. Review	NONE See Ref 68

57-60 V1
82-83 V2
92A V1
111-112 V4
202-203 V1
214 V5
229-231 V9
87-88 V2

*Documentation References:

Notes:

From Ref. 25. Qualified by Isomedix Corp. Test Report of November 1975

Type of Test: Simultaneous, gamma radiation
steam
chemical spray

Test Profile:

.2 - .3 Mrads/hr, 200 Mrads
346°F, 113 psig for 5 hrs
265°F, 28 psig for 4 days
215°F, 2 psig for 26 days

Chemical Spray: 3000 ppm boron as boric acid in solution with .06¼ molar sodium thiosulfate buffered with sodium hydroxide to a PH of 9 to 11.

DONALD C. COOK NUCLEAR PLANT UNIT NO. 1 DOCKET NO. 50-315 LICENSE NO. DPR-58

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: VARIOUS PLANT ID NO: VARIOUS COMPONENT: POWER CABLE MANUFACTURER: KERITE MODEL NUMBER: ITEM # 3116 FUNCTION: VARIOUS ACCURACY: SPEC: NA DEMON: NA SERVICE: VARIOUS LOCATION: INSIDE CONTAINMENT	Operating Time	14 DAYS	7.5 DAYS	118	7	SEQ	NONE
	Temperature (°F)	328.2	325	102	7	"	"
	Pressure (PSIA)	29.1	96.7	103	7	"	"
	Relative Humidity (%)	100	100	102 103	7	"	"
	Chemical Spray	2000 ppm B 1.14 wt% Boric Acid PH 8.5-11	2606 ppm B 1.5 wt% Boric Acid PH 8.5-11	114	7 72	COMBINATION	NONE See Ref 72
	Radiation (10^6 rads)	81	120	105	7	SEQ.	NONE
	Aging (years)			-			
FLOOD LEVEL ELEV: 614' ABOVE FLOOD LEVEL: No	Submergence	Submerged	Immersion	117	68	Eng Review	NONE See Ref 68

57-60 V1
82-83 V2
92A V1
111-112 V4
202-203 V1
214 V5
229-231 V4
87-88 V2

*Documentation References:

Notes:

From Ref. 7. Qualified by Kerite Co. Report on the effects of Gamma Radiation and Autoclaving on Kerite Power Control Cables April 30, 1970.

Type of Test: Sequential, gamma radiation
steam
chemical spray

Test Profile:

.8 Mrads/hr, 120 Mrads
325°F, 82 psig for 13 hrs
228°F, 5 psig for 7 days

Chemical Spray: Borated water, 1-1/2% solution of boric acid and distilled water buffered at a PH of 9.5

DONALD C. COOK NUCLEAR PLANT UNIT NO. 1 DOCKET NO. 50-315 LICENSE NO. DPR-58

45 M1
46 M1
109 M2
110 M2

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: VARIOUS PLANT ID NO: VARIOUS COMPONENT: POWER CABLE MANUFACTURER: ANACONDA MODEL NUMBER: ITEM #3103 FUNCTION: VARIOUS ACCURACY: SPEC: NA DEMON: NA SERVICE: VARIOUS LOCATION: OUTSIDE CONTAINMENT	Operating Time	1 month	≥ 30 days	118	36 63	Combination	NONE see Ref 63
	Temperature (°F)	NA	346	NA	36	Sequential	NA
	Pressure (PSIA)	NA	127.7	NA	36	"	NA
	Relative Humidity (%)	NA	100	NA	36	"	NA
	Chemical Spray	NA	3000 ppm 1.72 % wt BA ph 8.5-11	NA	36 72	COMBINATION	NA
	Radiation (10^6 rads)	4	200	106	36	SEQ.	NONE
	Aging (years)						
FLOOD LEVEL ELEV: NA ABOVE FLOOD LEVEL: NA	Submergence	NA	NA	NA	NA	NA	NA

*Documentation References:

Notes:

FROM REF. #36

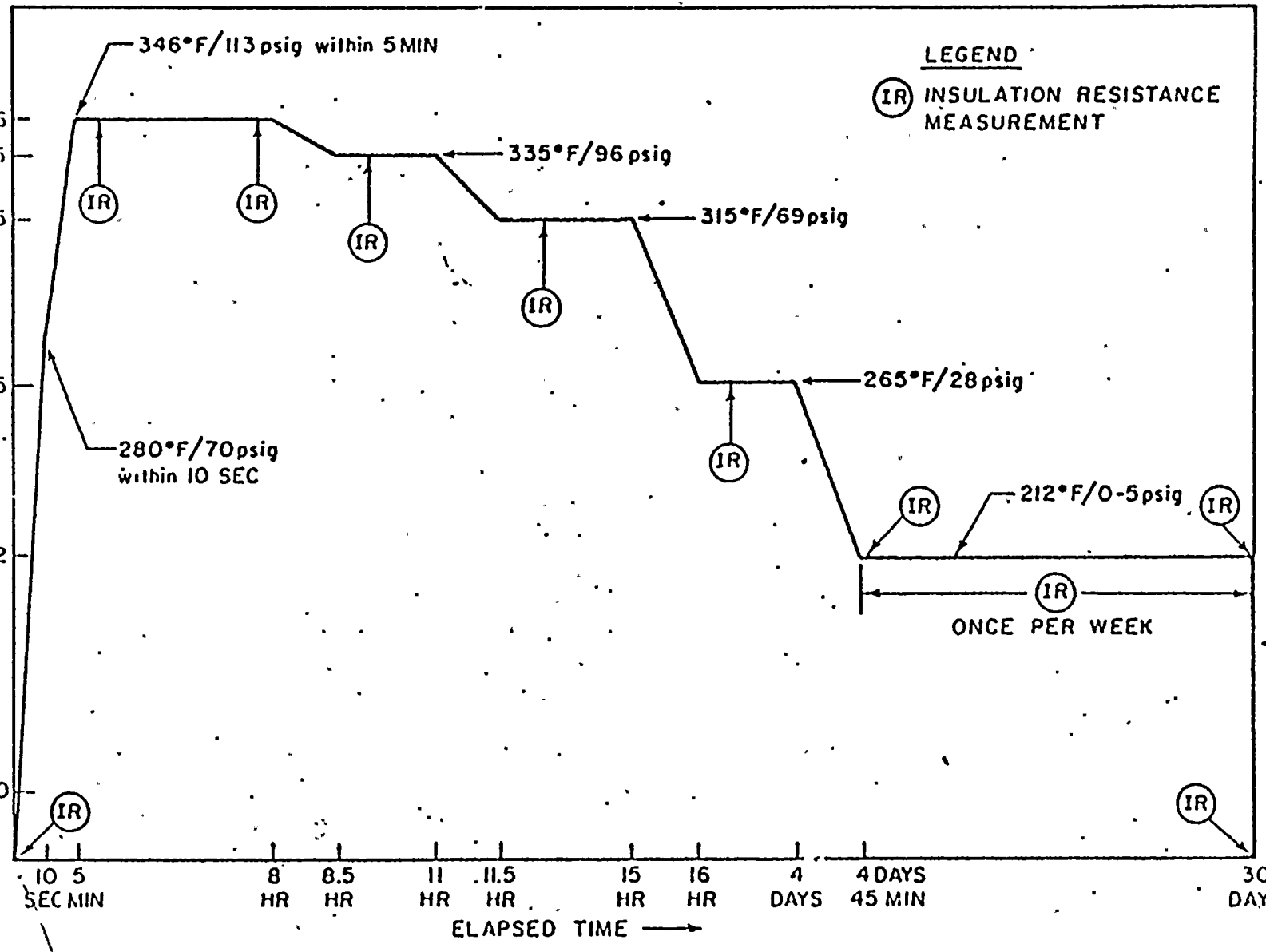


Figure 2. Temperature/Pressure Profile for Simulation of Loss-of-Coolant Accident (LOCA) Environment

F-C4350-3

PAGE CP10-2

DONALD C. COOK NUCLEAR PLANT UNIT NO. 1 DOCKET NO. 50-315 LICENSE NO. DPR-58

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: VARIOUS PLANT ID NO: VARIOUS COMPONENT: POWER CABLE MANUFACTURER: KERITE MODEL NUMBER: ITEM # 3127 FUNCTION: VARIOUS ACCURACY: SPEC: NA DEMON: NA SERVICE: VARIOUS LOCATION: INSIDE CONTAINMENT FLOOD LEVEL ELEV: 614' ABOVE FLOOD LEVEL: YES	Operating Time	1 YR.	>1.1 YR	109	63 7	COMBINATION	NONE See Ref 63
	Temperature (°F)	328.2	325	102	7	SEQ	NONE
	Pressure (PSIA)	29.1	96.7	103	7	"	"
	Relative Humidity (%)	100	100	102 103	7	"	"
	Chemical Spray	2000 ppm B, 1.14 wt% Boric Acid pH 8.5-11	2600 PPM B 1.5 wt% BORIC pH 8.5-11 ACID	114	7 72	COMBINATION	NONE See Ref 72
	Radiation (10^6 rads)	.135	200	105	7 70	SEQ.	NONE
	Aging (years)						
	Submergence	NA	NA	NA	NA	NA	NA

113-114 FI

*Documentation References:

Notes:

Sim Ref. #7

7. Qualified by Kerite Co. Report on the effects of Gamma Radiation and Autoclaving on Kerite A-[illegible] Cable, April 30, 1970.

Type of Test: Sequential, gamma radiation
steam
chemical spray

Test Profile:

.8 Mrads/hr, 120 Mrads
325°F, 82 psig for 13 hrs
228°F, 5 psig for 7 days

Chemical Spray: Borated water, 1-1/2% solution of boric acid and distilled water buffered at a PH of 9.5

Rev 0 9/2/70

DONALD C. COOK NUCLEAR PLANT UNIT NO. 1 DOCKET NO. 50-315 LICENSE NO. DPR-58

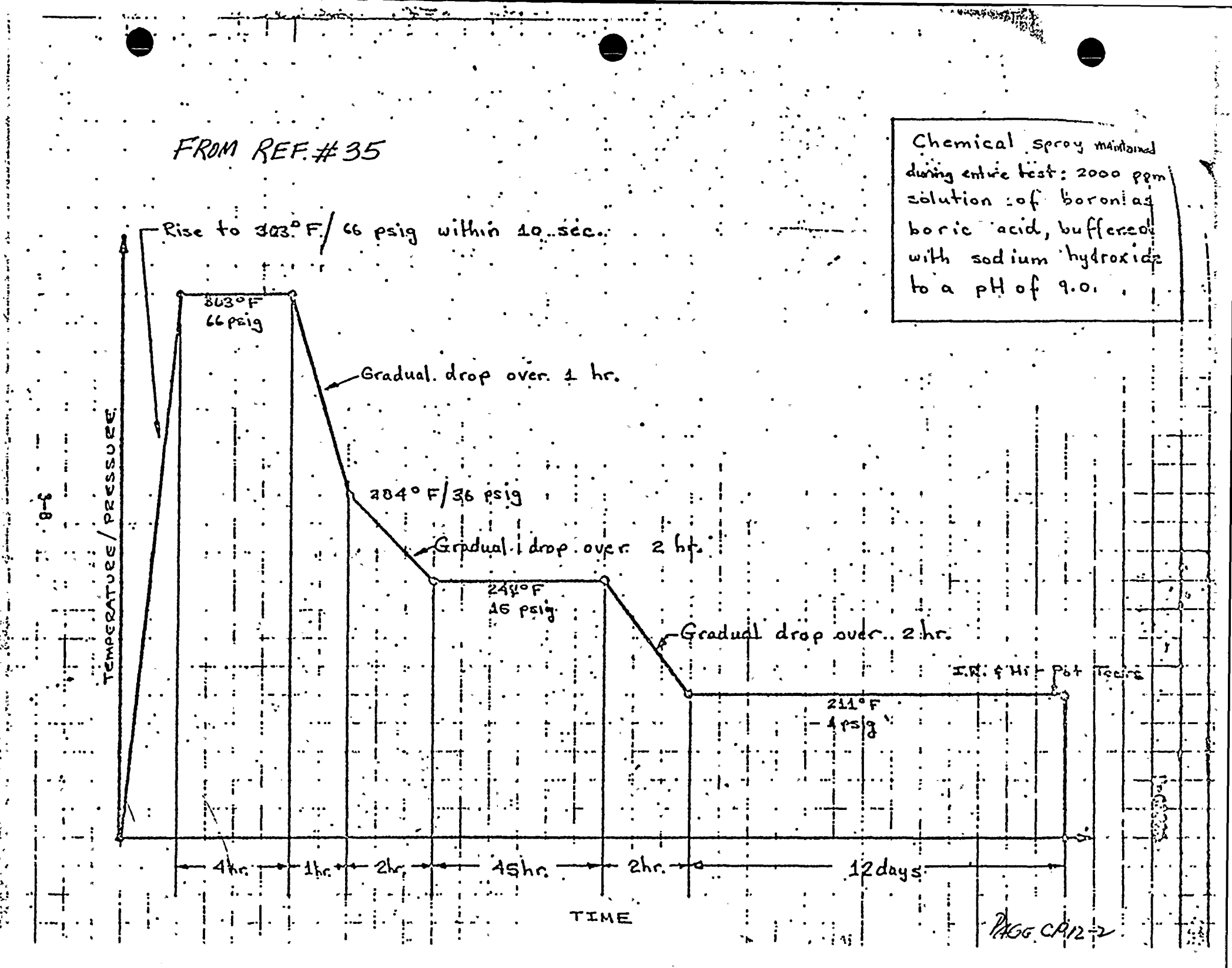
115-116 HI

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF:*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: VARIOUS PLANT ID NO: VARIOUS COMPONENT: POWER CABLE MANUFACTURER: CYPRUS MODEL NUMBER: ITEM #347 FUNCTION: VARIOUS ACCURACY: SPEC: NA DEMON: NA SERVICE: VARIOUS LOCATION: INSIDE CONTAINMENT	Operating Time	3 MO.	>3.3MO	109	63 35	COMBINATION	NONE See Ref 63
	Temperature (°F)	244	303	102	35	SEQ	NONE
	Pressure (PSIA)	29.1	80.7	103	35	"	"
	Relative Humidity (%)	100	100	102 103	35	"	"
	Chemical Spray	2000 PPM B 1.14 WT % BORIC ACID PH 8.5-11	2000PPM B 1.14 WT % BORIC ACID PH 8.5-11	114	35 72	COMBINATION	NONE See Ref 72
	Radiation (10^6 rads)	11.16	300	105	35	SEQ.	NONE
	Aging (years)						
FLOOD LEVEL ELEV: 614' ABOVE FLOOD LEVEL: YES	Submergence	NA	NA	NA	NA	NA	NA

*Documentation References:

Notes:

FROM REF. #35



PAGE CA12-2

DONALD C. COOK NUCLEAR PLANT UNIT NO. 1 DOCKET NO. 50-315 LICENSE NO. DPR-58

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: VARIOUS PLANT ID NO: VARIOUS COMPONENT: POWER CABLE MANUFACTURER: ANACONDA WIRE & CABLE CO. MODEL NUMBER: ITEM #347 FUNCTION: VARIOUS ACCURACY: SPEC: NA DEMON: NA SERVICE: VARIOUS LOCATION: INSIDE CONTAINMENT	Operating Time	3 MO.	>3.3 MO.	109	5 63	COMBINATION	NONE See Ref 63
	Temperature (°F)	328.2	340	102	5	SIMUL.	NONE
	Pressure (PSIA)	29.1	119.7	103	5	"	"
	Relative Humidity (%)	100	100	102 103	5	"	"
	Chemical Spray	2000 PPM B 1.14 WT% BORIC PH 8.5-11 ACID	3000 PPM B 1.72 WT% BORIC PH 8.5-11 ACID	114	5 72	COMBINATION	NONE See Ref 72
	Radiation (10^6 rads)	1.16	200	105	5	SIMUL	NONE
	Aging (years)						
FLOOD LEVEL ELEV: 614' ABOVE FLOOD LEVEL: YES	Submergence	NA	NA	NA	NA	NA	NA

115-116 HI

*Documentation References:

Notes:

from Ref. 5. Qualified by Franklin Institute Research Laboratory (FIRL) Test Report #F-C3341, Jan. 1973.

Type of Test: Simultaneous, gamma radiation
steam
chemical spray

Test Profile:

.51 Mrads/hr, 200 Mrads
340°F, 105 psig for 3 hrs
320°F, 75 psig for 3 hrs
250°F, 15 psig for 4 days
210°F, 5 psig for 9 days

Chemical Spray: Solution of boric acid and Na OH , PH = 9.5

DONALD C. COOK NUCLEAR PLANT UNIT NO. 1 DOCKET NO. 50-315 LICENSE NO. DPR-58

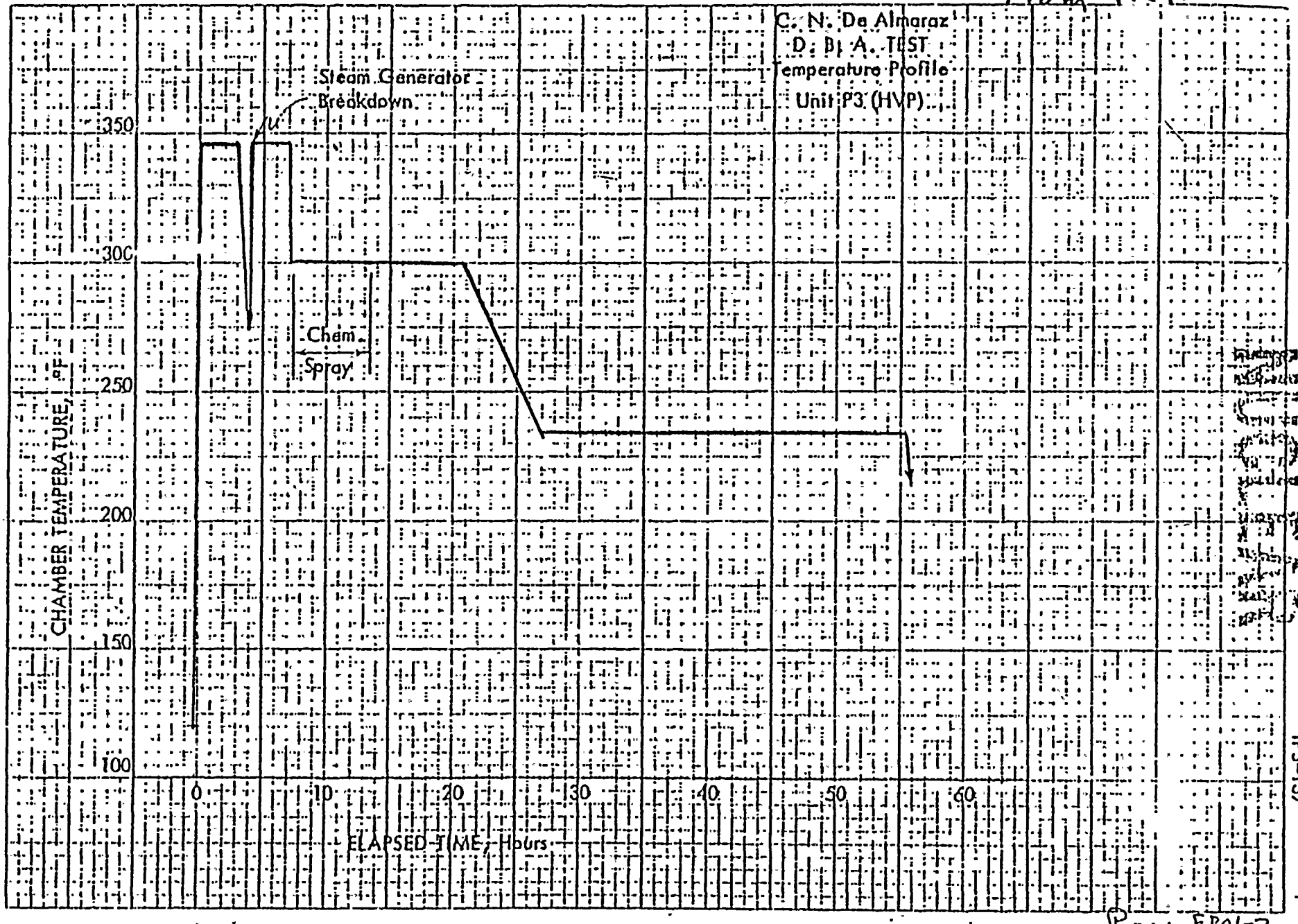
I EPI

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: Electrical Penetrations PLANT ID NO: Various COMPONENT: 4KV ELECTRICAL PENETRATIONS MANUFACTURER: CONAX CORP. MODEL NUMBER: EP-1 FUNCTION: CONTAINMENT ISOLATION ACCURACY: SPEC: NA DEMON: NA SERVICE: Electrical cable feedthroughs LOCATION: INSIDE CONTAINMENT	Operating Time	1 YR	>1.1 YR	109	3 60	COMBINATION	NONE See Ref 60
	Temperature (°F)	328.2	346	102	3	SEQ	NONE
	Pressure (PSIA)	29.1	122	103	3	"	"
	Relative Humidity (%)	100	100	102 103.	3	"	"
	Chemical Spray	2000 PPM B 1.14 WT% BORIC PH 8.5-11 ACID	2000 PPM B 1.14 WT% BORIC PH 8.5-11 ACID	114	3 72	COMBINATION	NONE See Ref 72
	Radiation (10^6 rads)	32	100	105	3	SEQ.	NONE
	Aging (years)						
FLOOD LEVEL ELEV: 614' ABOVE FLOOD LEVEL: No	Submergence	Submerged	SUBMERGENCE	117	60	Combination	NONE See Ref 60

*Documentation References:

Notes:

from Ref. 3



IPS-137

DONALD C. COOK NUCLEAR PLANT UNIT NO. 1 DOCKET NO. 50-315 LICENSE NO. DPR-58

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: Electrical Penetrations PLANT ID NO: VARIOUS COMPONENT: 600V AND BELOW ELECTRICAL PENETRATIONS MANUFACTURER: CONAX CORP. MODEL NUMBER: EP-2 THROUGH EP-14 FUNCTION: CONTAINMENT ISOLATION ACCURACY: SPEC: NA DEMON: NA SERVICE: Electrical cable feedthroughs LOCATION: INSIDE CONTAINMENT	Operating Time	1YR	>1.1YR	109	1 60	COMBINATION	NONE See Ref 60
	Temperature (°F)	328.2	340	102	1	SEQ	NONE
	Pressure (PSIA)	29.1	116	103	1	"	"
	Relative Humidity (%)	100	100	102 103	1	"	"
	Chemical Spray	2000 PPM B 1.14-WT% BORIC PH 8.5-11 ACID	2000 PPM B 1.14 WT% BORIC ACID PH 8.5-11	114	3 72	COMBINATION.	NONE See Ref 72
	Radiation (10^6 rads)	32	100	105	1	SEQ.	NONE
	Aging (years)						
FLOOD LEVEL ELEV: 614' ABOVE FLOOD LEVEL: No	Submergence	Submerged	SUBMERGENCE	117	60	Combination	NONE see Ref 60

II
III
IV
208-209V10

*Documentation References:

Notes:

FROM REF. #1

1. QUALIFIED BY CONAX CORP. TEST REPORT IPS-234
JUNE 9 1977

TYPE OF TEST: SEQUENTIAL. IRRADIATION/STEAM

TEST PROFILE:

1.0-1.1 MRADS/HR FOR 100 HRS.
100-110 MRADS. TOTAL DOSE
340°F; 116 PSIA FOR 3 HRS.
PERFORM LEAKAGE TEST AND REPEAT STEAM TEST
340°F; 116 PSIA FOR 3 HRS.

DONALD C. COOK NUCLEAR PLANT UNIT NO. 1 DOCKET NO. 50-315 LICENSE NO. DPR-58

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: Containment air recirculation PLANT ID NO: HV-CEQ-1 HV-CEQ-2 COMPONENT: FAN MOTORS MANUFACTURER: WESTINGHOUSE CORP. MODEL NUMBER: TBDP FUNCTION: CIRCULATE AIR ACCURACY: SPEC: NA DEMON: NA SERVICE: air recirc. LOCATION: INSIDE CONTAINMENT	Operating Time	1 YR.	>1.1 YR	109	63 21	COMBINATION	NONE See Ref 63
	Temperature (°F)	244	320	102	21	SEQ	NONE
	Pressure (PSIA)	29.1	89.7	103	21	"	"
	Relative Humidity (%)	100	100	102 103	21	"	"
	Chemical Spray	2000 PPM B 1.14 WT% BORIC ACID PH 8.5-11	2500 PPM B 1.43 WT% BORIC ACID PH 8.5-11	115. 118	21 72	" COMBINATION	NONE See Ref 72
	Radiation (10^6 rads)	126	200	105	21	SEQ.	NONE
	Aging (years)						
FLOOD LEVEL ELEV: 614' ABOVE FLOOD LEVEL: YES	Submergence	NA	NA	NA	NA	NA	NA

113-114

*Documentation References:

Notes:

from Ref. 21.

Qualified by Westinghouse Corp. Test Report$:
WCAP-7829, April, 1972.

Type of Test: Sequential: Irradiation
Steam
Chemical Spray

Test Profile (for motor without heat exchanger)

324°F, 80 psig for 4 hrs.
250°F, 16 psig for 7 days

Test Profile (for motor with heat exchanger)

320°F, 75 psig for 24 hrs.
250°F, 16 psig for 168 hrs.

Chemical Spray: 1.43 weight percent boric acid
PH=9.5 with Na OH

Irradiation: .5 Mrad/hr., 200 Mrads.

See page 33 of WCAP-7829 for Test Profile summary.

DONALD C. COOK NUCLEAR PLANT UNIT NO. 1 DOCKET NO. 50-315 LICENSE NO. DPR-58

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: VARIOUS PLANT ID NO: Mobilux EP-2 COMPONENT: GREASE MANUFACTURER: MOBIL MODEL NUMBER: Mobilux EP-2 FUNCTION: VARIOUS ACCURACY: SPEC: NA DEMON: NA SERVICE: VARIOUS - VALVE OPERATOR MOTORS LOCATION: In + Out Containment FLOOD LEVEL ELEV: 614' ABOVE FLOOD LEVEL: Yes	Operating Time	1 day	> 1 yr	See Note C	Ref. 47	TEST	NONE
	Temperature (°F)	Fig 022.9-1,-2	250 cont. service 350 drop ft.	FSAR App O	Ref. 48	Tech. Description Sheet	NONE
	Pressure (PSIA)	Fig 1 Fig 2	See Note A	AEW 6504	Ref. 47	"	NONE
	Relative Humidity (%)	100	100		Ref. 48	"	NONE
	Chemical Spray	2000ppm B 1/14 wt.% Boric PH 9-11 Acid	See Note B		NA	NA	NONE
	Radiation (10^6 rads)	26	240	WCAP 7410-L Vol 1	Ref. 47	TEST	NONE
	Aging (years)	NP	NA	NA	NA	NA	NONE
	Submergence	NA	NA	NA	NA	NA	NONE

*Documentation References:

47. Qual. by Letter of 6-2-71
From: WE Nergroctor - Customer Service LAB Bklyn, NY.
To: A.H. Statton - Boston Edison Co.

48. Letter of 4-17-80 from J.M. Allen (Mobil Oil Corp.) to Allen Feibelman (AEP).

Notes:

A. Refer to Tech. Description Sheet.

B. Grease enclosed in a container will not be subjected to direct caustic spray impingement.

C. Letters from J. Tillinghast (AEP) to K. Kniel (NRC) dated 4-14-75 and 9-29-75.

Mobilux® EP 0, 1, 2

Extreme Pressure Industrial Greases

Mobilux EP 0, 1, and 2 are unleaded multiservice, extreme pressure greases designed for normal through heavy-duty industrial applications. They are formulated to resist the effects of both the extremely heavy loads and shock loads to which plant equipment is commonly exposed. Heavy loads tend to squeeze lubricant from mating surfaces, and shock loads rupture the lubricant film, thus creating a condition of metal-to-metal contact and causing parts wear, shortening equipment life. Equipment experiencing these loading extremes may also be exposed to conditions where extremes of temperature, moisture, or water washing are present. Greases for these applications must provide good extreme pressure characteristics and cling strongly to resist the pressures and pounding to which they are exposed. They must also provide good protection against rust and corrosion, resist water washing and dispense and lubricate satisfactorily over a broad range of temperature. The Mobilux EP greases fulfill these requirements.

PRODUCT DESCRIPTION

The Mobilux EP greases are lithium 12 hydroxystearate soap based greases which contain an unleaded EP additive and oxidation, rust and corrosion inhibitors. They are smooth textured, brown colored greases in the NLGI No. 0, 1, or 2 consistency classification.

The use of lithium 12 hydroxystearate as the soap base for these greases ensures good resistance to softening under severe working, good water resistance and a consistency which will remain relatively constant over the recommended operating temperature range.

The extreme pressure characteristic of the Mobilux EP greases is supplied by an unleaded additive which provides them with exceptional wear protection, also improving their ecological acceptability. Other formulation improvements provide good water wash resistance, low temperature dispensing, and long service life in bearings operating at elevated temperatures.

The petroleum oil used in the greases meets the lubrication requirements of most heavy-duty industrial operations. It also provides low-temperature pumpability and enhances the greases' high temperature oxidation resistance.

The Mobilux EP greases pass the ASTM Rust Test (D 1743) and are noncorrosive to steel and copper. The latter is of importance because of the use of bronze cages in many antifriction bearings. The greases show good resistance to bleeding and superior resistance to water washout. Their load carrying and antiwear characteristics are illustrated by their Timken OK load of 40 lbs., 18.2 Kg.

Characteristic	Mobilux EP 0	Mobilux EP 1	Mobilux EP 2
NLGI No.	0	1	2
Structure	smooth	smooth	smooth
Soap Type	Unleaded Lithium 12 Hydroxystearate		
Color	brown	brown	brown
Penetration at 77°F (25°C)			
Unworked, min-max	350-390	305-345	260-300
Worked 60 strokes, min-max	355-385	310-340	265-295
Dropping Point, min, F (C)	340 (171)	340 (171)	350 (177)
Mineral Oil %	92	89	87
Viscosity			
SUS at 100°F	750	750	750
SUS at 210°F	75	75	75
cSt at 40°C	143	143	143
cSt at 100°C	13.8	13.8	13.8
Timken OK Load, min, lb (kg)	40 (18)	40 (18)	40 (18)
Rust Test ASTM D 1743	Pass	Pass	Pass
Bomb Oxidation Stability			
ASTM D942			
PSI Drop, max	10	10	10

Mobilux EP 0, 1, 2

TYPICAL CHARACTERISTICS

Physical and chemical characteristics of the Mobilux EP greases are shown in the data sheet table. Values not shown as maximums or minimums are typical characteristics and may vary slightly.

APPLICATION

Mobilux EP greases are recommended for the lubrication of plain and rolling element bearings in normal through heavy-duty industrial applications. They are particularly recommended where loads are high or shock loads are present, or where severe vibration is a problem. They are also suitable for the lubrication of geared couplings. The softer grade may be considered for the lubrication of gear sets that do not have oil-tight cases.

Mobilux EP 0 and 1 greases have excellent handling and dispensing properties at low temperature. The lowest recommended ambient temperature for operating bearings lubricated with Mobilux EP 0 or 1 is about -20°F (-29°C); and for Mobilux EP 2, a stiffer grease, about -10°F (-23°C).

All three Mobilux EP greases are recommended for the lubrication of plain bearings. The highest operating temperature recommended for these greases is 250°F (121°C). For continuous service at temperatures above 200°F, proper purging and relubrication frequencies are critical to maintenance of correct bearing protection.

The excellent water resistance and rust and corrosion protection afforded by the Mobilux EP greases makes them particularly applicable for equipment such as the wet ends of paper machines, steel mill hot strip rolling operations, underground mining equipment, tunneling projects and ore crushing plants where moisture or wet conditions are common. Their excellent dispensing characteristics will also be advantageous in many of these applications because of the exposed nature of the operations.

Mobilux EP greases are compatible with some other greases, particularly those made with lithium soap. However, the best procedure is not to mix greases of different soap types. When replacing another grease with a Mobilux EP grease, the previously used grease should be completely cleaned or flushed from the system.

In plants where human or animal foods are being processed, Mobilux EP greases, despite their unleaded extreme pressure formulation, are not recommended for applications where contamination of food could result. Mobilux EP greases have U.S. Department of Agriculture (USDA) Category 8B approval.

ADVANTAGES

When used as recommended, the Mobilux EP greases will provide the following outstanding benefits and advantages:

Superior lubrication under heavy or shock loading
Good load carrying ability
Longer service life in bearings at temperatures up to 250°F
Good low temperature dispensing characteristics
Excellent resistance to water washing
Good rust protection and corrosion resistance
Extreme pressure protection with an unleaded formulation
Reduction of plant inventories through multipurpose capabilities

DONALD C. COOK NUCLEAR PLANT UNITS NO. 1 & 2 DOCKETS NO. 50-315 & 50-316 LICENSES NO. DRR-58 & DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: Essential Service Water	Operating Time	500 hours for 1 mo.	N/A	Mfgr Lit.	—	Tests & Consultation With Mobil	None
PLANT ID NO: PP-007	Temperature (°F)	110 Ambient	250 contin. service 350 drop pt.	FSAR Sect 9.9.2	#48		
COMPONENT: Pump Grease	Pressure (PSIA)	1500	No effect	Mfgr Lit	—		
MANUFACTURER: Mobil	Relative Humidity (%)	N/A	No effect	—	—		
MODEL NUMBER: Mobilux #2	Chemical Spray	N/A	N/A	—	—		
FUNCTION: Lubrication	Radiation (10^6 rads)	N/A	100	—	#48		
ACCURACY: SPEC: DEMON: N/A	Aging (years)	N/A	N/A	—	—		
SERVICE: ESW Pump							
LOCATION: Aux Bldg. 591'-0"							
FLOOD LEVEL ELEV: ABOVE FLOOD LEVEL: N/A	Submergence	N/A	N/A	—	—		

*Documentation References: 48. Letter of 4-17-80 from J.M. Allen (Mobil) to A. Feibelman (AEP).

Notes:

Pump manufacturer recommends the following greases:

Shell Oil Co. — Darina EP #2
Mobil Oil Co — Mobilux EP #2
Phillips Petroleum Co. — Philube EP #2
Std. Oil of Co. — Chevron Industrial Grease-Heavy
Union Oil Co — Royal Unoba #2
Texaco Inc — Multifak #2
Atlantic Richfield Oil Co — Rocolube #2 MP

AEP uses Mobilux No. 2 grease, recommended by Mobil as suitable for this application

DONALD C. COOK NUCLEAR PLANT UNITS NO. 1 & 2 DOCKETS NO. 50-315 & 50-316 LICENSES NO. DRR-58 & DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: Containment Spray	Operating Time	N/A	N/A	—	—	Tests & Consultation With Mobil	None
PLANT ID NO: PP-009	Temperature (°F)	Ambient 110	250 contin. service 400 flash pt.	FSAR Sect. 9.7.2	#48		
COMPONENT: Motor Oil	Pressure (PSIA)	N/A	No effect	—	—		
MANUFACTURER: Mobil	Relative Humidity (%)	N/A	No effect	—	—		
MODEL NUMBER: D.T.E. Oil Medium	Chemical Spray	N/A	N/A	—	—		
FUNCTION: Lubrication	Radiation (10^6 rads)	.17	100	AEPSC NS&L calc. DC-N-6420-2	#48		
ACCURACY: SPEC: N/A DEMON:	Aging (years)	N/A	N/A	—	—		
SERVICE: CTS Pump Motor	Submergence	N/A	N/A	—	—		
LOCATION: Aux Bldg El. 573'0"							
FLOOD LEVEL ELEV: N/A ABOVE FLOOD LEVEL:							

109-110

*Documentation References:

Notes:

48. Letter of 4-17-80 from J.M. Allen (Mobil) to A Feibelman (AEP).

DONALD C. COOK NUCLEAR PLANT UNITS NO. 1 & 2 DOCKETS NO. 50-315 & 50 - 316 LICENSES NO. DRR-58 & DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: Containment Spray PLANT ID NO: PP-009 COMPONENT: Motor Grease MANUFACTURER: Mobil MODEL NUMBER: Mobilux #2 FUNCTION: Lubrication ACCURACY: SPEC: DEMON: N/A SERVICE: CTS Pump Motor LOCATION: Aux Bldg EL 573'-0"	Operating Time	N/A	N/A	—	—	Tests + Consultation with Mobil	None
	Temperature (°F)	Ambient 110	250 cont. service 350 drop pt	FSAR Sect. 7.4.2	#48		
	Pressure (PSIA)	N/A	No effect	—	—		
	Relative Humidity (%)	N/A	No effect	—	—		
	Chemical Spray	N/A	N/A	—	—		
	Radiation (10^6 rads)	17	100	AEPSC NSEL calc. DC-N-6420-2	#48		
	Aging (years)	N/A	N/A	—	—		
FLOOD LEVEL ELEV: ABOVE FLOOD LEVEL: N/A	Submergence	N/A	N/A	—	—		

*Documentation References: Notes:

48. Letter dated 4-17-80 from J. M. Allen (Mobil) to A. Feibelman (AEP).

DONALD C. COOK NUCLEAR PLANT UNITS NO. 1 & 2 DOCKETS NO. 50-315 & 50 - 316 LICENSES NO. DRR-58 & DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: Component Cooling Water	Operating Time	N/A	N/A	—	—	Tests + Consultation with Mobil	NONE
PLANT ID NO: PP-010	Temperature (°F)	AMBIENT 110	flash pt. 410	FSAR sect 9.9.2	#48		
COMPONENT: Pump Oil	Pressure (PSIA)	N/A	NO EFFECT	-	—		
MANUFACTURER: Mobil	Relative Humidity (%)	N/A	NO EFFECT	—	—		
MODEL NUMBER: DTE 797 0.1	Chemical Spray	N/A	N/A	—	—		
FUNCTION: Lubrication	Radiation (10^6 rads)	N/A	100	—	#48		
ACCURACY: SPEC: DEMON: N/A	Aging (years)	N/A	N/A	—	—		
SERVICE: CCW Pump	Submergence	N/A	N/A	—	—	V	V
LOCATION: Aux Bldg El. 609'6"							
FLOOD LEVEL ELEV: ABOVE FLOOD LEVEL: N/A							

*Documentation References: 48. Letter of 4-17-80 from J. M. Allen (Mobil) to A. Feibelman (AEP). Notes:

Pump Manufacturer recommends oil with characteristics:

Oil Characteristic	Napthene Base	Paraffin Base
Flash Point	300°F, min	360°F, min
Saybolt Viscosity 100°F	150 sec, min 200 sec, max	140 sec, min 185 sec, max
Pour Point	50°F max	30°F, max

AEP uses Mobil D.T.E 797 0.1, a paraffinic oil which meets mfgr specifications.

DONALD C. COOK NUCLEAR PLANT UNITS NO. 1 & 2 DOCKETS NO. 50-315 & 50 - 316 LICENSES NO. DRR-58 & DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: Component Cooling Water PLANT ID NO: PP-DID COMPONENT: Coupling Grease MANUFACTURER: Mobil MODEL NUMBER: Coupling Grease FUNCTION: Lubrication ACCURACY: SPEC: N/A DEMON: SERVICE: CCW Pump Coupling LOCATION: Aux Bldg EL 609'-6"	Operating Time	N/A	N/A	—	—	Tests & Consultation With Mobil	None
	Temperature (°F)	Ambient 110	250 cont. Service 350 drop pt.	FSAR Sect 9.9.2	#48		
	Pressure (PSIA)	N/A	No Effect	—	—		
	Relative Humidity (%)	N/A	No Effect	—	—		
	Chemical Spray	N/A	N/A	—	—		
	Radiation (10^6 rads)	N/A	100	—	#48		
	Aging (years)	N/A	N/A	—	—		
FLOOD LEVEL ELEV: ABOVE FLOOD LEVEL: N/A	Submergence	N/A	N/A	—	—	"	"

*Documentation References: 48. Letter of 4-17-80 from J. M. Allen (Mobil) to A. Feitelman (AEP). Notes:

Coupling manufacturer recommends grease with NGLI No. 2 with worked penetration value of 250 to 300. } AEP uses Mobilux No. 2 grease which meets mfgr specs

DONALD C. COOK NUCLEAR PLANT UNITS NO. 1 & 2 DOCKETS NO. 50-315 & 50 - 316 LICENSES NO. DRR-58 & DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: Safety Injection PLANT ID NO: pp-026 COMPONENT: Motor Oil MANUFACTURER: Mobil MODEL NUMBER: DTE Oil Heavy Medium FUNCTION: Lubrication ACCURACY: SPEC: DEMON: N/A SERVICE: SI Pump Motor LOCATION: Aux Bldg EL 587'-0"	Operating Time	N/A	N/A	—	—	Tests + Consultation With Mobil	None
	Temperature (°F)	Ambient 110	250 cont. service 400 flash pt.	FSAR Sect 9.9.2	# 48		
	Pressure (PSIA)	N/A	No Effect	—	—		
	Relative Humidity (%)	N/A	No Effect	—	—		
	Chemical Spray	N/A	N/A	—	—		
	Radiation (10^6 rads)	17	100	AEPSC NSEL calc. DC-N-6420-2	# 48		
	Aging (years)	N/A	N/A	—	—		
FLOOD LEVEL ELEV: ABOVE FLOOD LEVEL: N/A	Submergence	N/A	N/A	—	—		

*Documentation References: 48. Letter of 4-17-80 from J. H. Allen (Mobil) to A. Feibelman (AEP).

Notes:

Motor manufacturer recommends oil with viscosity of 180 to 220 SSU @ 100°F } AEP uses Mobil D.T.E. Oil Heavy Medium.

DONALD C. COOK NUCLEAR PLANT UNITS NO. 1 & 2 DOCKETS NO. 50-315 & 50-316 LICENSES NO. DRR-58 & DCR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: Residual Heat Removal	Operating Time	N/A	N/A	—	—	Tests + Consultation With Mobil	NONE
PLANT ID NO: PP-035	Temperature (°F)	110 AMBIENT	250 cont. service 350 drop pt.	FSAR Sect 9.9.2	# 48		
COMPONENT: Pump + Motor Grease	Pressure (PSIA)	N/A	No effect	—	—		
MANUFACTURER: Mobil	Relative Humidity (%)	N/A	No effect	—	—		
MODEL NUMBER: Mobilux #2	Chemical Spray	N/A	N/A	—	—		
FUNCTION: Lubrication	Radiation (10^6 rads)	17	100	AEPSC NS&L calc. DC-N-6420-2	#48		
ACCURACY: SPEC: DEMON: N/A	Aging (years)	N/A	N/A	—	—		
SERVICE: RHR Pump RHR Pump Motor	Submergence	N/A	N/A	—	—		
LOCATION: Aux Bldg. El. 573'-0"							
FLOOD LEVEL ELEV: ABOVE FLOOD LEVEL: N/A							

*Documentation References: 48. Letter (Mobil) 4-17-80 from J. M. Allen to A. Feiteleman (AEP).

Notes:

Motor Manufacturer recommends Westinghouse Grease #55272-BA } AEP uses Mobilux No. 2 Grease, recommended by Mobil as a suitable substitute.

DONALD C. COOK NUCLEAR PLANT UNITS NO. 1 & 2 DOCKETS NO. 50-315 & 50-316 LICENSES NO. DRR-58 & DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: CVCS/ECCS	Operating Time	N/A	N/A	—	—	Tests + Consultation With Mobil	None
PLANT ID NO: PP-050	Temperature (°F)	AMBIENT 110	250 cont. service. 400 flash pt.	FSAR Section 9.9.2	# 48		
COMPONENT: Pump + Motor 0.1	Pressure (PSIA)	N/A	NO EFFECT	—	—		
MANUFACTURER: Mobil	Relative Humidity (%)	N/A	NO EFFECT	—	—		
MODEL NUMBER: O.T.E Oil Heavy Medium	Chemical Spray	N/A	N/A	—	—		
FUNCTION: Lubrication	Radiation (10^6 rads)	17	100	AEPSC NSSL calc. DC-N-6420-2	# 48		
ACCURACY: SPEC: N/A DEMON:	Aging (years)	N/A	N/A	—	—		
SERVICE: CCH_2 Pump	Submergence	N/A	N/A	—	—		
LOCATION: Aux Bldg EL 587'-0"							
FLOOD LEVEL ELEV: ABOVE FLOOD LEVEL: N/A							

*Documentation References: 48. Letter of 4-17-80 from J. M. Allen (Mobil) to A. F. Eibel, Jr. (AEP).

Notes:

Pump manufacturer recommends using high grade mineral oil of the turbine type, having viscosity of 150-250 SSU @ 100°F.

Motor manufacturer recommends bearing oil with a viscosity of 200 SSU @ 100°F

Gear case manufacturer recommends oil with viscosity of 180-200 SSU @ 100°F

AEP uses Mobil O.T.E Oil Heavy Medium.

DONALD C. COOK NUCLEAR PLANT UNITS NO. 1 & 2 DOCKETS NO. 50-315 & 50-316 LICENSES NO. DRR-58 & DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: CVCS/ECCS	Operating Time	N/A	N/A	—	—	TESTS, CONSULTATION WITH MOBIL	NONE
PLANT ID NO: PP-050	Temperature (°F)	AMBIENT 110	drop pt. 400	FSAR Sect 9.9.2	# 48		
COMPONENT: COUPLING GREASE	Pressure (PSIA)	N/A	NO EFFECT	—	—		
MANUFACTURER: Mobil	Relative Humidity (%)	N/A	NO EFFECT	—	—		
MODEL NUMBER: Sovarex L-0	Chemical Spray	N/A	N/A	—	—		
FUNCTION: Lubrication	Radiation (10^6 rads)	17	100	AEPSC NS&L calc. DC-N-6470-2	# 48		
ACCURACY: SPEC: DEMON: N/A	Aging (years)	N/A	N/A	—	—		
SERVICE: Cent. Charging Pump Coupling	Submergence	N/A	N/A			▼	▼
LOCATION: Aux Bldg EL 587'-0"							
FLOOD LEVEL ELEV: ABOVE FLOOD LEVEL: N/A							

*Documentation References: 48. Letter of 4-17-80 from A.A. Allen (Mobil) to A. Feiveltman (AEP). Notes:

Coupling manufacturer recommends the following greases:

ATLANTIC REFINING COMPANY	ATLANTIC LUBRICANT #17
CHEVRON OIL COMPANY	AMOBAR S
COOKS OIL COMPANY	LEADOLENE 375 LIGHT
ESSO SERVICE PETROLEUM, Inc.	TROJAN GREASE A-1
CONTINENTAL OIL COMPANY	CONOCO SUPER LUBE
DE BROTHERS REFINING COMPANY	LUBRIPLATE #630 AA
GULF OIL CORPORATION	CROWN #1
MOBILE OIL AND REFINING COMPANY	FIBRAX 370 OR NEBULA EP 0
KEYSTONE LUBRICATING COMPANY	KEYSTONE #15 EP XX LIGHT
LUBRIZOL LUBRICANTS COMPANY	LUBRIKO GREASE M-54
PHILLIPS PETROLEUM COMPANY	PHILUBE #1 STOCK 401
POWELL OIL COMPANY	POCO FIBRE GREASE #1
RICHFIELD OIL CORPORATION	ROCOLUBE RR
SHELL OIL COMPANY	SHELL ALVANIA GREASE #2 SIMNIA 012
SINCLAIR REFINING COMPANY	SINCOLURE #1, OR LITHOLINE MULTI-PURPOSE GREASE #2
SOCONY-MOBIL OIL CO., Inc.	→ SOVAREX L-O MOBILPLEX EP #0
STANDARD OIL CO. OF CALIFORNIA	CALOL SA #1
STANDARD OIL CO. OF OHIO	SOHIO #77
SUN OIL COMPANY	N 751 AND 741 EP
TEXAS COMPANY	MARFAK #1
TIDEWATER ASSOCIATED OIL CO.	TYCOL ALITHO #10
UNION OIL CO. OF CALIFORNIA	BALL ROLL #1 OR ELNOBA #1

AEP uses Mobil Sovarex L-0 grease.

DONALD C. COOK NUCLEAR PLANT UNIT NO. 1 DOCKET NO. 50-315 LICENSE NO. DPR-58

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: HYDROGEN RECOMBINER PLANT ID NO: HR-1 HR-2 COMPONENT: HYDROGEN RECOMBINERS MANUFACTURER: WESTINGHOUSE MODEL NUMBER: NA FUNCTION: HYDROGEN RECOMBINER ACCURACY: SPEC: NA DEMON: NA SERVICE: HYDROGEN RECOMBINER LOCATION: INSIDE CONTAINMENT	Operating Time	3 MO.	>3.3 MO.	109	63 20	COMBINATION	NONE See Ref 63
	Temperature (°F)	244	310	102	20	SEQ.	NONE
	Pressure (PSIA)	29.1	77	103	20	"	"
	Relative Humidity (%)	100	100	102 103	20	"	"
	Chemical Spray	2000 PPM B 1.14 WT% BORIC PH 8.5-11 ACID	2500 PPM B 1.43 WT% BORIC PH: 8.5-11 ACID	114	20 72	COMBINATION	NONE See Ref 72
	Radiation (10^6 rads)	121	200	105	20	SEQ.	NONE
	Aging (years)						
FLOOD LEVEL ELEV: 614' ABOVE FLOOD LEVEL: YES	Submergence	NA	NA	NA	NA	NA	NA

115-116

*Documentation References:

Notes:

from Ref. 20. Qualified by Westinghouse report WCAP-7709-L, supplement 2 of Sept. 1973.

Type of Test: Separate, seismic steam/chem. spray gamma radiation.

Test Profile:

Horizontal (side-to-side) force = 2g
(back-to-back) force = 2g
Vertical force = 1.33g
Frequencies = 1 through 35 Hz

.33 to .80 Mrads/hr
200-220 Mrads

Assumed saturated steam. (310°F, 77 psia for 4 hrs
) 259°F, 35 psia for 20 hrs
(228°F, 20 psia for 1 hr

Chemical Spray: Sodium thiosulfate 2500 ppm boron as boric acid with Na OH added for a PH = 10.

DONALD C. COOK NUCLEAR PLANT UNIT NO. 1 | DOCKET NO. 50-315 | LICENSE NO. DPR-58

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: LIST H PLANT ID NO: BLP-110,111,112,120, 121,122,130,131,132,140,141,142 COMPONENT: DIFFERENTIAL PRESSURE TRANSMITTER MANUFACTURER: ITT BARTON MODEL NUMBER: 764 FUNCTION: POST ACCIDENT & NORMAL MONITORING (LONG TERM) ACCURACY: SPEC: ±10% DEMON: +4.5 %, -2.3 % SERVICE: STEAM GENERATOR LEVEL LOCATION: INSIDE CONTAINMENT	Operating Time	4 MONTH	~330 DAYS	REF 101	REF 67	SEQUENTIAL & ENGIN'RNG ANAL NOTE iii	NONE
	Temperature (°F)	160 NOTE LV	160	REF 102	REF 67	SEQUENTIAL	NONE
	Pressure (PSIA)	35.5 NOTE LV	89.7	REF 103	REF 67	SEQUENTIAL	NONE
	Relative Humidity (%)	100	100	7.5	REF 67	SEQUENTIAL	NONE
	Chemical Spray	1.14% BORIC ACID & .15% NAOH PH 8.4	1.14% BORIC ACID & .17% NAOH PH 8.55	REF 104	REF 67	SEQUENTIAL	NONE
	Radiation (10^6 rads)	0.079	50	REF 105	REF 67	SEQUENTIAL	NONE
	Aging (years)						
FLOOD LEVEL ELEV: 614'-0" ABOVE FLOOD LEVEL: NO	Submergence	12 Ft	75 PSIG	DRWG 5570E	ENGRG JDGMT	ENGINEERING REVIEW	NONE NOTE ii

*Documentation References: UNLESS OTHERWISE NOTED, ALL REFERENCES ARE FSAR SECTIONS.

REF. 67 WESTINGHOUSE ELECTRIC CORP. COMMUNICATION NS-TMA-2441 - WCAP-9185

Notes: (B) REQUIREMENTS ADDRESSED IN REFERENCE 30 WHICH WAS SUBMITTED IN RESPONSE TO QUESTION 030.1 THESE DEVICES WERE NOT CREDITED WITH ASSUMED OPERATION FOR ANY ACCIDENT ANALYSIS GENERATING AN ADVERSE ENVIRONMENT.

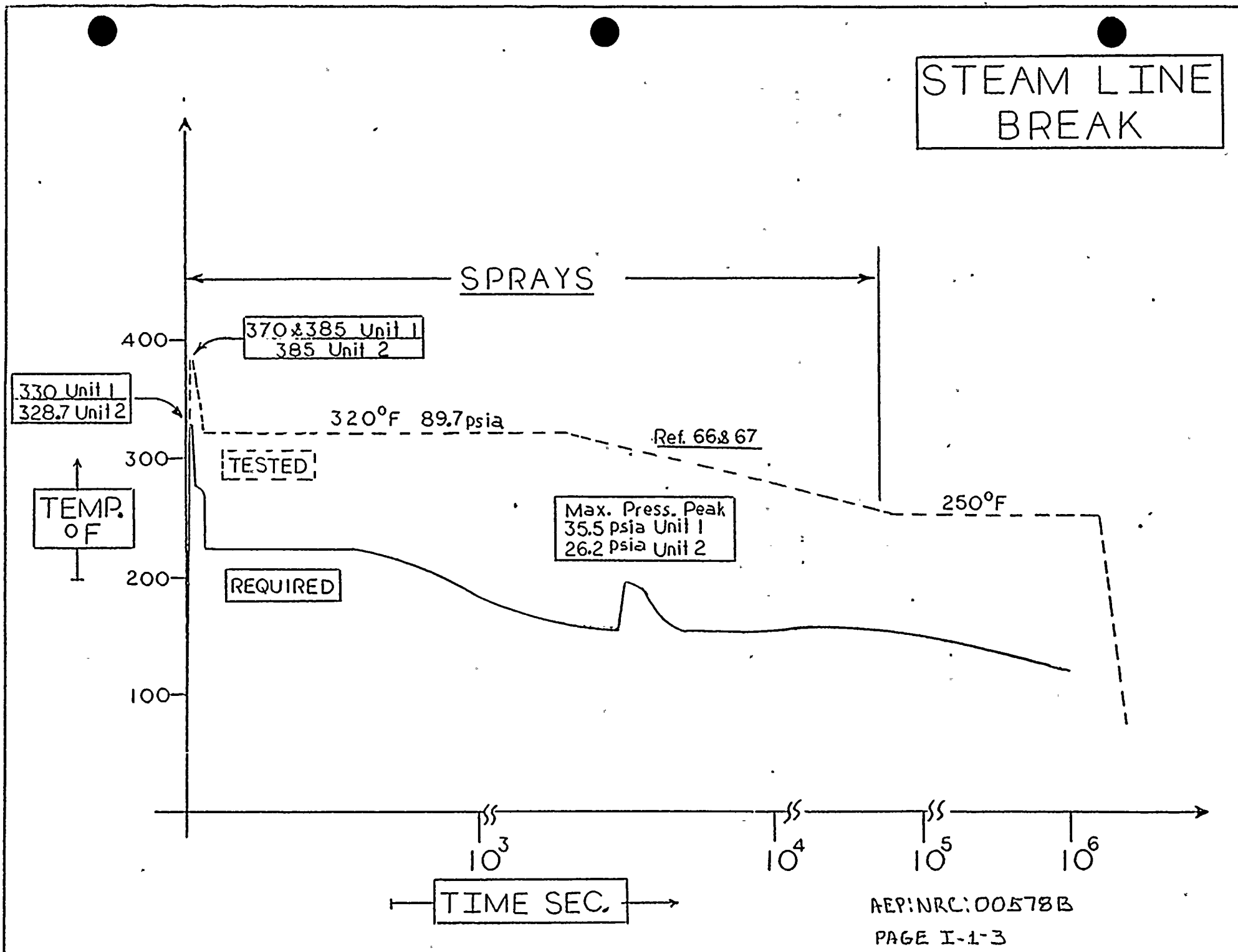
ii, iii, LV } SEE ATTACHED SHEET

AEP: NRC: 00578
AEP: NRC: 00578B

ii The engineering review and judgement regarding submergence consisted of an evaluation that the tested transmitter had been subjected to combination test of spray and 60 psi saturated steam conditions for a period of at least 1 hour followed by spray and 20 psi saturated steam for at least an additional 22 hours with no report of moisture conditions in the electronics housing. The pressure corresponding to the submergence is less than 5 psig. The transmitter was therefore considered acceptable for submergence.

iii Arrhenius Analysis was performed which reflected the FSAR containment lower volume temperature rather than the very conservative temperature of 160°F previously used by References 30, 66 & 67. These references predicted a value of an equivalent 120 days based on the tested temperature of 250°F for 14 days.

iv For FSAR predicted values see attached temperature profile.


STEAM LINE BREAK
SPRAYS
370 & 385 Unit 1
385 Unit 2
330 Unit 1
328.7 Unit 2
320°F 89.7 psia
Ref. 66 & 67
TESTED
250°F
Max. Press. Peak
35.5 psia Unit 1
26.2 psia Unit 2
REQUIRED
TEMP. °F
400
300
200
100
10^3
10^4
10^5
10^6
TIME SEC.

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: AUXILIARY FEEDWATER PLANT ID NO: CLR 110 & 111 COMPONENT: DIFFERENTIAL PRESSURE TRANSMITTER MANUFACTURER: TAYLOR INSTRUMENT MODEL NUMBER: 304TD00212 FUNCTION: MONITORING ACCURACY: SPEC: DEMON: SERVICE: CONDENSATE STORAGE TANK LEVEL LOCATION: OUTSIDE CONTAINMENT FLOOD LEVEL ELEV: ABOVE FLOOD LEVEL: N/A	Operating Time						
	Temperature (°F)						
	Pressure (PSIA)						
	Relative Humidity (%)						
	Chemical Spray						
	Radiation (10^6 rads)	NOT APPLICABLE					
	Aging (years)						
	Submergence						

*Documentation References:

Notes:

THE TRANSMITTER IS LOCATED SUCH THAT NO SOURCE-TARGET INTERACTION OR ADVERSE ENVIRONMENT WILL EFFECT IT. THE SIGNAL LINES ARE SUBJECT TO MSLB AND MFWLB ENVIRONMENT. HOWEVER, FAILURE OF THE SIGNAL LINE (PNEUMATIC) CAUSES THE SIGNAL TO GO TO ZERO THEREBY CAUSING THE OPERATOR TO SWITCH TO AUXILIARY FEEDWATER BACKUP SOURCE.

DONALD C. COOK NUCLEAR PLANT UNITS NO. 1 & 2 DOCKETS NO. 50-315 & 50-316 LICENSES NO. DRR-58 & DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: MAIN FEEDWATER & REACTOR TRIP ACTUATION PLANT ID NO: FFC 210, 211, 220, 221, 230, 231, 240 & 241 COMPONENT: DIFFERENTIAL PRESSURE TRANSMITTER MANUFACTURER: FOXBORO MODEL NUMBER: E13 DM-HSAH1 (MCA) FUNCTION: NORMAL MONITOR & ACTUATION ACCURACY: SPEC: ±1% DEMON: ~11.75% SERVICE: MAIN FEEDWATER FLOW LOCATION: OUTSIDE CONTAINMENT	Operating Time	1.5 & 25 SEC	15 MIN	REF 1.07	WCAP 8541	COMBINED EFFECT	NONE
	Temperature (°F)	223	290	REF 1.07	WCAP 8541	SEQUENTIAL	NONE
	Pressure (PSIA)	5.8	74.7	REF 1.07	WCAP 8541	SEQUENTIAL	NONE
	Relative Humidity (%)	100	100	7.5	WCAP 8541	SEQUENTIAL	NONE
	Chemical Spray	NA	NA	NA	NA		NONE
	Radiation (10^6 rads)	NA	NA	NA	NA		NONE
	Aging (years)						
FLOOD LEVEL ELEV: N/A ABOVE FLOOD LEVEL:	Submergence	NA	NA	NA	NA		NONE

*Documentation References: UNLESS OTHERWISE NOTED ALL REFERENCES ARE FSAR SECTIONS.
WCAP 8541 – WESTINGHOUSE ELECTRIC CORP TOPICAL REPORT FOR ENVIRONMENTAL TESTING OF FOXBORO TRANSMITTERS

Notes: 0.4.2 & 14.2.8 ARE THE ADVERSE ENVIRONMENT GENERATING ACCIDENT ANALYSIS FOR WHICH CREDIT IS ASSUMED FOR OPERATION OF THESE DEVICES.

DONALD C. COOK NUCLEAR PLANT UNITS NO. 1 & 2 DOCKETS NO. 50-315 & 50-316 LICENSES NO. DRR-58 & DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: AUXILIARY FEEDWATER PLANT ID NO: FFI 210 220 230 & 240 COMPONENT: DIFFERENTIAL PRESSURE TRANSMITTER MANUFACTURER: FOXBORO MODEL NUMBER: NE-13DM-H-I-M1-D FUNCTION: MONITORING ACCURACY: SPEC: DEMON: SERVICE: AUXILIARY FEEDWATER FLOW LOCATION: OUTSIDE CONTAINMENT	Operating Time	4 MONTHS	NOTE(L)	REF 101	NOTE(L)	NOTE (L)	NONE
	Temperature (°F)	230		REF 107			NONE
	Pressure (PSIA)	26.2		REF 107			NONE
	Relative Humidity (%)	100	↓	7.5	↓	↓	NONE
	Chemical Spray	NA					NONE
	Radiation (10^6 rads)	NA					NONE
	Aging (years)						
FLOOD LEVEL ELEV: ABOVE FLOOD LEVEL: N/A	Submergence	NA					NONE

*Documentation References: UNLESS OTHERWISE NOTED ALL REFERENCES ARE FSAR SECTIONS.

Notes: (L) PRESENTLY INSTALLED DEVICES ARE PART OF THE QUALIFICATION TEST PROGRAM FOR UTILITY TRANSMITTER QUALIFICATION GROUP BEING PERFORMED TO MEET THE REQUIREMENTS IN NUREG 0578 ITEM 2.1.7.b. SEE AEP: NRC: 00253 DATED OCT. 24 1979.

THESE DEVICES ARE NOT EXPOSED TO LOCA LONG TERM RECIRCULATION RADIATION EXPOSURE DOSES.

TEST COMPLETION IS ANTICIPATED IN JUNE 1982

AEP:NRC:00578
AEP-NRC:00578B

DONALD C. COOK NUCLEAR PLANT UNITS NO. 1 & 2 DOCKETS NO. 50-315 & 50-316 LICENSES NO. DRR-58 & DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: EMERGENCY CORE COOLING PLANT ID NO: IFC-315 & 325 COMPONENT: DIFFERENTIAL PRESSURE SWITCH MANUFACTURER: ITT BARTON MODEL NUMBER: 289 A/199 FUNCTION: PUMP PROTECTION ACCURACY: SPEC: FUNCTIONAL DEMON: ± 6% SERVICE: RHR PUMP MINIMUM FLOW CONTROLLER LOCATION: OUTSIDE CONTAINMENT	Operating Time	4 MONTH	4 MONTH	REF 10.1	ENGRG JDGMT	ENGINEERING REVIEW	NONE
	Temperature (°F)	110	200	REF 10.7	MNFTR LIT.	ENGINEERING REVIEW	NONE
	Pressure (PSIA)	14.7	14.7	REF 10.7	MNFTR LIT.	ENGINEERING REVIEW	NONE
	Relative Humidity (%)	90°F DRY BULB 76°F WET BULB	WEATHER-PROOF CASE	9.9	MNFTR LIT.	ENGINEERING REVIEW	NONE
	Chemical Spray	NA	NA				NONE
	Radiation (10^6 rads)	NOTE (M)	NA	NOTE (M)	NOTE (M)	ENGINEERING REVIEW	NONE
	Aging (years)						
FLOOD LEVEL ELEV: ABOVE FLOOD LEVEL: N/A	Submergence	NA	NA				NONE

*Documentation References: UNLESS OTHERWISE NOTED ALL REFERENCES ARE TO FSAR SECTIONS
MNFTR LIT ITT BARTON PRODUCT/ BULLETIN 288 A/289A -2 AND TECHNICAL MANUAL 505-4(A)

Notes: (M) LOCATION OF PRESSURE SWITCH IS OUTSIDE ROOM CONTAINING RADIATION SOURCE AND IS THEREFORE SHIELDED FROM EFFECT.

AEP:NRC:00578
AEP:NRC:00578B

DONALD C. COOK NUCLEAR PLANT UNIT · NO. 1 DOCKETS NO. 50-315 & 50 - 316 LICENSES NO. DRR-58 & DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: EMERGENCY CORE COOLING	Operating Time	< 5 MIN	90 MIN	REF 101	WCAP 8541	SEPARATE EFFECTS	NONE NOTE L
PLANT ID NO: IFI 51, 52, 53 & 54	Temperature (°F)	250	290	REF 102	WCAP 8541	SEQUENTIAL	NONE
COMPONENT: DIFFERENTIAL PRESSURE TRANSMITTER MANUFACTURER: FOXBORO MODEL NUMBER: E13DH-HSAH1 MCA FUNCTION: MONITORING ACCURACY: SPEC: FUNCTIONAL DEMON: ± 6% SERVICE: BORON INJECTION TANK DISCHARGE FLOW LOCATION: INSIDE CONTAINMENT	Pressure (PSIA)	28.8	74.7	REF 103	WCAP 8541	SEQUENTIAL	NONE
	Relative Humidity (%)	100	100	7.5	WCAP 8541	SEQUENTIAL	NONE
	Chemical Spray	1.14% BORIC ACID & .15% NAOH pH 8.4	1.5% BORIC ACID @ 9.25 TO 10 pH / NAOH	REF 104	WCAP 8541	SEQUENTIAL	NONE
	Radiation (10^6 rads)	3.9	76	REF 105	WCAP 8541	SEPARATE EFFECTS	NONE
	Aging (years)						
FLOOD LEVEL ELEV: 614'-0" ABOVE FLOOD LEVEL: NO	Submergence	11'-6"	60 PSIG	DRWG 557DB C,D,E	ENGRG JDGMT	ENGINEERING REVIEW	NONE NOTE LL

*Documentation References: UNLESS OTHERWISE NOTED ALL REFERENCES ARE FSAR SECTIONS

‖ WCAP #8541 WESTINGHOUSE ELECTRIC CORP TOPICAL REPORT FOR ENVIRONMENTAL TESTING OF FOXBORO TRANSMITTERS

Notes: NO SPECIFIC ACCIDENT ANALYSIS TAKES CREDIT FOR ASSUMED OPERATION OF THESE DEVICES. THEIR USE IS REFERENCED BY EMERGENCY OPERATING PROCEDURES.

L, LL, LV } SEE ATTACHED SHEET

AEP:NRC:00578
AEP:NRC:00578 B

i Four separate tests were preformed on similar transmitters varying in length from 1 hour to 40½ hours in duration. The 90 minute time was selected since this represented the point during one of the four tests at which transmitter output varied by 6% of span.

ii The engineering review and judgement regarding submergence consisted of an evaluation that the tested transmitter had been subjected to combination test of spray and 60 psi saturated steam conditions for a period of at least 1 hour followed by spray and 20 psi saturated steam for at least an additional 22 hours with no report of moisture conditions in the electronics housing. The pressure corresponding to the submergence is less than 5 psig. The transmitter was therefore considered acceptable for submergence.

iv For FSAR predicted values see attached temperature profile.

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DONALD C. COOK NUCLEAR PLANT UNIT NO. 1 DOCKETS NO. 50-315 & 50-316 LICENSES NO. DRR-58 & DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: EMERGENCY CORE COOLING PLANT ID NO: IFI 51, 52, 53 & 54 COMPONENT: DIFFERENTIAL PRESSURE TRANSMITTER MANUFACTURER: FOXBORO MODEL NUMBER: E13DH-HSAHI-MCA FUNCTION: MONITORING ACCURACY: SPEC: FUNCTIONAL DEMON: ± 6% SERVICE: BORON INJECTION TANK DISCHARGE FLOW LOCATION: INSIDE CONTAINMENT FLOOD LEVEL ELEV: 614'-0" ABOVE FLOOD LEVEL: NO	Operating Time	< 5 MIN	90 MIN	REF 101	WCAP 8541	SEPARATE EFFECTS	NONE NOTE i
	Temperature (°F)	233 330	290	REF 102	WCAP 8541	SEQUENTIAL	NONE
	Pressure (PSIA)	35.5	74.7	REF 103	WCAP 8541	SEQUENTIAL	NONE
	Relative Humidity (%)	100	100	7.5	WCAP 8541	SEQUENTIAL	NONE
	Chemical Spray	1.14% BORIC ACID & 15% NAOH PH 8.4	1.5% BORIC ACID @ 925 TO 10PH NAOH	REF 105	WCAP 8541	SEQUENTIAL	NONE
	Radiation (10^6 rads)	0.079	76	REF 106	WCAP 8541	SEPARATE EFFECTS	NONE
	Aging (years)						
	Submergence	11'-6"	60 PSIG	DRWG 5570B CDIE	ENGRG JDGMT	ENGINEERING REVIEW	NOTE ii NONE

*Documentation References: UNLESS OTHERWISE NOTED ALL REFERENCES ARE FSAR SECTIONS

|| WCAP-8541 WESTINGHOUSE ELECTRIC CORP. TOPICAL REPORT FOR ENVIRONMENTAL TESTING OF FOXBORO TRANSMITTERS

|| REF. 67 WESTINGHOUSE ELECTRIC CORP. COMMUNICATION NS-TMA-2441 - WCAP-9885

Notes: NO SPECIFIC ACCIDENT ANALYSIS TAKES CREDIT FOR ASSUMED OPERATION OF THESE DEVICES. THEIR USE IS REFERENCED BY EMERGENCY OPERATING PROCEDURES. INDICATIONS FROM OTHER DIVERSE INSTRUMENTS CAN SERVE OR CORROBORATE THE INTENDED FUNCTION.

i, ii } SEE ATTACHED SHEET

i Four separate tests were preformed on similar transmitters varying in length from 1 hour to 40½ hours in duration. The 90 minute time was selected since this represented the point during one of the four tests at which transmitter output varied by 6% of span.

ii The engineering review and judgement regarding submergence consisted of an evaluation that the tested transmitter had been subjected to combination test of spray and 60 psi saturated steam conditions for a period of at least 1 hour followed by spray and 20 psi saturated steam for at least an additional 22 hours with no report of moisture conditions in the electronics housing. The pressure corresponding to the submergence is less than 5 psig. The transmitter was therefore considered acceptable for submergence.

DONALD C. COOK NUCLEAR PLANT UNITS NO. 1 & 2 DOCKET NO. 50-315 & 50-316 LICENSES NO. DRR-58 & DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: EMERGENCY CORE COOLING PLANT ID NO: IFI-260 & 266 COMPONENT: DIFFERENTIAL PRESSURE TRANSMITTER MANUFACTURER: ITT BARTON MODEL NUMBER: 332 FUNCTION: MONITORING ACCURACY: SPEC: FUNCTIONAL DEMON: FUNCTIONAL SERVICE: S.I.S. PUMP DISCHARGE FLOW LOCATION: OUTSIDE CONTAINMENT	Operating Time	4 MONTH	4 MONTH	REF 101	ENGR& JDGMT	ENG'G REVIEW	NONE
	Temperature (°F)	110	160	REF 107	MNFTR LIT.	ENG'G REVIEW	NONE
	Pressure (PSIA)	14.7	14.7	REF 107	MNFTR LIT.	ENG'G REVIEW	NONE
	Relative Humidity (%)	90°F DRY BULB 76°F WET BULB	99+	9.9	MNFTR LIT.	ENG'G REVIEW	NONE
	Chemical Spray	NA	NA				NONE
	Radiation (10^6 rads)	NA(M)	NA (M)	NA (M)	NOTE (M)	ENG'G REVIEW	NONE
	Aging (years)						
FLOOD LEVEL ELEV: ABOVE FLOOD LEVEL: N/A	Submergence	NA	NA				NONE

*Documentation References:

ALL REFS ARE TO FSAR SECTIONS UNLESS OTHERWISE NOTED

MNFTR LIT: ITT BARTON PRODUCT/BULLETIN G1-23-3

Notes: (M) TRANSMITTER IS LOCATED OUTSIDE ROOM CONTAINING RADIATION SOURCE & IS THUS SHIELDED FROM EFFECT.

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: EMERGENCY CORE COOLING PLANT ID NO: IFI 310 & 320 COMPONENT: DIFFERENTIAL PRESSURE TRANSMITTER MANUFACTURER: FOXBORO MODEL NUMBER: E13DM-HSAM1 FUNCTION: MONITORING ACCURACY: SPEC: FUNCTIONAL DEMON: ±6% SERVICE: RHR FLOW: HEAT EXCHANGER OUTLET LOCATION: OUTSIDE CONTAINMENT	Operating Time	4 MONTH	4 MONTH	REF 101	MNFTR LIT & WCAP8541	SEPARATE EFFECTS & ENGINEERING REVIEW	NONE
	Temperature (°F)	110	180	REF 107	MNFTR LIT.	ENGINEERING REVIEW	NONE
	Pressure (PSIA)	14.7	14.7	REF 107	MNFTR LIT.	ENGINEERING REVIEW	NONE
	Relative Humidity (%)	90°F DRY BULB 76°F WET BULB	NEMA 4 WATERTIGHT	9.9	MNFTR LIT.	ENGINEERING REVIEW	NONE
	Chemical Spray	NA	NA				NONE
	Radiation (10^6 rads)	NA (M)	NA (M)	NA (M)	NOTE (M)	ENGINEERING REVIEW	NONE
	Aging (years)						
FLOOD LEVEL ELEV: N/A ABOVE FLOOD LEVEL:	Submergence	NA	NA				NONE

*Documentation References: UNLESS OTHERWISE NOTED ALL REFERENCES ARE FSAR SECTIONS.
MNFTR LIT: FOXBORO GENERAL SPECIFICATION GS-2A-1C1E
WCAP-8541 WESTINGHOUSE ELECTRIC CORP. TOPICAL REPORT FOR ENVIRONMENTAL TESTING OF FOXBORO TRANSMITTERS

Notes: (M) LOCATION OF TRANSMITTER IS OUTSIDE ROOM FOR WHICH RADIATION SOURCE IS GENERATED THEREFORE SHIELDED FROM EFFECT

AEP:NRC:00578.
AEP:NRC:00578B

DONALD C. COOK NUCLEAR PLANT UNITS NO. 1 & 2 DOCKETS NO. 50-315 & 50-316 LICENSES NO. DRR-58 & DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: EMERGENCY CORE COOLING PLANT ID NO: IFI 311 & 321 COMPONENT: DIFFERENTIAL PRESSURE TRANSMITTER MANUFACTURER: ITT BARTON MODEL NUMBER: 332 FUNCTION: MONITORING ACCURACY: SPEC: FUNCTIONAL DEMON: FUNCTIONAL SERVICE: RHR FLOW: HEAT EXCHANGER OUTLET LOCATION: OUTSIDE CONTAINMENT	Operating Time	4 MONTH	4 MONTH	REF 101	ENGRG JDGMT	ENGINEERING REVIEW	NONE
	Temperature (°F)	110	160	REF 107	MNFTR LIT.	ENGINEERING REVIEW	NONE
	Pressure (PSIA)	14.7	14.7	REF 107	MNFTR LIT.	ENGINEERING REVIEW	NONE
	Relative Humidity (%)	90°F DRY BULB 76°F WET BULB	99+	9.9	MNFTR LIT.	ENGINEERING REVIEW	NONE
	Chemical Spray	NA	NA				NONE
	Radiation (10^6 rads)	NA (M)	NA(M)	NA	NOTE (M)	ENGINEERING REVIEW	NONE
	Aging (years)						
FLOOD LEVEL ELEV: ABOVE FLOOD LEVEL: N/A	Submergence	NA	NA				NONE

*Documentation References: ALL REFERENCES ARE FSAR SECTIONS UNLESS OTHERWISE NOTED
MNFTR LIT.: ITT BARTON PRODUCT/BULLETIN G1-23-3

Notes: (M) LOCATION OF TRANSMITTER IS OUTSIDE ROOM FOR WHICH RADIATION SOURCE IS GENERATED THEREFORE SHIELDED FROM EFFECT.

AEP:NRC:00578
AEP:NRC:00578B

DONALD C. COOK NUCLEAR PLANT UNIT NO. 1 DOCKET NO. 50-315 LICENSE NO. DPR-58

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: LIST A PLANT ID NO: MFC-110, 111, 120, 121, 130, 131, 140 & 141 COMPONENT: DIFFERENTIAL PRESSURE TRANSMITTER MANUFACTURER: ITT. BARTON MODEL NUMBER: 764 FUNCTION: ACTUATION & NORMAL MONITORING ACCURACY: SPEC: -10% DEMON: -17.2% +7.3% SERVICE: MAIN STEAM FLOW LOCATION: IN CONTAINMENT	Operating Time	5 SEC	~330 DAYS	REF 101	REF 67	SEQUENTIAL & ENGRG. ANAL. NOTE iii	NONE
	Temperature (°F)	NOTE iv 233 330	385	REF 102	REF 67	SEQUENTIAL	NONE
	Pressure (PSIA)	35.5 NOTE iv	89.7	REF 103	REF 67	SEQUENTIAL	NONE
	Relative Humidity (%)	100	100	7.5	REF 67	SEQUENTIAL	NONE
	Chemical Spray	1.14% BORIC ACID & .15% NAOH PH 8.4	1.14% BORIC ACID & .17% NAOH PH 8.55	REF 104	REF 67	SEQUENTIAL	NONE
	Radiation (10^6 rads)	0.079	50 @ 2.5/HR	REF 105	REF 67	SEQUENTIAL	NONE
	Aging (years)						
FLOOD LEVEL ELEV: 614'-0" ABOVE FLOOD LEVEL: NO	Submergence	18 ft.	75 PSIG	DRWG 5570D	ENGR JDGMT	ENGINEERING REVIEW	NONE NOTE ii

*Documentation References: UNLESS OTHERWISE NOTED ALL REFERENCES ARE FSAR SECTIONS.

REF. 67 WESTINGHOUSE ELECTRIC CORP. COMMUNICATION NS-TMA-2441 - WCAP-9885

Notes: ADVERSE ENVIRONMENT GENERATING ACCIDENT ANALYSIS FOR WHICH CREDIT IS ASSUMED FOR OPERATION OF THESE DEVICES IS 14.2.5 ii, iii, iv } SEE ATTACHED SHEET

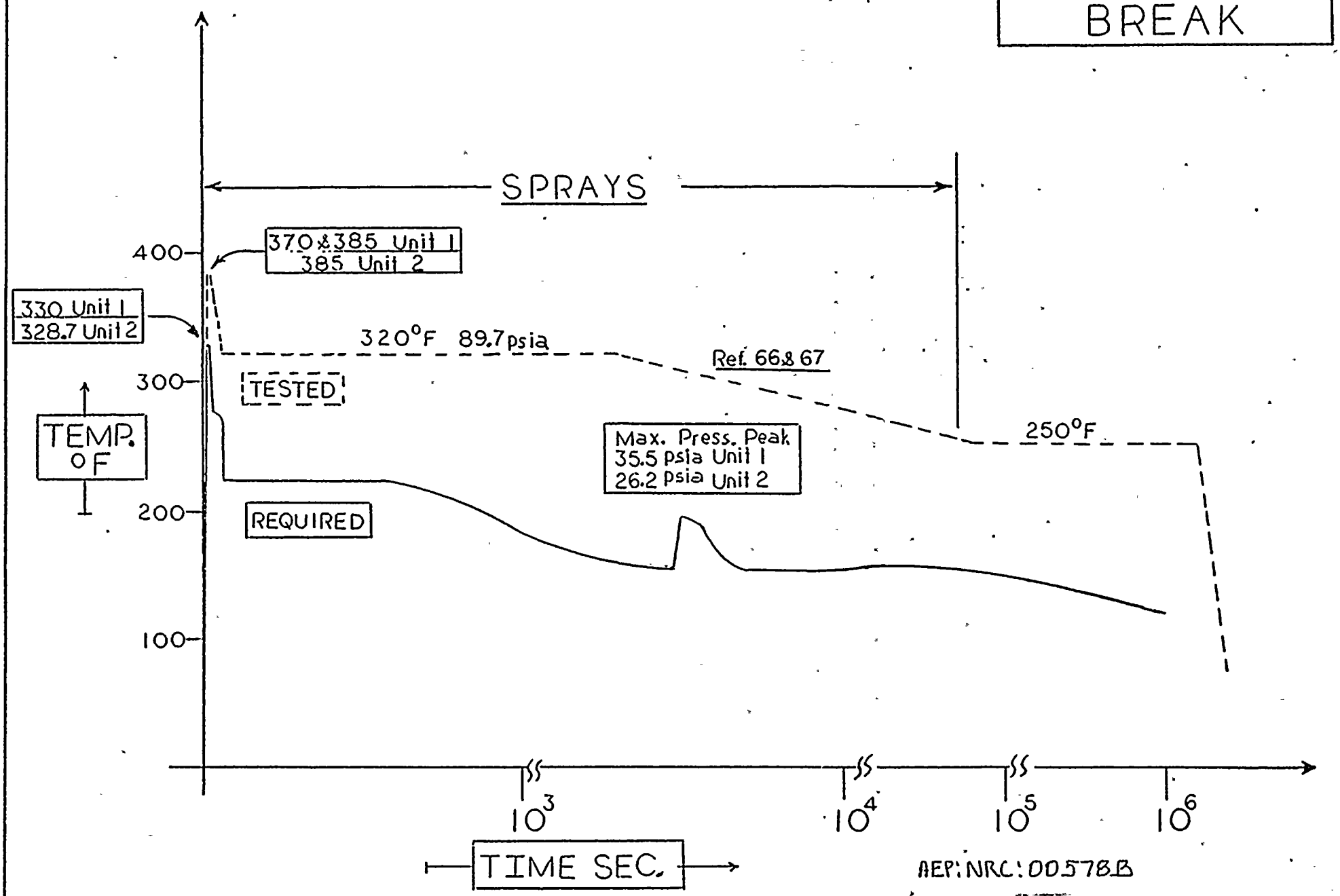
AEP:NRC:00578
AEP:NRC:00578B

ii The engineering review and judgement regarding submergence consisted of an evaluation that the tested transmitter had been subjected to combination test of spray and 60 psi saturated steam conditions for a period of at least 1 hour followed by spray and 20 psi saturated steam for at least an additional 22 hours with no report of moisture conditions in the electronics housing. The pressure corresponding to the submergence is less than 5 psig. The transmitter was therefore considered acceptable for submergence.

iii Arrhenius Analysis was performed which reflected the FSAR containment lower volume temperature rather than the very conservative temperature of 160°F previously used by References 30, 66 & 67. These references predicted a value of an equivalent 120 days based on the tested temperature of 250°F for 14 days.

iv For FSAR predicted values see attached temperature profile.

STEAM LINE BREAK



DONALD C. COOK NUCLEAR PLANT UNITS NO. 1 & 2 DOCKETS NO. 50-315 & 50 - 316 LICENSES NO. DRR-58 & DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: MAIN STEAM & REACTOR TRIP ACTUATION PLANT ID NO: MPC 253 & 254 COMPONENT: PRESSURE TRANSMITTER MANUFACTURER: FOXBORO MODEL NUMBER: EIIGM-HSADI FUNCTION: NORMAL MONITOR & ACTUATION ACCURACY: SPEC: DEMON: SERVICE: FIRST STAGE TURBINE PRESSURE LOCATION: OUTSIDE CONTAINMENT	Operating Time						
	Temperature (°F)						
	Pressure (PSIA)						
	Relative Humidity (%)						
	Chemical Spray	NOT APPLICABLE					
	Radiation (10^6 rads)						
	Aging (years)						
FLOOD LEVEL ELEV: ABOVE FLOOD LEVEL: N/A	Submergence						

*Documentation References:

Notes:

THESE DEVICES WERE INCLUDED IN THE FIRST SUBMITTAL OF IEB 79-01B TO ACCOUNT FOR DEVICES REFERENCED BY 14.2.5 ACCIDENT ANALYSIS. THESE DEVICES ARE NOT REQUIRED EQUIPMENT DUE TO THE Q 022.16 EXCLUSION OF THE NEUTRON DETECTOR. THE DETECTORS AND THESE DEVICES FORMED A COINCIDENCE LOGIC FOR REACTOR TRIP. THEREFORE EXCLUSION OF THE DETECTORS CAUSES EXCLUSION OF THESE DEVICES.

AEP:NRC:00578
AEP:NRC:00578B

DONALD C. COOK NUCLEAR PLANT UNITS NO. 1 & 2 DOCKETS NO. 50-315 & 50-316 LICENSES NO. DRR-58 & DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: LIST B PLANT ID NO: MPP 210, 211, 220, 221, 230, 231, 249 & 241 COMPONENT: PRESSURE TRANSMITTER MANUFACTURER: FOXBORO MODEL NUMBER: EIIGM-HSAE1 (MCA) FUNCTION: POST ACCIDENT & NORMAL MONITOR & ACTUATION ACCURACY: SPEC: + 10% DEMON: - 12.5% SERVICE: MAIN STEAM PRESSURE LOCATION: OUTSIDE CONTAINMENT	Operating Time	4 MONTH	>4 MONTH	REF 1.0.1	NS-PLC-5023	SEQUENTIAL	NONE
	Temperature (°F)	230	318	REF 1.0.7	NS-PLC-5023	SEQUENTIAL	NONE
	Pressure (PSIA)	26.2	90	REF 1.0.7	NS-PLC-5023	SEQUENTIAL	NONE
	Relative Humidity (%)	100	100	7.5	NS-PLC-5023	SEQUENTIAL	NONE
	Chemical Spray	NONE	NONE	N/A	N/A	N/A	NONE
	Radiation (10^6 rads)	N/A	50	N/A	NS-PLC-5023	SEPARATE EFFECTS	NONE
	Aging (years)						
FLOOD LEVEL ELEV: N/A ABOVE FLOOD LEVEL:	Submergence	N/A	N/A				

*Documentation References: UNLESS OTHERWISE NOTED ALL REFERENCES ARE TO FSAR SECTIONS

NS-PLC-5023 : WESTINGHOUSE ELECTRIC CORP. CORRESPONDANCE WITH AS NOTED IDENTITY.

Notes: ADVERSE ENVIRONMENT GENERATING ACCIDENT ANALYSIS FOR WHICH CREDIT IS ASSUMED FOR OPERATION OF THESE DEVICES IS 14.2.5

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: LISTC PLANT ID NO: MPP-212, 222, 232 & 242 COMPONENT: PRESSURE TRANSMITTER MANUFACTURER: FOXBORO MODEL NUMBER: EIIGM-HSAE1 FUNCTION: POST ACCIDENT & NORMAL MONITOR & ACTUATION ACCURACY: SPEC: +10% DEMON: ± 2.5% SERVICE: MAIN STEAM PRESSURE LOCATION: OUTSIDE CONTAINMENT	Operating Time	4 MONTH	4 MONTH	REF 101	MANF. LIT.	ENGINEERING REVIEW	NONE
	Temperature (°F)	230	180	REF 107	MANFTR LIT.	ENGINEERING REVIEW	NONE
	Pressure (PSIA)	26.2	14.7	REF 107	NONE	ENGINEERING REVIEW	NONE
	Relative Humidity (%)	100	NEMA 4 WATER-TIGHT	7.5	MANFTR LIT.	ENGINEERING REVIEW	NONE
	Chemical Spray	NONE	NONE	N/A	N/A	N/A	NONE
	Radiation (10^6 rads)	N/A	N/A	N/A	N/A	N/A	NONE
	Aging (years)						
FLOOD LEVEL ELEV: ABOVE FLOOD LEVEL: N/A	Submergence	N/A	N/A				

*Documentation References: UNLESS OTHERWISE NOTED ALL REFERENCES ARE TO FSAR SECTIONS.
MANUF. LIT: FOXBORO PRODUCT SPECIFICATION PSS-2A-1B3A

Notes: THE ARRANGEMENT OF THE DIFFERENTIAL PRESSURE BETWEEN STEAMLINES LOGIC IS SUCH THAT FAILURE OF THESE DEVICES COUPLED WITH A SINGLE FAILURE WILL STILL GENERATE THE ACCIDENT ANALYSIS ASSUMED OPERATION. THEREFORE CONTROL GRADE HARDWARE IS ACCEPTABLE. ACCIDENT ANALYSIS SECTION IS 14.2.5.

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: REACTOR TRIP ACTUATION PLANT ID NO: N35 & 36 COMPONENT: ION CHAMBER MANUFACTURER: WESTINGHOUSE MODEL NUMBER: WL 23690 FUNCTION: NORMAL MONITORING & ACTUATION (1) ACCURACY: SPEC: DEMON: SERVICE: INTERMEDIATE RANGE NEUTRON FLUX LOCATION: INSIDE CONTAINMENT	Operating Time						
	Temperature (°F)						
	Pressure (PSIA)						
	Relative Humidity (%)						
	Chemical Spray	NOT APPLICABLE					
	Radiation (10^6 rads)						
	Aging (years)						
FLOOD LEVEL ELEV: ABOVE FLOOD LEVEL:	Submergence						

*Documentation References:

Notes: (1) ACTUATION REQUIREMENTS ARE FOR NON-ADVERSE ENVIRONMENT ACCIDENT ANALYSIS. CREDIT FOR FUNCTION OF DEVICE REFERENCED BY P.1, 14.3.1, 14.2.5 & 14.2.8 ANALYSIS. AS PER Q022.16, OPERATION IS NOT ASSUMED IN LOCA OR HELB ANALYSIS.

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: REACTOR TRIP ACTUATION PLANT ID NO: N 41A, 41B, 42A, 42B, 43A, 43B, 44A & 44B COMPONENT: ION CHAMBER MANUFACTURER: WESTINGHOUSE MODEL NUMBER: WL 23686 FUNCTION: NORMAL MONITORING & ACTUATION (D) ACCURACY: SPEC: DEMON: SERVICE: POWER RANGE NEUTRON FLUX LOCATION: INSIDE CONTAINMENT	Operating Time						
	Temperature (°F)						
	Pressure (PSIA)						
	Relative Humidity (%)						
	Chemical Spray		NOT APPLICABLE				
	Radiation (10^6 rads)						
	Aging (years)						
FLOOD LEVEL ELEV: ABOVE FLOOD LEVEL:	Submergence						

*Documentation References:

Notes: (D) ACTUATION REQUIREMENTS ARE FOR NON-ADVERSE ENVIRONMENT ACCIDENT ANALYSIS. CREDIT FOR FUNCTION OF DEVICE REFERENCED BY P.1, 14.3.1, 14.2.5 & 14.2.8 ANALYSIS. AS PER Q022.16, OPERATION IS NOT ASSUMED IN LOCA OR HELB ANALYSIS.

DONALD C. COOK NUCLEAR PLANT UNIT NO. 1 DOCKET NO. 50-315 LICENSE NO. DPR-58

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: LIST J PLANT ID NO: NLP-151 NLP-152 NLP-153 COMPONENT: DIFFERENTIAL PRESSURE TRANSMITTER MANUFACTURER: ITT BARTON MODEL NUMBER: 764 FUNCTION: POST ACCIDENT & NORMAL MONITORING-* LONG TERM ACCURACY: SPEC: +25% DEMON: +4.5% -2.3% SERVICE: PRESSURIZER LEVEL LOCATION: INSIDE CONTAINMENT	Operating Time	4 MONTHS	~330 DAYS	REF 101	REF. 67	SEQUENTIAL & ENGRG. ANAL. - NOTE LLL	NONE
	Temperature (°F)	160 NOTE LV	160	REF 102	REF 67	SEQUENTIAL	NONE
	Pressure (PSIA)	28.8	89.7	REF 103	REF. 67	SEQUENTIAL	NONE
	Relative Humidity (%)	100	100	7.5	REF. 67	SEQUENTIAL	NONE
	Chemical Spray	1.14% BORIC ACID & 0.15% NAOH PH 8.4	1.14% BORIC ACID & 0.17% NAOH PH 8.55	REF 104	REF 67	SEQUENTIAL	NONE
	Radiation (10^6 rads)	40	50 AT 2.5 / HR.	REF 105	REF. 67	SEQUENTIAL	NONE
	Aging (years)						
FLOOD LEVEL ELEV: 614'-0" ABOVE FLOOD LEVEL: YES	Submergence	NA	NA	DRWG 5581B	NA	NA	NONE

*Documentation References: UNLESS OTHERWISE NOTED ALL REFERENCES ARE FSAR SECTIONS.

REF. 67: WESTINGHOUSE ELECTRIC CORP. COMMUNICATION NS-TMA-2441 WCAP-9885

Notes: (B) REQUIREMENT ADDRESSED IN REF. 30 WHICH WAS SUBMITTED IN RESPONSE TO QUESTION 030.1

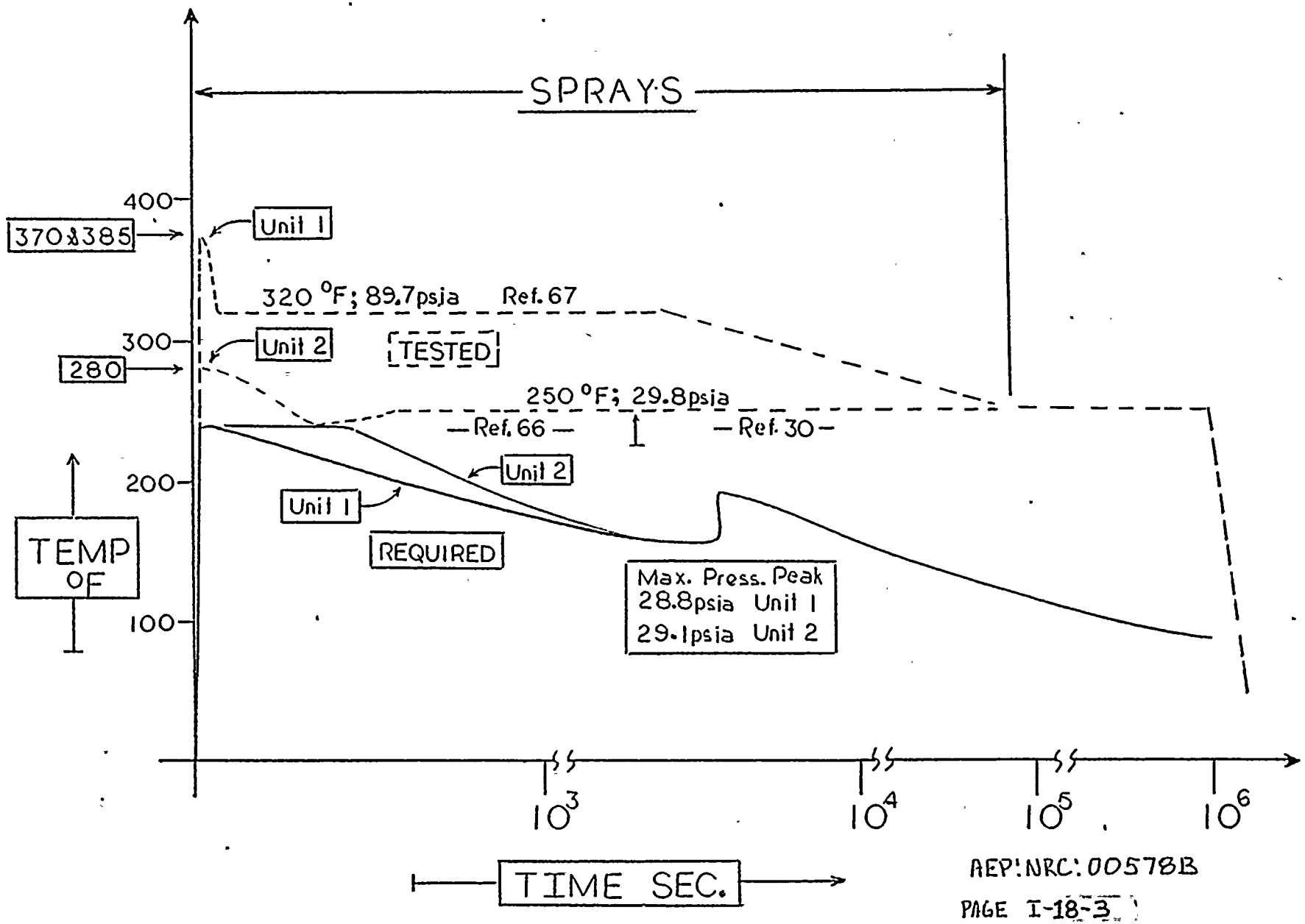
*ACTUATION FUNCTION IN 14.2.5 ANALYSIS RELIEVED PER OUR RESPONSE TO IEB 79-06A WHICH REPLACED LEVEL CONTRIBUTION TO ACTUATION LOGIC WITH A CONSTANT "TRIP" SIGNAL.

LLL, LV } SEE ATTACHED SHEET

AEP:NRC:00578
AEP:NRC:00578B

iii Arrhenius Analysis was performed which reflected the FSAR containment lower volume temperature rather than the very conservative temperature of 160°F previously used by References 30, 66 & 67. These references predicted a value of an equivalent 120 days based on the tested temperature of 250°F for 14 days.

iv For FSAR predicted values see attached temperature profile.


LOCA
SPRAYS
400
370&385
Unit 1
320 °F; 89.7psia Ref. 67
300
280
Unit 2
TESTED
250 °F; 29.8psia
Ref. 66
Ref. 30
Unit 2
200
Unit 1
REQUIRED
TEMP °F
100
Max. Press. Peak
28.8psia Unit 1
29.1psia Unit 2
10^3
10^4
10^5
10^6
TIME SEC.

DONALD C. COOK NUCLEAR PLANT UNIT NO. 1 DOCKET NO. 50-315 LICENSE NO. DPR-[illegible]

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: LIST E PLANT ID NO: NPP-151, 152 & 153 COMPONENT: PRESSURE TRANSMITTER MANUFACTURER: ITT BARTON MODEL NUMBER: 763 FUNCTION: POST ACCIDENT & NORMAL MONITOR & ACTUATION ACCURACY: SPEC: ±10 % DEMON: +6.6 % -3.0 % SERVICE: PRESSURIZER PRESSURE LOCATION: INSIDE CONTAINMENT	Operating Time	5 SEC & 4 MONTH	~390 DAYS	REF 101	REF. 67	SEQUENTIAL & ENGRG. ANAL. NOTE LLL	NONE
	Temperature (°F)	330 NOTE LV	385	REF 102	REF. 67	SEQUENTIAL	NONE
	Pressure (PSIA)	35.5	89.7	REF 103	REF. 67	SEQUENTIAL	NONE
	Relative Humidity (%)	100	100	7.5	REF. 67	SEQUENTIAL	NONE
	Chemical Spray	1.14% BORIC ACID & .15% NAOH PH 8.4	1.14% BORIC ACID & .17% NAOH PH 8.55	REF 104	REF. 67	SEQUENTIAL	NONE
	Radiation (10^6 rads)	0.079	50	REF 105	REF. 67	SEQUENTIAL	NONE
	Aging (years)						
FLOOD LEVEL ELEV: 614'-0" ABOVE FLOOD LEVEL: YES	Submergence	NA	NA	NA	DRWG 55818	NA	NONE

*Documentation References: UNLESS OTHERWISE NOTED ALL REFERENCES ARE FSAR SECTIONS.

REF. 67 WESTINGHOUSE ELECTRIC CORP. COMMUNICATION NS-TMA-2441 WCAP-9885

Notes: (B) REQUIREMENTS ADDRESSED IN: REFERENCE 30 WHICH WAS SUBMITTED IN RESPONSE TO THIS QUESTION 030.1 14.2.5 IS THE ACCIDENT ANALYSIS GENERATING THE ADVERSE ENVIRONMENT IN WHICH CREDIT IS ASSUMED FOR OPERATION OF THESE DEVICES.

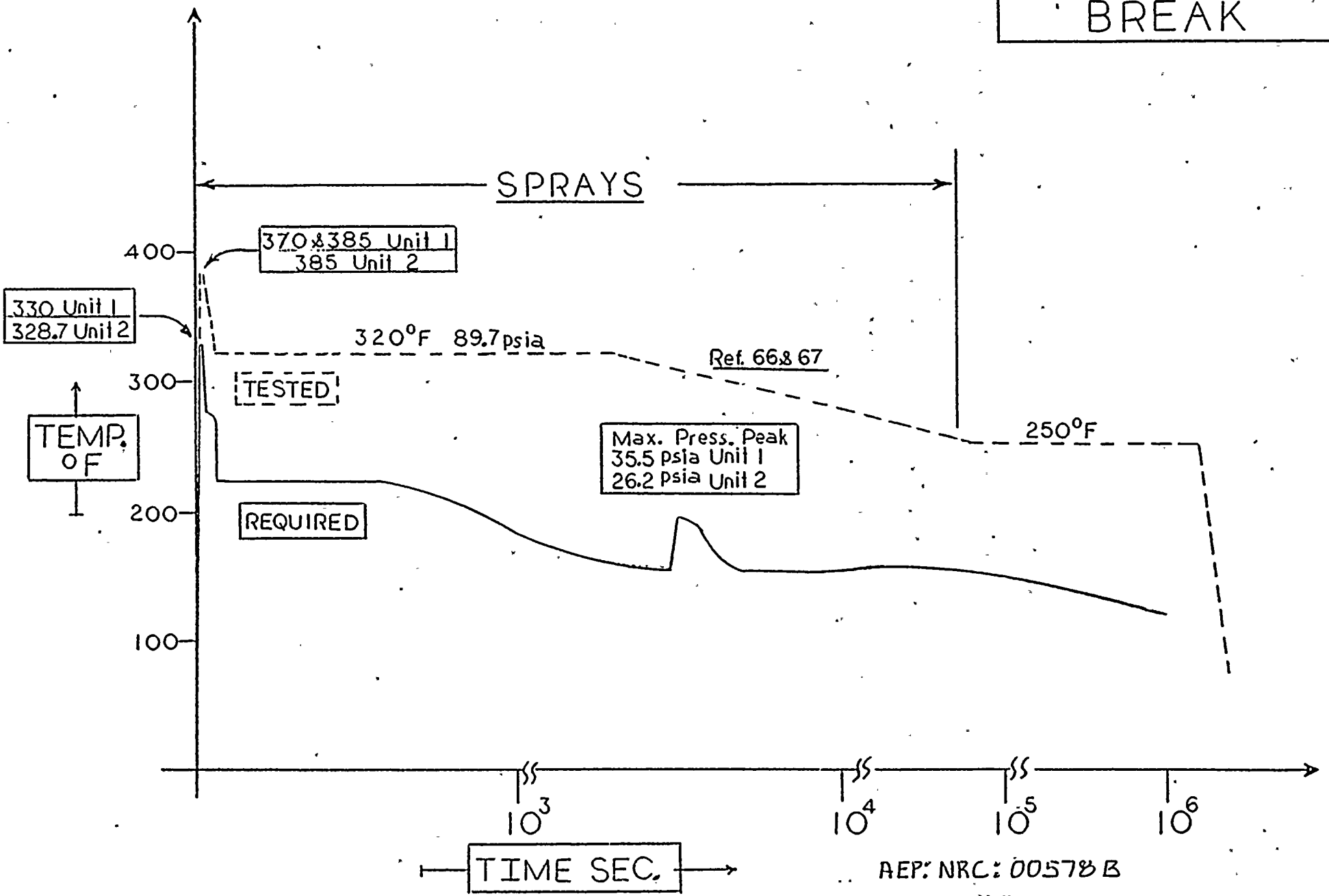
III & IV SEE ATTACHED SHEET

AEP:NRC:00570
AEP:NRC:00578B

iii Arrhenius Analysis was performed which reflected the FSAR containment lower volume temperature rather than the very conservative temperature of 160°F previously used by References 30, 66 & 67. These references predicted a value of an equivalent 120 days based on the tested temperature of 250°F for 14 days.

iv For FSAR predicted values see attached temperature profile.

STEAM LINE BREAK



DONALD C. COOK NUCLEAR PLANT UNIT NO. 1 DOCKET NO. 50-315 LICENSE NO. DPR-58

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: LIST E PLANT ID NO: NPP-151, 152 & 153 COMPONENT: PRESSURE TRANSMITTER MANUFACTURER: ITT BARTON MODEL NUMBER: 763 FUNCTION: POST ACCIDENT & NORMAL MONITOR ACTUATION ACCURACY: SPEC: ± 10 % DEMON: +6.6 % -3.0 % SERVICE: PRESSURIZER PRESSURE LOCATION: INSIDE CONTAINMENT FLOOD LEVEL ELEV: 614'-0" ABOVE FLOOD LEVEL: YES	Operating Time	3.4 SEC LLOCA 32 SECS LOCA	~330 DAYS	REF 101	REF. 67	SEQUENTIAL & ENGRG. ANALYSIS NOTE LLL	NONE
	Temperature (°F)	250 NOTE LV	385	REF 102	REF 67	SEQUENTIAL	NONE
	Pressure (PSIA)	28.8	89.7	REF 103	REF 67	SEQUENTIAL	NONE
	Relative Humidity (%)	100	100	7.5	REF 67	SEQUENTIAL	NONE
	Chemical Spray	1.14% BORIC ACID & .15% NAOH PH 8.4	1.14% BORIC ACID & .17% NAOH PH 8.55	REF 104	REF 67	SEQUENTIAL	NONE
	Radiation (10^6 rads)	.07	50 @ 25/HR.	REF 105	REF. 67	SEQUENTIAL	NONE
	Aging (years)						
	Submergence	NA	NA	NA	DRWG 5581B	NA	NONE

*Documentation References: UNLESS OTHERWISE NOTED ALL REFERENCES ARE FSAR SECTIONS.

Notes: P.1 IS THE ACCIDENT ANALYSIS GENERATING AN ADVERSE ENVIRONMENT IN WHICH CREDIT IS ASSUMED FOR OPERATION OF THESE DEVICES.

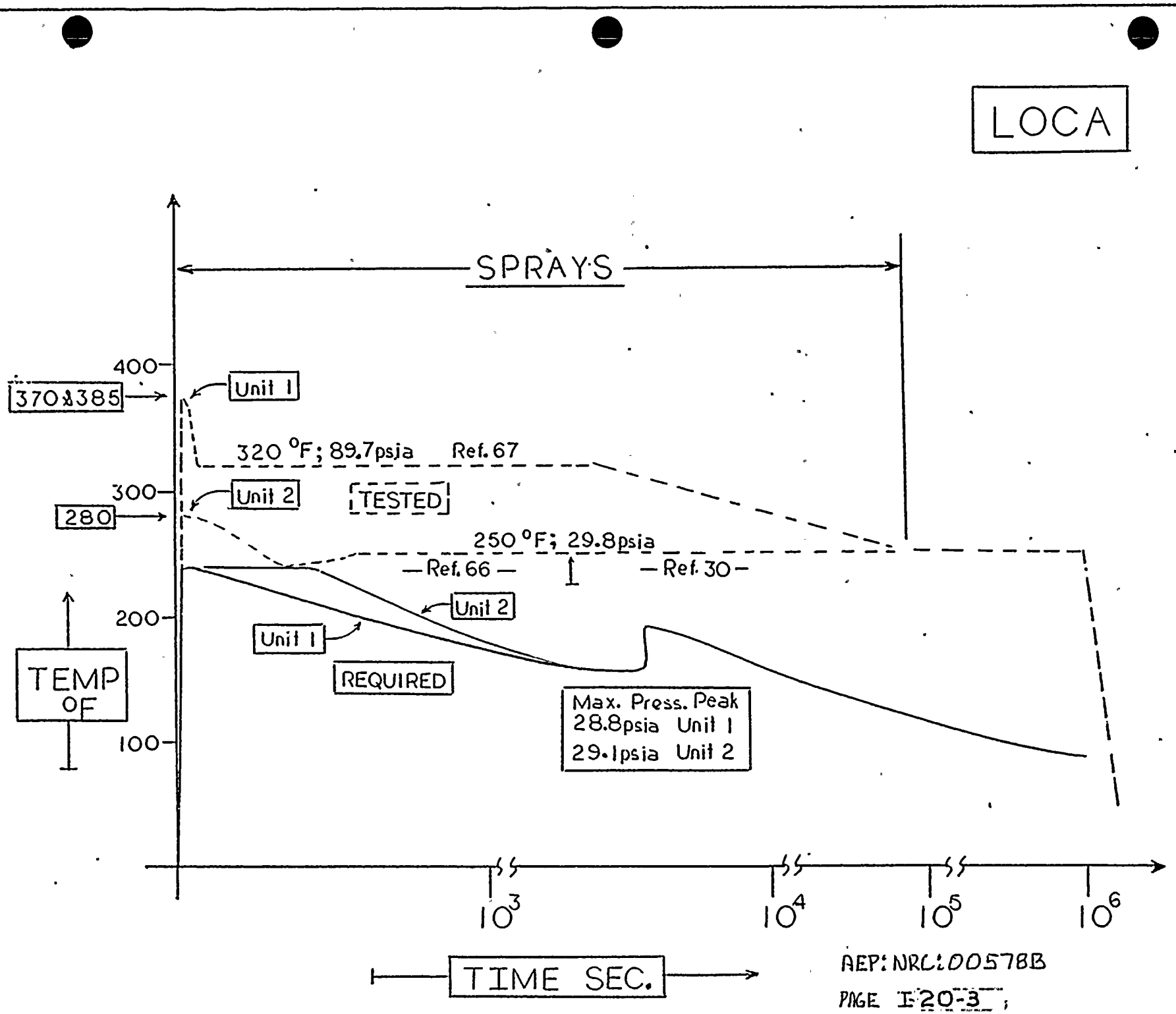
REF. 67 WESTINGHOUSE ELECTRIC CORP. COMMUNICATION NS-TMA-2441 WCAP-9885

LLL & LV SEE ATTACHED SHEET

AEP:NRC:00578
AEP:NRC:00578B

iii Arrhenius Analysis was performed which reflected the FSAR containment lower volume temperature rather than the very conservative temperature of 160°F previously used by References 30, 66 & 67. These references predicted a value of an equivalent 120 days based on the tested temperature of 250°F for 14 days.

iv For FSAR predicted values see attached temperature profile.


LOCA
SPRAYS
400
370&385
Unit 1
320 °F; 89.7psia Ref. 67
300
Unit 2
TESTED
280
250 °F; 29.8psia
— Ref. 66 —
— Ref. 30 —
Unit 2
200
Unit 1
REQUIRED
TEMP °F
Max. Press. Peak
28.8psia Unit 1
29.1psia Unit 2
100
10^3
10^4
10^5
10^6
TIME SEC.

DONALD C. COOK NUCLEAR PLANT UNIT NO. 1 | DOCKET NO. 50-315 | LICENSE NO. DPR-58

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: LIST E PLANT ID NO: NPP 151, 152 & 153 COMPONENT: PRESSURE TRANSMITTER MANUFACTURER: ITT BARTON MODEL NUMBER: 763 FUNCTION: LONG TERM POST ACCIDENT + NORMAL MONITOR + ACTUATION ACCURACY: SPEC: ± 10% DEMON: +6.6% -3.0% SERVICE: PRESSURIZER PRESSURE LOCATION: INSIDE CONTAINMENT	Operating Time	4 MONTH	~330 DAYS	REF 101	REF 67	SEQUENTIAL & ENGRG. ANALYSIS NOTE LLL	NONE
	Temperature (°F)	160 NOTE iv	160	REF 102	REF 67	SEQUENTIAL	NONE
	Pressure (PSIA)	28.8	89.7	REF 103	REF 67	SEQUENTIAL	NONE
	Relative Humidity (%)	100	100	7.5	REF 67	SEQUENTIAL	NONE
	Chemical Spray	1.14% BORIC ACID & .15% NAOH PH 8.4	1.14% BORIC ACID + .17% NAOH PH 8.55	REF 104	REF 67	SEQUENTIAL	NONE
	Radiation (10^6 rads)	40	50 @ 2.5/HR	REF 105	REF 67	SEQUENTIAL	NONE
	Aging (years)						
FLOOD LEVEL ELEV: 614'-0" ABOVE FLOOD LEVEL: YES	Submergence	NA	NA	NA	DRWG 5581B	NA	NONE

*Documentation References: UNLESS OTHERWISE NOTED ALL REFERENCES ARE FSAR SECTIONS.

REF. 67 WESTINGHOUSE ELECTRIC CORP. COMMUNICATION NS-TMA-2441 WCAP-9885

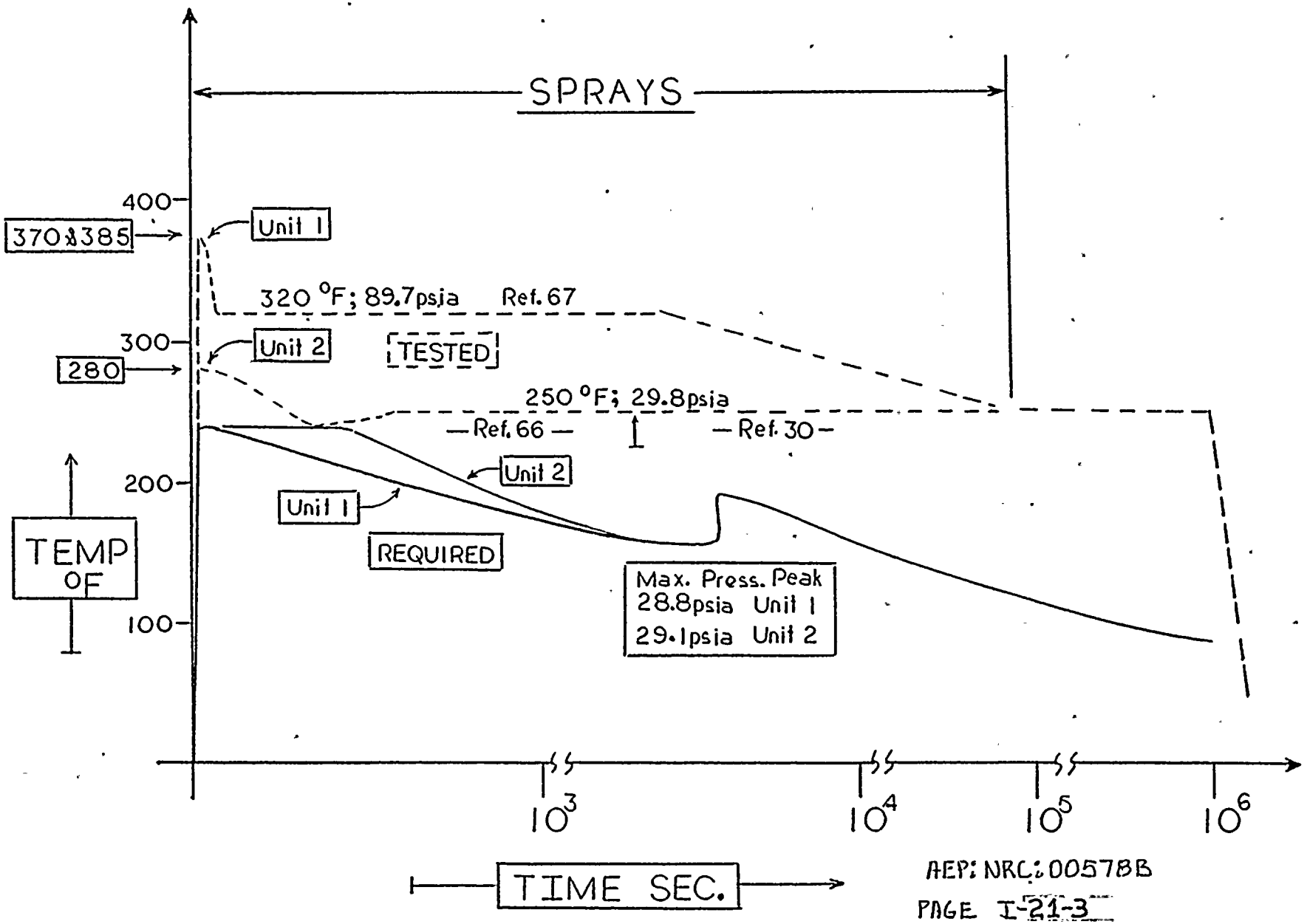
Notes: (B) REQUIREMENTS ADDRESSED IN REFERENCE 30 WHICH WAS SUBMITTED IN RESPONSE TO FSAR QUESTION 030.1 P.1 IS THE ACCIDENT ANALYSIS GENERATING AN ADVERSE ENVIRONMENT IN WHICH CREDIT IS ASSUMED FOR OPERATION OF THESE DEVICES.

iii & iv SEE ATTACHED SHEET

AEP:NRC:00578
AEP:NRC:00578B

iii Arrhenius Analysis was performed which reflected the FSAR containment lower volume temperature rather than the very conservative temperature of 160°F previously used by References 30, 66 & 67. These references predicted a value of an equivalent 120 days based on the tested temperature of 250°F for 14 days.

iv For FSAR predicted values see attached temperature profile.


LOCA
SPRAYS
400
370&385
Unit 1
320 °F; 89.7psia Ref. 67
300
280
Unit 2
TESTED
250 °F; 29.8psia
— Ref. 66 —
— Ref. 30 —
Unit 2
200
Unit 1
TEMP °F
REQUIRED
Max. Press. Peak
28.8psia Unit 1
29.1psia Unit 2
100
10^3
10^4
10^5
10^6
TIME SEC.

DONALD C. COOK NUCLEAR PLANT UNIT NO. 1 DOCKET NO. 50-315 LICENSE NO. DPR-58

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: REACTOR COOLANT + POST ACCIDENT MONITOR PLANT ID NO: NPS /21 + /22 COMPONENT: PRESSURE TRANSMITTER MANUFACTURER: ITT BARTON MODEL NUMBER: 763 FUNCTION: MONITORING ACCURACY: SPEC: ± 10 % DEMON: + 6.6 % − 3.0 % SERVICE: REACTOR COOLANT PRESSURE LOCATION: INSIDE CONTAINMENT	Operating Time	4 MONTHS	~330 DAYS	REF 101	REF 67	SEQUENTIAL & ENGRG. ANAL. NOTE i,i,i	NONE
	Temperature (°F)	233 NOTE iv 330	385	REF 102	REF 67	SEQUENTIAL	NONE
	Pressure (PSIA)	35.5	89.7	REF 103	REF 67	SEQUENTIAL	NONE.
	Relative Humidity (%)	100	100	7.5	REF 67	SEQUENTIAL	NONE
	Chemical Spray	1.14% BORIC ACID + .15% NAOH PH 8.4	1.14% BORIC ACID + .17% NAOH PH 8.5	REF 104	REF 67	SEQUENTIAL	NONE
	Radiation (10^6 rads)	0.079	50	REF 105	REF 67	SEQUENTIAL	NONE
	Aging (years)						
FLOOD LEVEL ELEV: 614'-0" ABOVE FLOOD LEVEL: NO	Submergence	12 FT.	75 PSIG	DRWG SS708-C	ENGR JDGMT	ENGINEERING REVIEW	NONE NOTE i,i

*Documentation References: UNLESS OTHERWISE NOTED ALL REFERENCES ARE FSAR SECTIONS.

Notes: Q022.8, Q022.16 & Q212.35 ARE THE ADVERSE ENVIRONMENT GENERATING ACCIDENT ANALYSIS FOR WHICH CREDIT IS ASSUMED FOR OPERATION OF THESE DEVICES.

i,ii,iii & iv SEE ATTACHED SHEET

REF. 67 WESTINGHOUSE ELECTRIC CORP. COMMUNICATION NS-TMA-2441 WCAP-9885

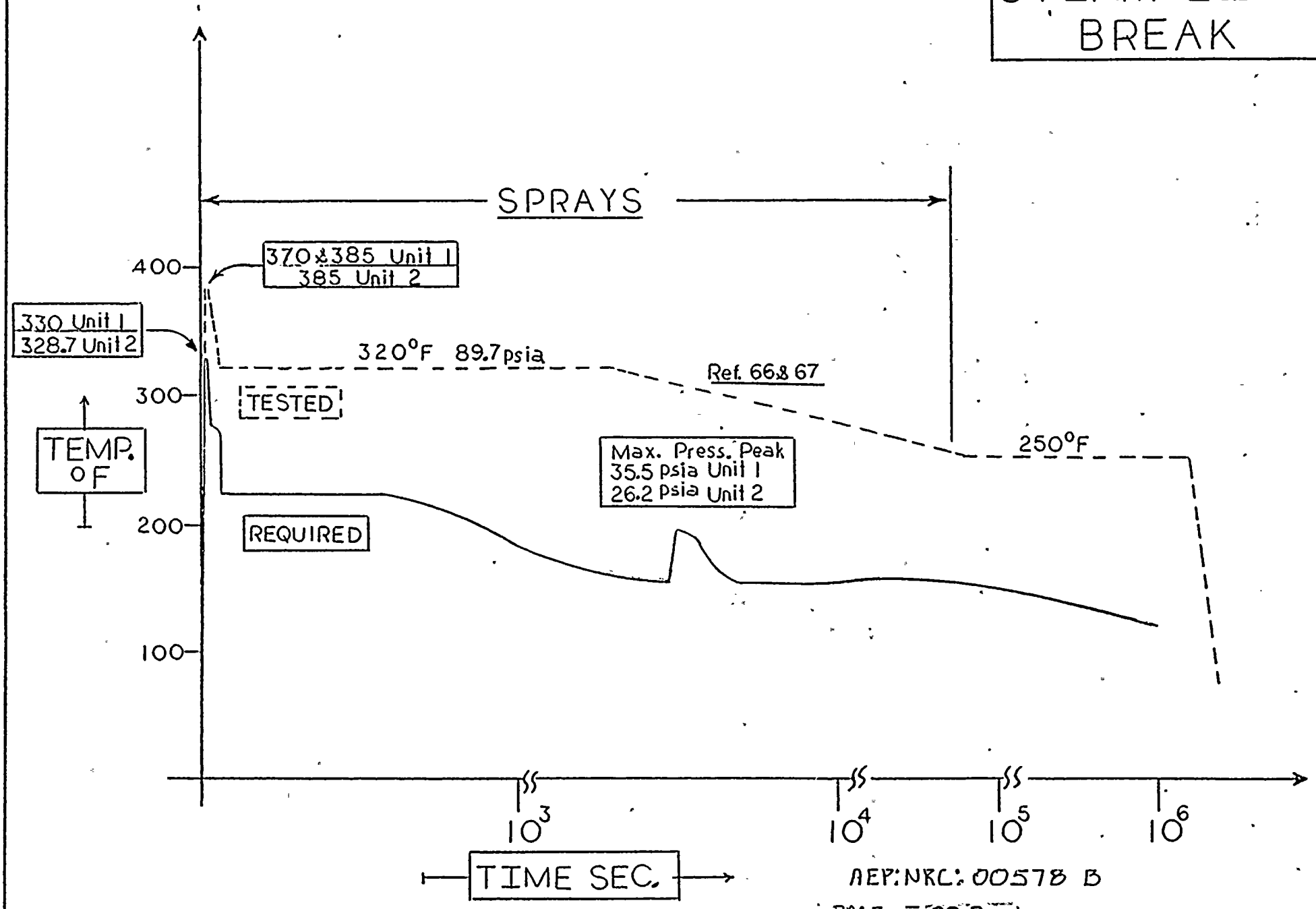
AEP:NRC:00578
AEP:NRC:00578B

ii The engineering review and judgement regarding submergence consisted of an evaluation that the tested transmitter had been subjected to combination test of spray and 60 psi saturated steam conditions for a period of at least 1 hour followed by spray and 20 psi saturated steam for at least an additional 22 hours with no report of moisture conditions in the electronics housing. The pressure corresponding to the submergence is less than 5 psig. The transmitter was therefore considered acceptable for submergence.

iii Arrhenius Analysis was performed which reflected the FSAR containment lower volume temperature rather than the very conservative temperature of 160°F previously used by References 30, 66 & 67. These references predicted a value of an equivalent 120 days based on the tested temperature of 250°F for 14 days.

iv For FSAR predicted values see attached temperature profile.

STEAM LINE BREAK



DONALD C. COOK NUCLEAR PLANT UNIT NO. 1 DOCKET NO. 50-315 LICENSE NO. DPR-58

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: REACTOR COOLANT + POST ACCIDENT MONITOR PLANT ID NO: NPS 121 & 122 COMPONENT: PRESSURE TRANSMITTER MANUFACTURER: ITT BARTON MODEL NUMBER: 763 FUNCTION: LONG TERM MONITORING ACCURACY: SPEC: ±10% DEMON: +6.6% -3.0% SERVICE: REACTOR COOLANT PRESSURE LOCATION: INSIDE CONTAINMENT	Operating Time	4 MONTHS	~330 DAYS	REF 101	REF 67	SEQUENTIAL & ENGRG. ANAL. NOTE iii	NONE
	Temperature (°F)	250 NOTE iv	385	REF 102	REF 67	SEQUENTIAL	NONE
	Pressure (PSIA)	28.8	89.7	REF 103	REF 67	SEQUENTIAL	NONE
	Relative Humidity (%)	100	100	7.5	REF 67	SEQUENTIAL	NONE
	Chemical Spray	1.14% BORIC ACID + .15% NAOH PH 8.4	1.14% BORIC ACID .17% NAOH PH 8.55	REF 104	REF 67	SEQUENTIAL	NONE
	Radiation (10^6 rads)	40	50	REF 105	REF 67	SEQUENTIAL	NONE
	Aging (years)						
FLOOD LEVEL ELEV: 614'-0" ABOVE FLOOD LEVEL: NO	Submergence	12 FT	75 PSIG	DRWG 5570B1C	ENGR. JUGMT	ENGINEERING REVIEW	NONE NOTE iii

*Documentation References: UNLESS OTHERWISE NOTED ALL REFERENCES ARE FSAR SECTIONS.

Notes: Q022.8, Q022.16 & Q212.35 ARE THE ADVERSE ENVIRONMENT GENERATING ACCIDENT ANALYSIS FOR WHICH CREDIT IS ASSUMED FOR OPERATION OF THESE DEVICES.

ii, iii & iv - SEE ATTACHED SHEET

REF. 67 WESTINGHOUSE ELECTRIC CORP. COMMUNICATION NS-TMA-2441 WCAP-9885

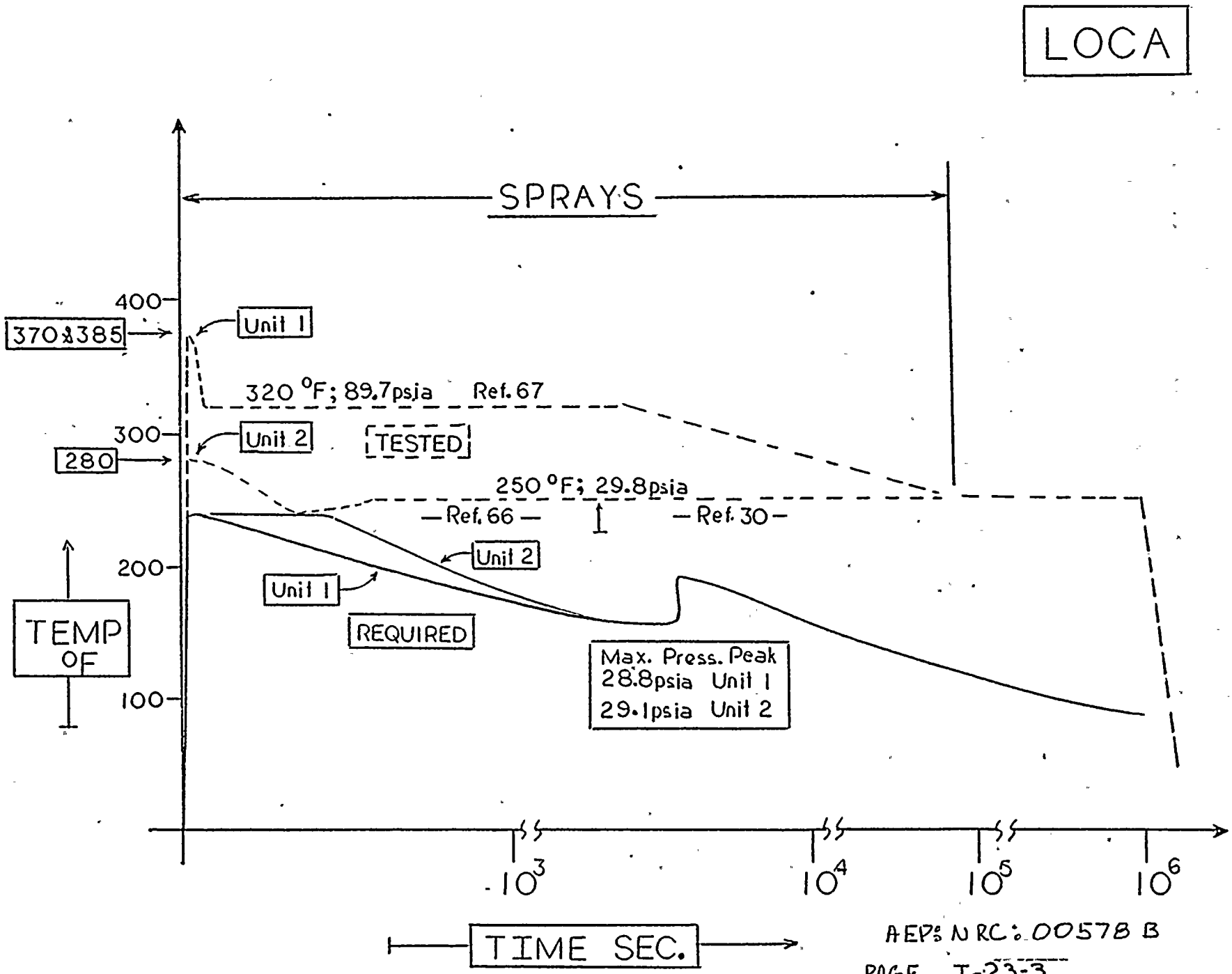
AEP:NRC:00578
AEP:NRC:00578B

ii The engineering review and judgement regarding submergence consisted of an evaluation that the tested transmitter had been subjected to combination test of spray and 60 psi saturated steam conditions for a period of at least 1 hour followed by spray and 20 psi saturated steam for at least an additional 22 hours with no report of moisture conditions in the electronics housing. The pressure corresponding to the submergence is less than 5 psig. The transmitter was therefore considered acceptable for submergence.

iii Arrhenius Analysis was performed which reflected the FSAR containment lower volume temperature rather than the very conservative temperature of 160°F previously used by References 30, 66 & 67. These references predicted a value of an equivalent 120 days based on the tested temperature of 250°F for 14 days.

iv For FSAR predicted values see attached temperature profile.

AEP:NRC:05788
PAGE I-23-2


LOCA
SPRAYS
400
370&385
Unit 1
320 °F; 89.7psia Ref. 67
300
280
Unit 2
TESTED
250 °F; 29.8psia
— Ref. 66 —
— Ref. 30 —
Unit 2
200
Unit 1
REQUIRED
TEMP °F
100
Max. Press. Peak
28.8psia Unit 1
29.1psia Unit 2
10^3
10^4
10^5
10^6
TIME SEC.

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: REACTOR COOLANT & REMOTE SHUTDOWN MONITORING PLANT ID NO: NPS-153 COMPONENT: PRESSURE TRANSMITTER MANUFACTURER: ITT BARTON MODEL NUMBER: 763 FUNCTION: LONG TERM MONITORING ACCURACY: SPEC: ± 10% DEMON: +6.6% -3.0% SERVICE: PRESSURIZER PRESSURE LOCATION: INSIDE CONTAINMENT	Operating Time	4 MONTH	~330 DAYS	REF 101	REF. 67	SEQUENTIAL & ENGRG. ANAL. NOTE iii	NONE
	Temperature (°F)	160 NOTE iv	160	REF 102	REF. 67	SEQUENTIAL	NONE
	Pressure (PSIA)	28.8	89.7	REF 103	REF. 67	SEQUENTIAL	NONE
	Relative Humidity (%)	100	100 &0	7.5	REF. 67	SEQUENTIAL	NONE
	Chemical Spray	1.14% BORIC ACID & .15% NAOH: PH 8.4	1.14% BORIC ACID & .17% NAOH PH 8.55	REF 104	REF. 67	SEQUENTIAL	NONE
	Radiation (10^6 rads)	40	50 @ 2.5/HR	REF 105	REF. 67	SEQUENTIAL	NONE
	Aging (years)						
FLOOD LEVEL ELEV: 611'-0" ABOVE FLOOD LEVEL: YES	Submergence	NA	NA	DRWG 5581B	ENGRG REVIEW	ENGINEERING REVIEW	NONE NOTE ii

*Documentation References: UNLESS OTHERWISE NOTED ALL REFERENCES ARE TO FSAR SECTIONS.

REF 67 WESTINGHOUSE ELECTRIC CORP. COMMUNICATION NS-TMA-2441 WCAP-9885

Notes: REQUIREMENT & QUALIFICATIONS SAME AS MONITORING PHASE REQUIREMENTS AND QUALIFICATIONS OF NPP-151, 152 & 153 DEVICES. HOWEVER DEVICE DOES NOT INITIATE SAFETY INJECTION OR ISOLATION SIGNALS. IT IS THEREFORE USED FOR MONITORING ONLY IF AVAILABLE.

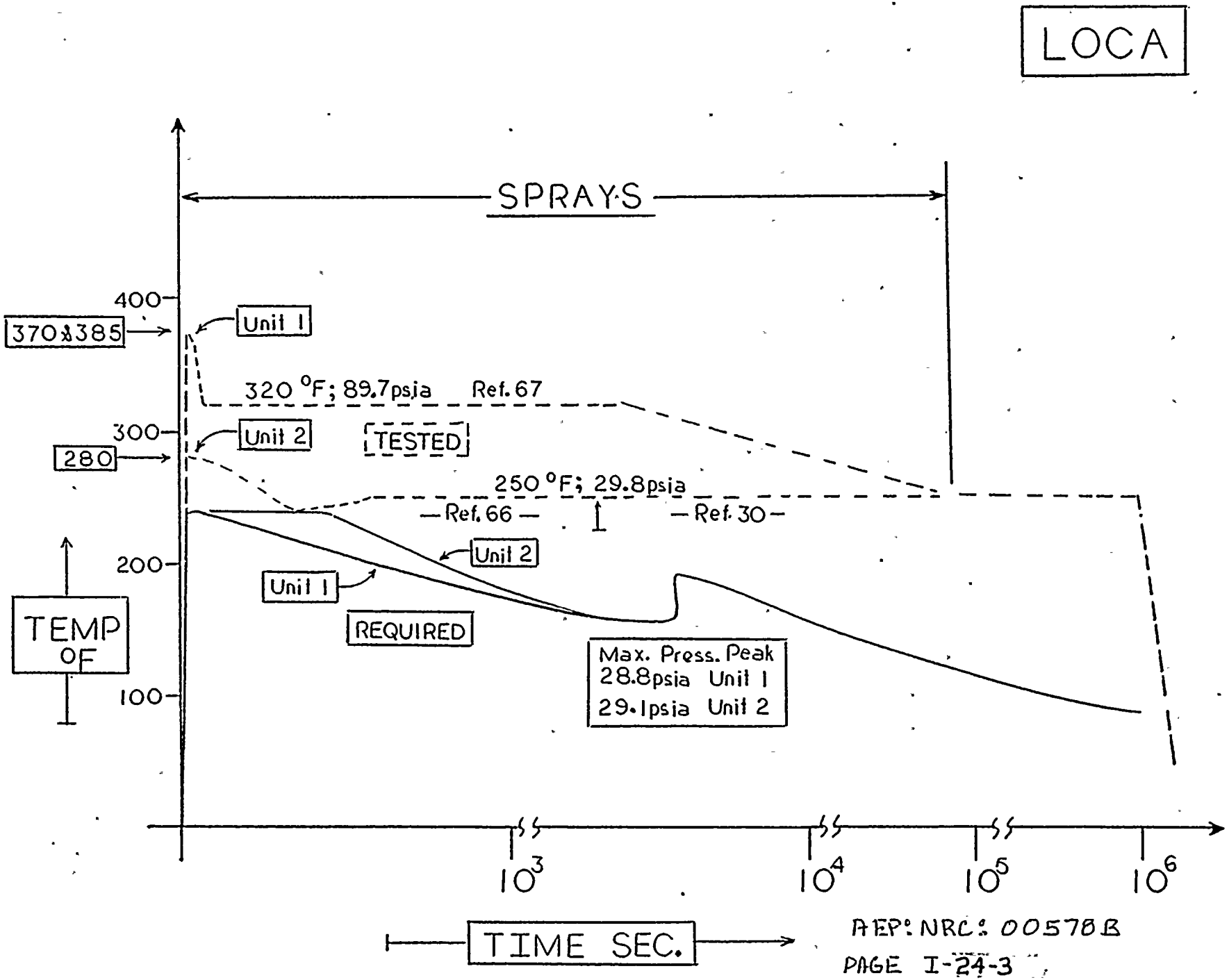
ii, iii, & iv SEE ATTACHED SHEET

AEP:NRC:00578
AEP:NRC:00578B

ii The engineering review and judgement regarding submergence consisted of an evaluation that the tested transmitter had been subjected to combination test of spray and 60 psi saturated steam conditions for a period of at least 1 hour followed by spray and 20 psi saturated steam for at least an additional 22 hours with no report of moisture conditions in the electronics housing. The pressure corresponding to the submergence is less than 5 psig. The transmitter was therefore considered acceptable for submergence.

iii Arrhenius Analysis was performed which reflected the FSAR containment lower volume temperature rather than the very conservative temperature of 160°F previously used by References 30, 66 & 67. These references predicted a value of an equivalent 120 days based on the tested temperature of 250°F for 14 days.

iv For FSAR predicted values see attached temperature profile.


LOCA
SPRAYS
400
370&385
Unit 1
320 °F; 89.7psia Ref. 67
300
Unit 2
TESTED
280
250 °F; 29.8psia
— Ref. 66 —
— Ref. 30 —
Unit 2
200
Unit 1
TEMP °F
REQUIRED
Max. Press. Peak
28.8psia Unit 1
29.1psia Unit 2
100
10^3
10^4
10^5
10^6
TIME SEC.

DONALD C. COOK NUCLEAR PLANT UNIT NO. 1 DOCKET NO. 50-315 LICENSE NO. DPR-58

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: LIST D PLANT ID NO: NTP-111,121,131, 141,211,221,231 & 241 COMPONENT: RESISTANCE TEMPERATURE DETECTOR MANUFACTURER: SOSTMAN OR ROSEMOUNT MODEL NUMBER: 11834B OR 176 KF RESPECTIVELY FUNCTION: ACTUATION + NORMAL MONITOR ACCURACY: SPEC: ±7.3 % DEMON: -2.29% SERVICE: REACTOR COOLANT TEMPERATURE LOCATION: INSIDE CONTAINMENT	Operating Time	3.4 SEC LLOCA 32 SEC SLOCA	2 WEEKS	REF 1.0.1	REF 28	SEQUENTIAL	NONE
	Temperature (°F)	250	330	REF 1.0.2	REF 28	SEQUENTIAL	NONE
	Pressure (PSIA)	28.8	89.7	REF 1.0.3	REF 28	SEQUENTIAL	NONE
	Relative Humidity (%)	100	100	7.5	REF 28	SEQUENTIAL	NONE
	Chemical Spray	1.14% BORIC ACID & .15% NAOH PH 8.4	1.11% BORIC ACID & .15% NAOH PH 8.4	REF 1.0.4	REF 28	SEQUENTIAL	NONE
	Radiation (10^6 rads)	.07	100	REF 1.0.5	REF 28	SEQUENTIAL	NONE
	Aging (years)						
FLOOD LEVEL ELEV: 614'-0" ABOVE FLOOD LEVEL: YES	Submergence	NA	NA	NA	DRWG 5507		

*Documentation References: UNLESS OTHERWISE NOTED ALL REFERENCES ARE FSAR SECTIONS.

28 - WESTINGHOUSE ELECTRIC CORP. ENVIRONMENTAL QUALIFICATIONS WCAP-9157.

Notes: ADVERSE ENVIRONMENT GENERATING ACCIDENT ANALYSIS FOR WHICH CREDIT IS ASSUMED FOR OPERATION OF THESE DEVICES IS P.1.

AEP: NRC: 00578
AEP: NRC: 00578B

DONALD C. COOK NUCLEAR PLANT UNIT NO. 1 DOCKET NO. 50-315 LICENSE NO. DPR-58

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: LIST D PLANT ID NO: NTP-111, 121, 131, 141, 211, 221, 231 & 241 COMPONENT: RESISTANCE TEMPERATURE DETECTOR MANUFACTURER: SOSTMAN OR ROSEMOUNT MODEL NUMBER: 11834B OR 176 KF RESPECTIVELY FUNCTION: ACTUATION & NORMAL MONITOR ACCURACY: SPEC: ±7.3% DEMON: -2.29% SERVICE: REACTOR COOLANT TEMPERATURE LOCATION: INSIDE CONTAINMENT	Operating Time	10 SEC.	2 WEEKS	REF 101	REF. 28	SEQUENTIAL	NONE
	Temperature (°F)	233 330	330	REF 102	REF 28	SEQUENTIAL	NONE
	Pressure (PSIA)	35.5	89.7	REF 103	REF 28	SEQUENTIAL	NONE
	Relative Humidity (%)	100	100	7.5	REF 28	SEQUENTIAL	NONE
	Chemical Spray	1.14% BORIC ACID 0.15% NAOH PH 8.4	1.14% BORIC ACID 0.15% NAOH PH 8.4	REF 104	REF 28	SEQUENTIAL	NONE
	Radiation (10^6 rads)	.04	100	REF 105	REF 28	SEQUENTIAL	NONE
	Aging (years)						
FLOOD LEVEL ELEV: 614'-0" ABOVE FLOOD LEVEL: YES	Submergence	NA	NA	NA	DRWG 5507		

*Documentation References: UNLESS OTHERWISE NOTED ALL REFERENCES ARE FSAR SECTIONS.

28 - WESTINGHOUSE ELECTRIC CORP. ENVIRONMENTAL QUALIFICATIONS WCAP-9157.

Notes: ADVERSE ENVIRONMENT GENERATING ACCIDENT ANALYSIS FOR WHICH CREDIT IS ASSUMED FOR OPERATION OF THESE DEVICES IS N13.7.

AEP:NRC:00578
AEP:NRC:00578B

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: REACTOR COOLANT PLANT ID NO: NTP, 110 120 130, 140, 210, 220, 230 & 240 COMPONENT: RESISTANCE TEMPERATURE DETECTOR MANUFACTURER: SOSTMAN OR ROSEMOUNT MODEL NUMBER: 11834B OR 176KF RESPECTIVELY FUNCTION: IN PLACE SPARES ACCURACY: SPEC: DEMON: N A SERVICE: REACTOR COOLANT TEMPERATURE LOCATION: INSIDE CONTAINMENT	Operating Time						
	Temperature (°F)						
	Pressure (PSIA)						
	Relative Humidity (%)						
	Chemical Spray						
	Radiation (10^6 rads)						
	Aging (years)						
FLOOD LEVEL ELEV: ABOVE FLOOD LEVEL:	Submergence						

SEE NTP-111, 121, 131, 141, 211, 221, 231 & 241 SHEETS

*Documentation References:

Notes: REQUIREMENTS AND QUALIFICATION FOR THESE DEVICES IDENTICAL TO NTP-111 ETC. REQUIREMENTS AND QUALIFICATIONS

AEP: NRC: 00578
AEP: NRC: 00578 B

DONALD C. COOK NUCLEAR PLANT UNIT NO. 1 DOCKET NO. 50-315 LICENSE NO. DPR-58

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: REACTOR COOLANT. POST ACCIDENT MONITORING.	Operating Time	4 MONTHS	4 MONTHS	NOTE (E)	REF 28 NOTE VI	SEQUENTIAL, COMBINED EFFECTS & ENGINEERING ANALYSIS	NONE
PLANT ID NO: NTR 110, 120, 130, 140, 210, 220, 230 & 240	Temperature (°F)	160 & 233/330	160 & 330	REF 102	〃	SEQUENTIAL	〃
COMPONENT: RESISTANCE TEMPERATURE DETECTOR	Pressure (PSIA)	26.7 & 35.5	89.7	REF 103	〃	〃	〃
MANUFACTURER: SOSTMAN OR ROSEMOUNT	Relative Humidity (%)	100	100	7.5	〃	〃	〃
MODEL NUMBER: 1190IB OR 176KS, RESPECTIVELY	Chemical Spray	1.14% BORIC ACID & .15% NADH PH 8.4	1.14% BORIC ACID & .17% NTIOH PH 8.55	REF 104	〃	〃	〃
FUNCTION: NORMAL & ACCIDENT MONITORING	Radiation (10^6 rads)	40	100	NOTE (E)	〃	COMBINED EFFCTS AND ENGINEERING ANALYSIS	〃
ACCURACY: SPEC: FUNCTIONAL DEMON: ~7.5%	Aging (years)						
SERVICE: REACTOR COOLANT TEMERATURE							
LOCATION: INSIDE CONTAINMENT							
FLOOD LEVEL ELEV: ABOVE FLOOD LEVEL:	Submergence	NA	NA	NA	DRWG S507	ENGINEERING REVIEW	NONE

*Documentation References: UNLESS OTHERWISE NOTED ALL REFERENCES ARE FSAR SECTIONS. REF 28 = WESTINGHOUSE ELECTRIC CORP ENVIRONMENTAL QUALIFICATION REPORT: WCAP-9157

Notes: Q-022.8, Q022.16 & Q212.35 ARE THE ADVERSE ENVIRONMENT GENERATING ACCIDENT ANALYSES FOR WHICH CREDIT IS ASSUMED FOR THE OPERATION OF THESE DEVICES.

(E) REF. 28 STATES THAT A RADIATION DOSE OF 1×10^8 RADS IS EQUIVALENT TO 12 YEARS OF OPERATION PLUS 2 WEEKS OF MONITORING. REVIEW OF FIG. 2-1 IN REF 28 SHOWS THAT FOR THE ACCIDENT DOSE OF 40×10^6 RADS SPECIFIED FOR OTHER ACCIDENT MONITORING DEVICES AT 4 MONTHS; THESE DEVICES WOULD QUALIFY FOR A NOMINAL 8 YEARS OF OPERATION.

VI SEE ATTACHED SHEET

vi Review of the Figure 2.1 from reference 28 using an operable life of eight (8) years shows an equivalent qualified life of 4 months during posulated accident conditions.

DONALD C. COOK NUCLEAR PLANT UNITS NO. 1 & 2 DOCKETS NO. 50-315 & 60-316 LICENSES NO. DRR-58 & DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: LIST F	Operating Time						
PLANT ID NO: PPP-300, 301 & 302	Temperature (°F)						
COMPONENT: PRESSURE TRANSMITTER	Pressure (PSIA)						
MANUFACTURER: FOXBORO	Relative Humidity (%)						
MODEL NUMBER: E11GM-HSAA1	Chemical Spray						
FUNCTION: ACCIDENT MONITORING & ACTUATION	Radiation (10^6 rads)						
ACCURACY: SPEC: DEMON:	Aging (years)						
SERVICE: CONTAINMENT PRESSURE	Submergence						
LOCATION: OUTSIDE CONTAINMENT							
FLOOD LEVEL ELEV: N/A ABOVE FLOOD LEVEL:							

NOT APPLICABLE

*Documentation References:

Notes:

THESE DEVICE WERE INCLUDED IN THE FIRST SUBMITTAL OF 79-01B TO ACCOUNT FOR DEVICES REFERENCED BY ACCIDENT ANALYSIS P.1, 14.2.5, 14.2.8 & 14.3.1. AS DISCUSSED IN Q 022.16 & Q 212.35 THESE DEVICES ARE NOT EXPOSED TO AN ADVERSE ENVIRONMENT FOR AN IN-CONTAINMENT EVENT; AND FOR AN ACCIDENT EVENT OUTSIDE CONTAINMENT NO CONTAINMENT PRESSURE SUPPRESSION IS REQUIRED. THESE DEVICES THEREFORE ARE ADEQUATELY PROTECTED FROM THE ACCIDENT EVENT.

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: LIST G PLANT ID NO: PPP-303 COMPONENT: PRESSURE TRANSMITTER MANUFACTURER: FOXBORO MODEL NUMBER: EIIGM-HSAAI FUNCTION: ACCIDENT MONITORING ACCURACY: SPEC: DEMON: SERVICE: CONTAINMENT PRESSURE LOCATION: OUTSIDE CONTAINMENT	Operating Time						
	Temperature (°F)						
	Pressure (PSIA)						
	Relative Humidity (%)						
	Chemical Spray						
	Radiation (10^6 rads)						
	Aging (years)						
FLOOD LEVEL ELEV: N/A ABOVE FLOOD LEVEL:	Submergence						

NOT APPLICABLE

*Documentation References:

Notes:

THESE DEVICES WERE INCLUDED IN THE FIRST SUBMITTAL OF 79-01B TO ACCOUNT FOR DEVICES REFERENCED BY ACCIDENT ANALYSIS P.1, 14.2.5, 14.2.8, & 14.3.1. AS DISCUSSED IN Q 022.16 & Q 212.35, THESE DEVICES ARE NOT EXPOSED TO AN ADVERSE ENVIRONMENT FOR AN INCONTAINMENT EVENT; AND FOR AN ACCIDENT EVENT OUTSIDE CONTAINMENT NO CONTAINMENT PRESSURE SUPPRESSION IS REQUIRED. THESE DEVICES THEREFORE ARE ADEQUATELY PROTECTED FROM THE ACCIDENT EVENT.

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: CONTAINMENT VENTILATION ISOLATION PLANT ID NO: VRC-302 COMPONENT: RADIATION MONITOR MANUFACTURER: WESTINGHOUSE MODEL NUMBER: 1101 FUNCTION: ACTUATION ACCURACY: SPEC: ± 6% DEMON: < 1%. SERVICE: CONTAINMENT RADIATION LOCATION: INSIDE CONTAINMENT	Operating Time	NA	NA				
	Temperature (°F)	250	120	REF 102	E-SPEC 677271		NONE (C)
	Pressure (PSIA)	28.8 & 29.1	28.7	REF 103	E-SPEC 677271		NONE (C)
	Relative Humidity (%)	100	100	7.5	E-SPEC 677271		NONE (C)
	Chemical Spray	1.14% BORIC ACID & .15% NAOH PH 8.4	NONE	REF 104			NONE (C)
	Radiation (10^6 rads)	.07	10mR/HR	REF 105	E-SPEC 677271		NONE (C)
	Aging (years)						
FLOOD LEVEL ELEV: 614'-0" ABOVE FLOOD LEVEL: YES	Submergence	NA	NA				

*Documentation References:

Notes:

(C) INCLUDED IN FIRST SUBMITTAL OF 79-01B TO ACCOUNT FOR DEVICES WHICH ARE A CONTAINMENT PURGING ISOLATION ACTUATION DEVICE. THIS DEVICE IS ONE OF THE "DEFENSE IN DEPTH" DEVICES FOR ISOLATION WHICH INCLUDES ALL ESF ACTUATION DEVICES, THE CONTAINMENT AIR PARTICULATE & RADIOGAS DETECTOR, CONTAINMENT PRESSURE AND THIS AREA MONITOR. SINCE FOR AN INCONTAINMENT ACCIDENT EVENT THIS DEVICE SERVES A SECONDARY FUNCTION IN RELATION TO THE ESF ACTUATION AND CONTAINMENT PRESSURE DEVICES THE USE OF CONTROL GRADE EQUIPMENT IS CONSIDERED ADEQUATE. FURTHER, THIS DEVICE IS TO BE UPGRADED AS REQUIRED BY OUR COMMITMENT TO NUREG 0578 ITEMS. THIS DOES NOT REPRESENT AN OUTSTANDING ITEM.

E-SPEC: WESTINGHOUSE EQUIPMENT SPECIFICATION 677271

REPLACEMENT IS SCHEDULED FOR 1982 REFUELING OUTAGE

AEP:NRC:00578

AEP:NRC:00578B

DONALD C. COOK NUCLEAR PLANT UNIT NO. 1 DOCKET NO. 50-315 LICENSE NO. DPR-58

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: REACTOR COOLANT PLANT ID NO: Limit sw for NRV-151, 152, 153 COMPONENT: LIMIT SWITCH MANUFACTURER: NAMCO MODEL NUMBER: EA 180 FUNCTION: VALVE POSITION INDICATION ACCURACY: SPEC: NA DEMON: NA SERVICE: PZR. PORV's: NRV-151, -152, -153 LOCATION: INSIDE CONTAINMENT	Operating Time	14 days	30 DAYS	118	43	SEQ	NONE
	Temperature (°F)	328.2	340	102	43	"	"
	Pressure (PSIA)	29.1	84.7	103	43	"	"
	Relative Humidity (%)	100	100	102 103	43	"	"
	Chemical Spray	2000 PPM B 1.14 WT % BORIC PH 8.5-11 ACID	3000 PPM B 1.72 WT % BORIC PH 8.5-11 ACID	104	43 72	COMBINATION	NONE See Ref 72
	Radiation (10^6 rads)	77	204	105	43	SEQ.	NONE
	Aging (years)						
FLOOD LEVEL ELEV: 614' ABOVE FLOOD LEVEL: YES	Submergence	NA	NA	NA	NA	NA	NA

226-228

*Documentation References:

Notes:

from Ref. 43. Qual. of Namco Controls Limit Switch

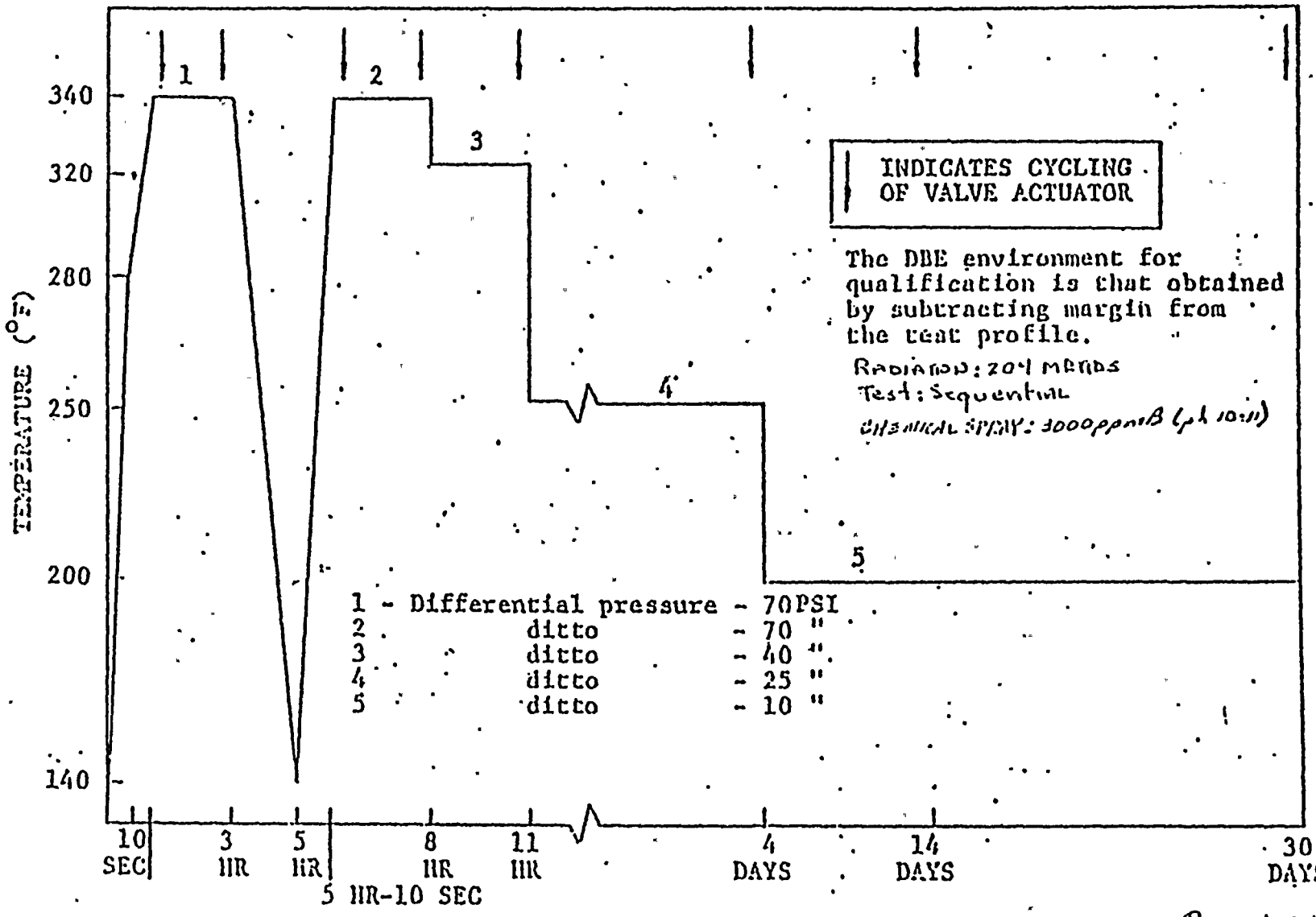


Fig 1
Test Chamber Temperature Profile for Accident Environment Simulation.

Page LS1-2

DONALD C. COOK NUCLEAR PLANT UNIT NO. 1 DOCKET NO. 50-315 LICENSE NO. DPR-58

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: CVCS, SI, RHR PLANT ID NO: PP-050, 026, 035 COMPONENT: Pump Motor MANUFACTURER: Westinghouse MODEL NUMBER: 5808Z, 5009H, 5009-P24 FUNCTION: Emergency core cooling ACCURACY: SPEC: NA DEMON: NA SERVICE: Centrifugal charging safety injection & residual heat removal pumps. LOCATION: Outside Containment	Operating Time	1 YR	≥1.1 yr	118	63 21	Combination	NONE See Ref 63
	Temperature (°F)	NA	320	NA	21	Sequential	NA
	Pressure (PSIA)	NA	89.7	NA	21	"	NA
	Relative Humidity (%)	NA	100	NA	21	"	NA
	Chemical Spray	NA	2500 ppm 1.43% wt PH: 8.5	NA	21 72	Combination	NA
	Radiation (10^6 rads)	6	200	106	21	SEQ.	NONE
	Aging (years)						
FLOOD LEVEL ELEV: NA ABOVE FLOOD LEVEL: NA	Submergence	NA	NA	NA	NA	NA	NA

45-48
71-72
93-94

*Documentation References:

Notes:

from Ref. 21.

Qualified by Westinghouse Corp. Test Report$:
WCAP-7829, April, 1972.

Type of Test: Sequential: Irradiation
Steam
Chemical Spray

Test Profile (for motor without heat exchanger)

324°F, 80 psig for 4 hrs.
250°F, 16 psig for 7 days

Test Profile (for motor with heat exchanger)

320°F, 75 psig for 24 hrs.
250°F, 16 psig for 168 hrs.

Chemical Spray: 1.43 weight percent boric acid
PH=9.5 with Na OH

Irradiation: .5 Mrad/hr., 200 Mrads.

See page 33 of WCAP-7829 for Test Profile summary.

DONALD C. COOK NUCLEAR PLANT UNIT NO. 1 DOCKET NO. 50-315 LICENSE NO. DPR-58

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: Containment Spray PLANT ID NO: PP-009 COMPONENT: Pump Motor MANUFACTURER: Reliance MODEL NUMBER: Frame # 5810 P FUNCTION: CT Spray ACCURACY: SPEC: NA DEMON: NA SERVICE: Containment Spray Pump LOCATION: Outside Containment	Operating Time	1 month	>1 month	118	64	Engineering Review	NONE See Ref 64
	Temperature (°F)	NA	NA	NA	NA	NA	NA
	Pressure (PSIA)	NA	NA	NA	NA	"	"
	Relative Humidity (%)	NA	NA	NA	NA	"	"
	Chemical Spray	NA	NA	NA	NA	"	"
	Radiation (10^6 rads)	4	>4	106	64	Engineering Review	NONE See Ref 64
	Aging (years)						
FLOOD LEVEL ELEV: NA ABOVE FLOOD LEVEL: NA	Submergence	NA	NA	NA	NA	NA	NA

109-110

*Documentation References:

Notes:

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: MAIN FEEDWATER & CONTAINMENT ISOLATION PLANT ID NO: FKV-210, 220, 230 & 240 COMPONENT: DIAPHRAM FOR AIR OPERATOR MANUFACTURER: FISHER CONTROLS CO. MODEL NUMBER: 667 FUNCTION: SHUTOFF & REGULATION ACCURACY: SPEC: FAIL CLOSED DEMON: FAIL CLOSED SERVICE: FEEDWATER FLOW REGULATION LOCATION: OUTSIDE CONTAINMENT	Operating Time						
	Temperature (°F)						
	Pressure (PSIA)						
	Relative Humidity (%)						
	Chemical Spray	SEE VCR-H 621					
	Radiation (10^6 rads)						
	Aging (years)						
FLOOD LEVEL ELEV: ABOVE FLOOD LEVEL: N/A	Submergence						

*Documentation References:

Notes:

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: FRV-210,220,230, & 240 PLANT ID NO: EPT 210,220, 230 & 240 COMPONENT: ELECTRO-PNEUMATIC TRANSDUCER MANUFACTURER: FISHER CONTROLS COMPANY MODEL NUMBER: 546 FUNCTION: VALVE MODULATION CONTROL ACCURACY: SPEC: FUNCTIONAL DEMON: FUNCTIONAL SERVICE: MAIN FEEDWATER FLOW CONTROL LOCATION: OUTSIDE CONTAINMENT	Operating Time	NA SEE NOTE	NA SEE NOTE	REF 101	ENGRG JDGMT	SEE NOTE	NONE
	Temperature (°F)	223	320/288	REF 107	MNFTR LIT	SEQUENTIAL	NONE
	Pressure (PSIA)	20.5	90/59	REF 107	MNFTR LIT	SEQUENTIAL	NONE
	Relative Humidity (%)	100	100	FIG 0-26	MNFTR LIT	SEQUENTIAL	NONE
	Chemical Spray	NA	NA				NONE
	Radiation (10^6 rads)	NA	NA				NONE
	Aging (years)						
FLOOD LEVEL ELEV: NA ABOVE FLOOD LEVEL:	Submergence	NA	NA				NONE

*Documentation References: FSAR APPENDIX O.

MNFTR LIT - FISHER CONTROLS COMPANY
OPERATIONAL TESTS OF FISHER TYPE 546 ELECTRO-PNEUMATIC TRANSDUCER

Notes: The subject transducer is not required for the FRV to perform its safety function in the case of a LOCA or HELB, therefore OPERATING TIME is NOT APPLICABLE.

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: FRV-210, FRV-220, FRV-230, FRV-240 PLANT ID NO: XSO-291, 292, 293, 294, 295, 296, 297, 298 COMPONENT: SOLENOID VALVE MANUFACTURER: AUTOMATIC SWITCH COMPANY MODEL NUMBER: 206-381-2RVU FUNCTION: TRIP REGULATING VALVE CLOSED. ACCURACY: SPEC: FUNCTIONAL DEMON: FUNCTIONAL SERVICE: MAIN FEEDWATER REGULATING VALVES TRIP VALVES LOCATION: OUTSIDE CONTAINMENT	Operating Time	25 SEC.	30 DAYS	REF 101	REF 29	SEQUENTIAL	NONE
	Temperature (°F)	223	SEE ATTACH PROFILE	REF 107	REF 29	SEQUENTIAL	NONE
	Pressure (PSIA)	20.5	SEE ATTACH PROFILE	REF 107	REF 29	SEQUENTIAL	NONE
	Relative Humidity (%)	100	100	FIG 0-26	REF 29	SEQUENTIAL	NONE
	Chemical Spray	NA	3000 PPM BORIC ACID WITH NaOH, PH 10	NA	REF 29	SEQUENTIAL	NONE
	Radiation (10^6 rads)	NA	20	NA	DEN 81-29	SEQUENTIAL	NONE
	Aging (years)	NA	4	NA	REF 29	SEQUENTIAL	NONE
FLOOD LEVEL ELEV: ABOVE FLOOD LEVEL: NA	Submergence	NA	NA	NA	NA	NA	NA

*Documentation References: UNLESS OTHERWISE NOTED REFERENCES ARE FSAR SECTIONS

REF. 29 AUTOMATIC SWITCH COMPANY REPORT AQS 21678/TR

Notes: 6.4.2 14.2.5 & 14.2.8 ARE THE ADVERSE ENVIRONMENT ACCIDENT ANALYSES FOR WHICH CREDIT FOR FUNCTION IS ASSUMED.

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: RESIDUAL HEAT REMOVAL PLANT ID NO: IRV-310 & 320 COMPONENT: DIAPHRAM FOR AIR OPERATOR MANUFACTURER: BAILEY MODEL NUMBER: 656 FUNCTION: VALVE POSITIONING ACCURACY: SPEC: FAIL OPEN DEMON: FAIL OPEN SERVICE: RHR HEAT EXCHANGER OUTLET FLOW MODULATION LOCATION: OUTSIDE CONTAINMENT	Operating Time						
	Temperature (°F)						
	Pressure (PSIA)						
	Relative Humidity (%)						
	Chemical Spray	SEE VCR-1122					
	Radiation (10^6 rads)						
	Aging (years)						
FLOOD LEVEL ELEV: ABOVE FLOOD LEVEL: NA	Submergence						

*Documentation References:

Notes:

AEPSNRC: 00578B

DONALD C. COOK NUCLEAR PLANT UNITS NO. 1 & 2 DOCKETS NO. 50-315 & 50 - 316 LICENSES NO. DRR-58 & DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: MAIN STEAM & CONTAINMENT ISOLATION PLANT ID NO: MRV 210, 220, 230 & 240 COMPONENT: STEAM PISTON FOR SLIDE VALVE MANUFACTURER: ATWOOD-MORELL MODEL NUMBER: NONE FUNCTION: SHUTOFF ACCURACY: SPEC: FAIL CLOSED DEMON: FAIL CLOSED SERVICE: MAIN STEAM FLOW SHUTOFF LOCATION: OUTSIDE CONTAINMENT FLOOD LEVEL ELEV: N/A ABOVE FLOOD LEVEL:	Operating Time						
	Temperature (°F)						
	Pressure (PSIA)						
	Relative Humidity (%)						
	Chemical Spray	SEE NOTE BELOW					
	Radiation (10^6 rads)						
	Aging (years)						
	Submergence						

*Documentation References:

Notes: VENTING OF THE STEAM SPACE ABOVE THE PISTON BY DUMP VALVES MRV-211, 212, 221, 222, 231, 232, 241 OR 242 FOR THEIR RESPECTIVE STEAM GENERATOR STOP VALVE WILL CAUSE MAIN STEAM SYSTEM PRESSURE TO DRIVE THE SUBJECT VALVE CLOSED. SEE FSAR SECTION 10 AND RESPONSE TO QUESTIONS 10.1 & 10.2 FOR FULL DESCRIPTION OF VALVE OPERATION.

DONALD C. COOK NUCLEAR PLANT UNITS NO. 1 & 2 DOCKETS NO. 50-315 & 50-316 LICENSES NO. DRR-58 & DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: MAIN STEAM PLANT ID NO: MRV 211,212, 221, 222, 231, 232, 241 & 242 COMPONENT: DIAPHRAM FOR AIR OPERATOR MANUFACTURER: FISHER CONTROLS CO. MODEL NUMBER: 657 FUNCTION: SHUTOFF INITIATION ACCURACY: SPEC: FAIL OPEN DEMON: FAIL OPEN SERVICE: STEAM GENERATOR STOP VALVE DUMP VALVE LOCATION: OUTSIDE CONTAINMENT	Operating Time						
	Temperature (°F)						
	Pressure (PSIA)						
	Relative Humidity (%)						
	Chemical Spray						
	Radiation (10^6 rads)						
	Aging (years)						
FLOOD LEVEL ELEV: ABOVE FLOOD LEVEL: N/A	Submergence						

SEE VCR-112 21

*Documentation References:

Notes:

DONALD C. COOK NUCLEAR PLANT UNITS NO. 1 & 2 DOCKETS NO. 50-315 & 50-316 LICENSES NO. DRR-58 & DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: MRV 211, 212, 221, 222, 231, 232, 241 & 242 PLANT ID NO: XSO-211, 212, 221, 222, 231, 232, 241 & 242 COMPONENT: SOLENOID MANUFACTURER: AUTOMATIC SWITCH CO. MODEL NUMBER: HT 8316 B 17 FUNCTION: CLOSURE ACTUATION ACCURACY: SPEC: FUNCTIONAL DESIGN: FUNCTIONAL SERVICE: STEAM GENERATOR STOP VALVE DUMP VALVE LOCATION: OUTSIDE CONTAINMENT	Operating Time	5 SEC	5 SEC.	REF 101	TECH SPEC 3.7.1.5	RESPONSE TIME TESTING	NONE
	Temperature (°F)	230	180	REF 107	MFTR LIT	ENGRG. ANAL. SEE NOTE (L)	NONE (L)
	Pressure (PSIA)	26.2	14.7	REF 107	MFTR LIT	ENGRG ANAL SEE NOTE (L)	NONE (L)
	Relative Humidity (%)	100	0	7.5	MFTR LIT	ENGRG ANAL SEE NOTE (L)	NONE (L)
	Chemical Spray	NA	NA				NA
	Radiation (10^6 rads)	NA	NA				NA
	Aging (years)						
FLOOD LEVEL ELEV: ABOVE FLOOD LEVEL: NA	Submergence	NA	NA				NA

*Documentation References:

MFTR LIT - AUTOMATIC SWITCH CO.
CATALOG NO 3D
BULLETIN 8316

Notes: 14.2.5 & 14.2.8 ARE THE ADVERSE ENVIRONMENT ACCIDENT ANALYSIS FOR WHICH CREDIT IS ASSUMED FOR OPERATION OF THE DEVICE.

(L) ACCIDENT ANALYSIS: Q212.25 SHOWS THAT MAIN STEAM LINE BREAK PLUS THE FAILURE OF ANOTHER STEAM LINE TO ISOLATE IS ACCEPTABLE. SINCE THE LOCATION OF THESE DEVICES IS SUCH THAT ONLY TWO STEAM GENERATOR STOP VALVES CAN BE AFFECTED BY ANY ONE BREAK. USE OF Page S7-1 CONTROL GRADE DEVICES IS ACCEPTABLE

REP: NRC: 005788

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: MAIN STEAM & CONTAINMENT ISOLATION PLANT ID NO: MRV 213, 223, 233 & 243 COMPONENT: DIAPHRAM FOR AIR OPERATOR MANUFACTURER: FISHER CONTROLS CO. MODEL NUMBER: 667 FUNCTION: PRESSURE RELIEF ACCURACY: SPEC: FAIL CLOSED QUAL: FAIL CLOSED SERVICE: MAIN STEAM PRESSURE RELIEF LOCATION: OUTSIDE CONTAINMENT	Operating Time						
	Temperature (°F)						
	Pressure (PSIA)						
	Relative Humidity (%)						
	Chemical Spray						
	Radiation (10^6 rads)						
	Aging (years)						
FLOOD LEVEL ELEV: N/A ABOVE FLOOD LEVEL:	Submergence						

SEE VCR-II-C-21

*Documentation References:

Notes:

No credit is taken for the subject MRV's (the Steam Generator PORV's) in LOCA or HELB accident analysis.

DONALD C. COOK NUCLEAR PLANT UNITS NO. 1 & 2 DOCKETS NO. 50-315 & 50-316 LICENSES NO. DRR-58 & DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: MRV-213, 223, 233 & 243 PLANT ID NO: EPT-213, 223, 233 & 243 COMPONENT: ELECTRO-PNEUMATIC TRANSDUCER MANUFACTURER: FISHER CONTROLS CO. MODEL NUMBER: 546 FUNCTION: VALVE MODULATION CONTROL ACCURACY: SPEC: FUNCTIONAL DEMON: FUNCTIONAL SERVICE: MAIN STEAM PRESSURE RELIEF LOCATION: OUTSIDE CONTAINMENT	Operating Time	NA SEE NOTE	NA SEE NOTE	REF 101	ENGRG JDGMT	SEE NOTE	NONE
	Temperature (°F)	230	320/288	REF 107	MNFTR LIT	SEQUENTIAL	NONE
	Pressure (PSIA)	26.2	90/59	REF 107	MNFTR LIT	SEQUENTIAL	NONE
	Relative Humidity (%)	100	100	FIG 0-27	MNFTR LIT	SEQUENTIAL	NONE
	Chemical Spray	NA	NA				NONE
	Radiation (10^6 rads)	NA	NA				NONE
	Aging (years)						
FLOOD LEVEL ELEV: NA ABOVE FLOOD LEVEL:	Submergence	NA	NA				NONE

*Documentation References: FSAR APPENDIX O
MNFTR LIT. FISHER CONTROLS COMPANY OPERATIONAL TESTS OF FISHER TYPE 546 ELECTRO-PNEUMATIC TRANSDUCER

Notes: No credit is taken for the subject MRV's (the Steam Generator PORV's) for LOCA or HELB accident analysis, therefore OPERATING TIME IS NOT APPLICABLE.

REF: NRC 005785

DONALD C. COOK NUCLEAR PLANT UNITS NO. 1 & 2 DOCKETS NO. 50-315 & 50-316 LICENSES NO. DRR-58 & DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: REACTOR COOLANT PLANT ID NO: NRV-151 152 & 153 COMPONENT: DIAPHRAGM FOR AIR OPERATOR MANUFACTURER: MASONEILAN MODEL NUMBER: 37 AND 38 FUNCTION: PRESSURE RELIEF ACCURACY: SPEC: FAIL CLOSED DEMON: FAIL CLOSED SERVICE: PRESSURIZER POWER OPERATED RELIEF VALVE LOCATION: INSIDE CONTAINMENT	Operating Time						
	Temperature (°F)				21		
	Pressure (PSIA)			114			
	Relative Humidity (%)		SEE VCR				
	Chemical Spray	SEE					
	Radiation (10^6 rads)						
	Aging (years)						
FLOOD LEVEL ELEV: 614'-0" ABOVE FLOOD LEVEL: YES	Submergence						

*Documentation References:

Notes:

AEP:NRC: 00578B

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: NRV-151 NRV-152 NRV-153 PLANT ID NO: XSO-503 XSO-505 XSO-507 COMPONENT: SOLENOID VALVE MANUFACTURER: AUTOMATIC SWITCH COMPANY MODEL NUMBER: NP-8316541V FUNCTION: TRIP CONTROL VALVE CLOSED ACCURACY: SPEC: FUNCTIONAL DEMON: FUNCTIONAL SERVICE: PRESSURIZER PRESSURE CONTROL LOCATION: INSIDE CONTAINMENT	Operating Time	NA	30 DAYS	NA	SEE NOTE	SEQUENTIAL	NONE
	Temperature (°F)	328.2	SEE TEST PROFILE	REF. 102	REF. 29	SEQUENTIAL	NONE
	Pressure (PSIA)	35.5	SEE TEST PROFILE	REF. 103	"	"	"
	Relative Humidity (%)	100	100	7.5	"	"	"
	Chemical Spray	1.14% BORIC ACID & .15% NaOH PH 8	3 GPM BORIC ACID WITH NaOH PH 10.	REF. 104	"	"	"
	Radiation (10^6 rads)	18	20.	REF	TEN 81-29	"	"
	Aging (years)		4		"	"	"
FLOOD LEVEL ELEV: 614'-0" ABOVE FLOOD LEVEL: YES	Submergence	NA	NA	NA	NEG DRWG	ENGINEERING JUDGEMENT REVIEW	

*Documentation References: UNLESS OTHERWISE NOTED ALL REFERENCES ARE FSAR SECTIONS.
REF #29: AUTOMATIC SWITCH COMPANY REPORT AQS 21678/TR.

Notes: FUNCTION OF THESE DEVICES IS NOT ASSUMED BY ADVERSE ENVIRONMENT ACCIDENT ANALYSIS. SEE GENERAL NOTE 4.

CALCULATIONS NO RD-81-07 & RD-81-10
TABLE 4 AT 200 HRS

from REF. 29

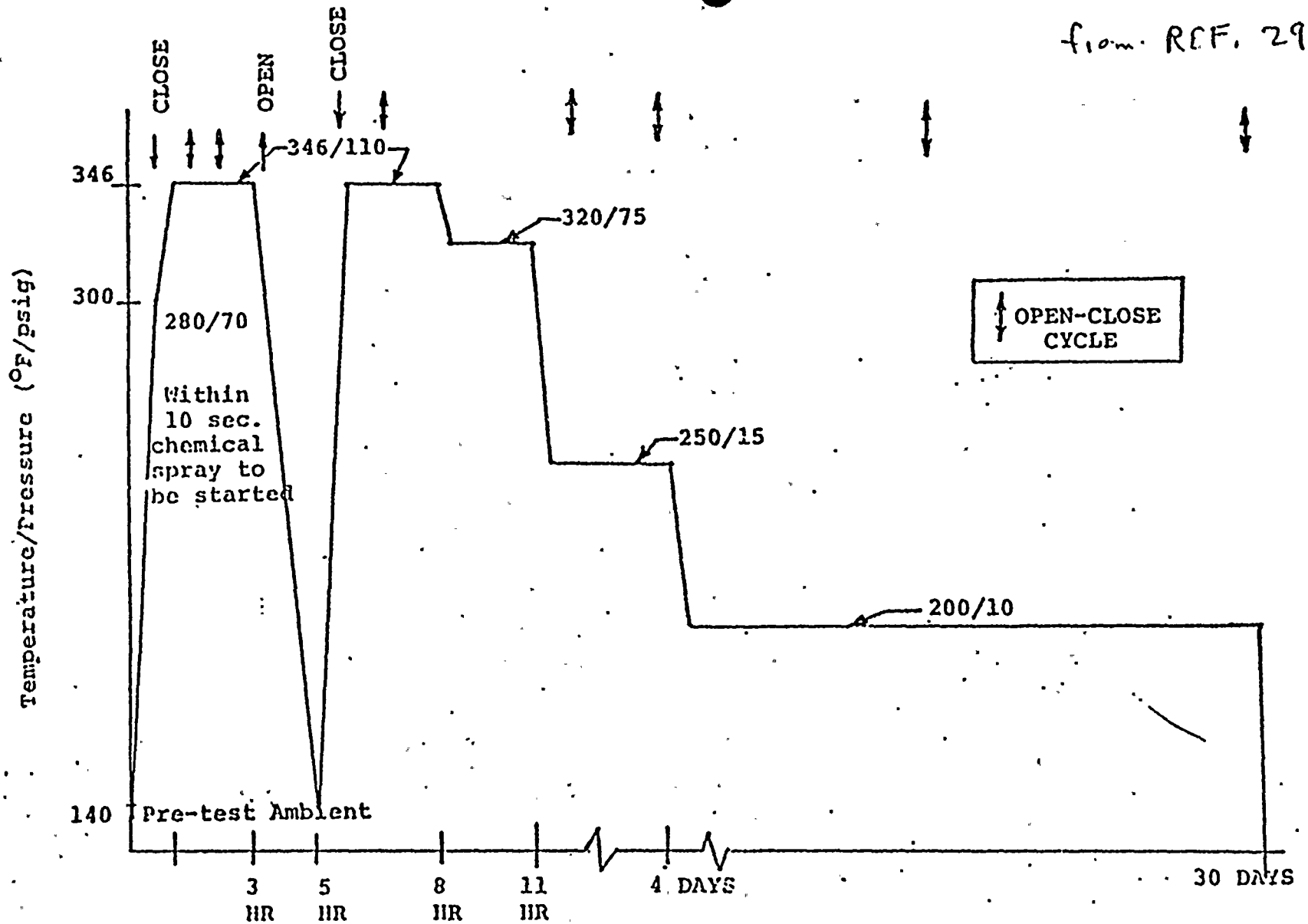


FIGURE 1
LOCA SIMULATION BY ENVIRONMENTAL EXPOSURE (STEAM/CHEMICAL)

3-3

Temperature/Pressure Profile for simulation of loss-of coolant accident (LOCA) design basis event (DBE) by steam/chemical-spray environmental exposure.

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: CONTAINMENT ISOLATION PLANT ID NO: VCR-11 & 21 COMPONENT: DIAPHRAGM FOR AIR OPERATOR MANUFACTURER: GRINNELL MODEL NUMBER: 3250 FUNCTION: ISOLATION ACCURACY: SPEC: FAIL CLOSED DEMON: FAIL CLOSED SERVICE: ICE CONDENSER REFRIGERANT SUPPLY LOCATION: INSIDE CONTAINMENT FLOOD LEVEL ELEV: 614'-04 ABOVE FLOOD LEVEL: YES	Operating Time					SEE NOTE BELOW	
	Temperature (°F)						
	Pressure (PSIA)						
	Relative Humidity (%)						
	Chemical Spray						
	Radiation (10^6 rads)						
	Aging (years)						
	Submergence						

*Documentation References:

Notes: FAILURE MECHANISM OF DIAPHRAGM DUE TO ACTUATOR SPRING LOADING, WILL CAUSE VALVE TO POSITION TO PROPER POSITION. THEREFORE NO QUALIFICATION TO ACCIDENT CONDITIONS IS NECESSARY.

AEPSNRC00578B

DONALD C. COOK NUCLEAR PLANT UNITS NO. 1 & 2 DOCKETS NO. 50-315 & 50 - 316 LICENSES NO. DRR-58 & DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: CONTAINMENT ISOLATION PLANT ID NO: VCR-101 & 102 COMPONENT: DIAPHRAGM FOR AIR OPERATOR MANUFACTURER: BAILEY MODEL NUMBER: 656 FUNCTION: ISOLATION ACCURACY: SPEC: FAIL CLOSED DEMON: FAIL CLOSED SERVICE: INSTRUMENT ROOM PURGE SUPPLY & EXHAUST RESPECTIVELY LOCATION: INSIDE CONTAINMENT FLOOD LEVEL ELEV: 614'-04 ABOVE FLOOD LEVEL: YES	Operating Time						
	Temperature (°F)						
	Pressure (PSIA)						
	Relative Humidity (%)						
	Chemical Spray		SEE VCR-11 & 12				
	Radiation (10^6 rads)						
	Aging (years)						
	Submergence						

*Documentation References:

Notes:

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: CONTAINMENT ISOLATION PLANT ID NO: VCR-103 & 105 COMPONENT: DIAPHRAGM FOR AIR OPERATOR MANUFACTURER: BAILEY MODEL NUMBER: 722 & 732 RESPECTIVELY FUNCTION: ISOLATION ACCURACY: SPEC: FAIL CLOSED DEMON: FAIL CLOSED SERVICE: CONTAINMENT PURGE SUPPLY LOCATION: INSIDE CONTAINMENT	Operating Time						
	Temperature (^{0}F)						
	Pressure (PSIA)						
	Relative Humidity (%)						
	Chemical Spray						
	Radiation (10^6 rads)						
	Aging (years)						
FLOOD LEVEL ELEV: 614'-0" ABOVE FLOOD LEVEL: YES	Submergence						

SEE VCR-112 21

*Documentation References:

Notes:

DONALD C. COOK NUCLEAR PLANT UNITS NO. 1 & 2 DOCKETS NO. 50-315 & 50 - 316 LICENSES NO. DRR-58 & DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: CONTAINMENT ISOLATION PLANT ID NO: VCR- 104 & 106 COMPONENT: DIAPHRAGM FOR AIR OPERATOR MANUFACTURER: BAILEY MODEL NUMBER: 732 & 722 RESPECTIVELY FUNCTION: ISOLATION ACCURACY: SPEC: FAIL CLOSED DEMON: FAIL CLOSED SERVICE: CONTAINMENT PURGE EXHAUST LOCATION: INSIDE CONTAINMENT	Operating Time						
	Temperature (°F)						
	Pressure (PSIA)						
	Relative Humidity (%)						
	Chemical Spray						
	Radiation (10^6 rads)						
	Aging (years)						
FLOOD LEVEL ELEV: 614'-0" ABOVE FLOOD LEVEL: YES	Submergence						

SEE VCR-11 & 21

*Documentation References:

Notes:

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: CONTAINMENT ISOLATION PLANT ID NO: VCR-107 COMPONENT: DIAPHRAGM FOR AIR OPERATOR MANUFACTURER: BAILEY MODEL NUMBER: 656 FUNCTION: ISOLATION ACCURACY: SPEC: FAIL CLOSED DEMON: FAIL CLOSED SERVICE: CONTAINMENT PRESSURE RELIEF EXHAUST LOCATION: INSIDE CONTAINMENT	Operating Time						
	Temperature (°F)						
	Pressure (PSIA)						
	Relative Humidity (%)						
	Chemical Spray		SEE VCR-NE21				
	Radiation (10^6 rads)						
	Aging (years)						
FLOOD LEVEL ELEV: 614'-0" ABOVE FLOOD LEVEL: YES	Submergence						

*Documentation References:

Notes:

DONALD C. COOK NUCLEAR PLANT UNITS NO. 1 & 2 DOCKETS NO. 50-315 & 50-316 LICENSES NO. DRR-58 & DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: VCR-11, 21, 101, 102, 103, 104, 105, 106 & 107 PLANT ID NO: XSO-12, 21, 121, 122, 123, 124, 125, 126 & 127 COMPONENT: SOLENOID VALVE MANUFACTURER: AUTOMATIC SWITCH COMPANY MODEL NUMBER: NP-8316541V FUNCTION: TRIP ISOLATION VALVE CLOSED ACCURACY: SPEC: FUNCTIONAL. DEMON: FUNCTIONAL SERVICE: CONTAINMENT VENTILLATION & ICE CONDENSER REFRIGERATION ISOLATION LOCATION: INSIDE CONTAINMENT	Operating Time	5 SEC.	30 DAYS	REF 101	REF 29	SEQUENTIAL	NONE
	Temperature (°F)	328.2	SEE TEST PROFILE	REF 102	REF. 29	SEQUENTIAL	NONE
	Pressure (PSIA)	35.5	SEE TEST PROFILE	REF 103	REF. 29	SEQUENTIAL	NONE
	Relative Humidity (%)	100	100	7.5	REF 29.	SEQUENTIAL	NONE
	Chemical Spray	1-14% BORIC ACID & 1.5% NAOH PH 8	3000 PPM BORIC ACID WITH SODIUM NASO PH 10	REF 104	REF 29	SEQUENTIAL	NONE
	Radiation (10^6 rads)	14	20	REF.	REF 29 SIEN 81-29	SEQUENTIAL	NONE
	Aging (years)		41		REF 29	SEQUENTIAL	NONE
FLOOD LEVEL ELEV: 614'-0" ABOVE FLOOD LEVEL: YES	Submergence	NA	NA	NA	A.E.P. DRWG.	ENGINEERING DRAWING REVIEW	NONE

*Documentation References: UNLESS OTHERWISE NOTED REFERENCES ARE FSAR SECTIONS.
REF # 29 - AUTOMATIC SWITCH COMPANY REPORT AQS 2167B/TR.

Notes:

CALCULATIONS NO RD-81-07 & RD-81-10
TABLE 2 AT 1 DAY.

FROM REF. 29

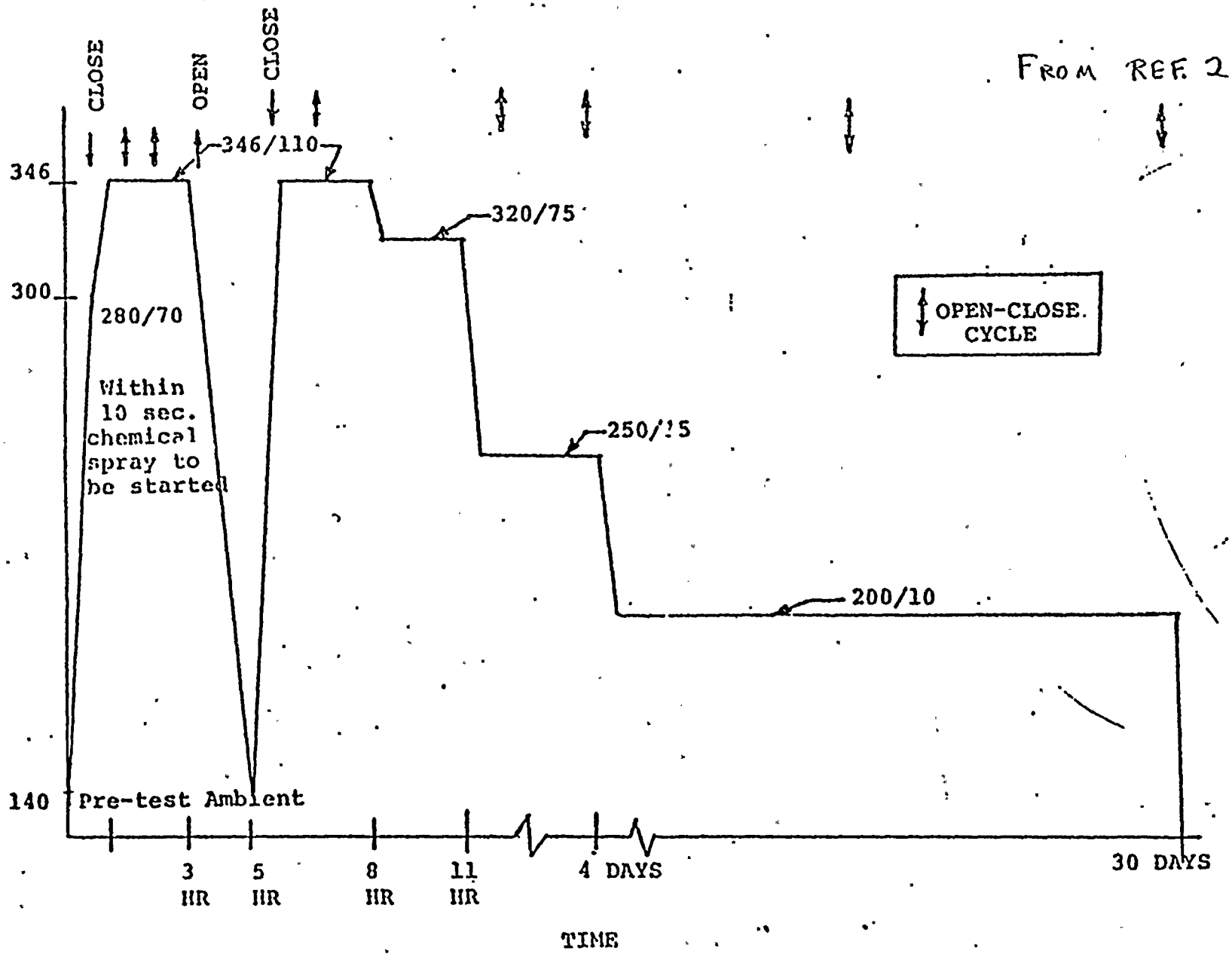


FIGURE 1
LOCA SIMULATION BY ENVIRONMENTAL EXPOSURE (STEAM/CHEMICAL)

Temperature/Pressure Profile for simulation of loss-of coolant accident (LOCA) design basis event (DBE) by steam/chemical-spray environmental exposure.

DONALD C. COOK NUCLEAR PLANT UNIT NO. 1 DOCKET NO. 50-315 LICENSE NO. DPR-58

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: RCP Seal water PLANT ID NO: QCM-250 COMPONENT: CONTROL CABLE TERMINATION MANUFACTURER: NA MODEL NUMBER: CABLE TERMINATION AT QCM-250 FUNCTION: ACCURACY: SPEC: NA DEMON: NA SERVICE: AT VALVE LIMIT SWITCH LOCATION: INSIDE CONTAINMENT	Operating Time	½ HR.	7 DAYS	108	22	SIMUL	NONE
	Temperature (°F)	328.2	330	102	22	"	"
	Pressure (PSIA)	29.1	104.7	103	22	"	"
	Relative Humidity (%)	100	100	102 103	22	"	"
	Chemical Spray	2000 PPM B 1.14 WT% BORIC ACID PH 8.5-11	2600 PPM B 1.5 WT% BORIC ACID PH 8.5-11	114	22 72	COMBINATION	NONE See Ref 72
	Radiation (10^6 rads)	.8	See note below	105	See note below	Engineering Review	NONE see note below
	Aging (years)						
FLOOD LEVEL ELEV: 614 ABOVE FLOOD LEVEL: NO	Submergence	Submerged	See Ref 68	117	68	Eng. Review	NONE See Ref 68

214-V5

*Documentation References:

Notes:
The valve served by this termination will close within 15 sec of receiving a phase A containment isolation signal. Therefore is not exposed to a radiation dose significantly beyond its normal environment and does not require radiation qualification

from Ref. 22. Qualified by Limitorque Corp. Test Laboratory
Project #600193. November 1968

22

Type of Test: simultaneous, steam
chemical spray
separate seismic test

Type Profile:

328°F, 90 psig for 1 hr
312°F, 70 psig for 2 hrs
287°F, 40 psig for 2 hrs
271°F, 20 psig for 19 hrs
250°F, 15 psig for 6 days

Chemical Spray:

1.5% boric acid buffered with Na OH to a PH of 7.67.

Seismic Test 8/20/79
Horizontal Force, 5.3 G at 35 Hz
Vertical force 5.3 G at 35 Hz
No resonance freq from 5 to 35 Hz

DONALD C. COOK NUCLEAR PLANT UNIT NO. 1 DOCKET NO. 50-315 LICENSE NO. DPR-58

111-112 V4

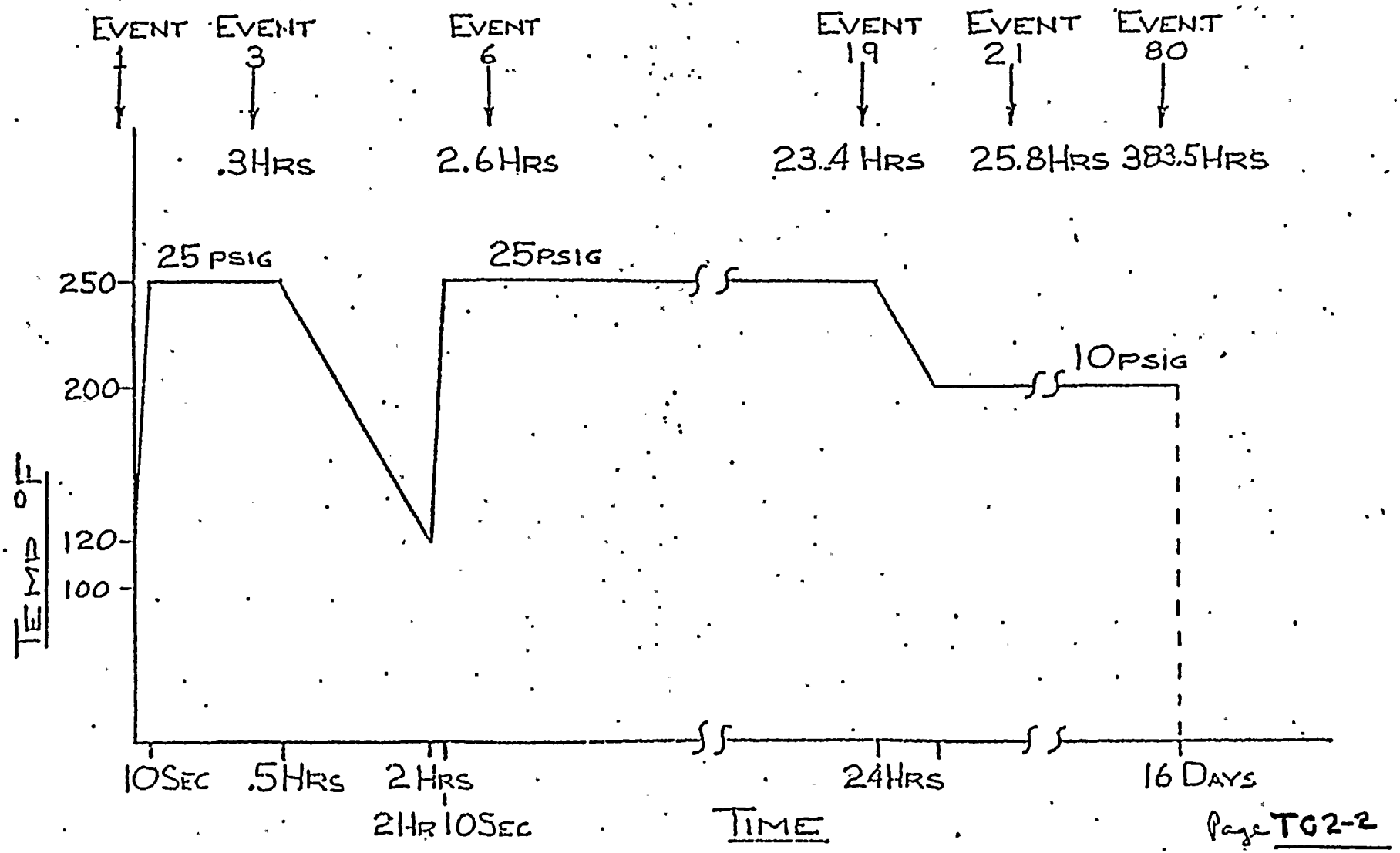
EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: Containment Air recirc. syst. PLANT ID NO: NA COMPONENT: CONTROL CABLE TERMINATION MANUFACTURER: NA MODEL NUMBER: CABLE TERMINATION AT VALVES FUNCTION: ACCURACY: SPEC: NA DEMON: NA SERVICE: VMO-101 -102 LOCATION: INSIDE CONTAINMENT	Operating Time	1/2 HR.	16 DAYS	108	24	SEQ	NONE
	Temperature (°F)	244	250	102	24	"	"
	Pressure (PSIA)	29.1	39.7	103	24	"	"
	Relative Humidity (%)	100	100	102 103	24	"	"
	Chemical Spray	see note below	See Ref 115	118	115	Engineering Review	NONE See Ref 115, 118
	Radiation (10^6 rads)	4.31	20	105	24	Sequential	NONE
	Aging (years)						
FLOOD LEVEL ELEV: 614' ABOVE FLOOD LEVEL: YES	Submergence	NA	NA	NA	NA	NA	NA

*Documentation References:

Notes:
Mechanical installation drawings show that valve location is not subject to direct caustic spray impingement. See Ref 118

TEMPERATURE PROFILE

From Ref. #24



DONALD C. COOK NUCLEAR PLANT UNIT NO. 1 DOCKET NO. 50-315 LICENSE NO. DPR-58

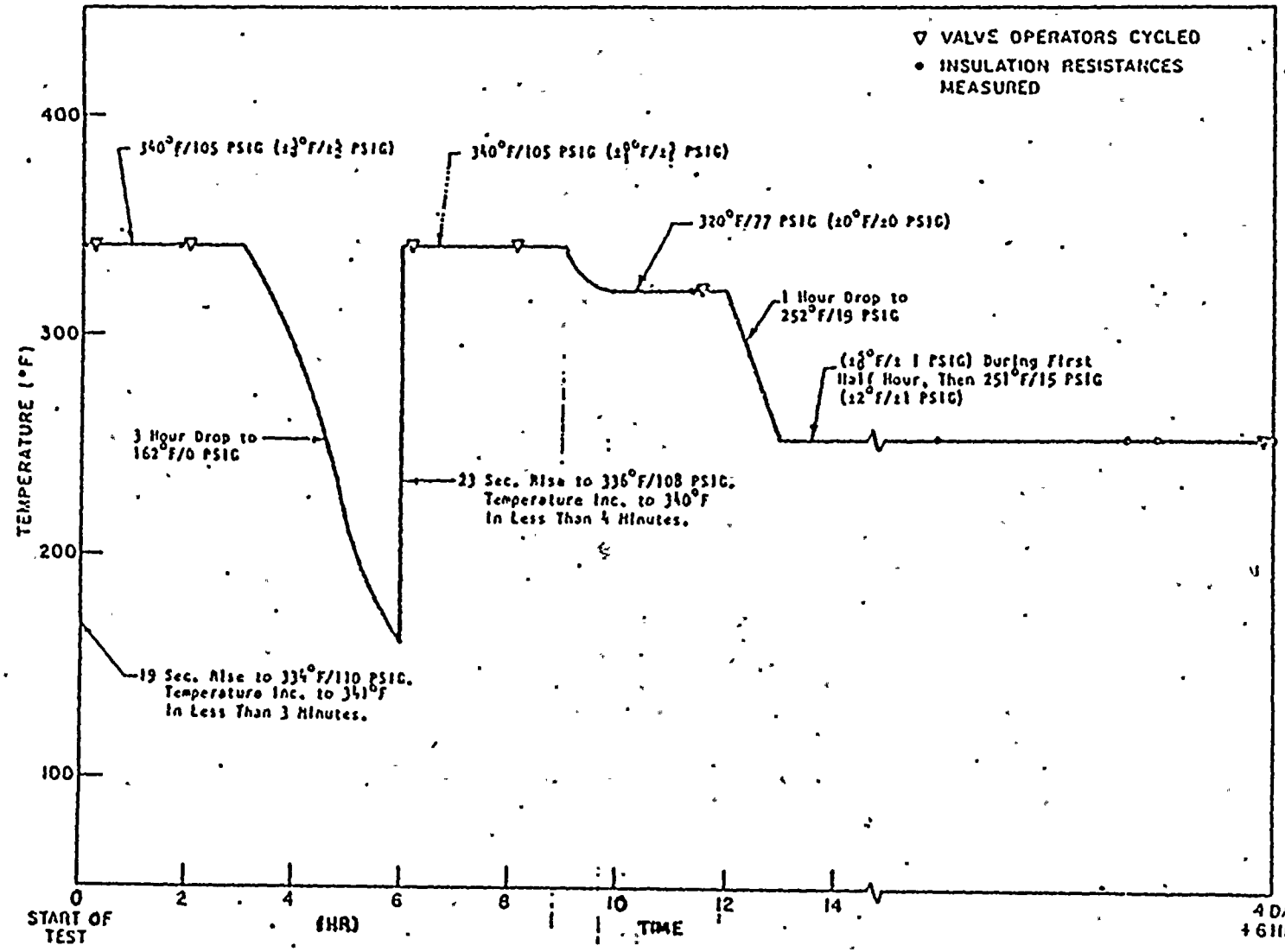
57-60 VI
92A VI
202-205 VI

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: Various PLANT ID NO: NA COMPONENT: CONTROL CABLE TERMINATION MANUFACTURER: NA MODEL NUMBER: CABLE TERMINATION AT VALVES FUNCTION: ACCURACY: SPEC: NA DEMON: NA SERVICE: VARIOUS LOCATION: INSIDE CONTAINMENT	Operating Time	½ HR.	30 DAYS	109	23	Sequential	NONE
	Temperature (°F)	328.2	340	102	23	"	"
	Pressure (PSIA)	29.1	119.7	103	23	"	"
	Relative Humidity (%)	100	100	102 103	23	"	"
	Chemical Spray	2000 ppm B 1.14 wt% BORK PH 9-11 ACID	2600 ppm B 1.5 wt% BORIC PH 8.5-11 ACID	114	22 72	COMBINATION	NONE See Ref 72
	Radiation (10^6 rads)	.8	20Y	105	23	Sequential	NONE
	Aging (years)						
FLOOD LEVEL ELEV: 614' ABOVE FLOOD LEVEL: NO	Submergence	SUBMERGED	SUBMERGENCE	117	23	Sequential	None

*Documentation References:

Notes:

from Ref. 23



Actual Steam Exposure Profile

DONALD C. COOK NUCLEAR PLANT UNIT NO. 1 DOCKET NO. 50-315 LICENSE NO. DPR-58

82,83,87,88 V2

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: Safety Injection PLANT ID NO: NA COMPONENT: CONTROL CABLE TERMINATION MANUFACTURER: NA MODEL NUMBER: CONTROL CABLE TERMINATION AT VALVES FUNCTION: ACCURACY: SPEC: NA DEMON: NA SERVICE: ECCS safety Injection. LOCATION: INSIDE CONTAINMENT	Operating Time	1 DAY	30 DAYS	110	16	SEQ.	NONE
	Temperature (°F)	244	315	102	16	"	"
	Pressure (PSIA)	29.1	84.7	103	16	"	"
	Relative Humidity (%)	100	100	102 103	16	"	"
	Chemical Spray	2000 ppm B 1.14wt% BORIC PH9-11 Acid	3000 ppm B 1.72wt% BORIC PH8.5-11 Acid	112	16 72	COMBINATION	NONE See Ref 72
	Radiation (10^6 rads)	28	204	105	16	SEQ.	NONE
	Aging (years)						
FLOOD LEVEL ELEV: 614 ABOVE FLOOD LEVEL: YES	Submergence	NA	NA	NA	NA	NA	NA

*Documentation References:

Notes:

FROM REF. #16

Specified Accident Profile

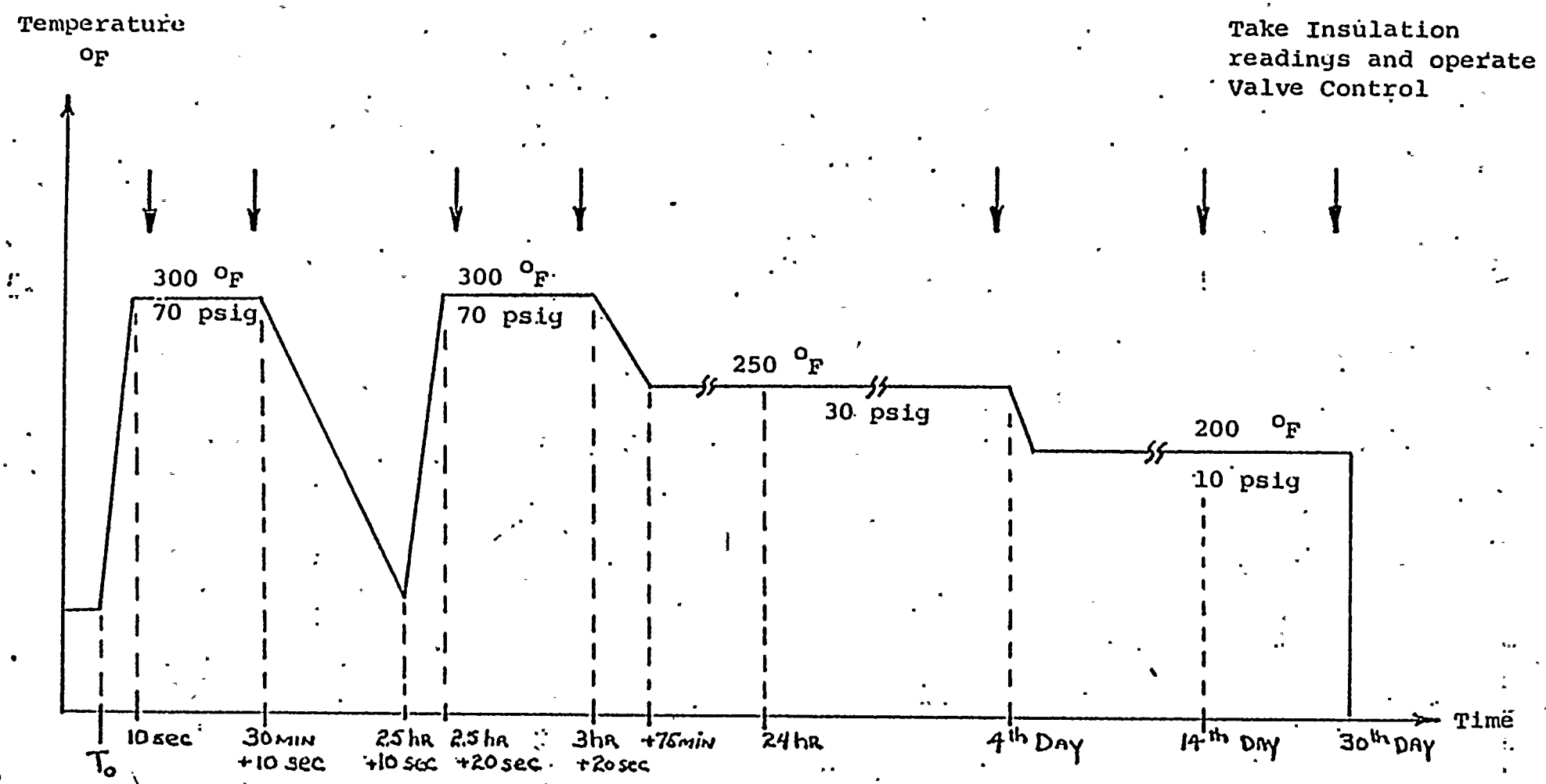


Figure 5

PAGE TC4-V

FROM REF. #16

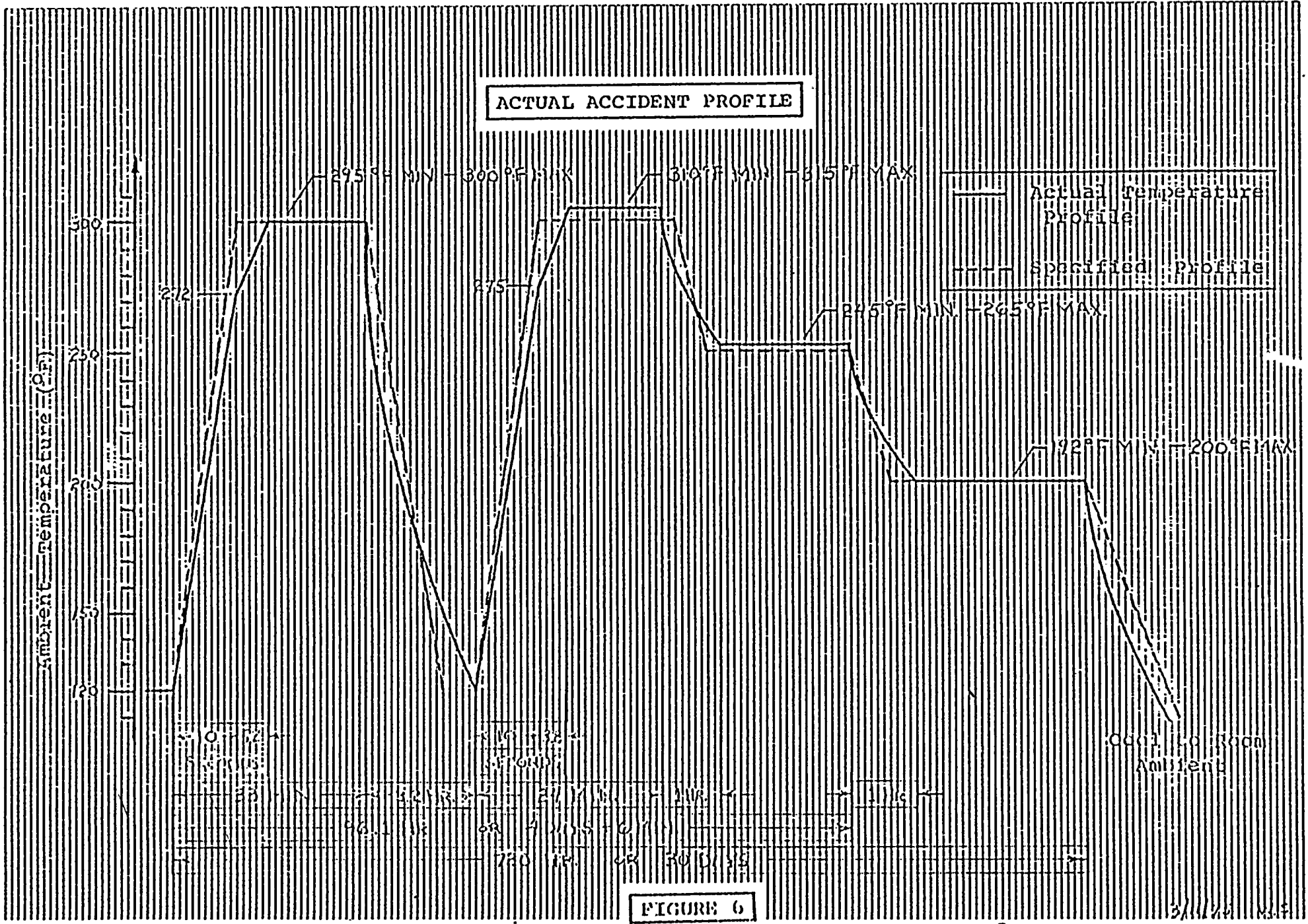


FIGURE 6

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DONALD C. COOK NUCLEAR PLANT UNIT NO. 1 DOCKET NO. 50-315 LICENSE NO. DPR-58

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: VARIOUS PLANT ID NO: NA COMPONENT: CONTROL CABLE TERMINATION MANUFACTURER: NA MODEL NUMBER: SOLID KAPTON SPLICED TO STRANDED KAPTON FUNCTION: TERM. AT PENETRATION INSIDE FLOOD UP TUBES. ACCURACY: SPEC: NA DEMON: NA SERVICE: VARIOUS LOCATION: INSIDE CONTAINMENT	Operating Time	14 DAYS	>14 DAYS	118	13 63	COMBINATION	NONE See Ref 63
	Temperature (°F)	328.2	340	102	13	SEQUENTIAL	NONE
	Pressure (PSIA)	29.1	118	103	13	"	"
	Relative Humidity (%)	100	100	102 103	13	"	"
	Chemical Spray	NA	2500 PPM B 1.43 WT% BORIC PH 8.5-11 ACID	114	13 72	COMBINATION	NONE See Ref 72
	Radiation (10^6 rads)	14.4	60	105	13	SEQ.	NONE
	Aging (years)						
FLOOD LEVEL ELEV: 614' ABOVE FLOOD LEVEL: No	Submergence	NA	NA	NA	NA	NA	NA

57-60 V1.
82,83,87,88 V2
92A V1
111-112-V4
202-203 V1
214 V5
226-231 S11, V9

*Documentation References:

Notes:

FIGURE 2 [illegible] PROFILE

From Ref. 13

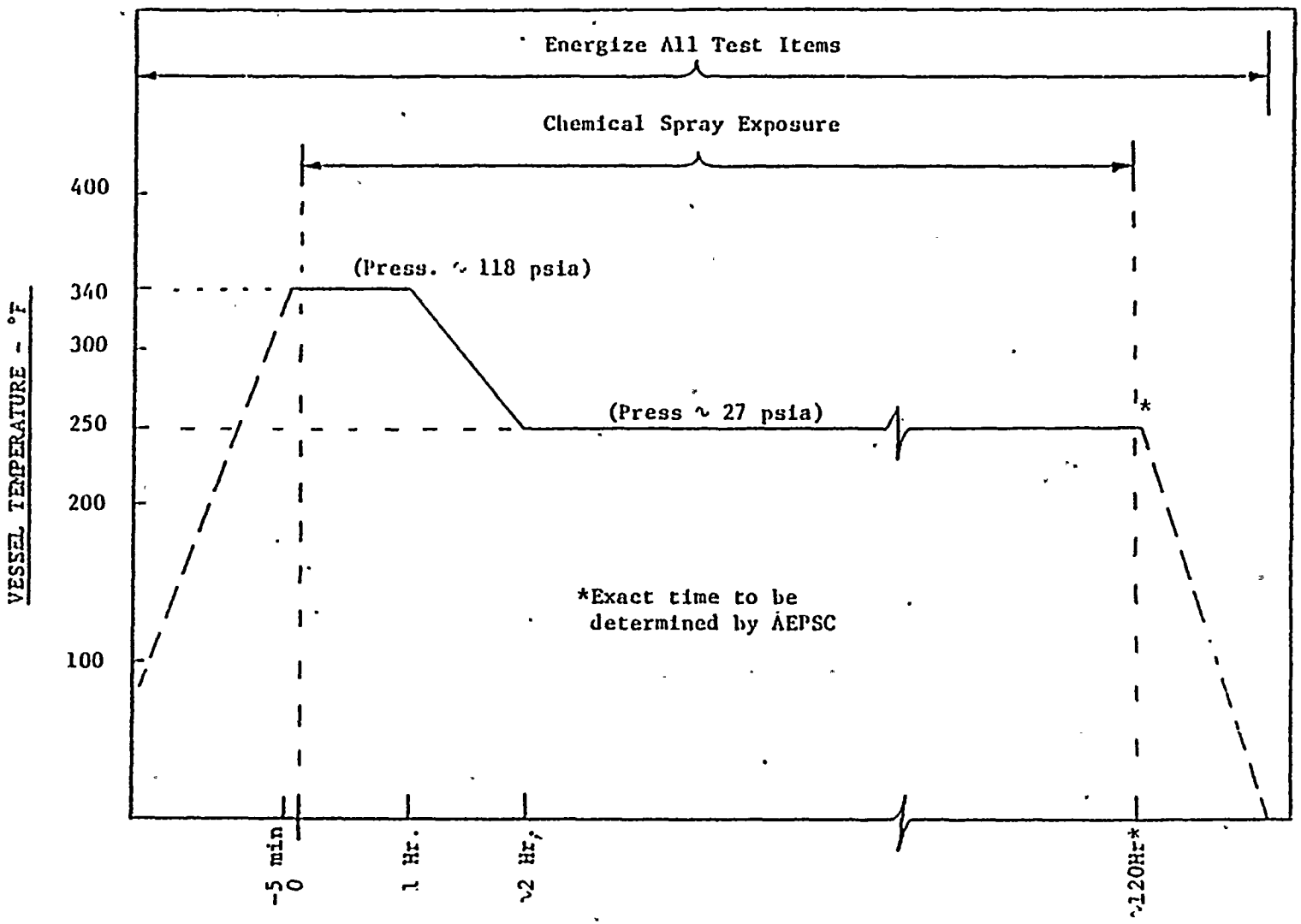
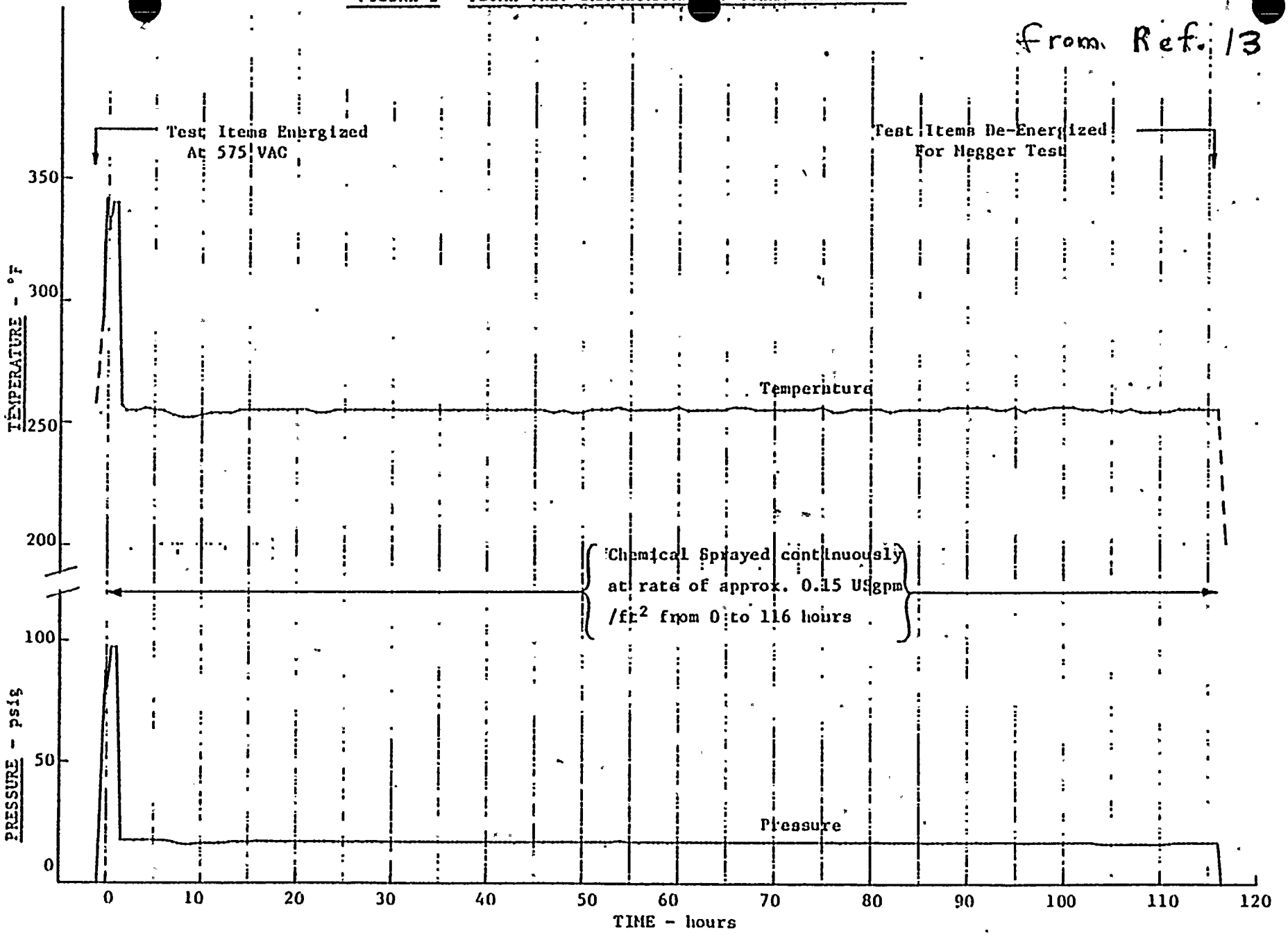


FIGURE 3 TOTAL TEST TEMPERATURE AND PRESSURE PROFILE

From Ref. 13



DONALD C. COOK NUCLEAR PLANT UNIT NO. 1 DOCKET NO. 50-315 LICENSE NO. DPR-58

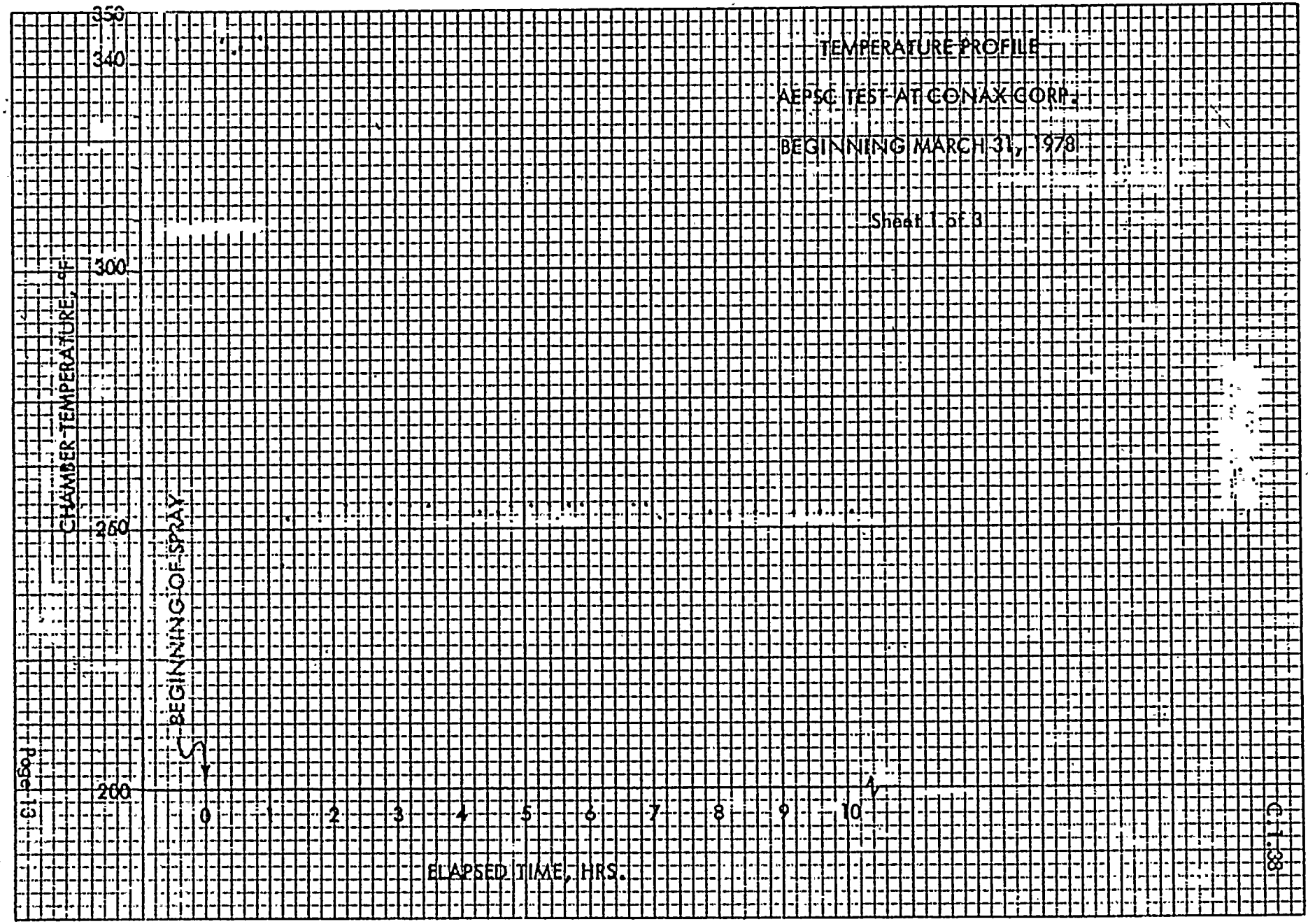
EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: VARIOUS PLANT ID NO: NA COMPONENT: CONTROL CABLE TERMINATION MANUFACTURER: NA MODEL NUMBER: STRANDED KAPTON SPLICED TO XL POLYETHYLENE FUNCTION: TERM. AT FLOOD UP TERMINATION BOX ACCURACY: SPEC: NA DEMON: NA SERVICE: VARIOUS LOCATION: INSIDE CONTAINMENT	Operating Time	14 days	> 14 days	118	8 L3	Combination	NONE See Ref. 63
	Temperature (°F)	328.2	345	102	8	Sequential	NONE
	Pressure (PSIA)	29.1	124.7	103	8	"	"
	Relative Humidity (%)	100	100	102 103	8	"	"
	Chemical Spray	2000 PPM B 1.14 WT% BORIC ACID PH 9-11	2500 PPM B 1.43 WT% BORIC PH 8.5-11 ACID	114	8 72	COMBINATION	NONE See Ref 72
	Radiation (10^6 rads)	8.1	150	105	8	SEQ.	NONE
	Aging (years)						
FLOOD LEVEL ELEV: 614' ABOVE FLOOD LEVEL: YES	Submergence	NA	NA	NA	NA	NA	NA

57-60 VI
82, 83, 87, 88 V2
92A VI
111-112 V4
202-203 VI
214 V5
226-231 S11, V5

*Documentation References:

Notes:

from REF. #8



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C.I. 88

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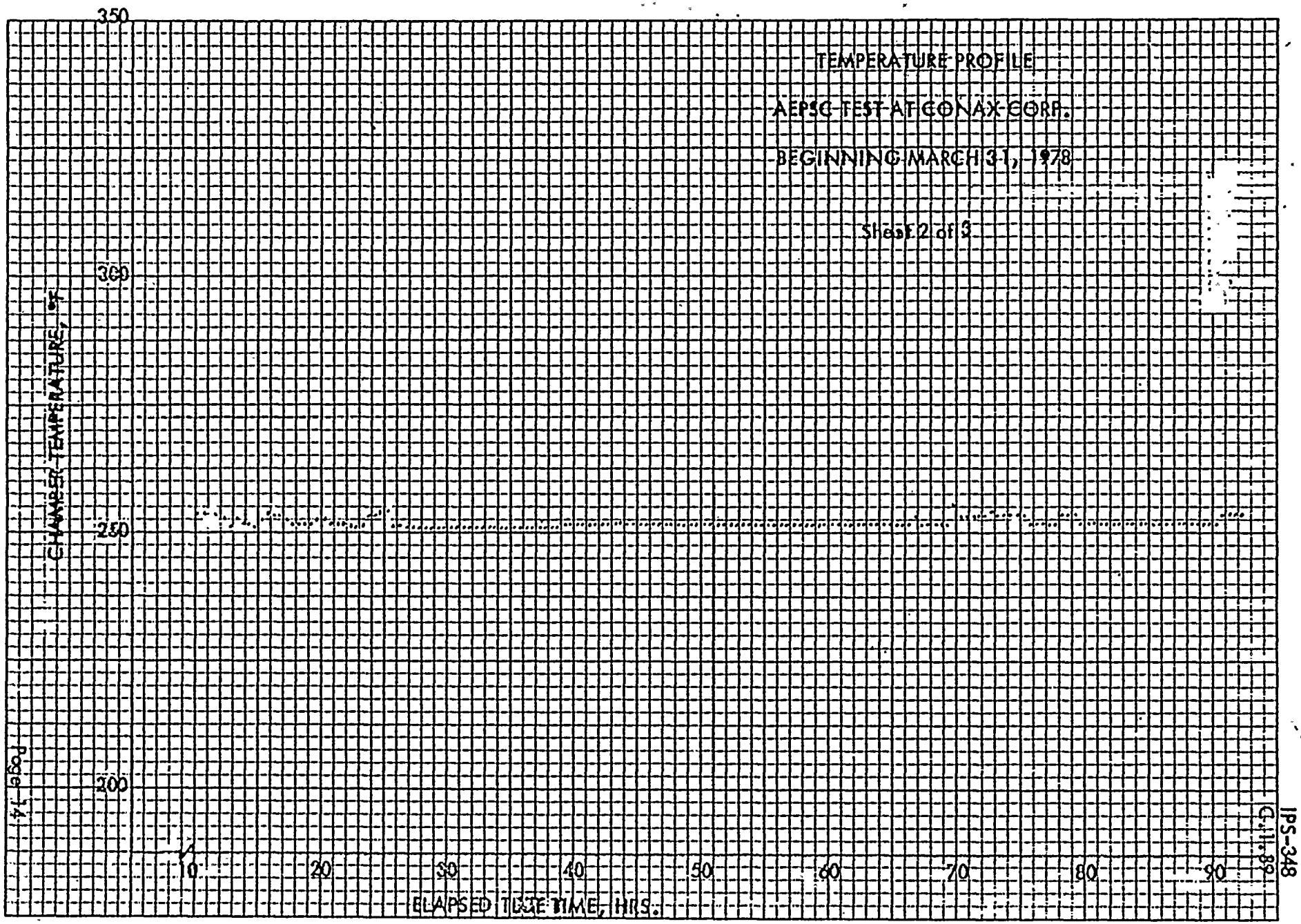
from Ref. #8

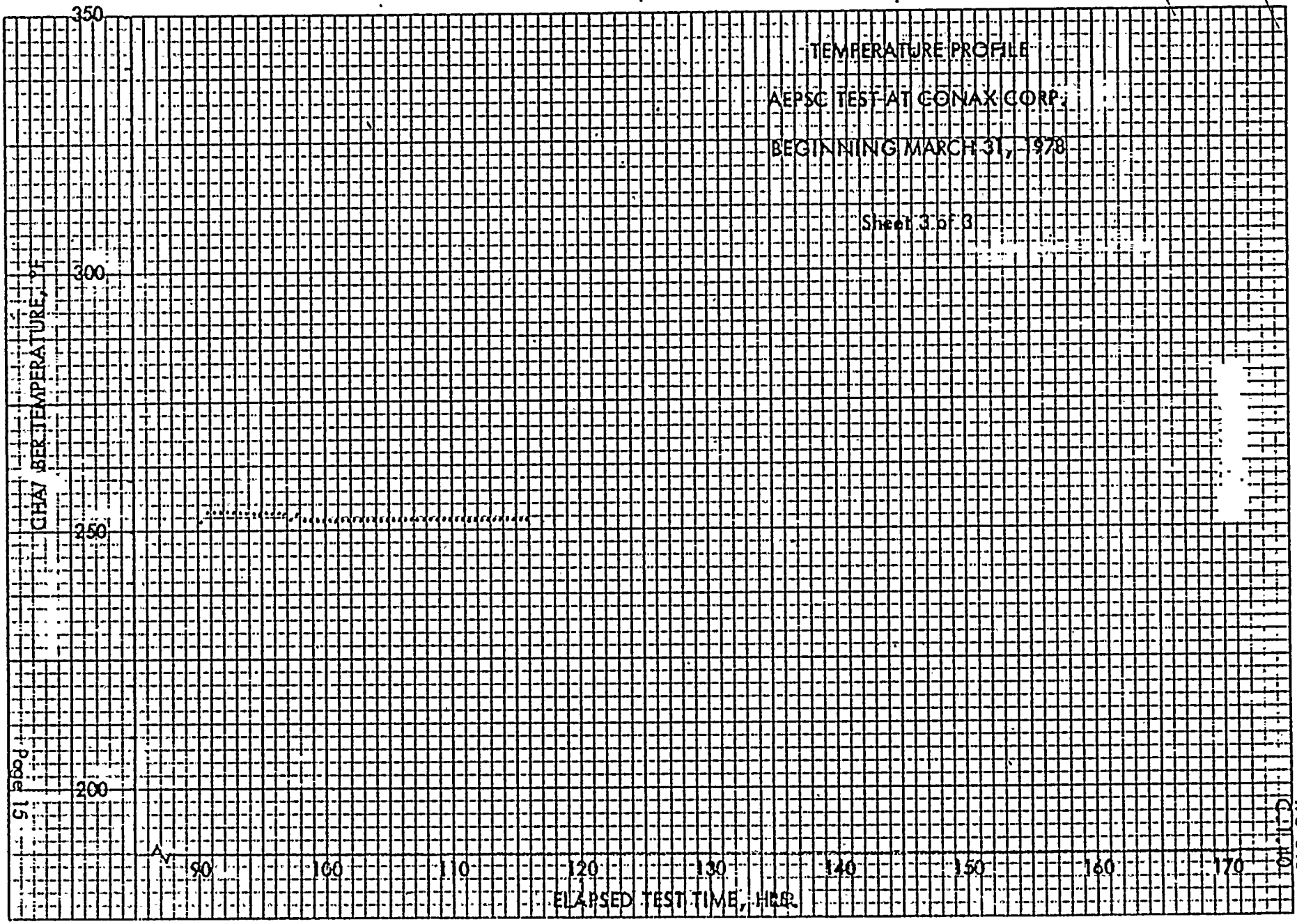


IPS-348 G.L. 82

Page 14

PROG TC7-3

From Ref. #8



PAGE TC-7-4

DONALD C. COOK NUCLEAR PLANT UNIT NO. 1 DOCKET NO. 50-315 LICENSE NO. DPR-58

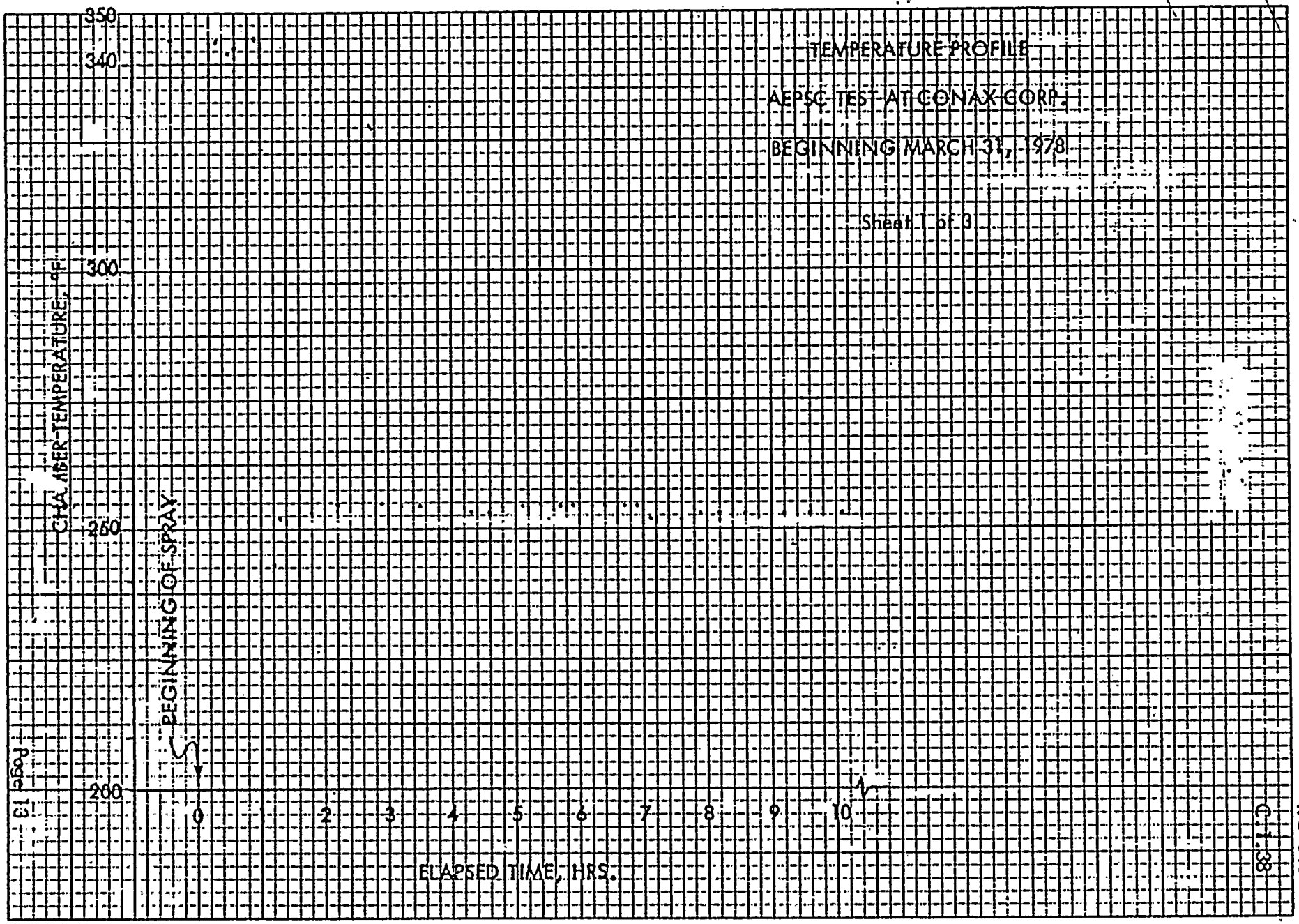
EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: VARIOUS PLANT ID NO: NA COMPONENT: CABLE TERMINATION MANUFACTURER: NA MODEL NUMBER: XL POLYETHYLENE SOLID SPLICED TO XL POLYETHYLENE SOLID. FUNCTION: TERM. AT TERM BOX AND VALVE ACTUATOR. ACCURACY: SPEC: NA DEMON: NA SERVICE: VARIOUS LOCATION: INSIDE CONTAINMENT	Operating Time	14 days	> 14 days	118	8 63	Combination	NONE See Ref 63
	Temperature (°F)	328.2	345	102	8	Sequential	NONE
	Pressure (PSIA)	29.1	124.7	103	8	"	"
	Relative Humidity (%)	100	100	102 103	8	"	"
	Chemical Spray	2000 PPM B 1.14 WT % BORIC ACID PH 9-11	2500 PPM B 1.43 WT % BORIC ACID PH 8.5-11	114	8 72	COMBINATION	NONE See Ref 72
	Radiation (10^6 rads)	81	150	105	8	SEQ.	NONE
	Aging (years)						
FLOOD LEVEL ELEV: 614' ABOVE FLOOD LEVEL: YES	Submergence	Submerged	See Ref 68	117	68	Eng. Review	NONE See Ref 68

57-58 V1
82-83 V2
87-88 V2
111-112 V4
92A V1
214-223 V5, S17
226-231 S11, V9

*Documentation References:

Notes:

from Ref. #8



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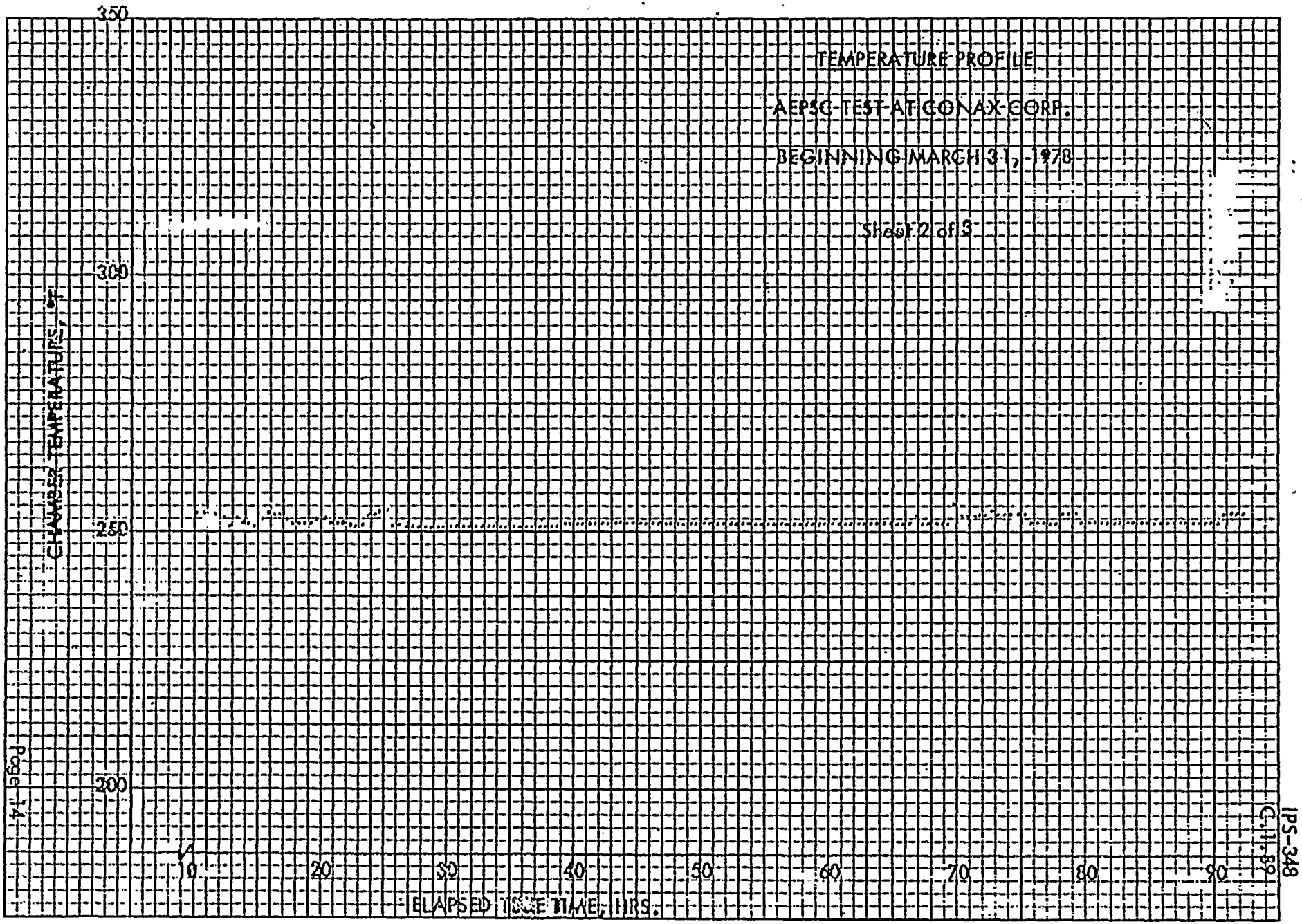
C-1-38

PAGE TOP ↑

from REF. #8



IPS-348
G-11-89

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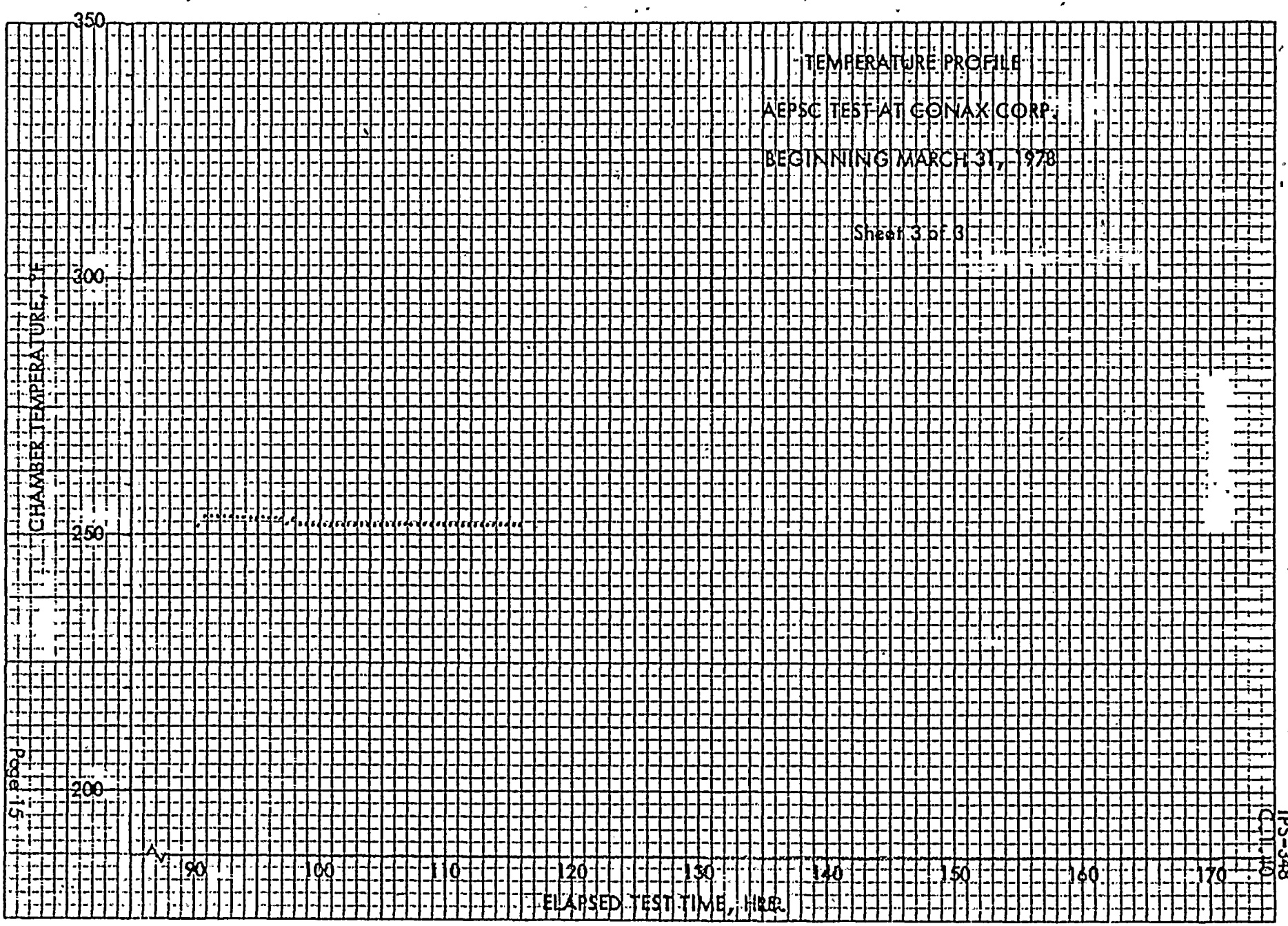
PAGE TCF-3

From Ref. #8



PAGE TCS-4

DONALD C. COOK NUCLEAR PLANT UNIT NO. 1 DOCKET NO. 50-315 LICENSE NO. DPR-58

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: VARIOUS PLANT ID NO: VARIOUS COMPONENT: CONTROL CABLE TERMINATION MANUFACTURER: N/A MODEL NUMBER: VARIOUS FUNCTION: TERM. AT VALVE MOTOR OPERATOR ACCURACY: SPEC: NA DEMON: NA SERVICE: VARIOUS LOCATION: OUTSIDE CONTAINMENT	Operating Time	1 DAY	30 DAY	110	23	Sequential	NONE
	Temperature (°F)	230	340	107	23		"
	Pressure (PSIA)	26.2	119.7	107	23		"
	Relative Humidity (%)	100	100	107	23		"
	Chemical Spray	NA	2600 ppm B 1.5 WT % BORIC ACID PH 8.5-11	NA	23 72	COMBINATION	NONE See Ref 72
	Radiation (10^6 rads)	4	204	106	23	SEQ.	NONE
	Aging (years)						
FLOOD LEVEL ELEV: NA ABOVE FLOOD LEVEL: NA	Submergence	NA	Submergence	NA	23	Sequential	NA

89-90 V7
101-108V7

*Documentation References:

Notes:

from Ref. 23

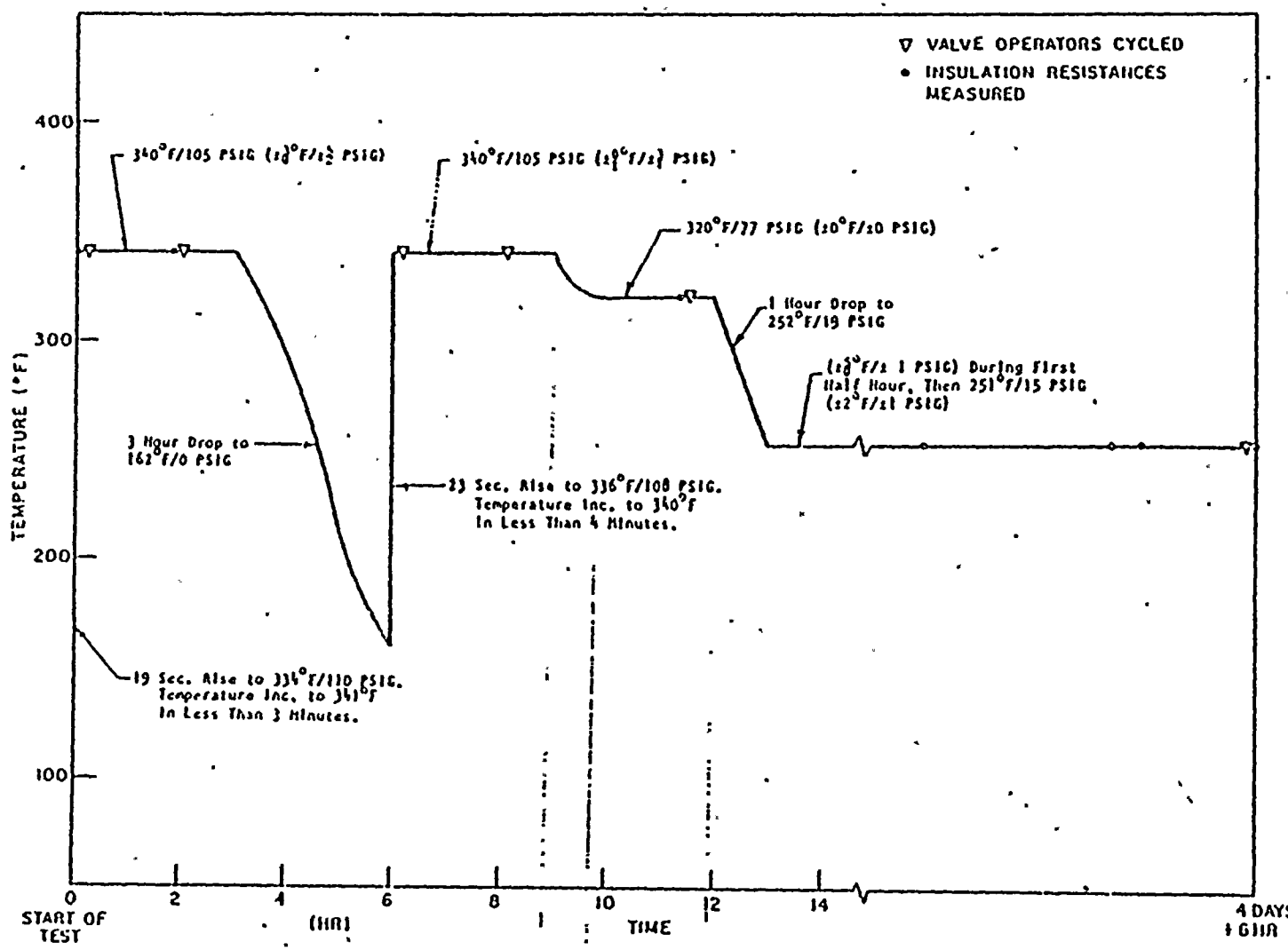


Figure 3. Actual Steam Exposure Profile

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DONALD C. COOK NUCLEAR PLANT UNIT NO. 1 DOCKET NO. 50-315 LICENSE NO. DPR-58

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: VARIOUS PLANT ID NO: NA COMPONENT: CONTROL CABLE TERMINATION MANUFACTURER: NA MODEL NUMBER: TERM. AT VALVE MOTOR OPR. FUNCTION: VARIOUS ACCURACY: SPEC: NA DEMON: NA SERVICE: VARIOUS LOCATION: OUTSIDE CONTAINMENT	Operating Time	1 DAY	16 DAYS	110	24	SEQ	NONE
	Temperature (°F)	230	250	107	24	"	"
	Pressure (PSIA)	26.2	39.7	107	24	"	"
	Relative Humidity (%)	100	100	107	24	"	"
	Chemical Spray	NA	NA	NA	NA	NA	NA
	Radiation (10^6 rads)	4	20	106	24	Sequential	NONE
	Aging (years)						
FLOOD LEVEL ELEV: NA ABOVE FLOOD LEVEL: NA	Submergence	NA	NA	NA	NA	NA	NA

17-24 V6
30-33 V6
35-38 V6
45-44 V6
49-50 V6
61-62 V6
64-67 V6
79-81 V6
84-86 V6
204-207 V6
212-213 V6
41-42 VII
68-70 VII
91-92 VII
210-211 VII

*Documentation References:

Notes:

TEMPERATURE PROFILE

From Ref. 24

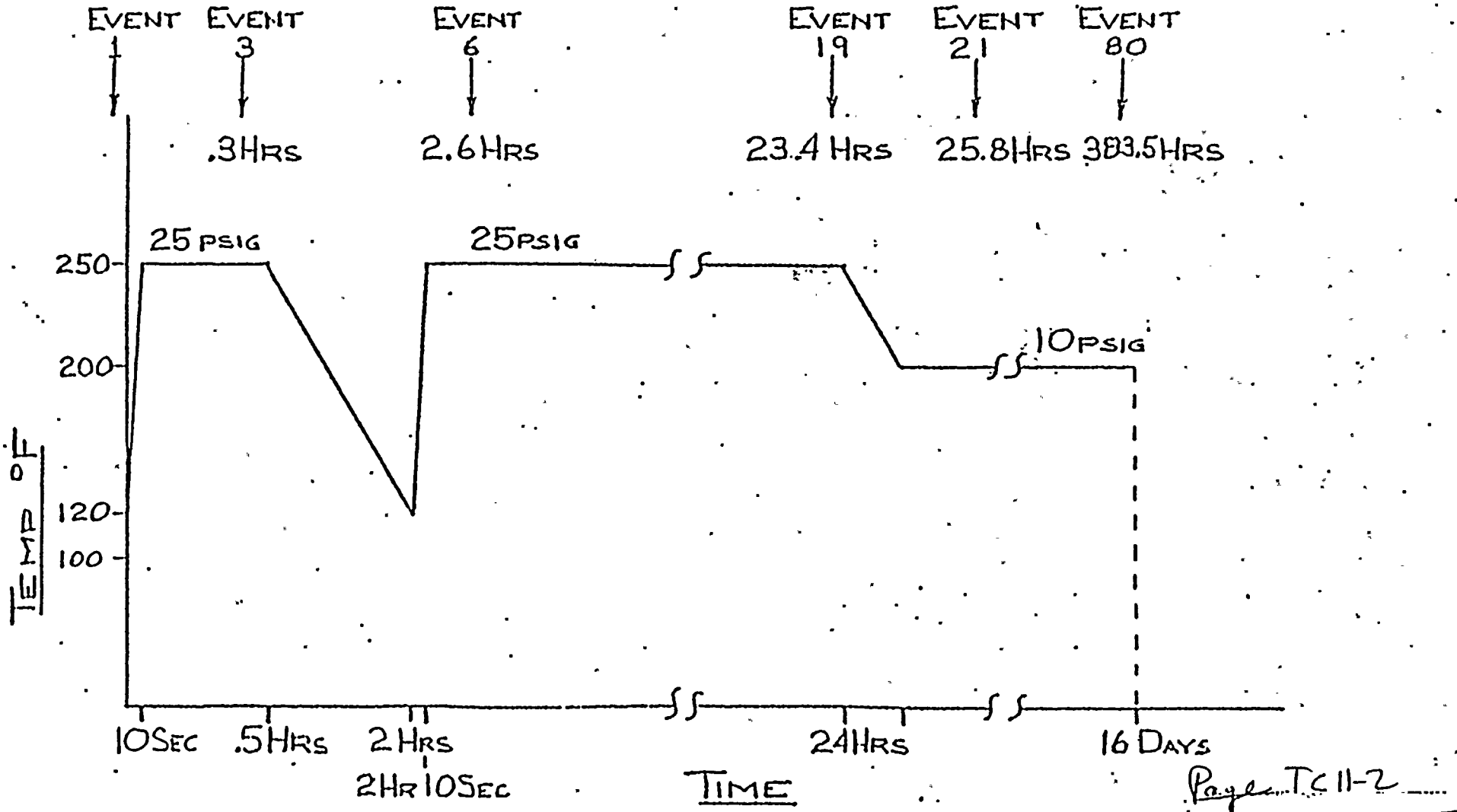

FIGURE 1

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DONALD C. COOK NUCLEAR PLANT UNIT NO. 1 DOCKET NO. 50-315 LICENSE NO. DPR-58

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: PRESSURIZER PLANT ID NO: NA COMPONENT: CONTROL CABLE TERMINATION MANUFACTURER: NA MODEL NUMBER: TERM. AT VALVE MOTOR OPERATOR FUNCTION: PZR. RELIEF BLOCK VALVES ACCURACY: SPEC: NA DEMON: NA SERVICE: PZR. RELIEVE LINE LOCATION: INSIDE CONTAINMENT	Operating Time	14 days	16 DAYS	118	24	SEQ	NONE
	Temperature (°F)	234	250	102	24	"	"
	Pressure (PSIA)	27	39.7	103	24	"	"
	Relative Humidity (%)	100	100	102 103	24	"	"
	Chemical Spray	See note below	See Ref. 116	116	116	Eng. Review	NONE See Ref 116
	Radiation (10^6 rads)	7	20	105	24	Sequential	NONE
	Aging (years)						
FLOOD LEVEL ELEV: 614' ABOVE FLOOD LEVEL: YES	Submergence	NA	NA	NA	NA	NA	NA

229-231 V9

*Documentation References:

Notes:
VALVE LOCATION IS NOT SUBJECTED TO DIRECT CAUSTIC SPRAY IMPINGEMENT AS PER MECH. INSTALLATION DWGS.: See Ref 116

TEMPERATURE PROFILE

from Ref. 24

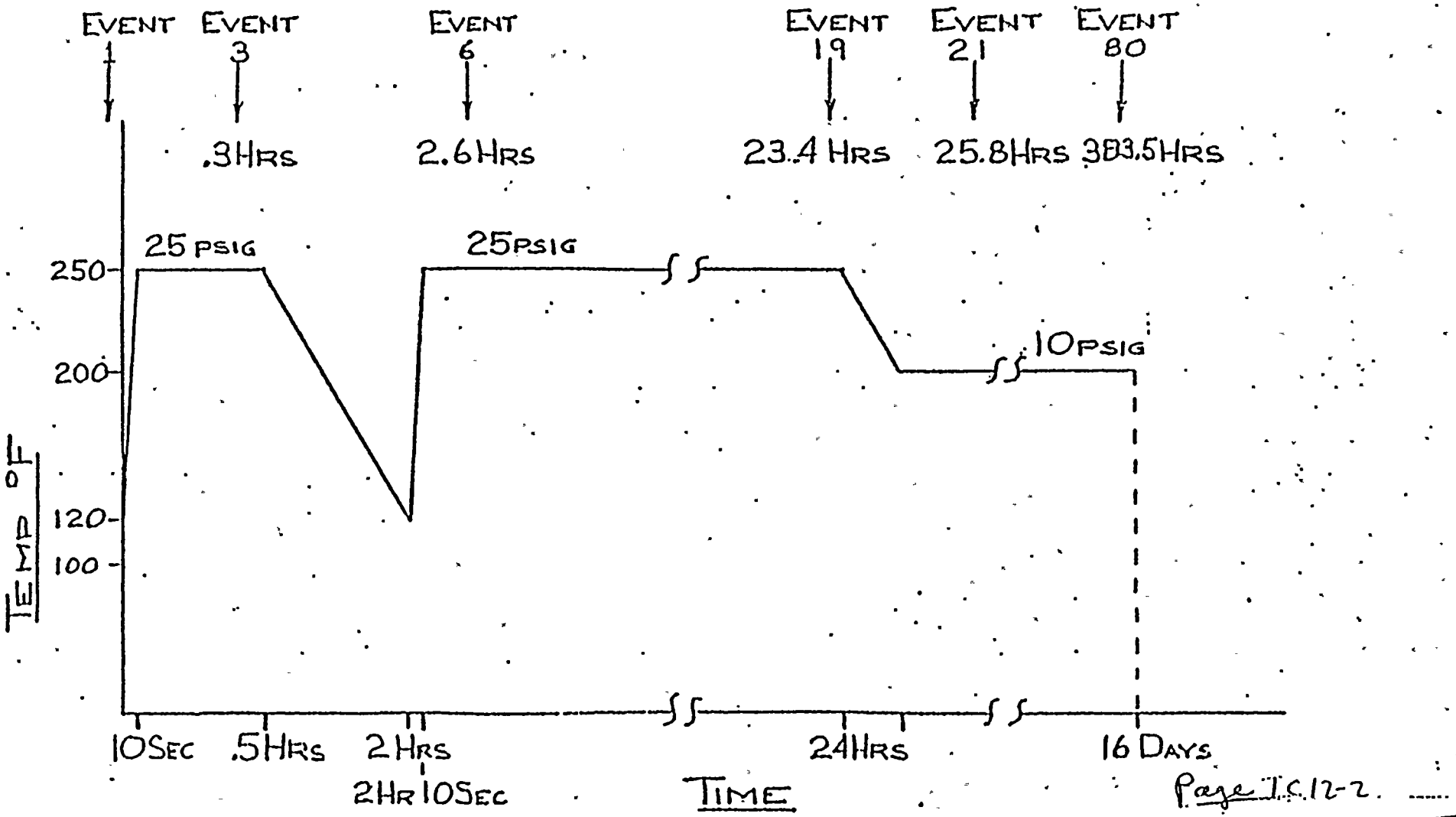

FIGURE 1

DONALD C. COOK NUCLEAR PLANT UNIT NO. 1 DOCKET NO. 50-315 LICENSE NO. DPR-58

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: VARIOUS PLANT ID NO: NA COMPONENT: CABLE TERMINATION MANUFACTURER: NA MODEL NUMBER: NA FUNCTION: CABLE CONNECTION AT TERMINAL BLOCK ACCURACY: SPEC: NA DEMON: NA SERVICE: VARIOUS LOCATION: OUTSIDE CONTAINMENT	Operating Time	24 HRS.	116 HRS.	110	45	SIMUL.	NONE
	Temperature (°F)	230	345	107	45	"	"
	Pressure (PSIA)	26.2	124.7	107	45	"	"
	Relative Humidity (%)	100	100	107	45	"	"
	Chemical Spray	NA	2500 ppm B 1.43 WT % BORIC PH 8.5-11 ACID	NA	45 72	COMBINATION	NONE See Ref 72
	Radiation (10^6 rads)	4	20	106	46	SEQ.	NONE
	Aging (years)						
FLOOD LEVEL ELEV: NA ABOVE FLOOD LEVEL: NA	Submergence	NA	NA	NA	NA	NA	NA

1-4 S7
7-8 S7
17-28 V6, S3
30-33 V6
35-38 V6
41-44 V11, V6
49-50 V6
61-70 V6, V11
79-81 V6
84-86 V6
89-92 V7, V11
101-108 V7
204-211 V6, V11 V10
5-6 S7

*Documentation References:

Notes:

from Ref. 45

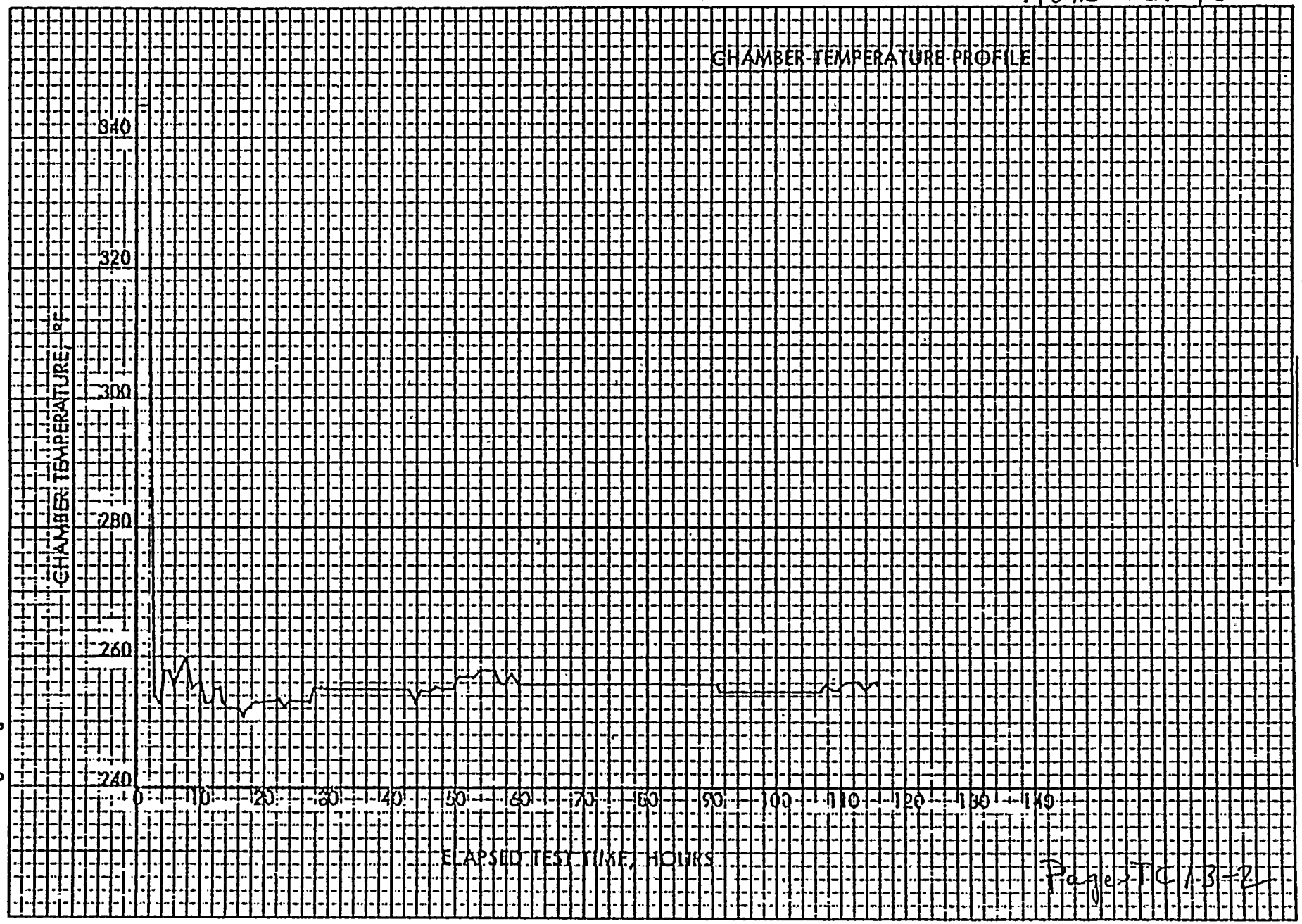

FIGURE 6.1

DONALD C. COOK NUCLEAR PLANT UNIT NO. 1 DOCKET NO. 50-315 LICENSE NO. DPR-58

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: RHR PLANT ID NO: NA COMPONENT: CONTROL CABLE TERMINATION MANUFACTURER: NA MODEL NUMBER: NA FUNCTION: CONNECTS CONT. CABLE TO VLVE. MOT. OPERATOR ACCURACY: SPEC: NA DEMON: NA SERVICE: RECIRCULATION SWITCHOVER TO SUMP SUCTION LOCATION: OUTSIDE CONTAINMENT	Operating Time	2 hrs	7 DAYS	118	22	SIMUL.	NONE
	Temperature (°F)	NA	330	NA	22	"	"
	Pressure (PSIA)	NA	104.7	NA	22	"	"
	Relative Humidity (%)	NA	100	NA	22	"	"
	Chemical Spray	NA	2600 PPM B 1.5 wt% BORIC PH 8.5-11 ACID	NA	22 72	COMBINATION	NONE See Ref 72
	Radiation (10^6 rads)	.2	100	106	1	SEQUENTIAL	NONE
	Aging (years)						
FLOOD LEVEL ELEV: NA ABOVE FLOOD LEVEL: NA	Submergence	NA	NA	NA	NA	NA	NA

208-209 V10

*Documentation References:

Notes:

from Ref. 22. Qualified by Limitorque Corp. Test Laboratory
Project #600198. November 1968

Type of Test: simultaneous, steam
chemical spray
separate seismic test

Type Profile:

328°F, 90 psig for 1 hr
312°F, 70 psig for 2 hrs
287°F, 40 psig for 2 hrs
271°F, 20 psig for 19 hrs
250°F, 15 psig for 6 days

Chemical Spray:

1.5% boric acid buffered with Na OH to a PH of 7.6%.

Seismic Test 8/20/79
Horizontal Force, 5.3 G at 35 Hz
Vertical force 5.3 G at 35 Hz
No resonance freq from 5 to 35 Hz

DONALD C. COOK NUCLEAR PLANT UNIT NO. 1 DOCKET NO. 50-315 LICENSE NO. DPR-58

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: VARIOUS PLANT ID NO: NA COMPONENT: CONTROL CABLE TERMINATION MANUFACTURER: NA MODEL NUMBER: NA FUNCTION: CONNECT CONTROL CABLE TO SOLENOID ACCURACY: SPEC: NA DEMON: NA SERVICE: VARIOUS LOCATION: OUTSIDE CONTAINMENT	Operating Time	25 SEC.	>1 HR.	101	63 65	Eng. Review	NONE See Ref 63
	Temperature (°F)	230	>230	107	65	"	NONE See Ref 65
	Pressure (PSIA)	26.2	>26.2	107	65	"	"
	Relative Humidity (%)	100	100	107	65	"	"
	Chemical Spray	NA	NA	NA	NA	NA	NA
	Radiation (10^6 rads)	NA	NA	NA	NA	NA	NA
	Aging (years)						
FLOOD LEVEL ELEV: NA ABOVE FLOOD LEVEL: NA	Submergence	NA	NA	NA	NA	NA	NA

*Documentation References:

Notes:

1-4 S7
7 S7
8 S7
25-28 S3

DONALD C. COOK NUCLEAR PLANT UNIT NO. 1 DOCKET NO. 50-315 LICENSE NO. DPR-58

215-223 S17
226-228 S11
150 0,1,1
75-28 53

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: VARIOUS PLANT ID NO: NA COMPONENT: CONTROL CABLE TERMINATION MANUFACTURER: NA MODEL NUMBER: NA FUNCTION: CONNECTS CONTROL CABLE TO SOLENOID ACCURACY: SPEC: NA DEMON: NA SERVICE: VARIOUS LOCATION: INSIDE / OUTSIDE CONTAINMENT	Operating Time	1 DAY	30 DAYS	101	29	SEQUENTIAL	NONE
	Temperature (°F)	328.2	346	102	29	SEQUENTIAL	NONE
	Pressure (PSIA)	29.1	110	103	29	"	"
	Relative Humidity (%)	100	100	102 103	29	"	"
	Chemical Spray	2000 PPM B 1.14% WT. BORIC ACID pH 8.5-11	3000 PPM B BORIC ACID WITH .064 M $NA_2S_2O_3$	104	72 29	COMBINATION	NONE See Ref 72
	Radiation (10^6 rads)	28	150	105	29	SEQUENTIAL	NONE
	Aging (years)					"	"
FLOOD LEVEL ELEV: 614' ABOVE FLOOD LEVEL: YES	Submergence	NA	NA	NA	NA	NA	NA

*Documentation References:

Notes:

from REF. 29

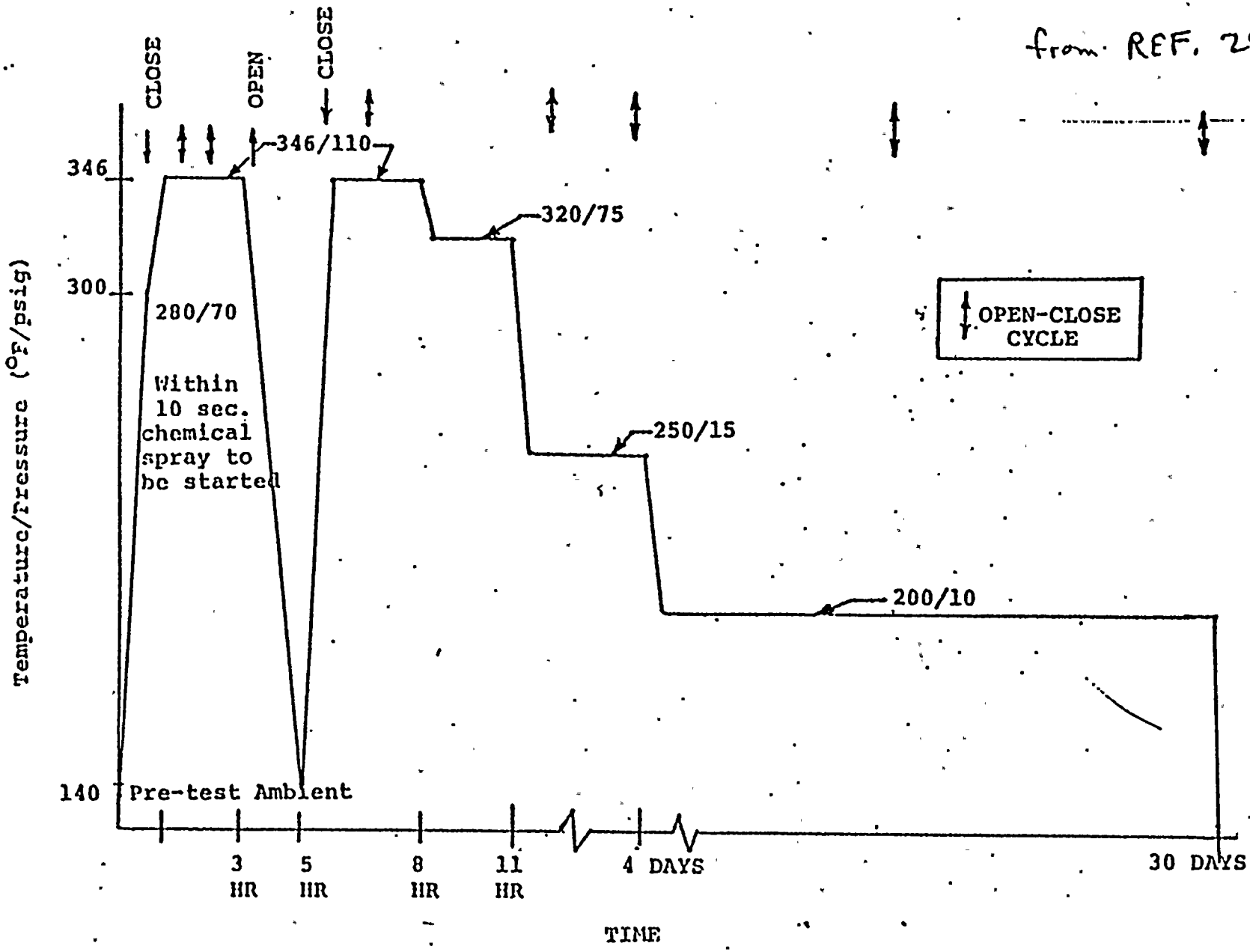

FIGURE 1
LOCA SIMULATION BY ENVIRONMENTAL EXPOSURE (STEAM/CHEMICAL)

Temperature/Pressure Profile for simulation of loss-of coolant accident (LOCA) design basis event (DBE) by steam/chemical-spray environmental exposure.

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DONALD C. COOK NUCLEAR PLANT UNIT NO. 1 DOCKET NO. 50-315 LICENSE NO. DPR-58

226-228

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: PRESSURIZER PLANT ID NO: FT-37 COMPONENT: SEAL ASSEMBLY MANUFACTURER: CONAX Corp MODEL NUMBER: NA FUNCTION: TO SEAL LIMIT SW. ENCLOSURE ACCURACY: SPEC: NA DEMON: NA SERVICE: PORV LIMIT SW. LOCATION: IN CONTAINMENT	Operating Time	14 days	30 DAYS	118	75	Manufacturers Eng. Analysis	NONE
	Temperature (°F)	328.2	340	102	75	"	"
	Pressure (PSIA)	29.1	194	103	75	"	"
	Relative Humidity (%)	100	100	102 103	75	"	"
	Chemical Spray	2000 ppm B 1.14 wt % Boric Acid PH 9-11	3000 ppm B 1.72 wt % Boric Acid PH 9-11	114	75 72	"	NONE See Ref 72
	Radiation (10^6 rads)	77	223.8	105	75	"	NONE
	Aging (years)						
FLOOD LEVEL ELEV: 614' ABOVE FLOOD LEVEL: YES	Submergence	NA	NA	NA	NA	NA	NA

*Documentation References:

Notes:

Form EGQ #97-1

DONALD C. COOK NUCLEAR PLANT UNIT NO. 1 DOCKET NO. 50-315 LICENSE NO. DPR-58

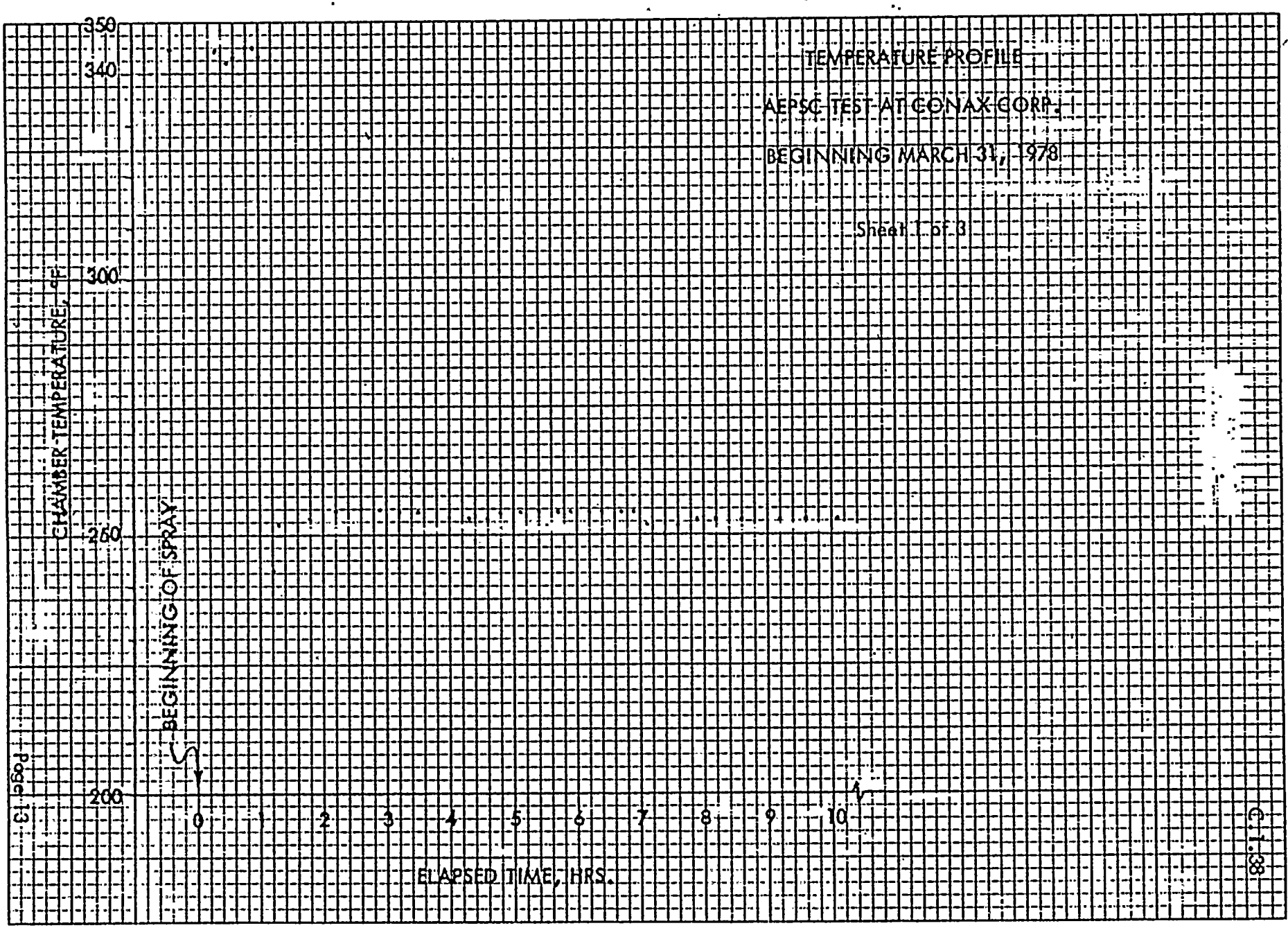
EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: VARIOUS PLANT ID NO: NA COMPONENT: INSTRUMENT CABLE TERMINATION MANUFACTURER: NA MODEL NUMBER: NA FUNCTION: BARTON INSTRUMENT CONNECTION ACCURACY: SPEC: NA DEMON: NA SERVICE: VARIOUS LOCATION: INSIDE CONTAINMENT	Operating Time	4 Mo.	>4.4 Mo.	101	62 63	COMBINATION	NONE See Ref 63
	Temperature (°F)	328.2	340	102	62	"	NONE See Ref 62
	Pressure (PSIA)	29.1	119.7	103	62	"	"
	Relative Humidity (%)	100	100	102 103	62	"	"
	Chemical Spray	2000ppm B 1.14% wt. Boric Acid pH 8.5-11	2000ppm B 1.14% wt. Boric Acid pH 8.5-11	104	62 72	"	NONE See Ref 72
	Radiation (10^6 rads)	119	150	105	62	"	NONE See Ref 62
	Aging (years)						
FLOOD LEVEL ELEV: 614' ABOVE FLOOD LEVEL: No	Submergence	SUBMERGED	See Ref 62, 68	117	62 68	Combination	NONE See Ref 62, 68

39-40 I22, I23
151-169 I19, 20, 21, 24, 18, 1
178-185 I12

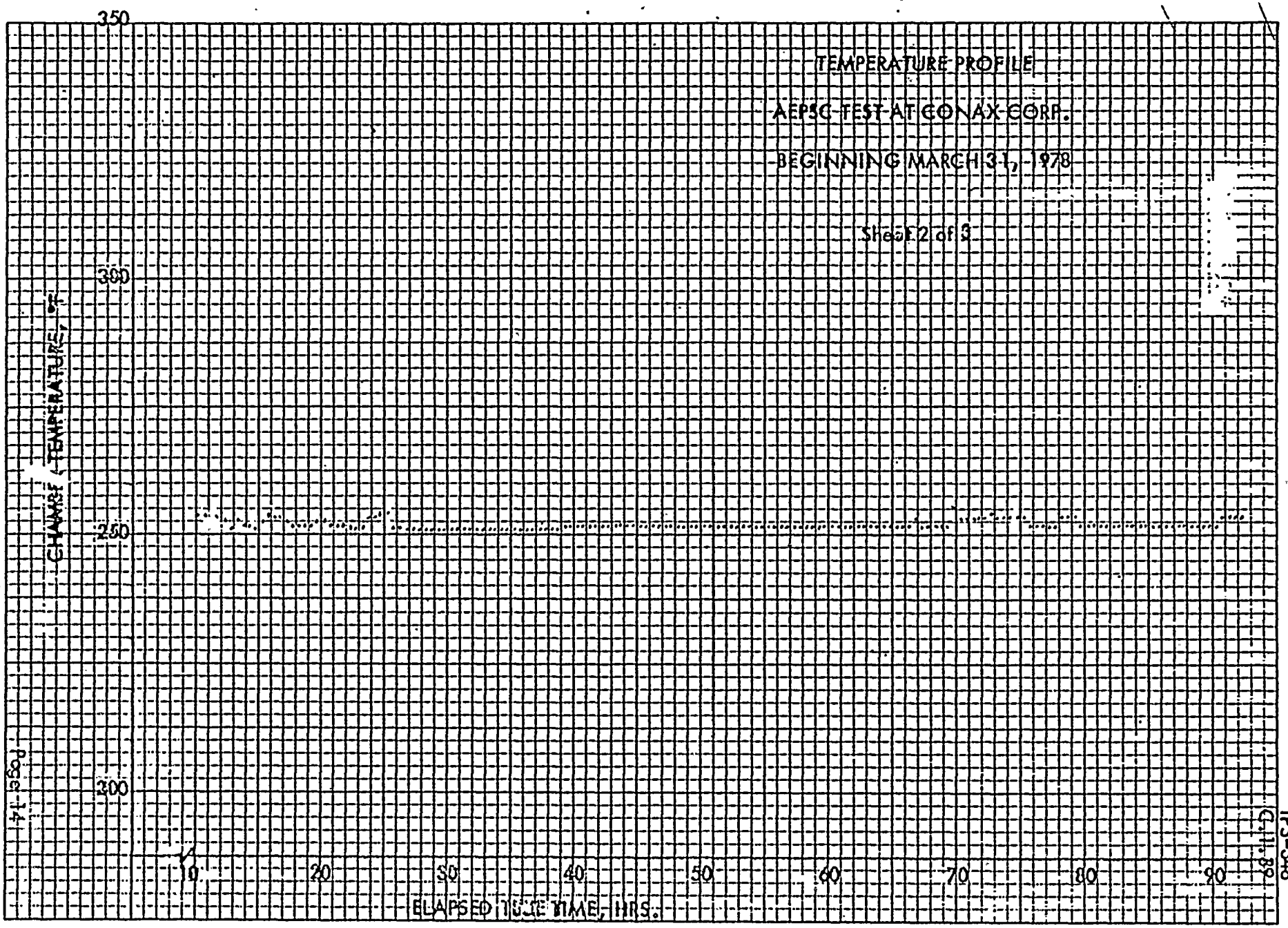
*Documentation References:

Notes:

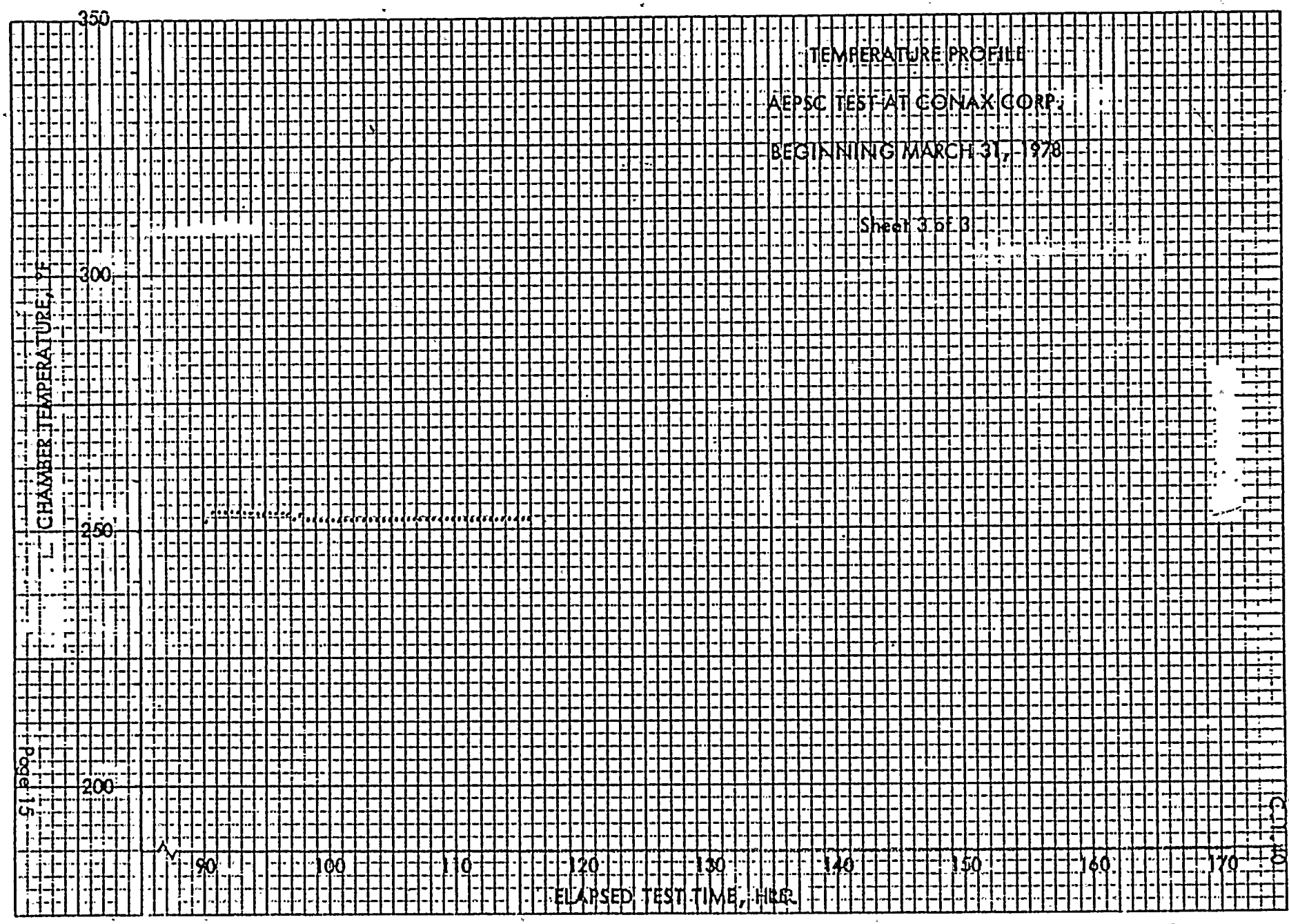
from REF. #8


TEMPERATURE PROFILE
AEPSC TEST AT CONAX CORP.
BEGINNING MARCH 31, 1978
Sheet 1 of 3
CHAMBER TEMPERATURE, °F
350
340
300
250
200
BEGINNING OF SPRAY
0
1
2
3
4
5
6
7
8
9
10
ELAPSED TIME, HRS.
C-1-38
IPS-348

from REF. #8


TEMPERATURE PROFILE
AEPSC TEST AT CONAX CORP.
BEGINNING MARCH 31, 1978
Sheet 2 of 3
CHAMBER TEMPERATURE, °F
350
300
250
200
10
20
30
40
50
60
70
80
90
ELAPSED TUBE TIME, HRS.
IPS-348
G.H. 8-9
Page 4-4

From Ref. #8



IPS-348
IC-II-101

PAGE II-4

from Ref. 9. Qualified by FIRL Test Report F-C4033-1 of Jan. 1975 .9

Type of Test: Simultaneous, gamma radiation
steam
chemical spray

Test Profile:

.2 - .3 Mrads/hr, 200 Mrads
351°F, 70 psig for 10 hrs
275°F, 31 psig for 4.5 days
212°F, 10 psig for 26 days

Chemical Spray: 3000 ppm boron as boric acid, .064 molar sodium thiosulfate and adjusted with Na OH to a PH of 10.5 at room temp.

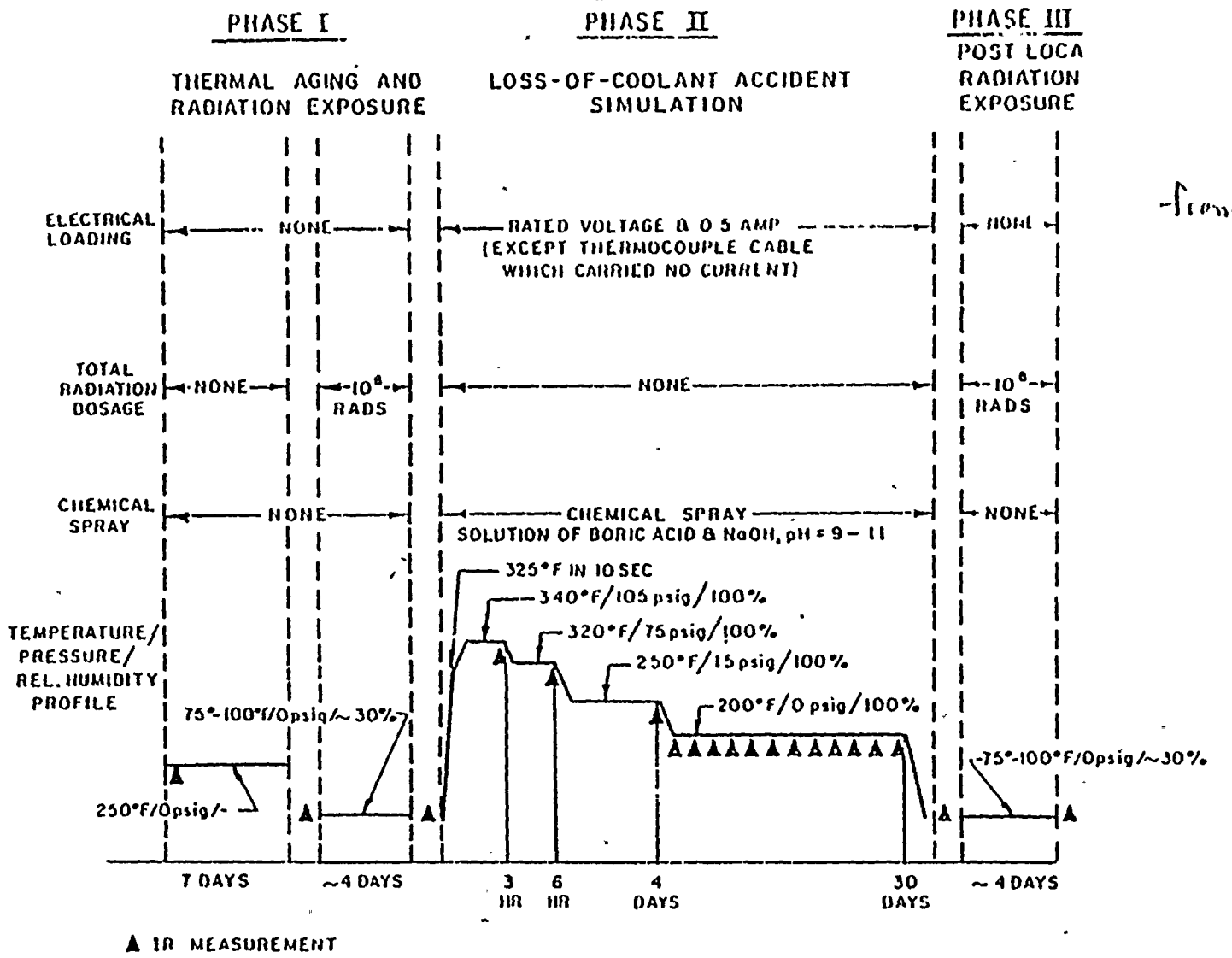


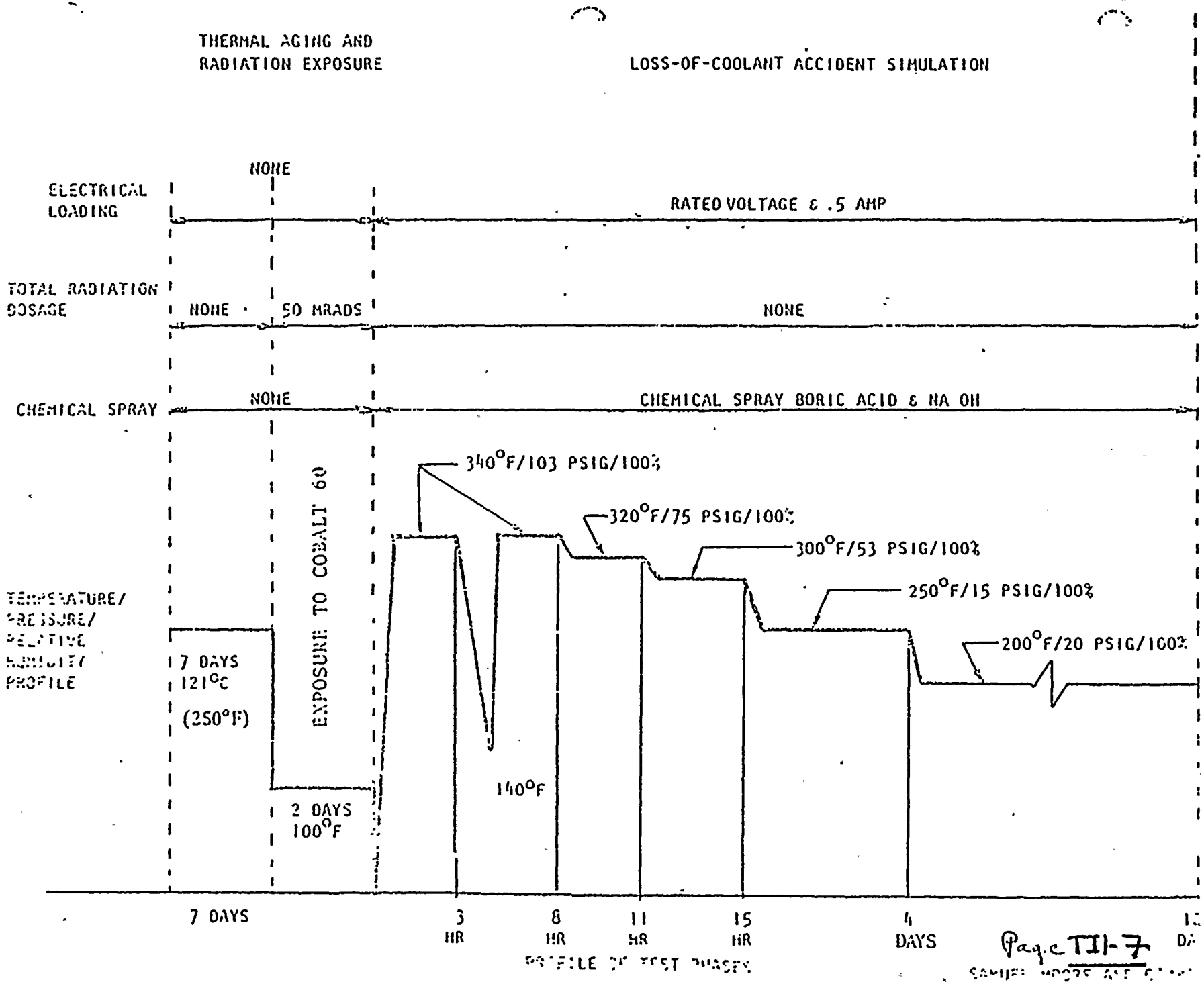
Figure 2. Profile of Test Phases

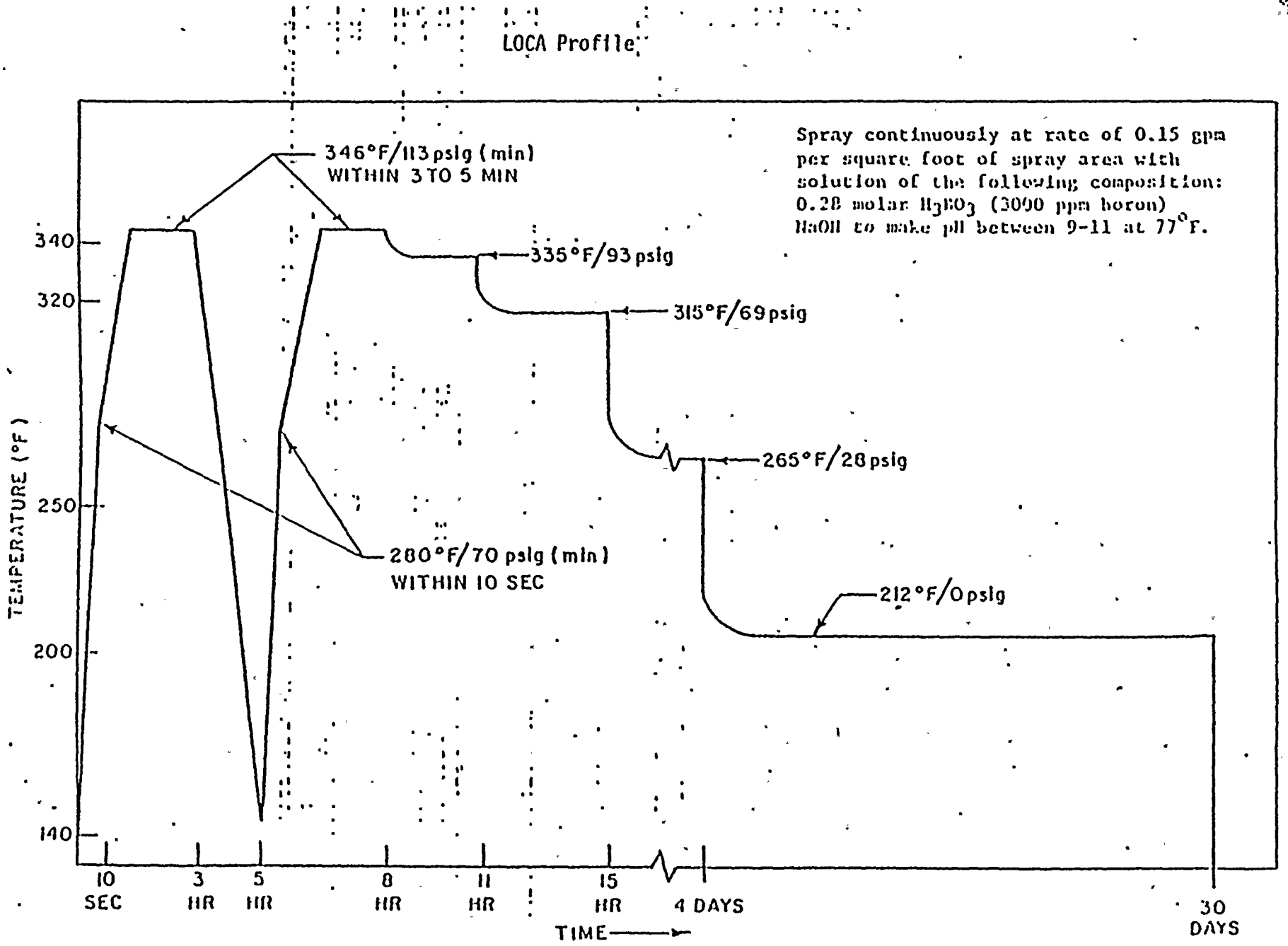
from Ref. 10

3-4

F-C3683

Page TII-6


THERMAL AGING AND
RADIATION EXPOSURE
LOSS-OF-COOLANT ACCIDENT SIMULATION
NONE
ELECTRICAL LOADING
RATED VOLTAGE & .5 AMP
TOTAL RADIATION DOSAGE
NONE
50 MRADS
NONE
CHEMICAL SPRAY
NONE
CHEMICAL SPRAY BORIC ACID & NA OH
TEMPERATURE/ PRESSURE/ RELATIVE HUMIDITY PROFILE
7 DAYS 121°C (250°F)
EXPOSURE TO COBALT 60
2 DAYS 100°F
340°F/103 PSIG/100%
320°F/75 PSIG/100%
300°F/53 PSIG/100%
250°F/15 PSIG/100%
200°F/20 PSIG/100%
140°F
7 DAYS
3 HR
8 HR
11 HR
15 HR
4 DAYS



LOCA PROFILE

7.

Page TI 1-8

from Ref. 14. Type of Test (F-C4033-3): Simultaneous Radiation/chem. spray/steam.

Test Profile:

.2-.3 Mrads/hr, 200 Mrads
351°F, 70 psig for 10 hrs
275°F, 31 psig for 4.5 days
212°F, 10 psig for 26 days

Chemical spray: 3000 ppm boron as boric acid, .054 molar sodium thiosulfate and adjusted with Na OH to a PH of 10.5.

DONALD C. COOK NUCLEAR PLANT UNIT NO. 1 DOCKET NO. 50-315 LICENSE NO. DPR-58

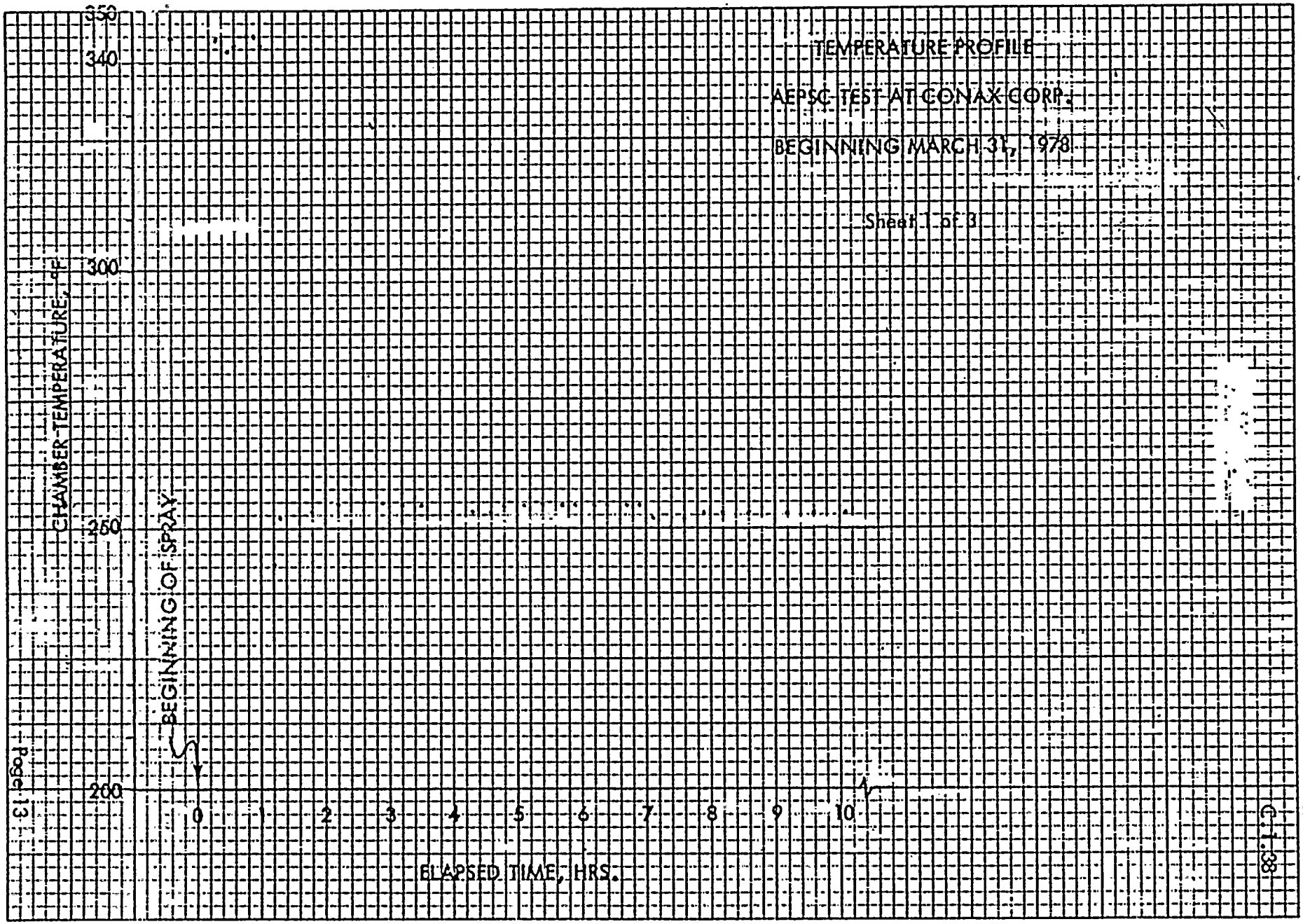
127-150
I25,26,27,28

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: VARIOUS PLANT ID NO: NA COMPONENT: RTD TERMINATIONS MANUFACTURER: NA MODEL NUMBER: NA FUNCTION: CONNECT INSTRUMENT CABLE TO RTD PIGTAILS ACCURACY: SPEC: NA DEMON: NA SERVICE: VARIOUS LOCATION: INSIDE CONTAINMENT	Operating Time	4 MO.	> 44 MO	101	62 63	COMBINATION	NONE See Ref 63
	Temperature (°F)	328.2	340	102	62	"	NONE See Ref 62
	Pressure (PSIA)	29.1	119.7	103	62	"	"
	Relative Humidity (%)	100	100	102 103	62	"	"
	Chemical Spray	2000 PPM B 1.14% WT. BORIC ACID ph 8.5-11	2000 PPM B 1.14% WT BORIC ACID ph 8.5-11	104	62 72	"	NONE See Ref 72
	Radiation (10^6 rads)	119	150	105	62	"	NONE See Ref 62
	Aging (years)						
FLOOD LEVEL ELEV: 614' ABOVE FLOOD LEVEL: YES	Submergence	NA	NA	NA	NA	NA	NA

*Documentation References:

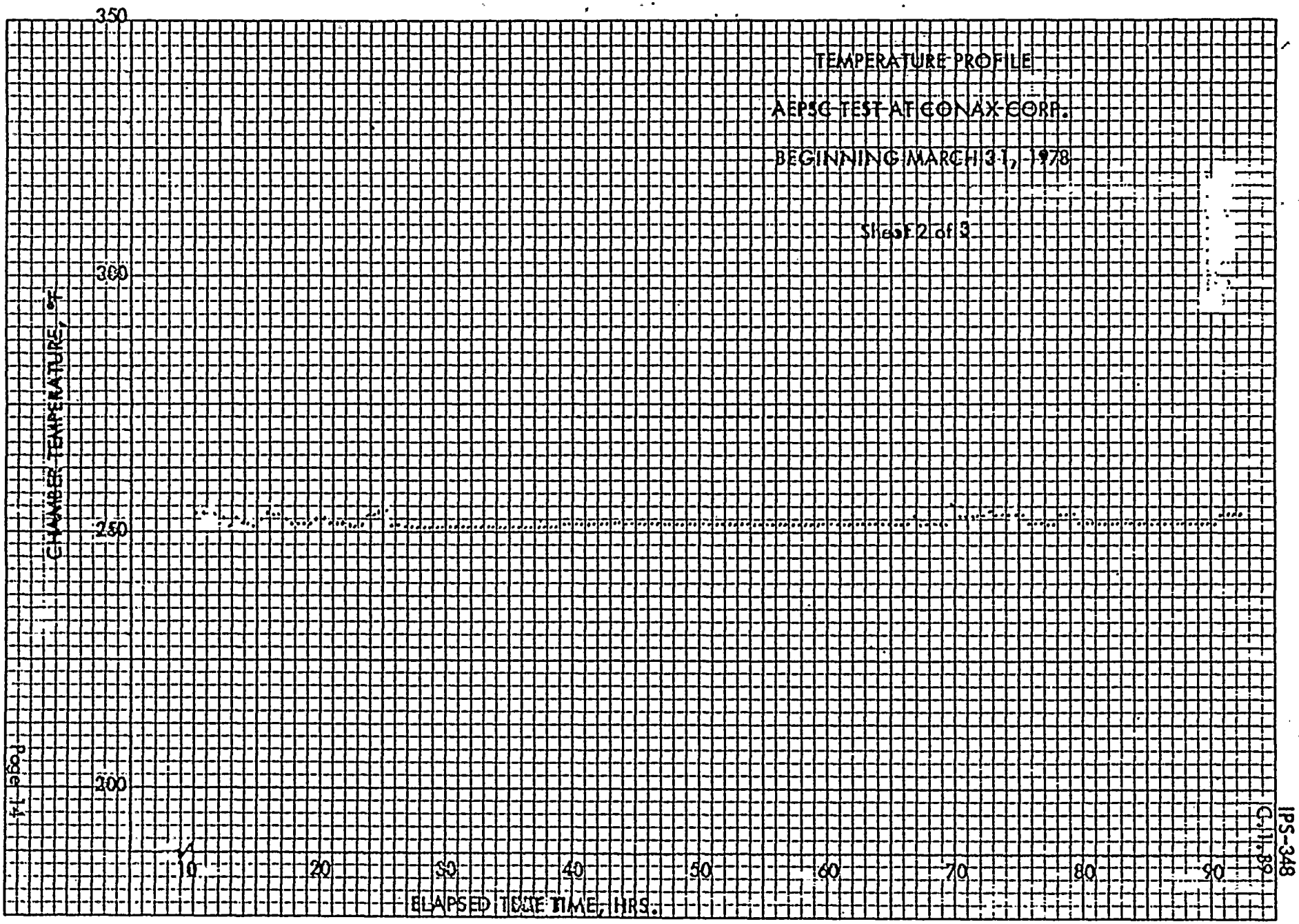
Notes:

from REF. #8



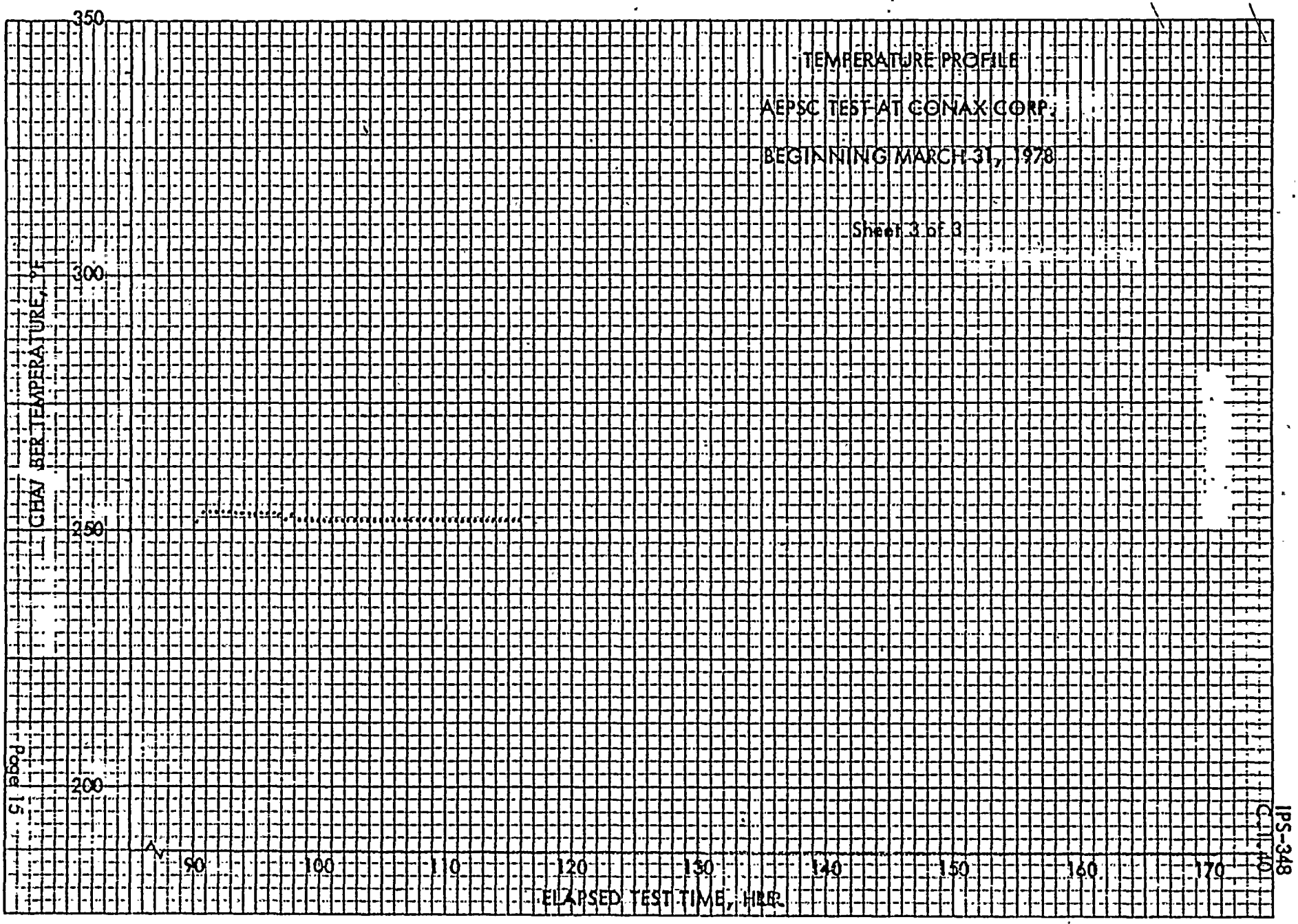
PAGE II-2

from REF. #8



IPS-348 G-11-89

from Ref. #8



IPS-348
C-II-40

PAGE TI2-4

from Ref. 9. Qualified by FIRL Test Report F-C4033-1 of Jan. 1975 9

Type of Test: Simultaneous, gamma radiation
steam
chemical spray

Test Profile:

.2 - .3 Mrads/hr, 200 Mrads
351°F, 70 psig for 10 hrs
275°F, 31 psig for 4.5 days
212°F, 10 psig for 26 days

Chemical Spray: 3000 ppm boron as boric acid, .064 molar sodium thiosulfate and adjusted with Na OH to a PH of 10.5 at room temp.

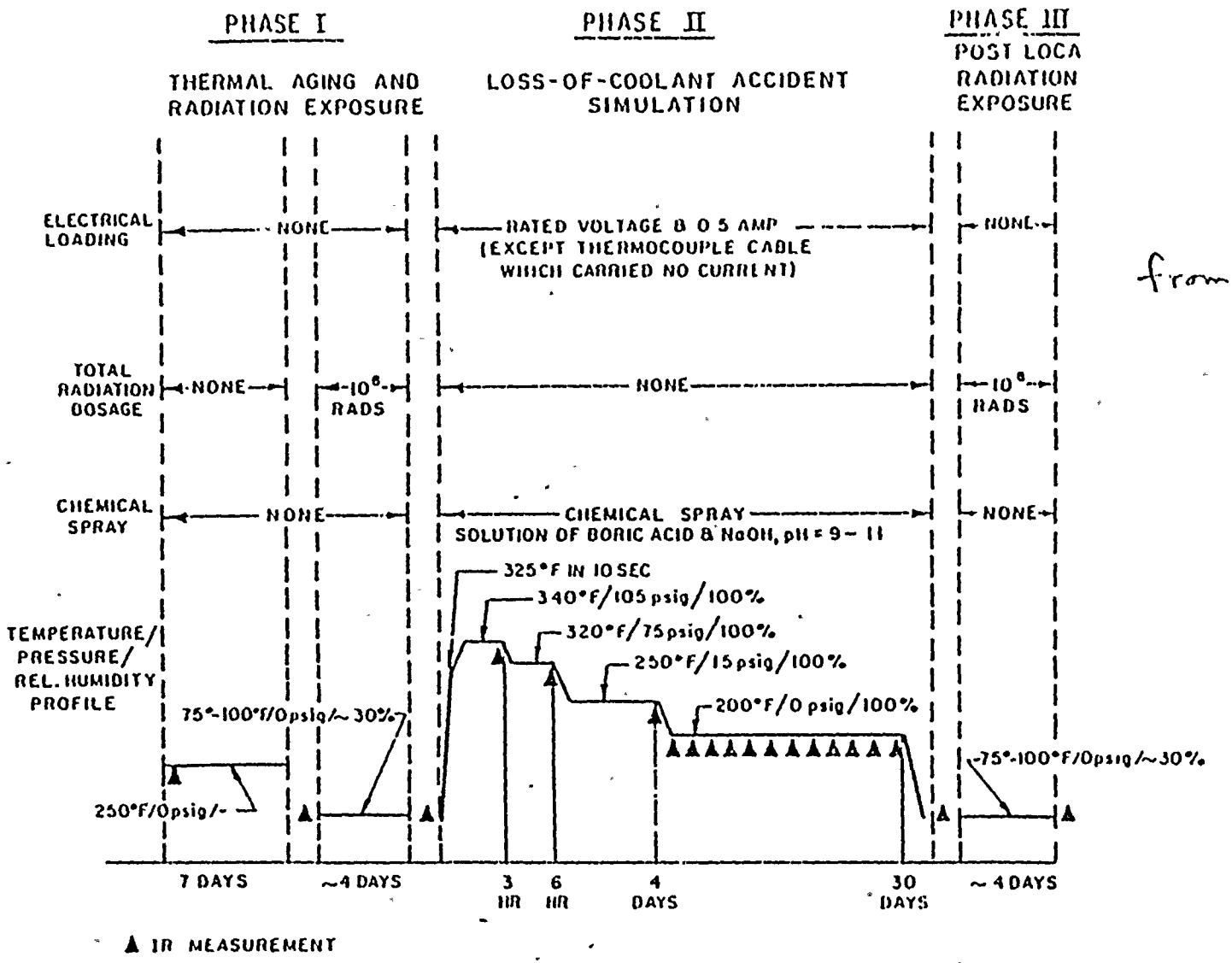


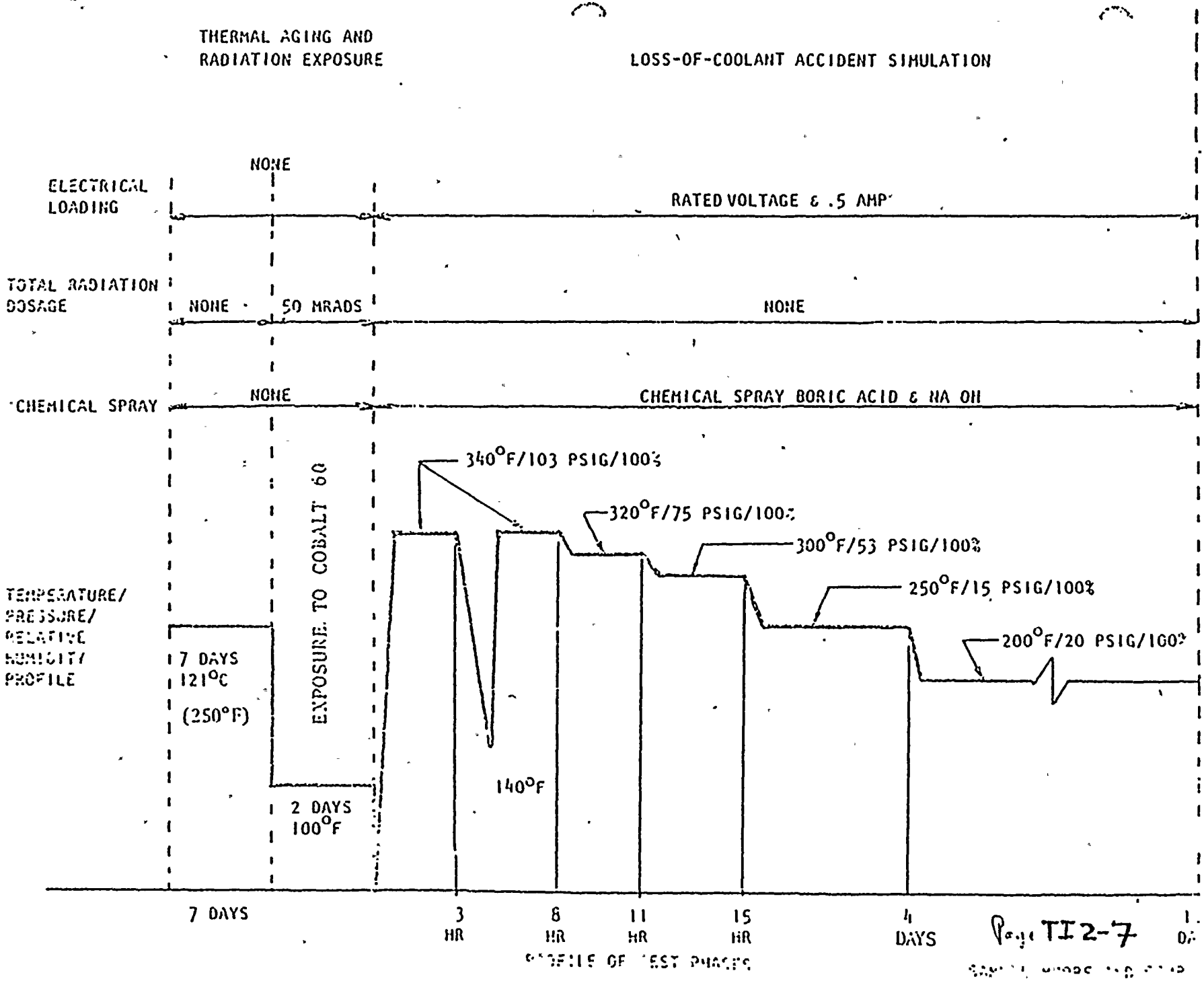
Figure 2. Profile of Test Phases

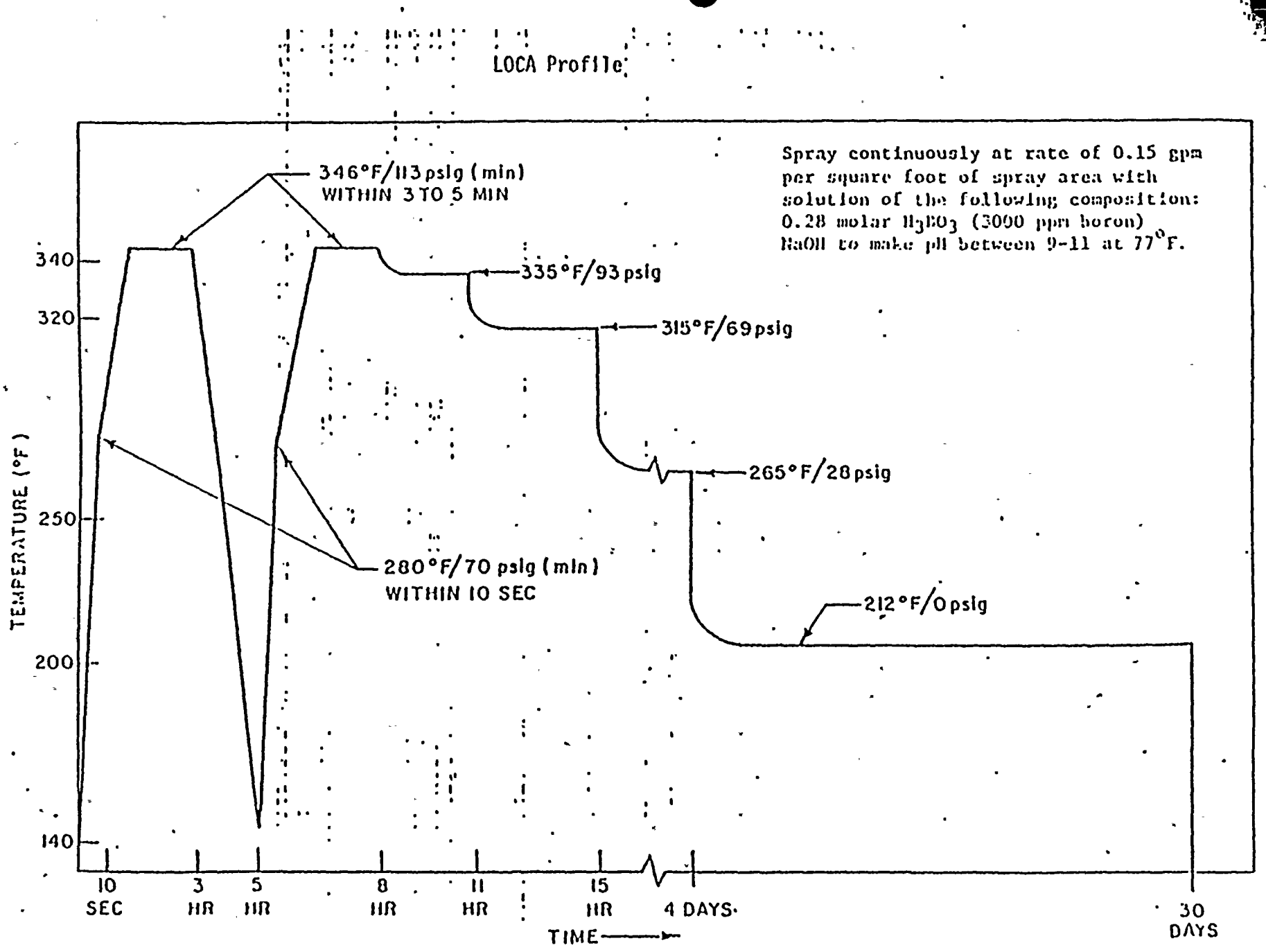
from Ref. 10

3-4

F-C3683

Page TI2-6


THERMAL AGING AND
RADIATION EXPOSURE
LOSS-OF-COOLANT ACCIDENT SIMULATION
NONE
ELECTRICAL LOADING
RATED VOLTAGE & .5 AMP
TOTAL RADIATION DOSAGE
NONE
50 MRADS
NONE
CHEMICAL SPRAY
NONE
CHEMICAL SPRAY BORIC ACID & NA OH
TEMPERATURE/ PRESSURE/ RELATIVE HUMIDITY/ PROFILE
7 DAYS 121°C (250°F)
EXPOSURE TO COBALT 60
2 DAYS 100°F
340°F/103 PSIG/100%
320°F/75 PSIG/100%
300°F/53 PSIG/100%
250°F/15 PSIG/100%
200°F/20 PSIG/100%
140°F
7 DAYS
3 HR
8 HR
11 HR
15 HR
4 DAYS
PROFILE OF TEST PHASES


LOCA Profile
Spray continuously at rate of 0.15 gpm per square foot of spray area with solution of the following composition: 0.28 molar H_3BO_3 (3000 ppm boron) NaOH to make pH between 9-11 at 77°F.
346°F/113psig (min) WITHIN 3 TO 5 MIN
335°F/93psig
315°F/69psig
265°F/28psig
280°F/70 psig (min) WITHIN 10 SEC
212°F/0psig
TEMPERATURE (°F)
340
320
250
200
140
10 SEC
3 HR
5 HR
8 HR
11 HR
15 HR
4 DAYS
30 DAYS
TIME
LOCA PROFILE

from Ref. 14. Type of Test (F-C4033-3): Simultaneous Radiation/chem. spray/steam.

Test Profile:

.2-.3 Mrads/hr, 200 Mrads
351°F, 70 psig for 10 hrs
275°F, 31 psig for 4.5 days
212°F, 10 psig for 26 days

Chemical spray: 3000 ppm boron as boric acid, .004 molar sodium thiosulfate and adjusted with Na OH to a PH of 10.5.

DONALD C. COOK NUCLEAR PLANT UNIT NO. 1 DOCKET NO. 50-315 LICENSE NO. DPR-58

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: VARIOUS PLANT ID NO: NA COMPONENT: INSTRUMENT CABLE TERMINATION MANUFACTURER: NA MODEL NUMBER: NA FUNCTION: INSTRUMENT CABLE CONNECTION AT PENETRATION INSIDE FLOOD UP TUBES. ACCURACY: SPEC: NA DEMON: NA SERVICE: VARIOUS LOCATION: INSIDE CONTAINMENT	Operating Time	4 MO.	> 4.4 Mo	101	62 63	COMBINATION	NONE See Ref 63
	Temperature (°F)	328.2	340	102	62	"	NONE See Ref 62
	Pressure (PSIA)	29.1	118	103	62	"	"
	Relative Humidity (%)	100	100	102 103	62	"	"
	Chemical Spray	NA	2500 ppm B 1.43% wt. Boric Acid PH 8.5-11	104	62 72	"	NONE See Ref 72
	Radiation (10^6 rads)	22.4	150	105	62	"	NONE See Ref 72
	Aging (years)						
FLOOD LEVEL ELEV: 614' ABOVE FLOOD LEVEL: NO	Submergence	NOT SUBMERGED	FLOODUP TUBES	NA	61	Eng. Review	NONE See Ref 61

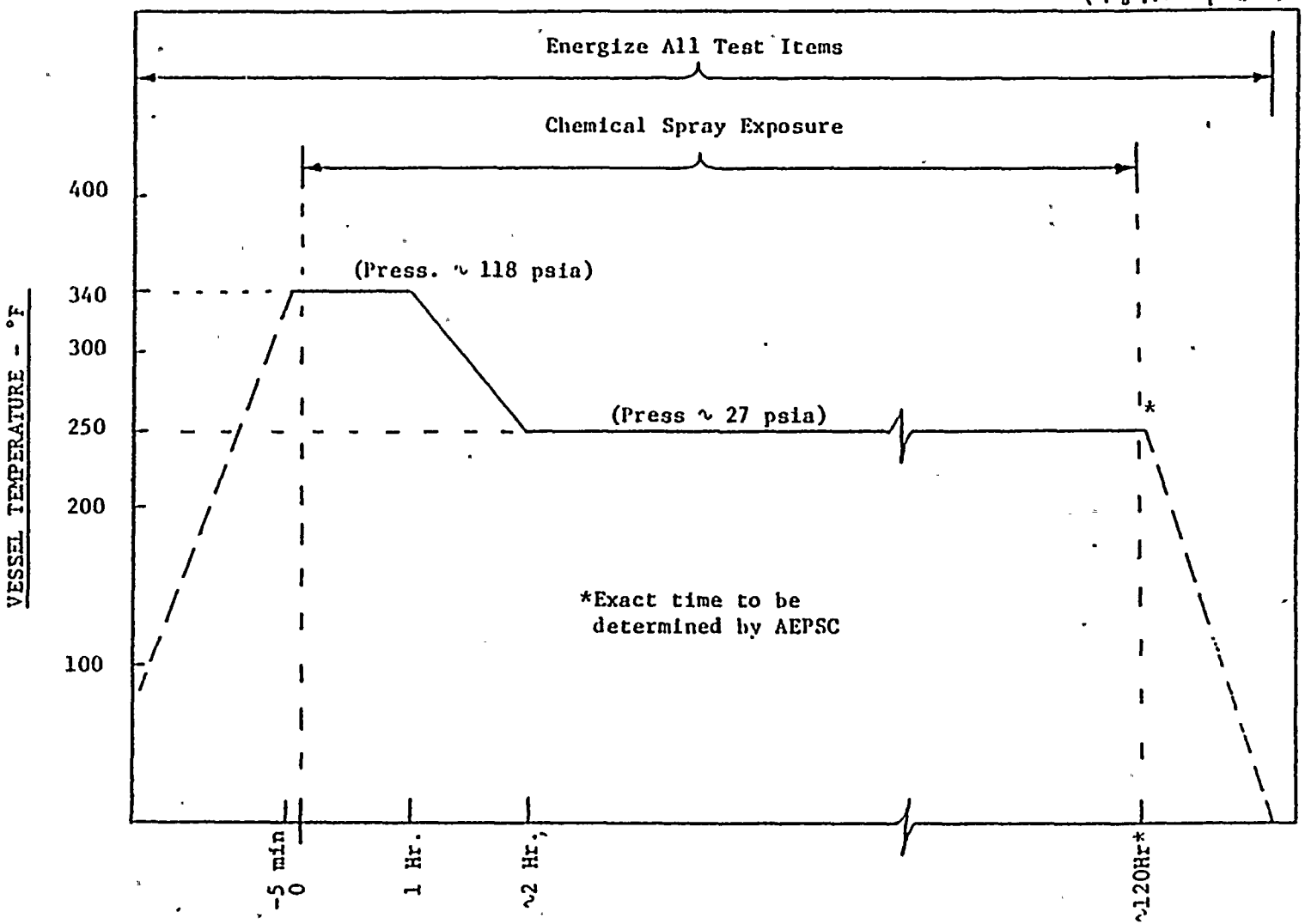
39I22,23
40I22,23
51-54I6,7,8
143-153I28,
19,20,21
155-169I1,18

*Documentation References:

Notes:

FIGURE 2 T PROFILE

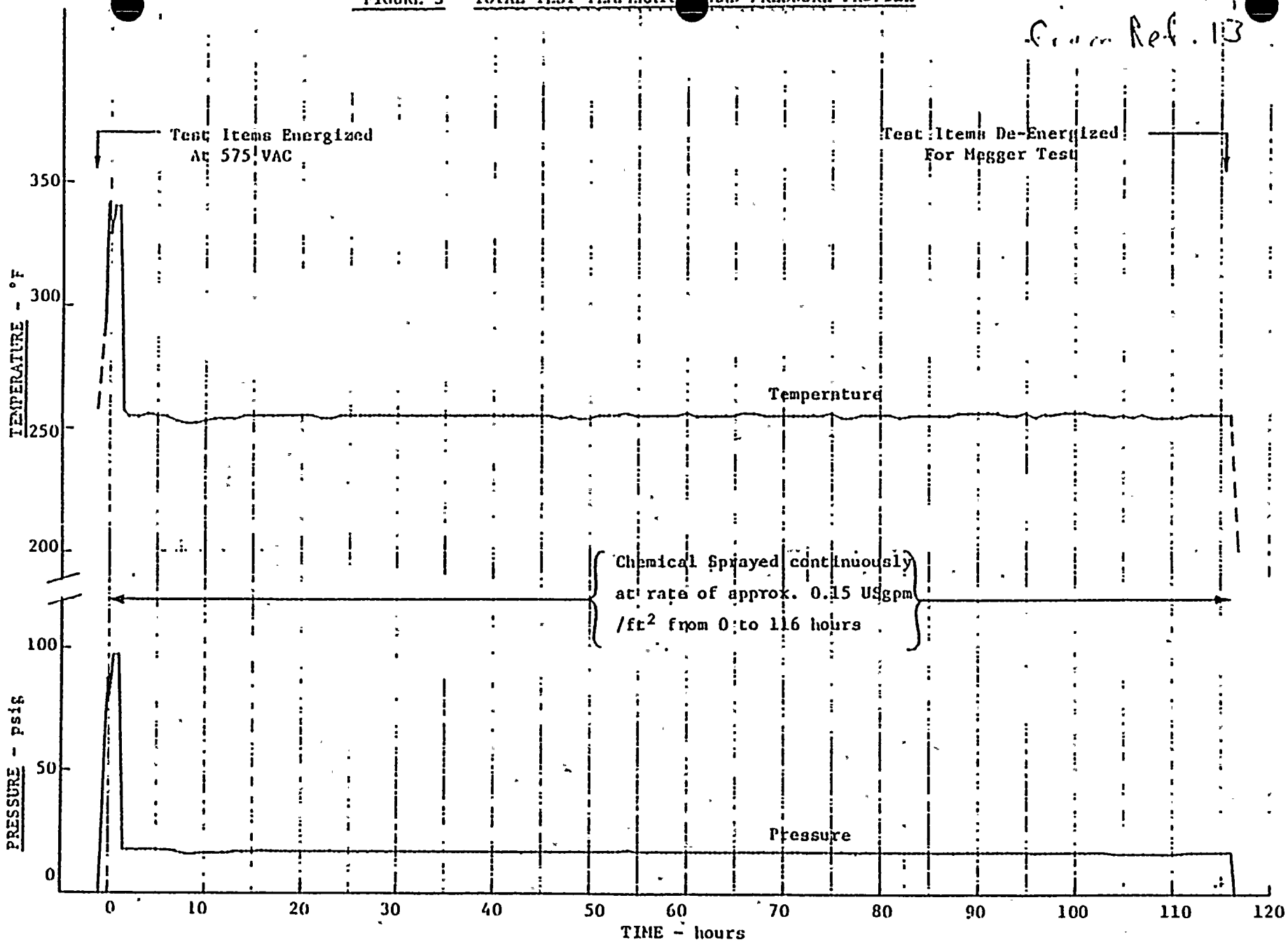
From Ref. 12



Page TI 3-2

FIGURE 3 TOTAL TEST TEMPERATURE AND PRESSURE PROFILE

Ref. 13



DONALD C. COOK NUCLEAR PLANT UNIT NO. 1 DOCKET NO. 50-315 LICENSE NO. DPR-58

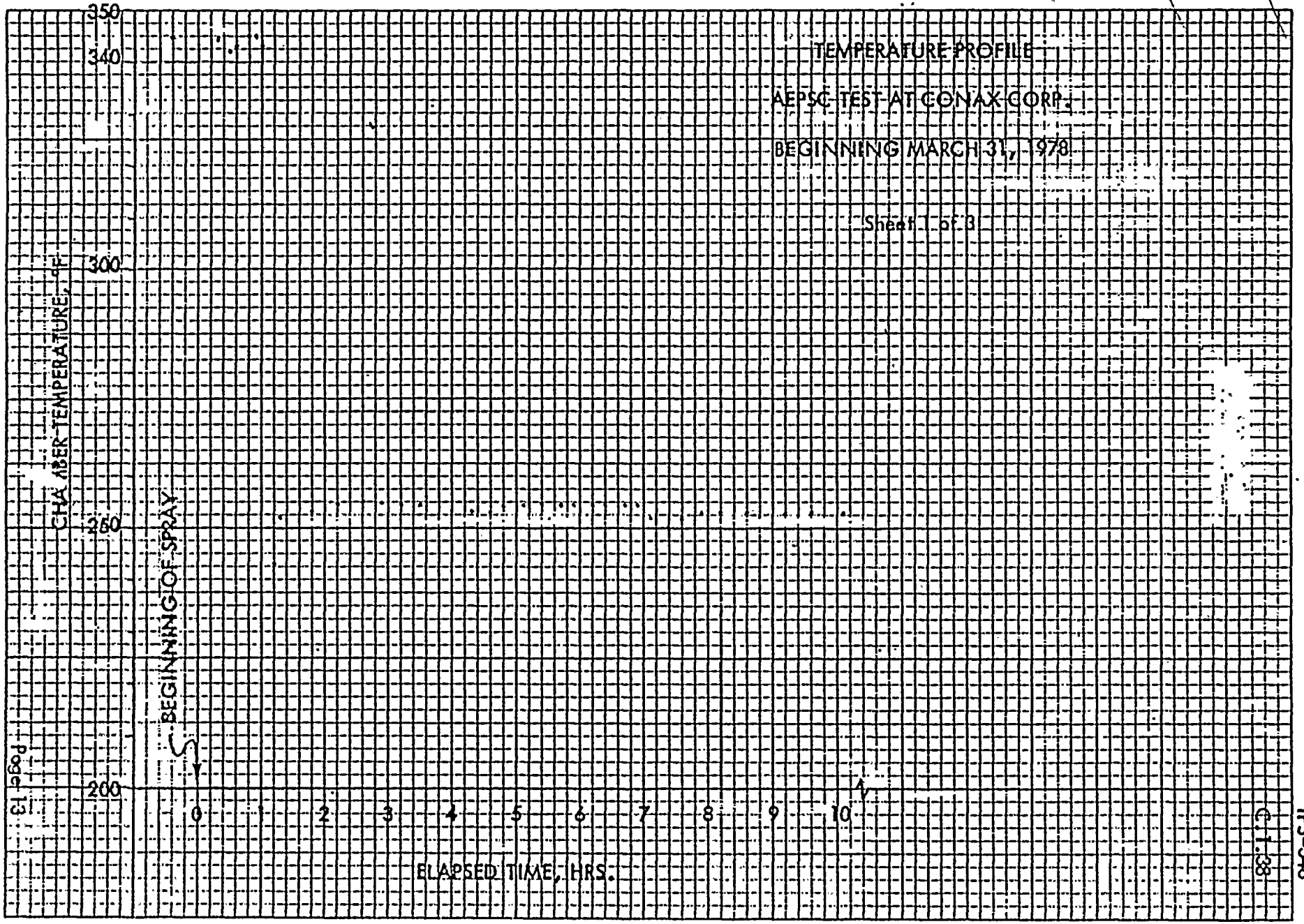
EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: VARIOUS PLANT ID NO: NA COMPONENT: INSTRUMENT CABLE TERMINATION MANUFACTURER: NA MODEL NUMBER: NA. FUNCTION: INSTRUMEN CABLE CONNOCTION AT FLOOUP BOX ACCURACY: SPEC: NA DEMON: NA SERVICE: VARIOUS LOCATION: INSIDE CONTAINMENT	Operating Time	4 MO..	>4.4 MO.	101	62 63	COMBINATION	NONE See Ref 63
	Temperature (°F)	328.2	340	102	62	"	NONE See Ref 62
	Pressure (PSIA)	29.1	119.7	103	62	"	"
	Relative Humidity (%)	100	100	102 103	62	"	"
	Chemical Spray	2000 PPM B 1.14% WT. BORIC ACID pH 8.5-11	2000 PPM B 1.14% WT. BORIC ACID pH 8.5-11	104	62 72	"	NONE See Ref 72
	Radiation (10^6 rads)	119	150	105	62	"	NONE See Ref 62
	Aging (years)						
FLOOD LEVEL ELEV: 614' ABOVE FLOOD LEVEL: YES	Submergence	NA	NA	NA	NA	NA	NA

39 I 22,23
40 I 22,23
51-54 I 6,7,8
143-153 I 19,20,21,28
155-169 I 18, II

*Documentation References:

Notes:

from REF. #8

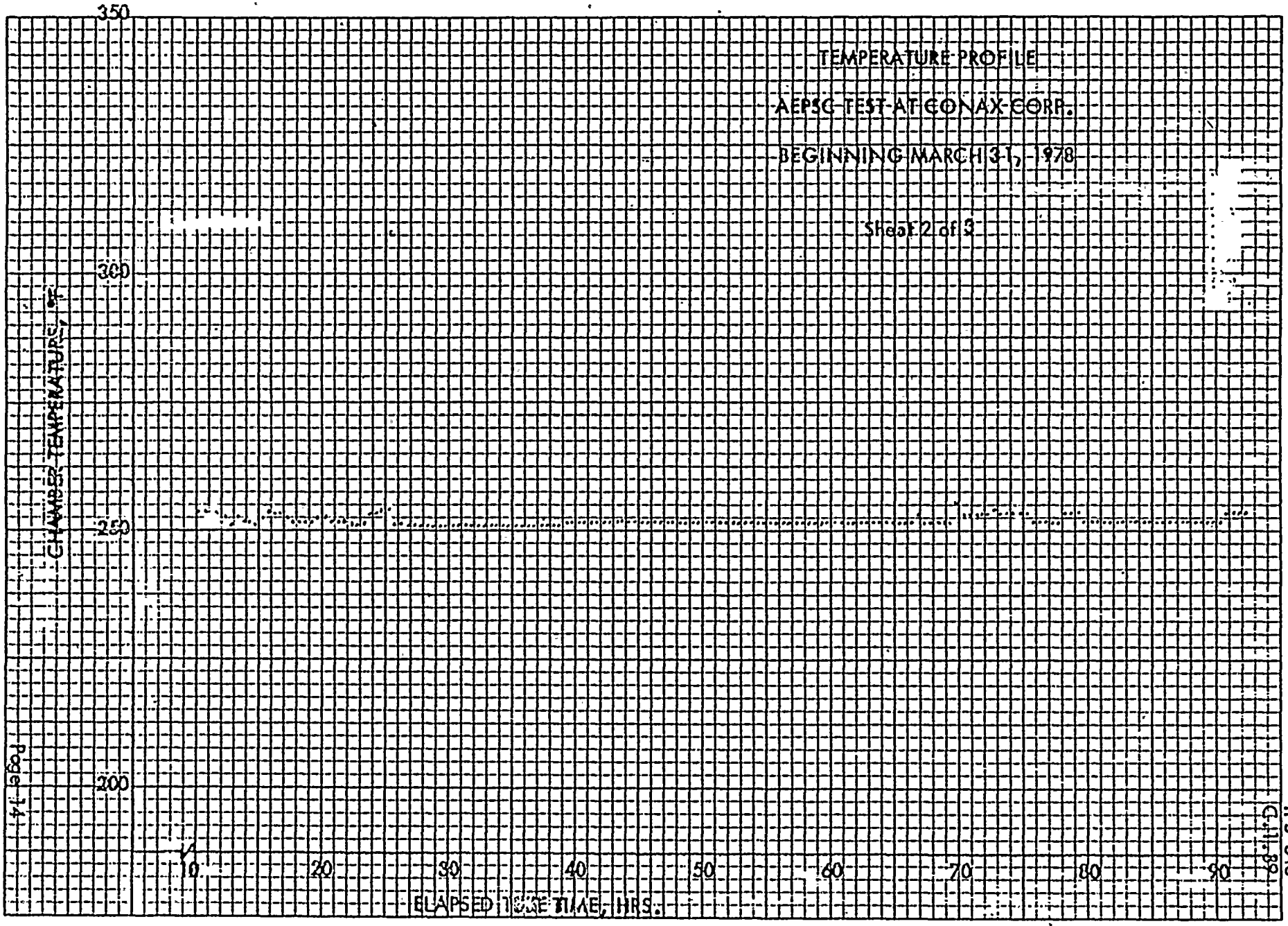


IPS-348

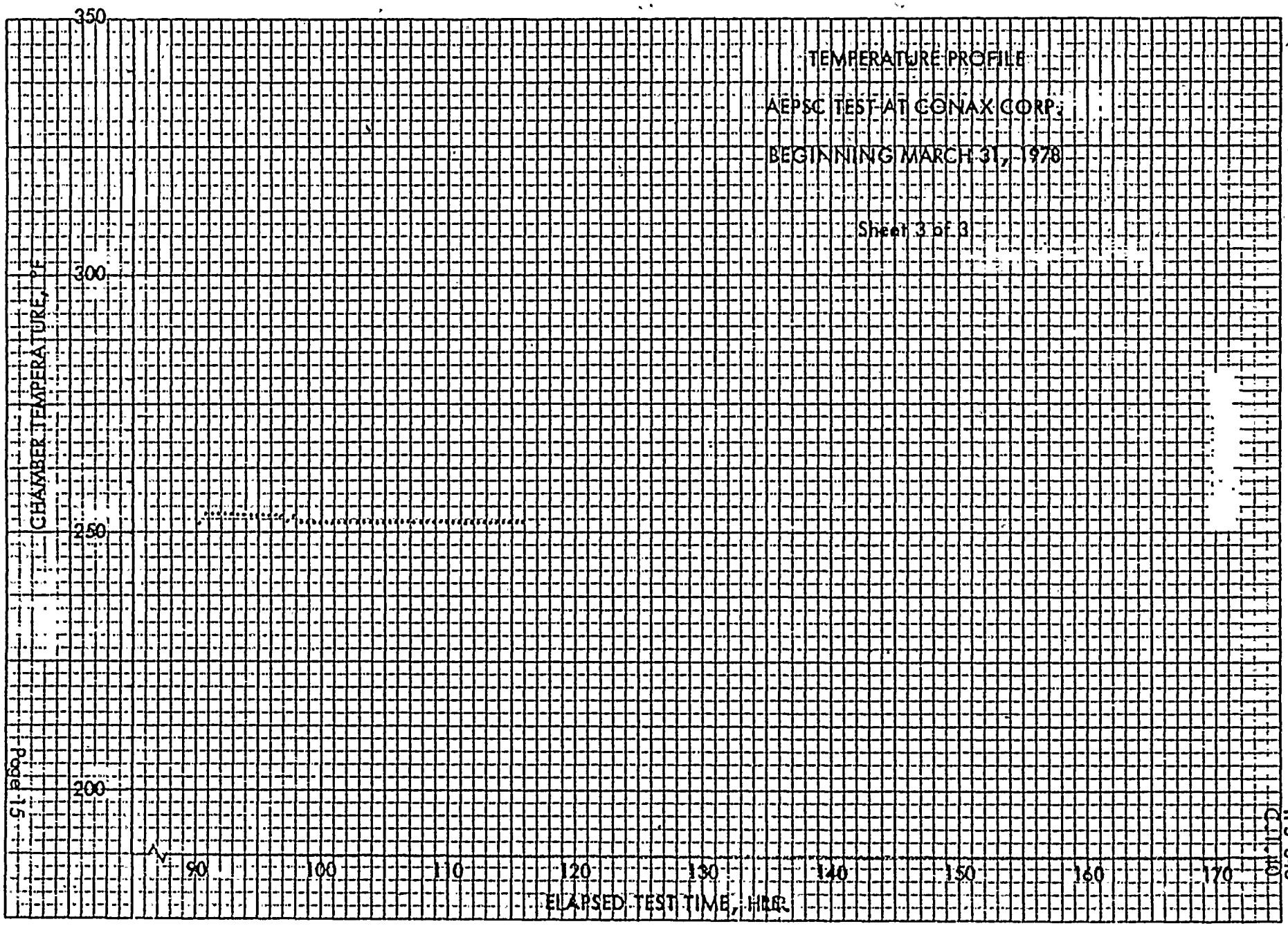
C 1.38

PAGE TEN

from REF. #8


TEMPERATURE PROFILE
AEPSC TEST AT CONAX CORP.
BEGINNING MARCH 31, 1978
Sheet 2 of 3
CHAMBER TEMPERATURE, °F
350
300
250
200
10
20
30
40
50
60
70
80
90
ELAPSED TIME, HRS.
IPS-348
C-11-89

From Ref. #8


TEMPERATURE PROFILE
AEPSC TEST AT CONAX CORP.
BEGINNING MARCH 31, 1978
Sheet 3 of 3
CHAMBER TEMPERATURE, °F
350
300
250
200
90
100
110
120
130
140
150
160
170
ELAPSED TEST TIME, HRS.
IPS-348
C-11-101

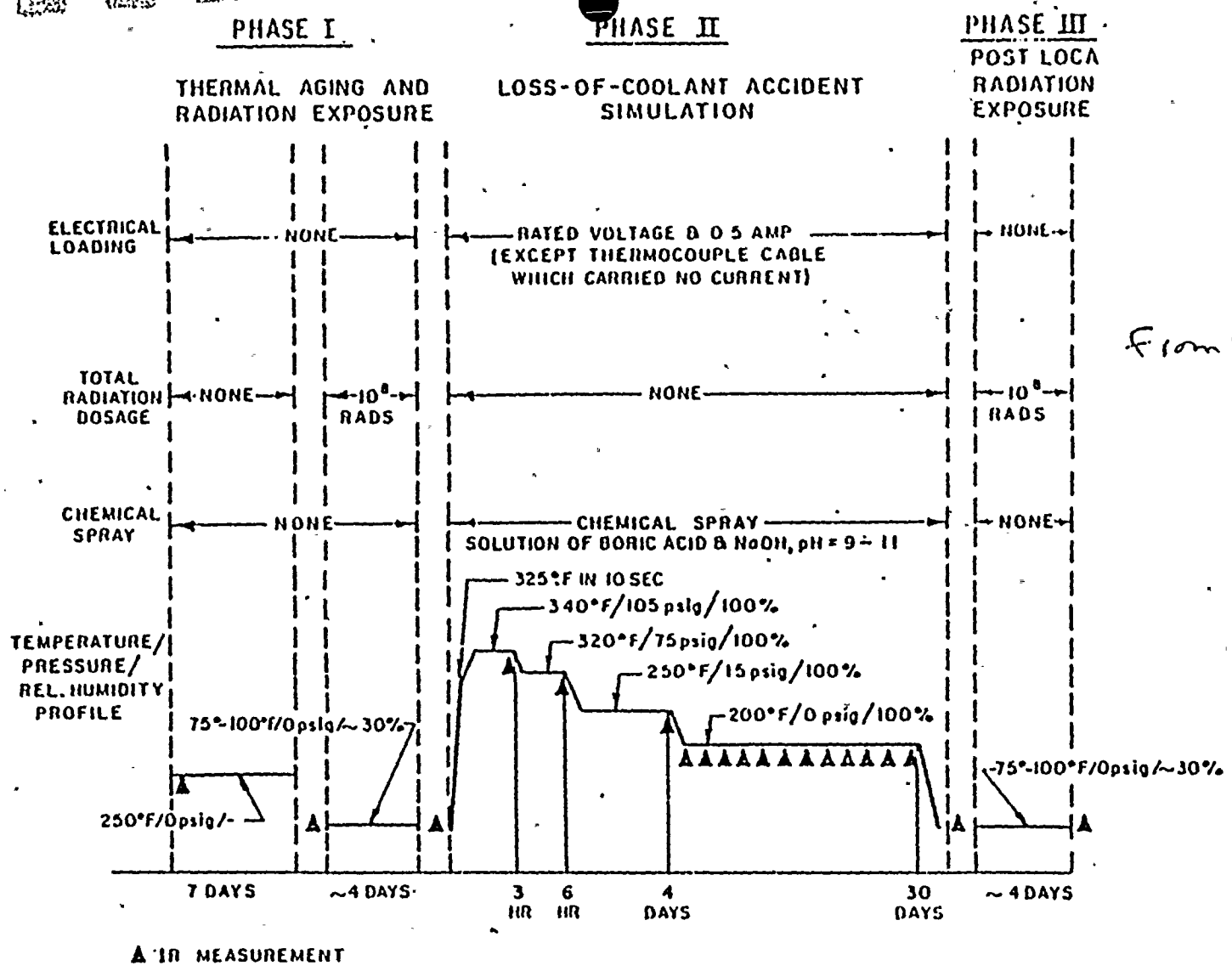
from Ref. 9. Qualified by FIRL Test Report F-C4033-1 of Jan. 1975 .9

Type of Test: Simultaneous, gamma radiation
steam
chemical spray

Test Profile:

.2 - .3 Mrads/hr, 200 Mrads
351°F, 70 psig for 10 hrs
275°F, 31 psig for 4.5 days
212°F, 10 psig for 26 days

Chemical Spray: 3000 ppm boron as boric acid, .064 molar sodium thiosulfate and adjusted with Na OH to a PH of 10.5 at room temp.

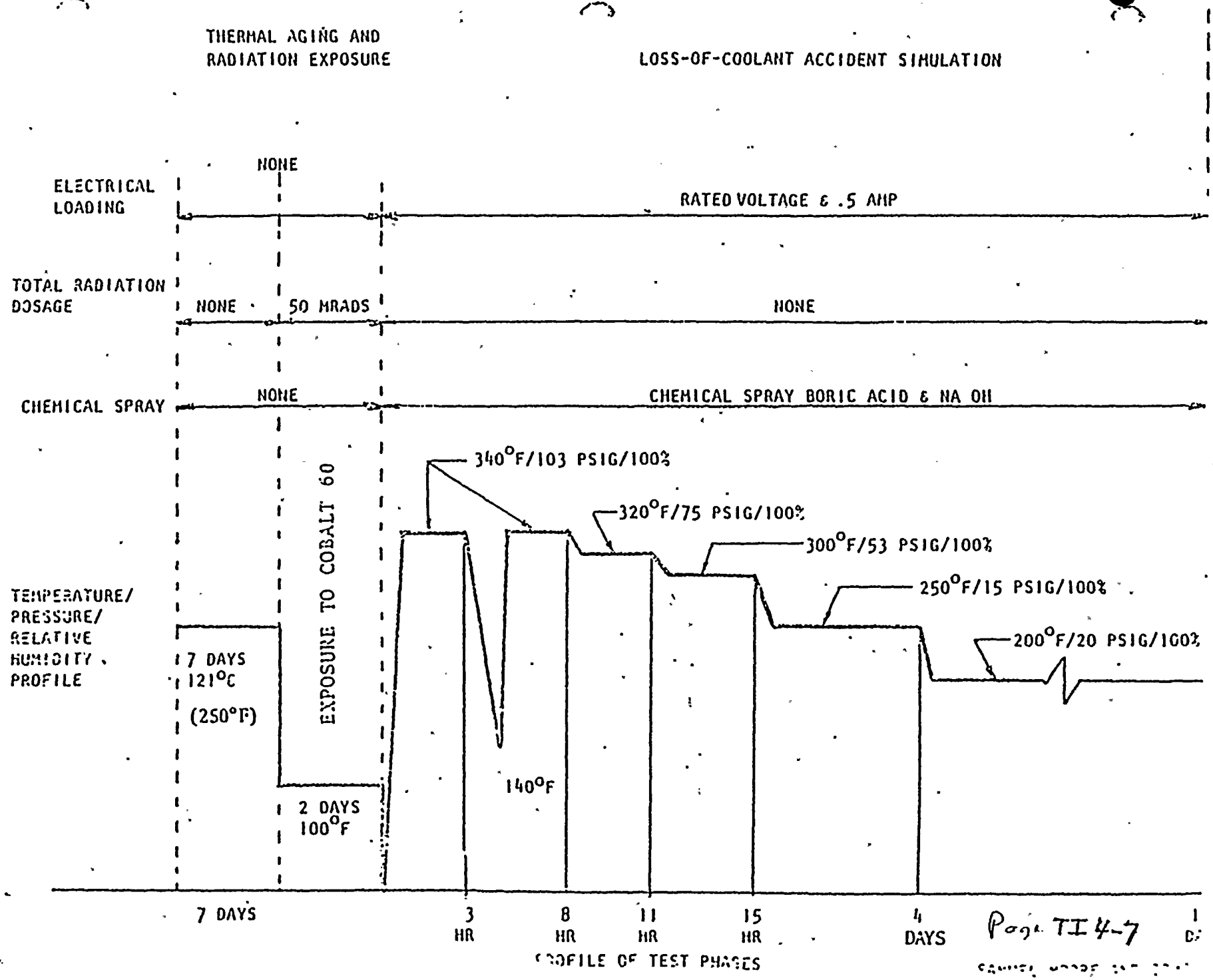


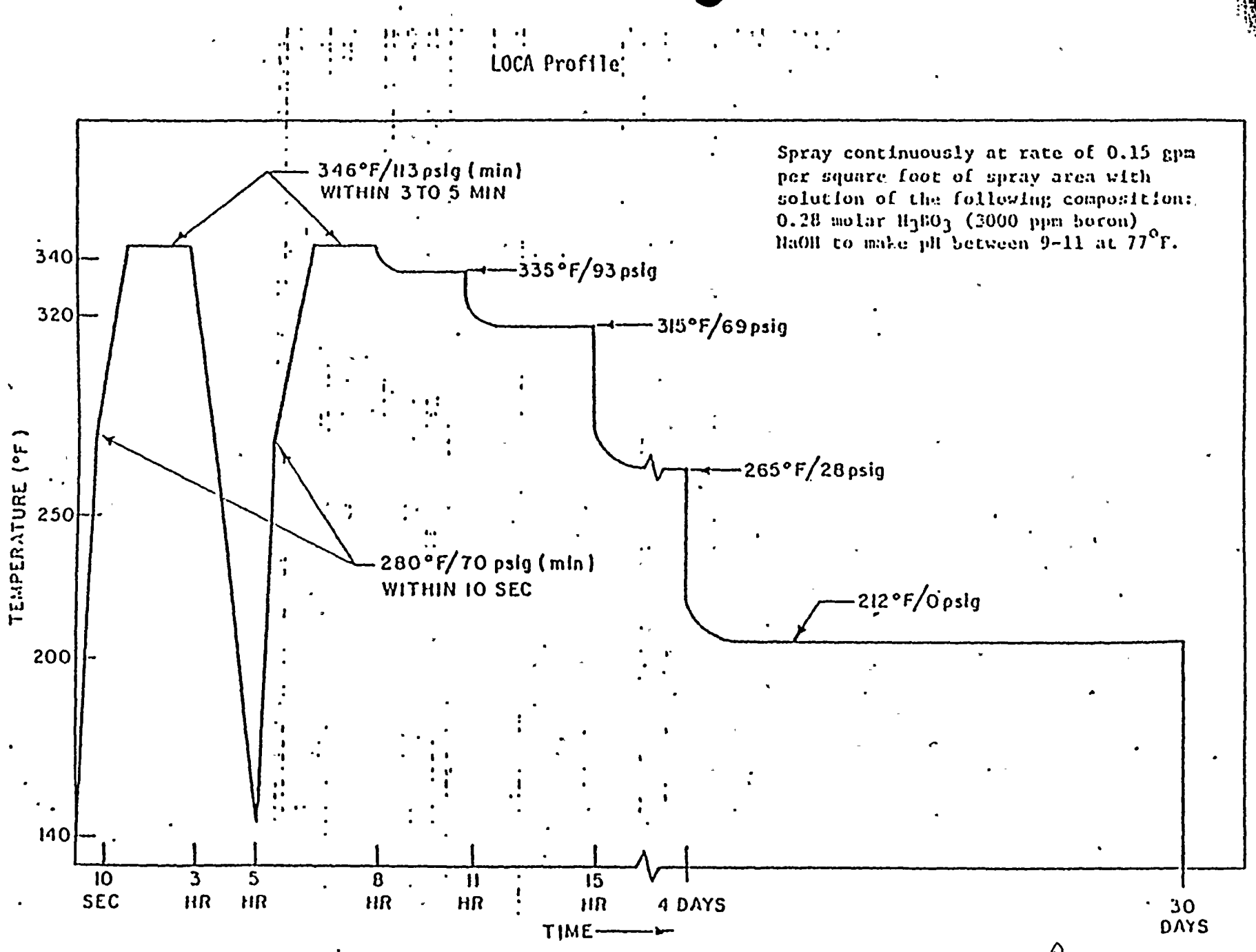
From Ref. 10

Figure 2. Profile of Test Phases

F-C3683

Page TI 4-6


THERMAL AGING AND
RADIATION EXPOSURE
LOSS-OF-COOLANT ACCIDENT SIMULATION
ELECTRICAL LOADING
NONE
RATED VOLTAGE & .5 AMP
TOTAL RADIATION DOSAGE
NONE
50 MRADS
NONE
CHEMICAL SPRAY
NONE
CHEMICAL SPRAY BORIC ACID & NA OH
TEMPERATURE/ PRESSURE/ RELATIVE HUMIDITY PROFILE
7 DAYS 121°C (250°F)
EXPOSURE TO COBALT 60
2 DAYS 100°F
340°F/103 PSIG/100%
320°F/75 PSIG/100%
300°F/53 PSIG/100%
250°F/15 PSIG/100%
200°F/20 PSIG/100%
140°F
7 DAYS
3 HR
8 HR
11 HR
15 HR
4 DAYS
1
PROFILE OF TEST PHASES


LOCA Profile
Spray continuously at rate of 0.15 gpm per square foot of spray area with solution of the following composition:
0.28 molar H_3BO_3 (3000 ppm boron)
NaOH to make pH between 9-11 at 77°F.
346°F/113 psig (min)
WITHIN 3 TO 5 MIN
335°F/93 psig
315°F/69 psig
265°F/28 psig
280°F/70 psig (min)
WITHIN 10 SEC
212°F/0 psig
TEMPERATURE (°F)
340
320
250
200
140
10 SEC
3 HR
5 HR
8 HR
11 HR
15 HR
4 DAYS
30 DAYS
TIME
LOCA PROFILE

from Ref. 14. Type of Test (F-C4033-3): Simultaneous Radiation/chem. spray/steam.

Test Profile:

.2-.3 Mrads/hr, 200 Mrads
351°F, 70 psig for 10 hrs
275°F, 31 psig for 4.5 days
212°F, 10 psig for 26 days

Chemical spray: 3000 ppm boron as boric acid, .004 molar sodium thiosulfate and adjusted with Na OH to a PH of 10.5.

from Ref. 18.

Qualified by Conax Corp. Test Report IPS-327 of Jan. 1978.

Type of Test: Sequential, steam floodup with borated water.

Test Profile:

340°F, 12 psig for 1 hr
250°F, 12 psig for 6 hrs
190°F, 12 psig for 24 hrs

Floodup borated water

from Ref. 19.

Qualified by Conax Corp. Test Report IPS-329 of Jan. 1978.

Type of Test: Sequential, steam floodup with borated water.

Test Profile:

340°F, 12 psig for 2 hr
250°F, 12 psig for 6 hrs
190°F, 12 psig for 24 hrs

Floodup borated water.

DONALD C. COOK NUCLEAR PLANT UNIT NO. 1 DOCKET NO. 50-315 LICENSE NO. DPR-58

51-5 AI 6,7,8

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: Various PLANT ID NO: NA COMPONENT: INSTR. TERMINATION MANUFACTURER: FOXBORO MODEL NUMBER: NA FUNCTION: Foxboro Instr. Conn. ACCURACY: SPEC: NA DEMON: NA SERVICE: VARIOUS LOCATION: INSIDE CONTAINMENT	Operating Time	5 min	> 1 hr	101	62	Combination	NONE See Ref 62
	Temperature (°F)	244	320	102	62	"	"
	Pressure (PSIA)	29.1	89.7	103	62	"	"
	Relative Humidity (%)	100	100	102 103	62	"	"
	Chemical Spray	2000 ppm B 1.1 % wt Boric Acid ph 8.5-11	2000 ppm B 1.1 % wt Boric Acid ph 8.5-11	104	62 72	"	NONE See Ref 72
	Radiation (10^6 rads)	.8	18	105	62	"	NONE See Ref 62
	Aging (years)						
FLOOD LEVEL ELEV: 614' ABOVE FLOOD LEVEL: NO	Submergence	SUBMERGED	See Ref 68	117	68	Eng. Review	NONE See Ref 68

*Documentation References:

Notes:

Equipment function required before device gets submerged.

from Ref. 27.

Qualified by Westinghouse Electric Corp. letter of 4/26/78 (NS-PLC-5023).

From: T. M. Anderson - Westinghouse
To: E. G. Case - NRC

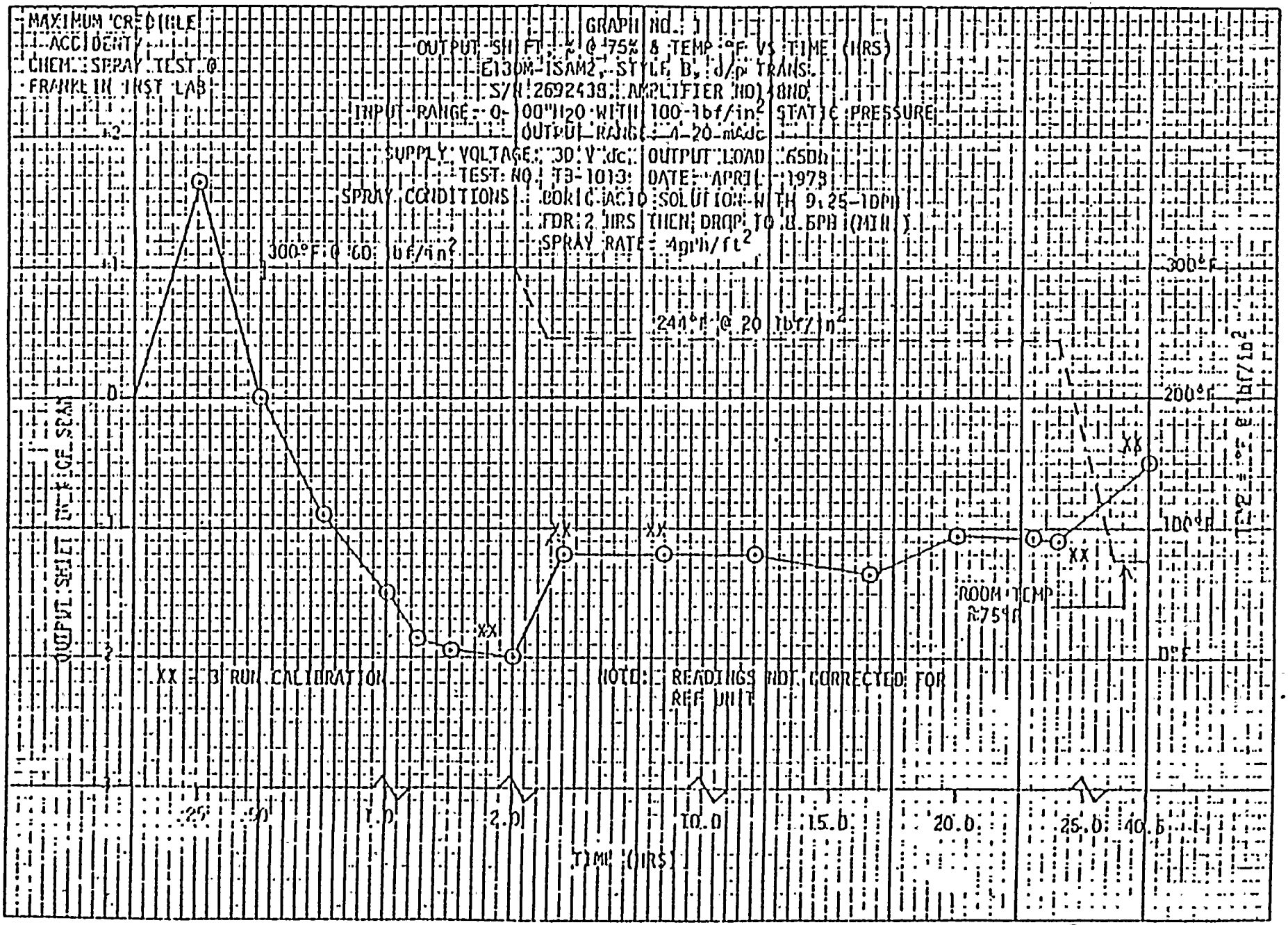
Test Type: Sequential

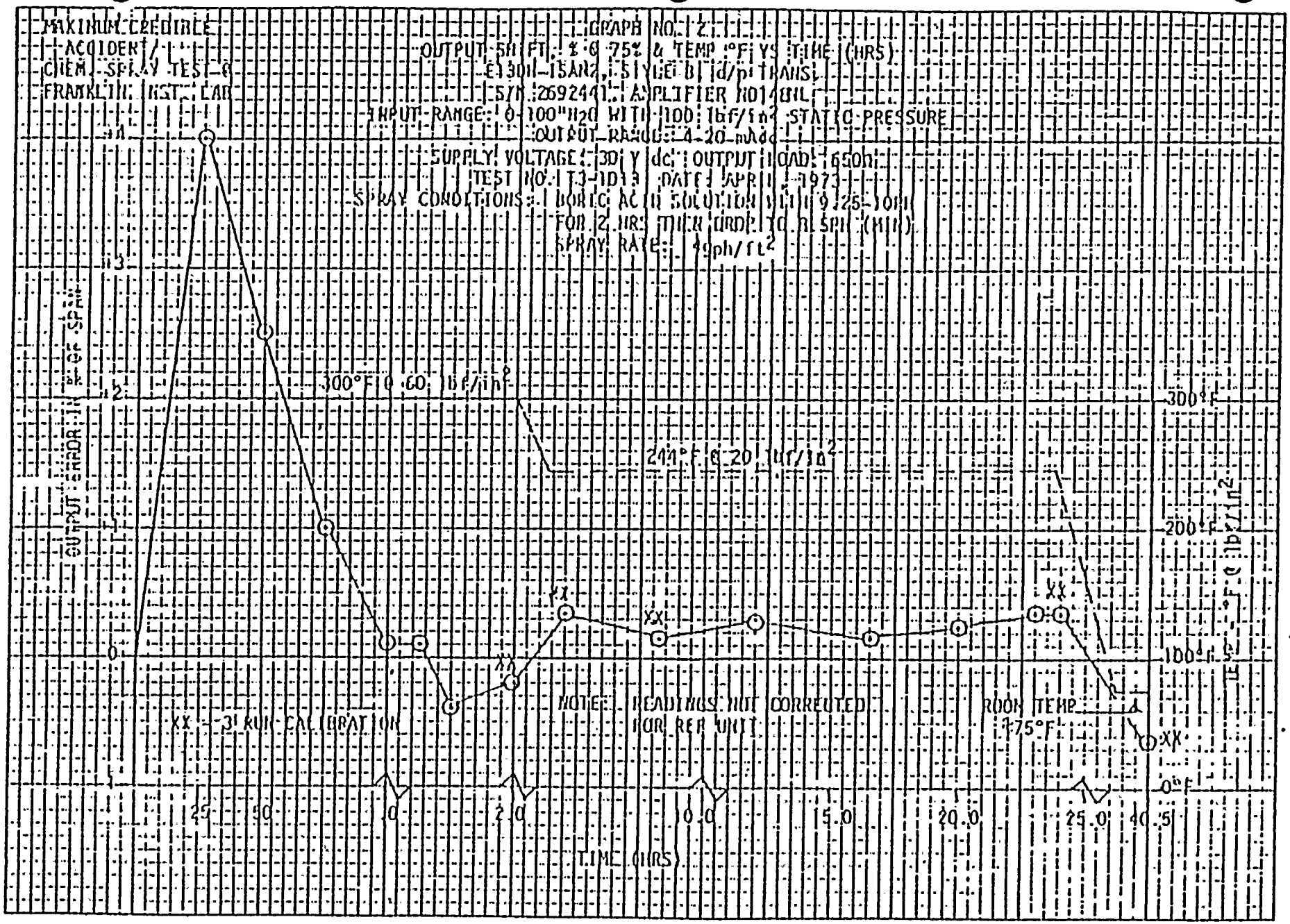
Steam/chemical spray/radiation

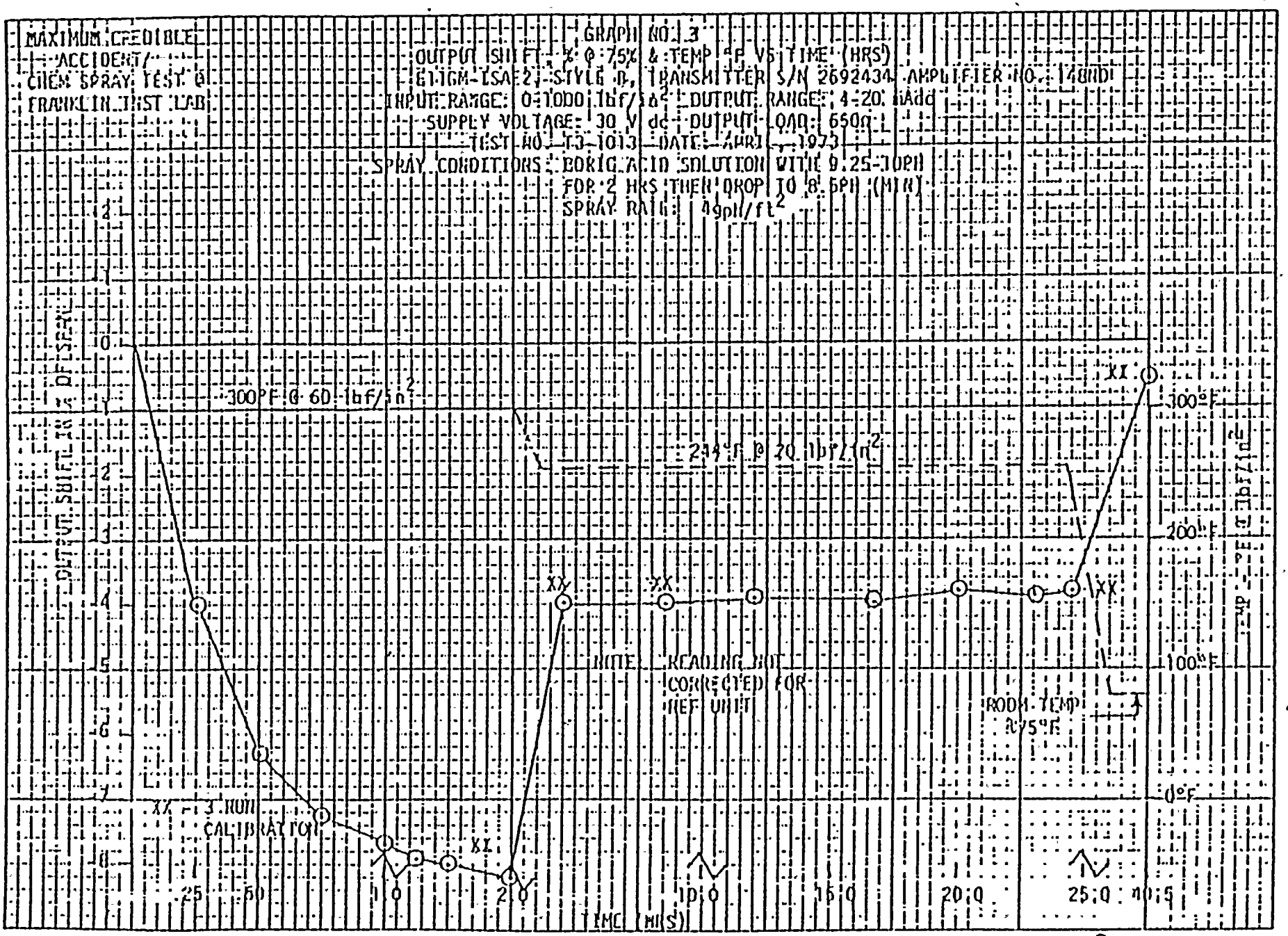
Test Profile:

18 Mrads, 1.94 Mrads/hr.
320°F, 75 psig for 20 minutes
From 320°F to 220°F in 24 hrs. (saturated conditions)
220°F, 15 psia for 5.5 days.

Chemical Spray: 1.14% boric acid
.17% Na OH


MAXIMUM CREDIBLE ACCIDENT
CHEM. SPRAY TEST @ FRANKLIN TEST LAB
GRAPH NO. 1
OUTPUT SHIFT @ 75°F & TEMP °F VS TIME (HRS)
ELSOM-ISAM2, STYLE B, d/p TRANS.
S/N 2692438 AMPLIFIER NO. 8NO
INPUT RANGE = 0-100"H2O WITH 100-lbf/in² STATIC PRESSURE
OUTPUT RANGE = 4-20 mAdc
SUPPLY VOLTAGE: 30 V dc OUTPUT LOAD 650Ω
TEST NO. TB-1013 DATE APRIL 1978
SPRAY CONDITIONS: 100% ACID SOLUTION WITH 9.25-10PH
FOR 2 HRS THEN DROP TO 8.6PH (MIN.)
SPRAY RATE = 4gph/ft²
300°F @ 60 lbf/in²
240°F @ 20 lbf/in²
ROOM TEMP 75°F
XX = 3 RUN CALIBRATION
NOTE: READINGS NOT CORRECTED FOR REF UNIT
OUTPUT SHIFT IN % OF SCALE
TIME (HRS)
300°F
200°F
100°F
0°F
lbf/in² x 2
0
.25
.5
1.0
2.0
10.0
15.0
20.0
25.0
40.0


MAXIMUM CREDIBLE
ACCIDENT
CHEM. SPRAY TEST-6
FRANKLIN INST. LAB
GRAPH NO. 12
OUTPUT 5ft. ± 0.75% & TEMP °F vs TIME (HRS)
E130II-15AN2, 1-5V DC Id/p TRANS.
S/N 2692441 AMPLIFIER NO. 1 UNIT
INPUT RANGE: 0-100"H2O WITH 100 lbf/in² STATIC PRESSURE
OUTPUT RANGE: 4-20 mAdc
SUPPLY VOLTAGE: 30V dc OUTPUT LOAD: 650Ω
TEST NO. T3-1013 DATE: APRIL 1973
SPRAY CONDITIONS: BORIC ACID SOLUTION WITH 9.25-10 pH
FOR 2 HRS. THEN DROP TO 8 pH (min)
SPRAY RATE: 1gph/ft²
% OF SPAN
OUTPUT ERROR IN
3
2
1
0
300°F @ 60 lbf/in²
244°F @ 20 lbf/in²
300°F
200°F
100°F
0°F
XX - CALIBRATION
NOTE: READINGS NOT CORRECTED FOR REF UNIT
ROOM TEMP 75°F
2.5
5.0
7.5
10.0
15.0
20.0
25.0
40.5
TIME (HRS)


MAXIMUM CREDIBLE ACCIDENT/ CHEM SPRAY TEST @ FRANKLIN TEST LAB
GRAPH NO. 3
OUTPUT SHIFT - % @ 75% & TEMP °F VS TIME (HRS)
GAGM-ISA2 STYLE D, TRANSMITTER S/N 2692434 AMPLIFIER NO. 14BDI
INPUT RANGE: 0-1000 lbf/in² OUTPUT RANGE: 4-20 mAdc
SUPPLY VOLTAGE: 30 V dc OUTPUT LOAD: 650Ω
TEST NO. T3-1013 DATE: APR 1, 1973
SPRAY CONDITIONS: BORIC ACID SOLUTION WITH 9.25-10PH FOR 2 HRS THEN DROP TO 8.5PH (MIN) SPRAY RATE 4gpH/ft²
OUTPUT SHIFT IN % OF SPAN
300°F @ 60 lbf/in²
234°F @ 20 lbf/in²
XX
3 HOUR CALIBRATION
WHITE READING DOT CORRECTED FOR REF UNIT
ROOM TEMP 75°F
100°F
200°F
0°F
TEMP °F
lbf/in²
TIME (HRS)
25
50
1.0
2.0
10.0
15.0
20.0
25.0
30.0

Page TF5-5


MAXIMUM CREDIBLE
ACCIDENT
CHEM-SPRAY-TEST-B
FRANKLIN INST. LAB
GRAPH NO. h
OUTPUT SHIFT % @ 75% & TEMP °F VS TIME (HRS)
GAUGE-TYPE-LNM2, STYLE-B, TRANSMITTER S/N 2692435, AMPLIFIER NO. 14BND
INPUT RANGE: 0-2000 lbf/in2, OUTPUT LOAD: 650Ω
TEST NO. T3-1013 DATE: APRIL, 1978
SPRAY CONDITIONS—BORIC ACID SOLUTION WITH 0.26 IDPH
FOR 2 HRS THEN DROP TO 0.5PB (MIN)
SPRAY RATE: gph/ft2
300°F @ 60 lbf/in2
244°F @ 20 lbf/in2
XX
XX
XX
XX
XX
RODH. TEMP
175°F
NOTE: READINGS CORRECTED
FOR REF-UNIT
XX E-3 RUN
CALIBRATION
OUTPUT SHIFT IN % DELSPAN
TEMP °F
lbf/in2
0
2
4
6
8
10
0
28°
300°F
200°F
100°F
0°F
.25
.50
1.0
2.0
10.0
15.0
20.0
25.0
30.5
TIME (HRS)

DONALD C. COOK NUCLEAR PLANT UNIT NO. 1 DOCKET NO. 50-315 LICENSE NO. DPR-58

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: PLANT ID NO: COMPONENT: MANUFACTURER: MODEL NUMBER: FUNCTION: ACCURACY: SPEC: DEMON: SERVICE: LOCATION:	Operating Time						
	Temperature (^{0}F)						
	Pressure (PSIA)						
	Relative Humidity (%)						
	Chemical Spray						
	Radiation (10^6 rads)						
	Aging (years)						
FLOOD LEVEL ELEV: ABOVE FLOOD LEVEL:	Submergence						

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*Documentation References:

Notes:

Form EGQ #97-1

DONALD C. COOK NUCLEAR PLANT UNIT NO. 1 DOCKET NO. 50-315 LICENSE NO. DPR-58

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM:	Operating Time						
PLANT ID NO:	Temperature (^{o}F)						
COMPONENT:	Pressure (PSIA)						
MANUFACTURER:	Relative Humidity (%)						
MODEL NUMBER:	Chemical Spray						
FUNCTION:	Radiation (10^{6} rads)						
ACCURACY: SPEC: DEMON:	Aging (years)						
SERVICE:	Submergence						
LOCATION:							
FLOOD LEVEL ELEV: ABOVE FLOOD LEVEL:							

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*Documentation References: Notes:

Form EQG #97-1

DONALD C. COOK NUCLEAR PLANT UNIT NO. 1 DOCKET NO. 50-315 LICENSE NO. DPR-58

127-142
I25,26,27
154 I24
176-185 I12

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: VARIOUS PLANT ID NO: NA COMPONENT: INSTRUMENT CABLE TERMINATION MANUFACTURER: NA MODEL NUMBER: NA FUNCTION: INSTRUMENT CABLE CONNECTION AT PENETRATION ACCURACY: SPEC: NA DEMON: NA SERVICE: VARIOUS LOCATION: INSIDE CONTAINMENT FLOOD LEVEL ELEV: 614' ABOVE FLOOD LEVEL: NO	Operating Time	32 secs	> 1 hr	101	62	COMBINATION	NONE See Ref 62
	Temperature (°F)	328.2	340	102	62	"	"
	Pressure (PSIA)	29.1	119.7	103	62	"	"
	Relative Humidity (%)	100	100	102 103	62	"	"
	Chemical Spray	2000 ppm B 1.14% wt. BORIC ACID ph 8.5-11	2000 ppm B 1.14% wt BORIC ACID ph 8.5-11	104	62 72	"	NONE See Ref 72
	Radiation (10^6 rads)	.8	150	105	62	"	NONE See Ref 62
	Aging (years)						
	Submergence	SUBMERGED	See Ref 68	117	68	Eng; Review	NONE See Ref 68

*Documentation References:

Notes:

See sheet I24 for justification on NPS-153 operation.

Device needed only before submergence occurs. Except for NPS-153.

DONALD C. COOK NUCLEAR PLANT UNIT NO. 1 DOCKET NO. 50-315 LICENSE NO. DPR-58

55-56 I 9
73-74 I 5

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: VARIOUS PLANT ID NO: NA COMPONENT: INSTRUMENT CABLE TERMINATION MANUFACTURER: NA MODEL NUMBER: NA FUNCTION: BARTON INSTRUMENT CONNECTION ACCURACY: SPEC: NA DEMON: NA SERVICE: VARIOUS LOCATION: OUTSIDE CONTAINMENT	Operating Time	4 MO.	> 4.4 MO.	101	62 63	COMBINATION	NONE See Ref 63
	Temperature (°F)	230	340	107	62	"	NONE See Ref 62
	Pressure (PSIA)	26.2	119.7	107	62	"	"
	Relative Humidity (%)	100	100	107	62	"	"
	Chemical Spray	NA	2000 ppm B 1.14% wt. Boric Acid ph 8.5-11	NA	62 72	"	NA
	Radiation (10^6 rads)	NA	150	NA	62	"	NA
	Aging (years)						
FLOOD LEVEL ELEV: NA ABOVE FLOOD LEVEL: NA	Submergence	NA	NA	NA	NA	NA	NA

*Documentation References:

Notes:

DONALD C. COOK NUCLEAR PLANT UNIT NO. 1 DOCKET NO. 50-315 LICENSE NO. DPR-58

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: VARIOUS PLANT ID NO: NA COMPONENT: INSTRUMENT CABLE TERMINATION MANUFACTURER: NA MODEL NUMBER: NA FUNCTION: FOXBORO INSTRUMENT TERMINATION ACCURACY: SPEC: NA DEMON: NA SERVICE: VARIOUS LOCATION: OUTSIDE CONTAINMENT	Operating Time	4 MTHS	>4.4 MTHS	101	62 63	COMBINATION	NONE See Ref: 63
	Temperature (°F)	244	320	107	62	"	NONE See Ref 62
	Pressure (PSIA)	29.1	89.7	107	62	"	"
	Relative Humidity (%)	100	100	107	62	"	"
	Chemical Spray	NA	2000 PPMB 1.14% WT BORIC ACID PH 8.5-11	NA	62 72	"	NA
	Radiation (10^6 rads)	NA	18	NA	62	"	NA
	Aging (years)						
FLOOD LEVEL ELEV: NA ABOVE FLOOD LEVEL: NA	Submergence	NA	NA	NA	NA	NA	NA

9-12 I4
75-78 I11
97-100 I13
170-177 I3
186-197 I14,15
224-225 I13

*Documentation References:

Notes:

DONALD C. COOK NUCLEAR PLANT UNIT NO. 1 DOCKET NO. 50-315 LICENSE NO. DPR-58

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: VARIOUS PLANT ID NO: NA COMPONENT: POWER CABLE TERMINATION MANUFACTURER: NA MODEL NUMBER: SOLID KAPTON SPLICED TO STRANDED KAPTON AT PENETRATION INSIDE F.U. TUBES. FUNCTION: CABLE CONNECTION ACCURACY: SPEC: NA DEMON: NA SERVICE: VARIOUS LOCATION: INSIDE CONTAINMENT	Operating Time	1YR.	>1.1 yr	109	13 63	Combination	NONE See Ref 63
	Temperature (°F)	328.2	340	102	13	Sequential	NONE
	Pressure (PSIA)	29.1	118	103	13	"	"
	Relative Humidity (%)	100	100	102 103	13	"	"
	Chemical Spray	NA	2500 ppm B 1.43% wt. BORIC ACID ph 8.5-11	NA	13 72	COMBINATION	NONE See Ref 72
	Radiation (10^6 rads)	26.1	150	105	13	SEQ.	NONE
	Aging (years)						"
FLOOD LEVEL ELEV: 614' ABOVE FLOOD LEVEL: NO	Submergence	Not submerged	Protected by Floodup tubes	NA	61	Eng. Review	NONE See Ref 61

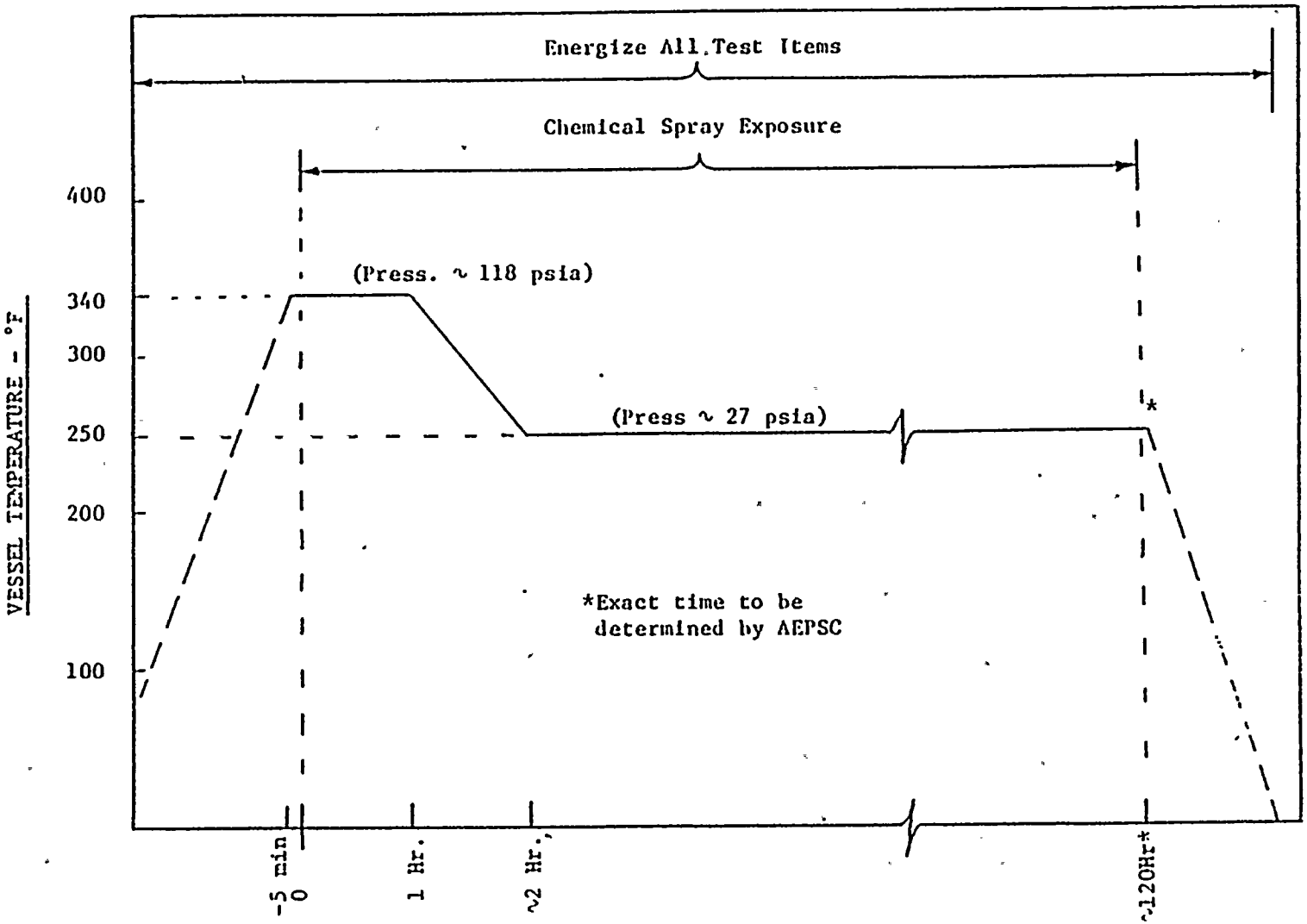
57-60 V1, 82-83 V2, 87-88 V2, 92A V1, 111-116 V4, F, H1, 202 V1, 205 V1, 214 V5, 229-231 V9

*Documentation References:

Notes:

FIGURE 2 TEST PROFILE

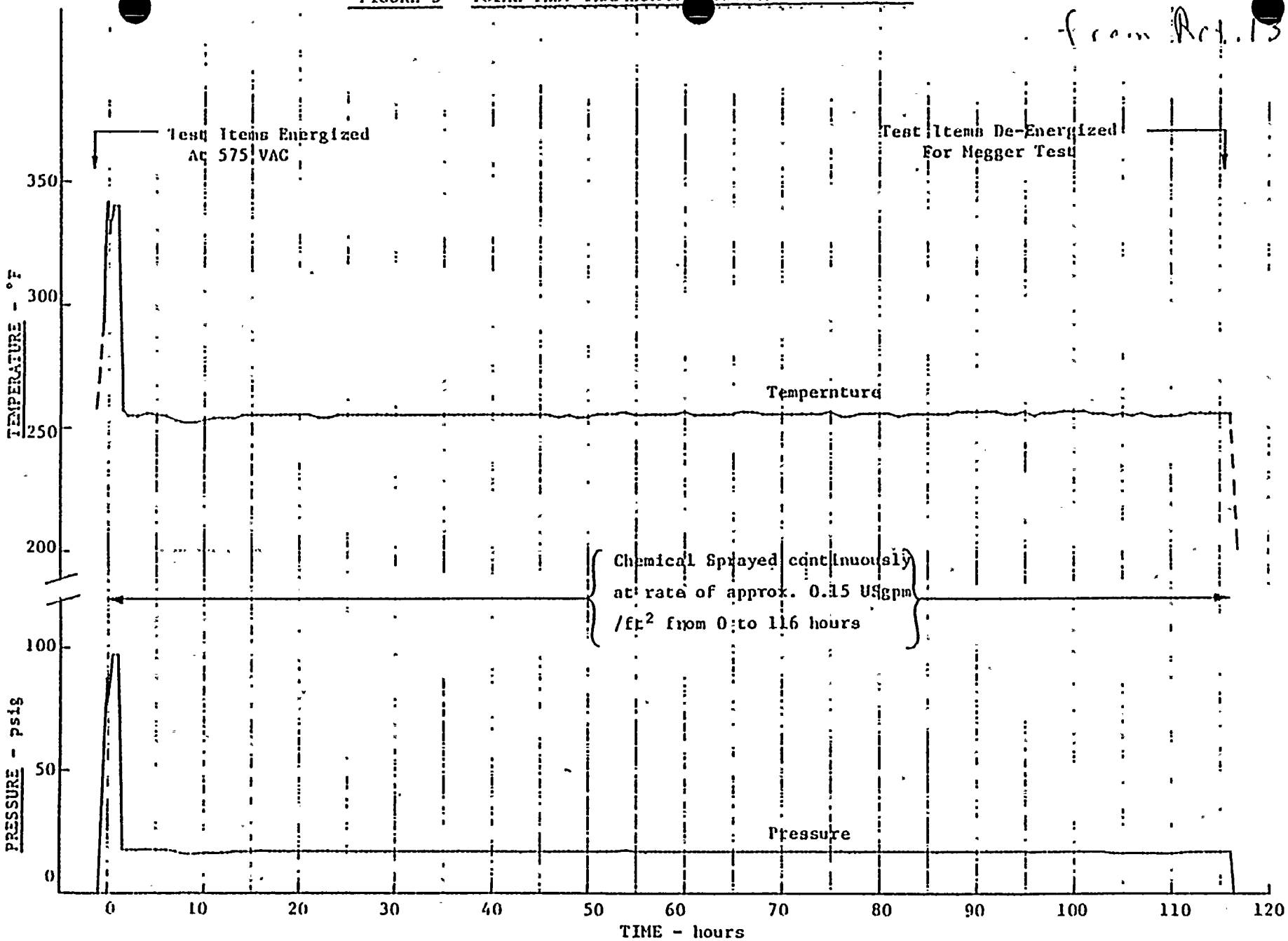
from Ref. 13



Page TP1-2

FIGURE 3 TOTAL TEST TEMPERATURE AND PRESSURE PROFILE

from Rpt. 13



Page TP1-3

DONALD C. COOK NUCLEAR PLANT UNIT NO. 1 DOCKET NO. 50-315 LICENSE NO. DPR-58

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: VARIOUS PLANT ID NO: NA COMPONENT: TERMINATION MANUFACTURER: NA MODEL NUMBER: Str kapton to XL poly inside Floodup boot FUNCTION: CABLE CONNECTION FLOOD UP TERMINAL BOX ACCURACY: SPEC: NA DEMON: NA SERVICE: VARIOUS LOCATION: INSIDE CONTAINMENT	Operating Time	1YR	>1.1yr	109	13 63	Combination	NONE See Ref 63
	Temperature (°F)	328.2	340	102	13	Sequential	NONE
	Pressure (PSIA)	29.1	110	103	13	"	"
	Relative Humidity (%)	100	100	102 103	13	"	"
	Chemical Spray	NA	2500 PPM B 1.63% WT. BORIC ACID PH 8.5-11	NA	13 72	COMBINATION	NONE See Ref 72
	Radiation (10^6 rads)	135	150	105	13	SEQ.	NONE
	Aging (years)						
FLOOD LEVEL ELEV: 614' ABOVE FLOOD LEVEL: YES	Submergence	NA	NA	NA	NA	NA	NA

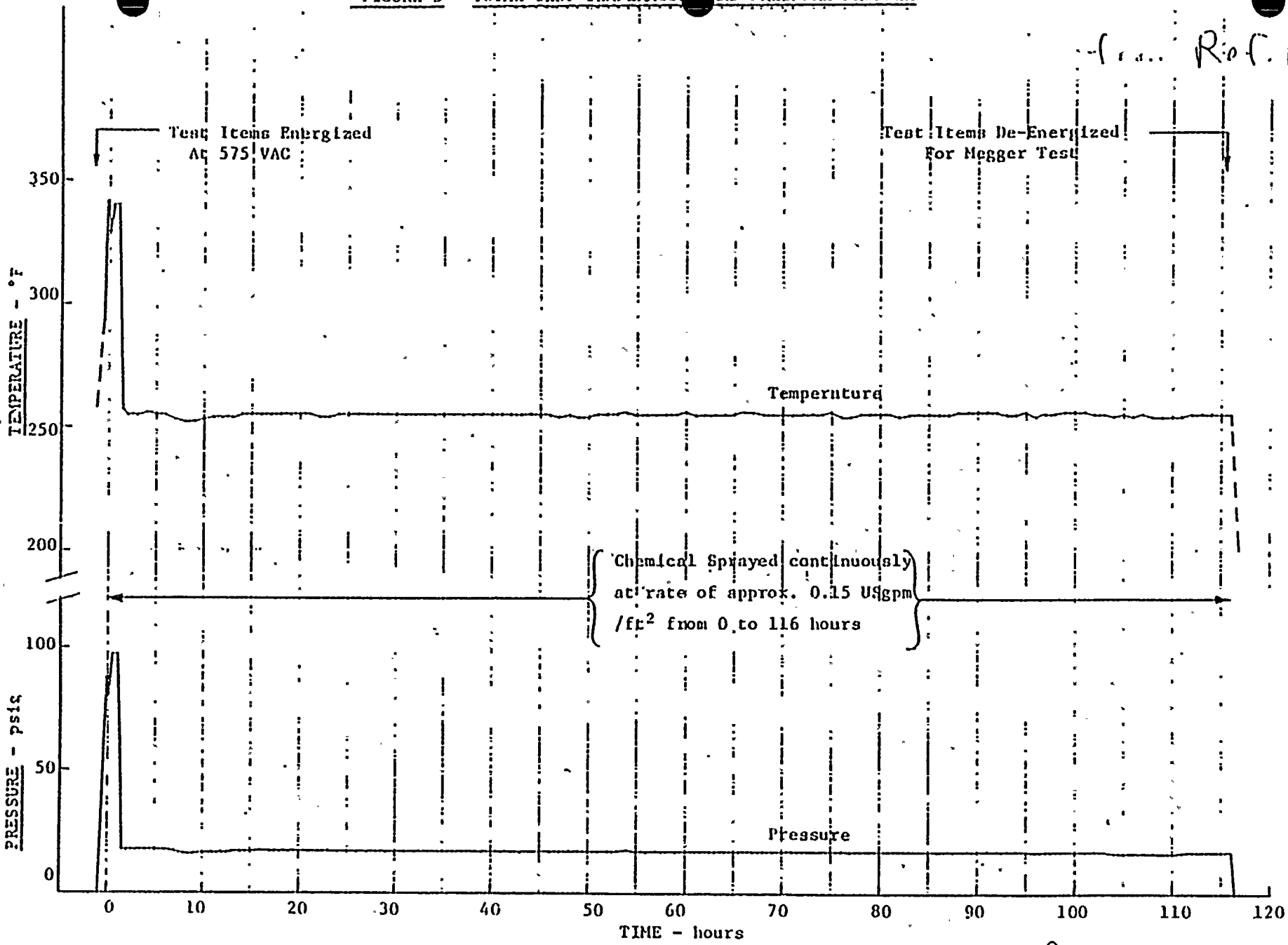
57-60 V1
82-83 V2
87-88 V2
92 A V1
111-116 V4, F1, H1
202 V1
203 V1
214 V5
229-231 V9

*Documentation References:

Notes:

FIGURE 3 TOTAL TEST TEMPERATURE AND PRESSURE PROFILE

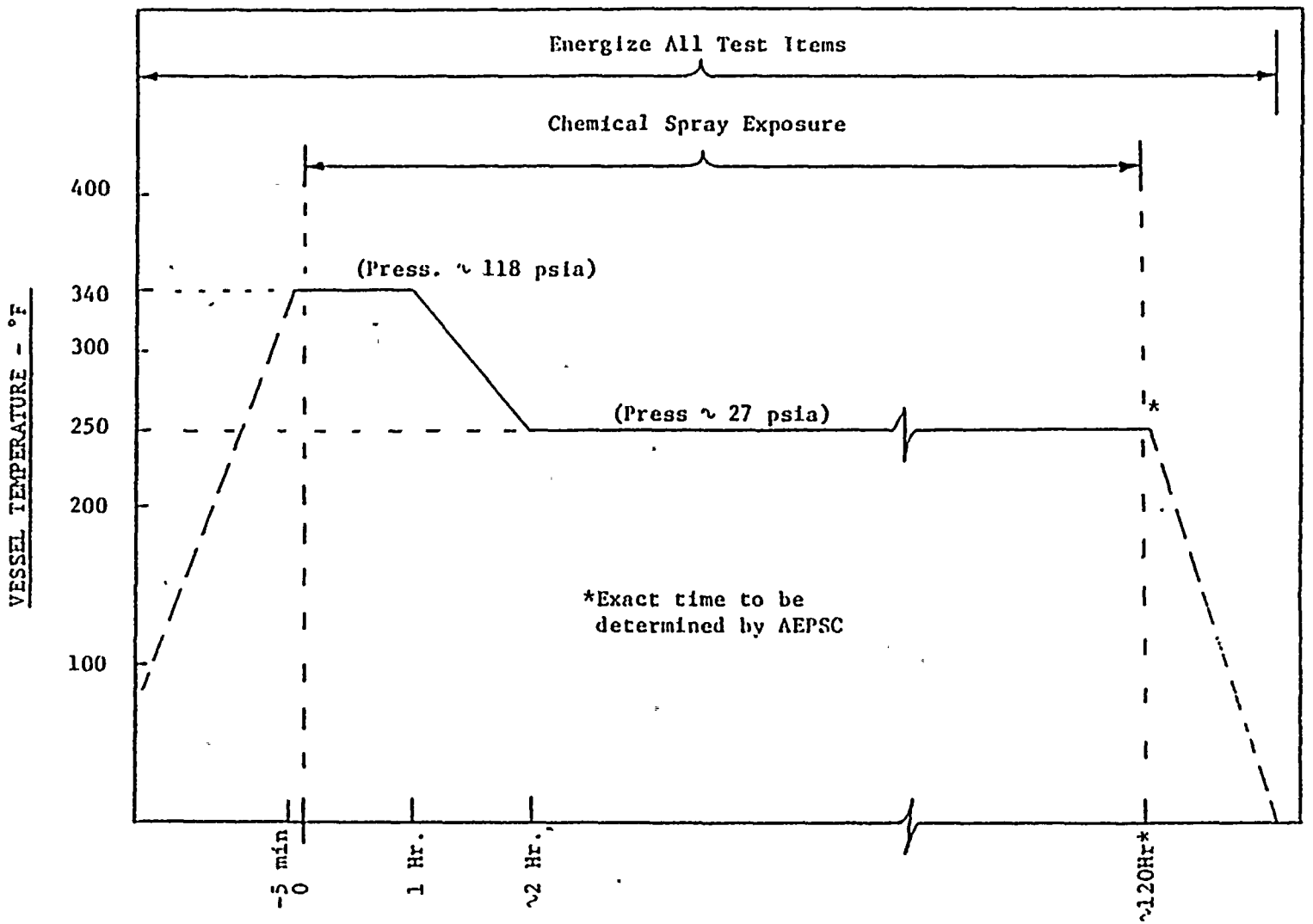
From Ref. 13



Page TP2-2

FIGURE 2 TEST PROFILE

From Ref. 13



DONALD C. COOK NUCLEAR PLANT UNIT NO. 1 DOCKET NO. 50-315 LICENSE NO. DPR-58

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: VARIOUS PLANT ID NO: NA COMPONENT: TERMINATION MANUFACTURER: NA MODEL NUMBER: TERMINATION AT VALVE MOTOR OPERATORS, HYDROGEN RECOMBINER, FAN MOTORS FUNCTION: CABLE CONNECTION ACCURACY: SPEC: NA DEMON: NA SERVICE: VARIOUS LOCATION: INSIDE CONTAINMENT	Operating Time	1 YEAR	>1.1 YR	109	13 63	COMBINATION	NONE See Ref 63
	Temperature (°F)	328.2	340	102	13	SEQUENTIAL	NONE
	Pressure (PSIA)	29.1	118	103	13	"	"
	Relative Humidity (%)	100	100	102 103	13	"	"
	Chemical Spray	2000 PPM B 1.14% WT. BORIC ACID ph 8.5-11	2500 PPM B 1.43% WT. BORIC ACID ph 8.5-11	114	13 72	COMBINATION	NONE See Ref 72
	Radiation (10^6 rads)	126	150	105	13.	SEQ.	NONE
	Aging (years)						"
FLOOD LEVEL ELEV: 614' ABOVE FLOOD LEVEL: YES	Submergence	NA	NA	NA	NA	NA	NA

82-83 V2
87-88 V2
111-116 V4, F1, H1
229-231-V9
208 V10
209 V10

*Documentation References:

Notes:

FIGURE 2 TEST PROFILE

from Ref. 13

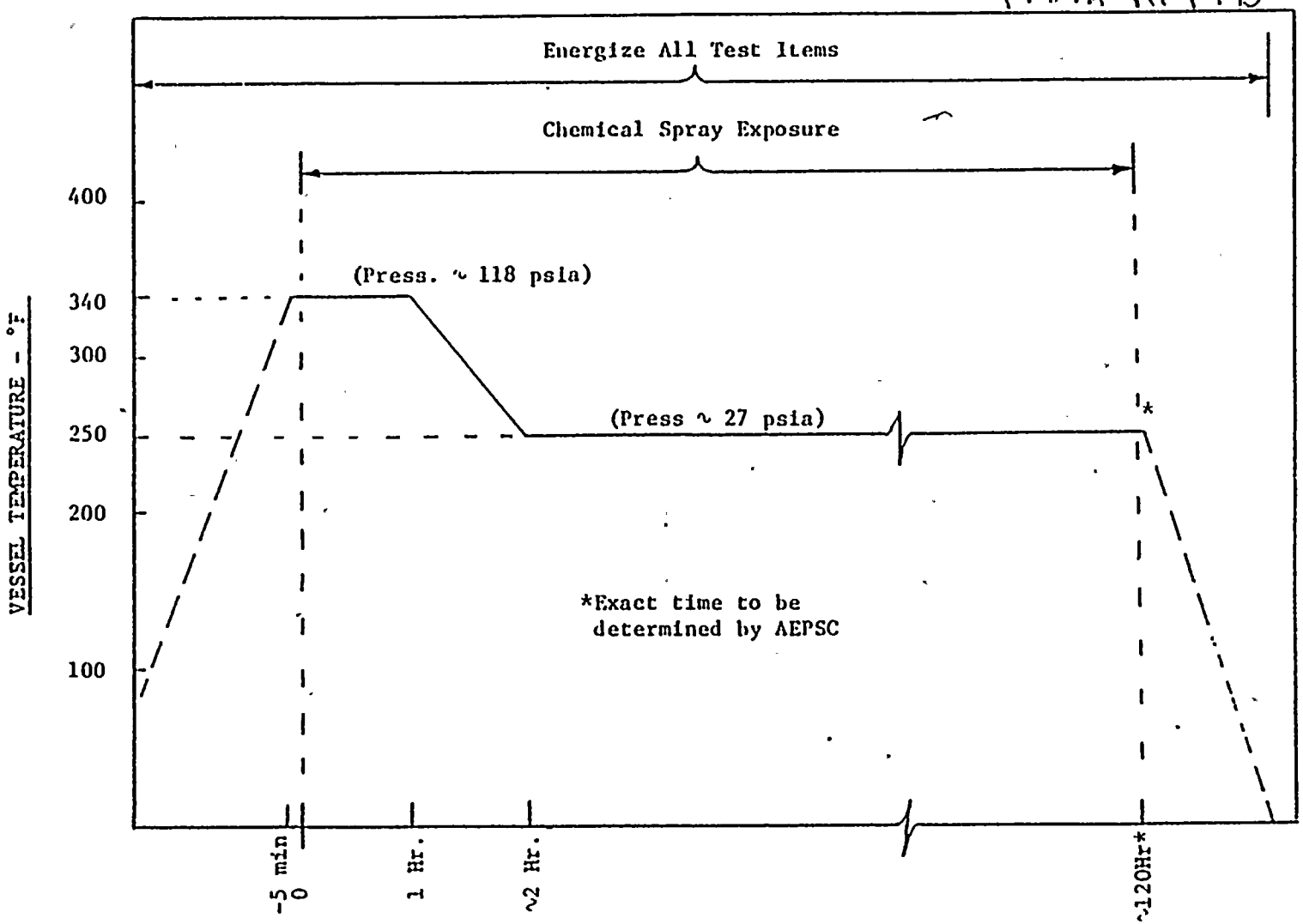
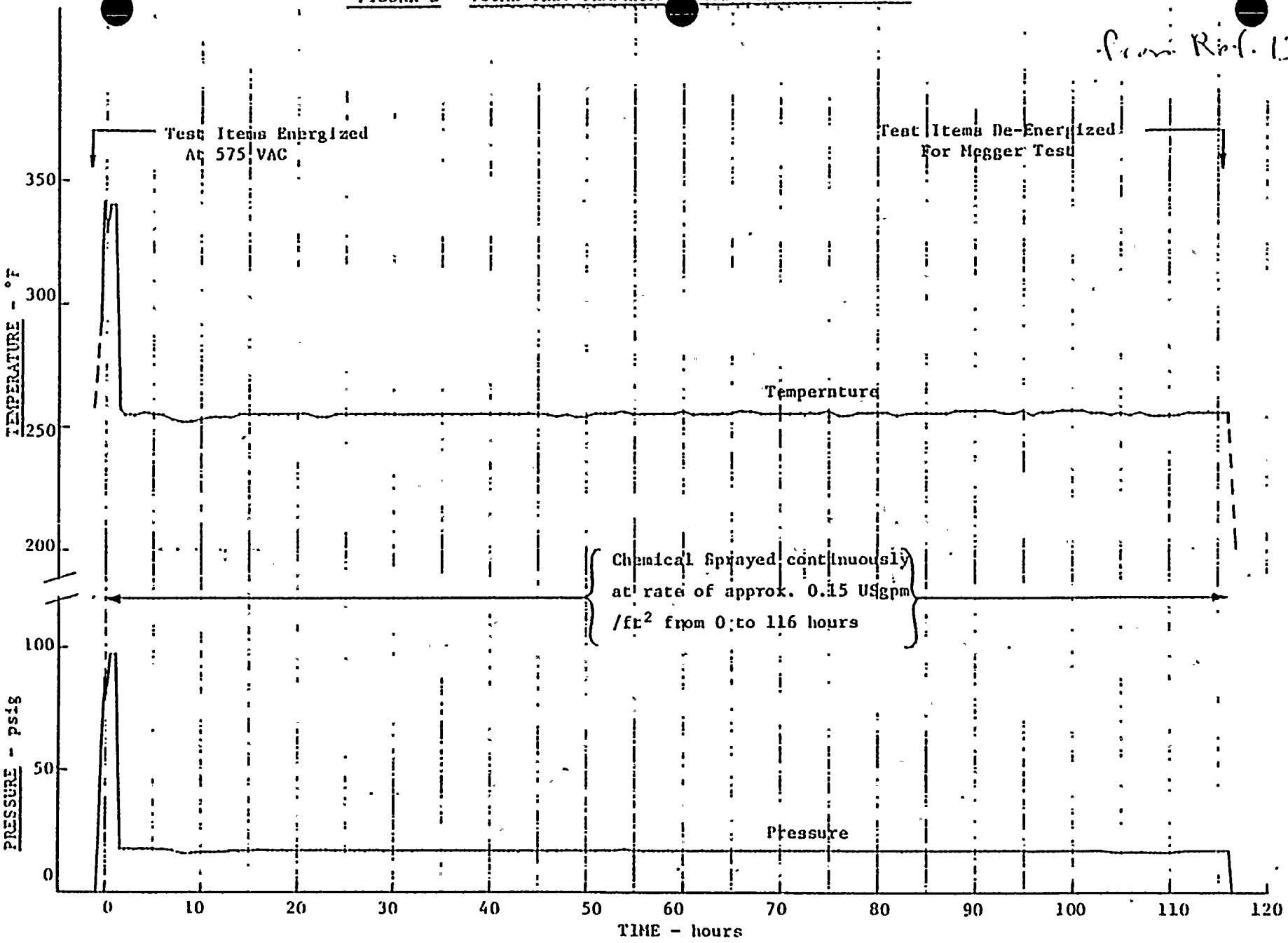


FIGURE 3 TOTAL TEST TEMPERATURE AND PRESSURE PROFILE

From Ref. 13



DONALD C. COOK NUCLEAR PLANT UNIT NO. 1 DOCKET NO. 50-315 LICENSE NO. DPR-58

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: VARIOUS PLANT ID NO: NA COMPONENT: CABLE TERM MANUFACTURER: NA MODEL NUMBER: POWER CABLE TERM AT PUMP MOTOR FUNCTION: VARIOUS ACCURACY: SPEC: NA DEMON: NA SERVICE: VARIOUS LOCATION: OUTSIDE CONTAINMENT	Operating Time	1 YEAR	71.1 yr	118	13 63	Combination	NONE See Ref 63
	Temperature (°F)	NA	NA	NA	NA	NA	NA
	Pressure (PSIA)	NA	NA	NA	NA	NA	
	Relative Humidity (%)	NA	NA	NA	NA	NA	
	Chemical Spray	NA	NA	NA	NA	NA	
	Radiation (10^6 rads)	6	150	106	13	SEQ.	NONE
	Aging (years)						
FLOOD LEVEL ELEV: NA ABOVE FLOOD LEVEL: NA	Submergence	NA	NA	NA	NA	NA	NA

45-48 MI
71 MI
72 MI
93-94 MI
109 M2
110 M2

*Documentation References:

Notes:

DONALD C. COOK NUCLEAR PLANT UNIT NO. 1 DOCKET NO. 50-315 LICENSE NO. DPR-58

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: VARIOUS PLANT ID NO: NA COMPONENT: POWER CABLE TERMINATION MANUFACTURER: NA MODEL NUMBER: NA FUNCTION: POWER CABLE CONNECTION TO VALVE MOTOR ACCURACY: SPEC: NA DEMON: NA SERVICE: VARIOUS LOCATION: INSIDE CONTAINMENT	Operating Time	1/2 HR	116 HRS.	109	13	SEQUENTIAL	NONE
	Temperature (°F)	328.2	340	102	13	"	"
	Pressure (PSIA)	29.1	118	103	13	"	"
	Relative Humidity (%)	100	100	102 103	13	"	"
	Chemical Spray	2000 PPMB 1.14 % WT BORIC ACID PH 8.5-11	2500 PPMB 1.43 % WT BORIC ACID PH 8.5-11	114	13 72	COMBINATION	NONE See Ref 72
	Radiation (10^6 rads)	0.8	150	105	13	SEQ.	NONE
	Aging (years)						
FLOOD LEVEL ELEV: 614' ABOVE FLOOD LEVEL: NO	Submergence	SUBMERGED	See Ref "6K" D	117	68	Eng. Review	NONE See Ref 68

57-60 VI
214 VI
92A VI
202 VI
203 VI

*Documentation References:

Notes:

FIGURE 2 TEST PROFILE

from Ref. 13

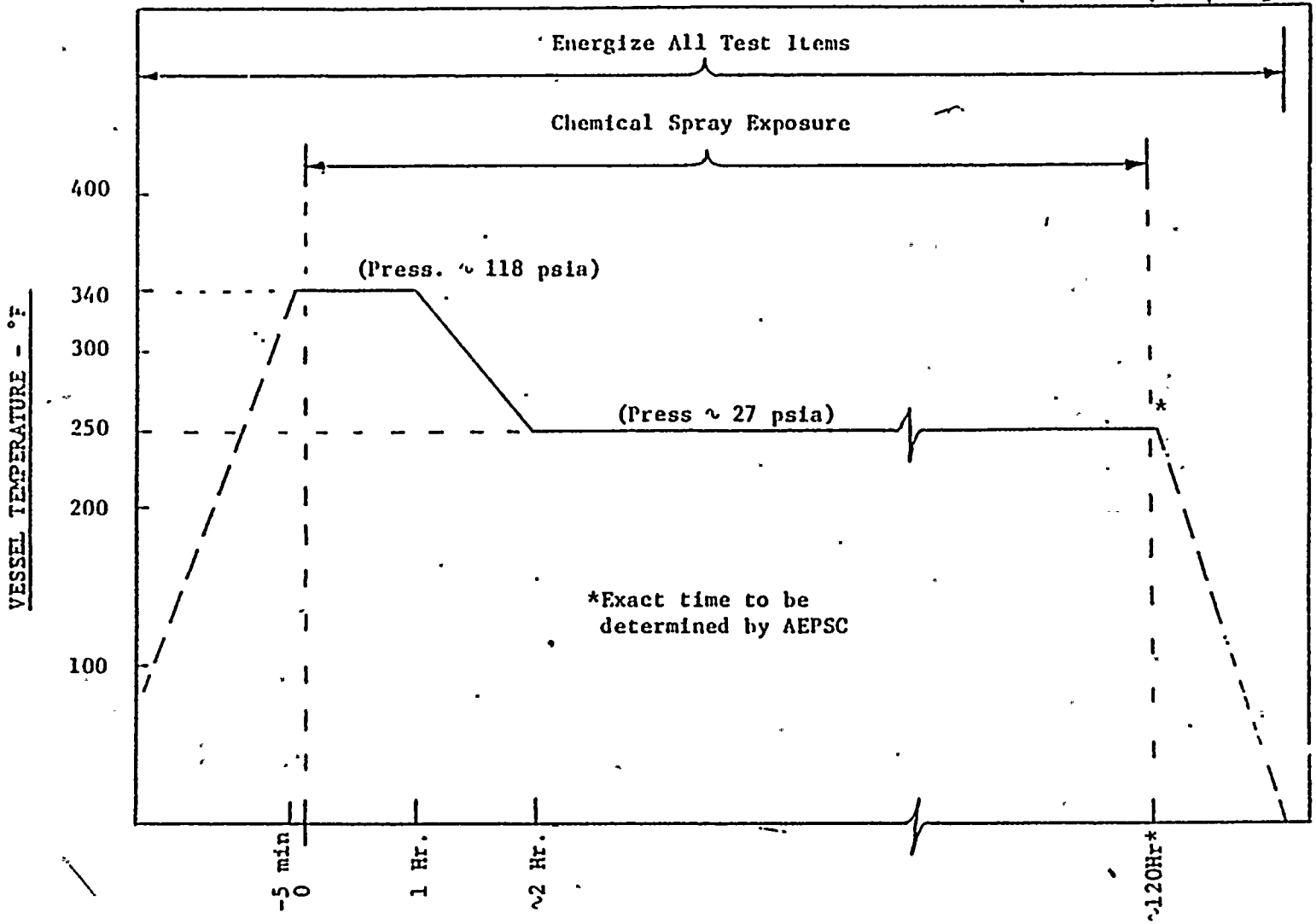
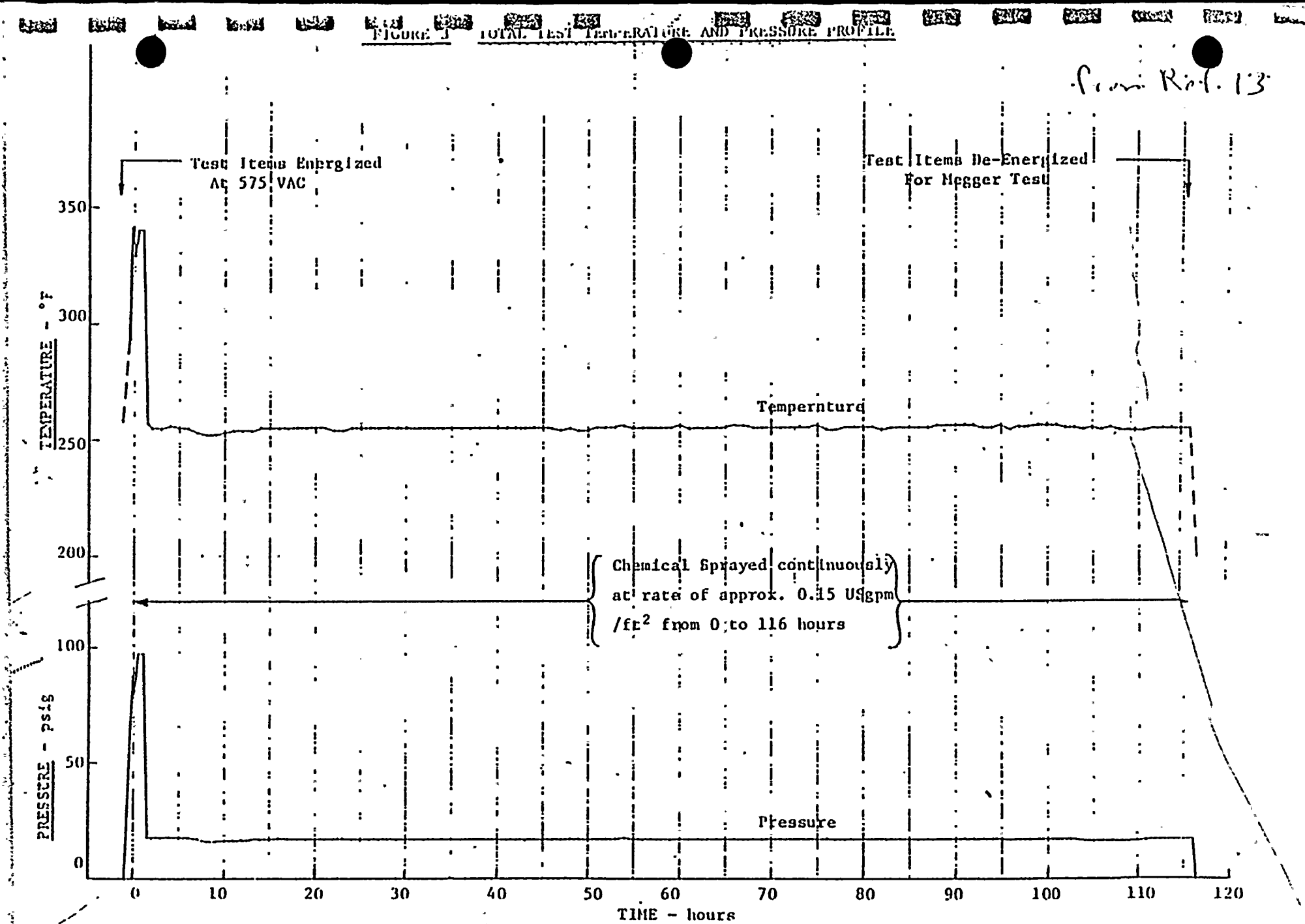


FIGURE 1 TOTAL TEST TEMPERATURE AND PRESSURE PROFILE

From Ref. 13



DONALD C. COOK NUCLEAR PLANT UNIT NO. 1 DOCKET NO. 50-315 LICENSE NO. DPR-58

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: VARIOUS PLANT ID NO: NA COMPONENT: POWER CABLE TERMINATN MANUFACTURER: NA MODEL NUMBER: NA FUNCTION: POWER CABLE CONNECTION AT VALVE MOTOR OPERATOR ACCURACY: SPEC: NA DEMON: NA SERVICE: VARIOUS LOCATION: OUTSIDE CONTAINMENT	Operating Time	1 DAY	716 hrs	110	13	Sequential	NONE
	Temperature (°F)	230	340	107	13	SEQUENTIAL	"
	Pressure (PSIA)	26.2	118	107	13	"	"
	Relative Humidity (%)	100	100	107	13	"	"
	Chemical Spray	NA	2500 ppm B 1.43% wt BORIC ACID ph 8.5-11	NA	13: 72	COMBINATION	NONE See Ref 72
	Radiation (10^6 rads)	4	150	106	13	SEQ.	NONE
	Aging (years)						
FLOOD LEVEL ELEV: NA ABOVE FLOOD LEVEL: NA	Submergence	NA	NA	NA	NA	NA	NA

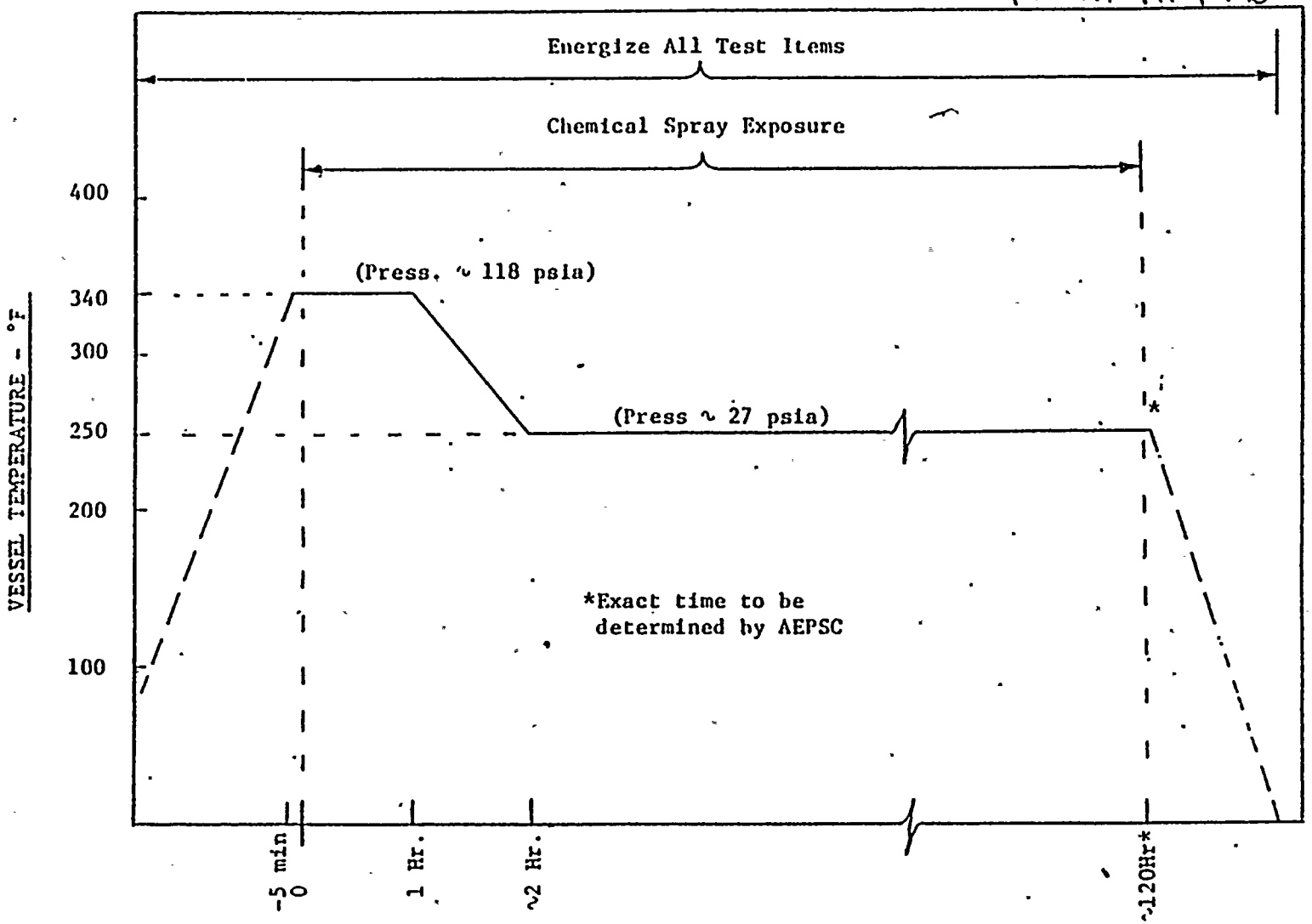
17-24 V6
30-33 V6
35-38 V6
41-44 V6, VII
49-50-V6
61-70 V6, VII, V8
79-81 V6
84-86 V6
89-92 V7, VII
101-108 V7
204-207 V6
210-213 -V6, VII

*Documentation References:

Notes:

FIGURE 2 TEST PROFILE

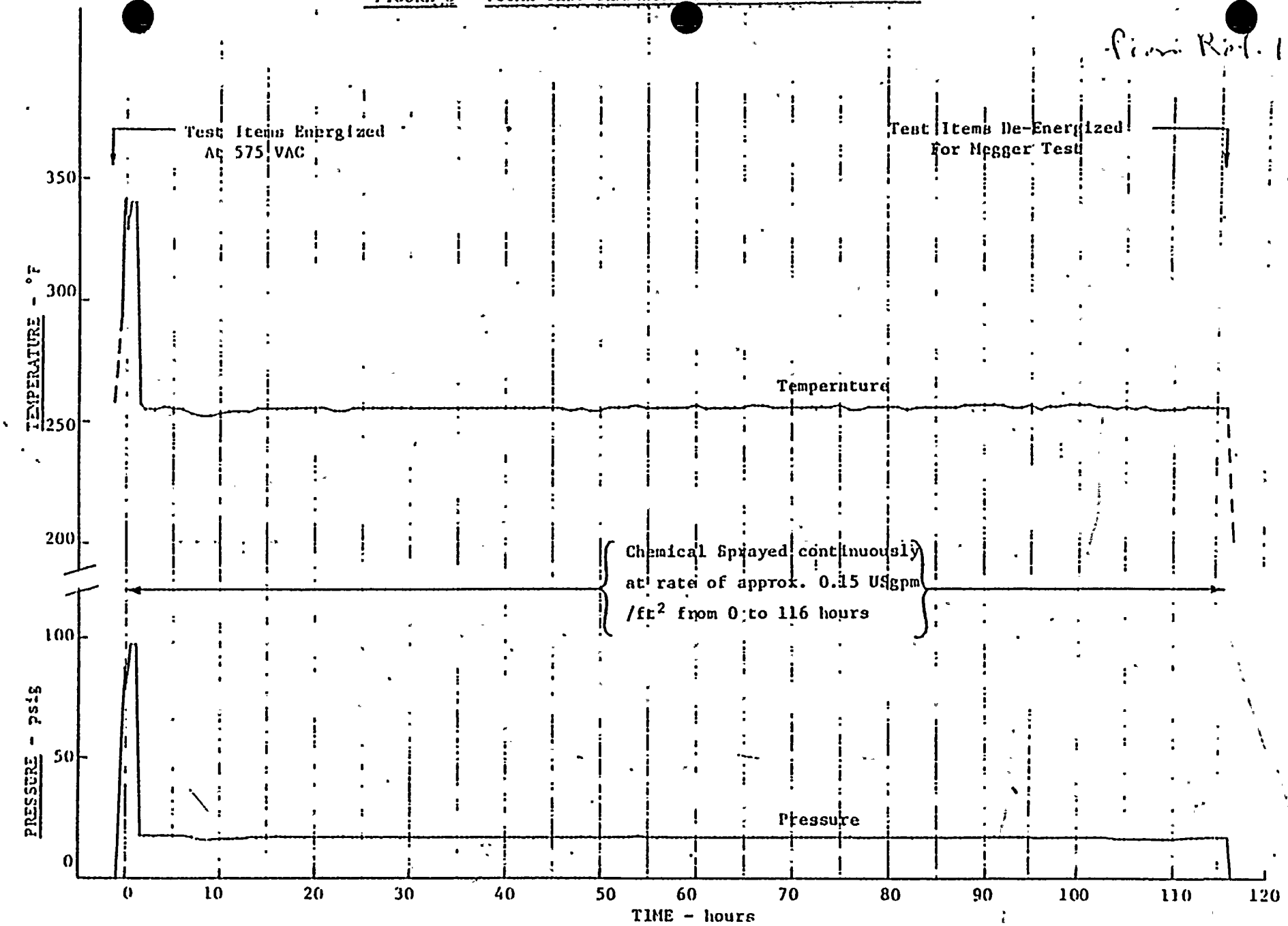
from Ref. 13



Page TP5-2

FIGURE 3 TOTAL TEST TEMPERATURE AND PRESSURE PROFILE

Fig. Ref. 13



Page TP 5.2

DONALD C. COOK NUCLEAR PLANT UNIT NO. 1 DOCKET NO. 50-315 LICENSE NO. DPR-58

57-60
92A
202
203

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: CVCS; RHR PLANT ID NO: IMO-51, 52, 53 54, 128; ICM-111, 129 COMPONENT: VALVE MOTOR OPERATOR MANUFACTURER: LIMITORQUE MODEL NUMBER: SMB-1 SMB-00 SMB-2 FUNCTION: CORE COOLING AND CONTAINMENT ISOLATION ACCURACY: SPEC: NA DEMON: NA SERVICE: ECCS INJECTION AND RHR NORMAL COOLING LOCATION: INSIDE CONTAINMENT	Operating Time	1/2 HR.	30 days	109	23	Sequential	NONE
	Temperature (°F)	328.2	340	102	23	"	"
	Pressure (PSIA)	29.1	112.7	103	23	"	"
	Relative Humidity (%)	100	100	102 103	23	"	"
	Chemical Spray	2000ppm B 1.14% wt. Boric Acid ph 9-11	2600ppm B 1.5% wt. Boric Acid ph 8.5-11	114	22 72	Combination	NONE See Ref 72
	Radiation (10^6 rads)	18	204	105	23	Sequential	NONE
	Aging (years)						
FLOOD LEVEL ELEV: 614' ABOVE FLOOD LEVEL: NO	Submergence	SUBMERGED	Submergence	117	23	Sequential	NONE

*Documentation References:

Notes:

from Ref. 23

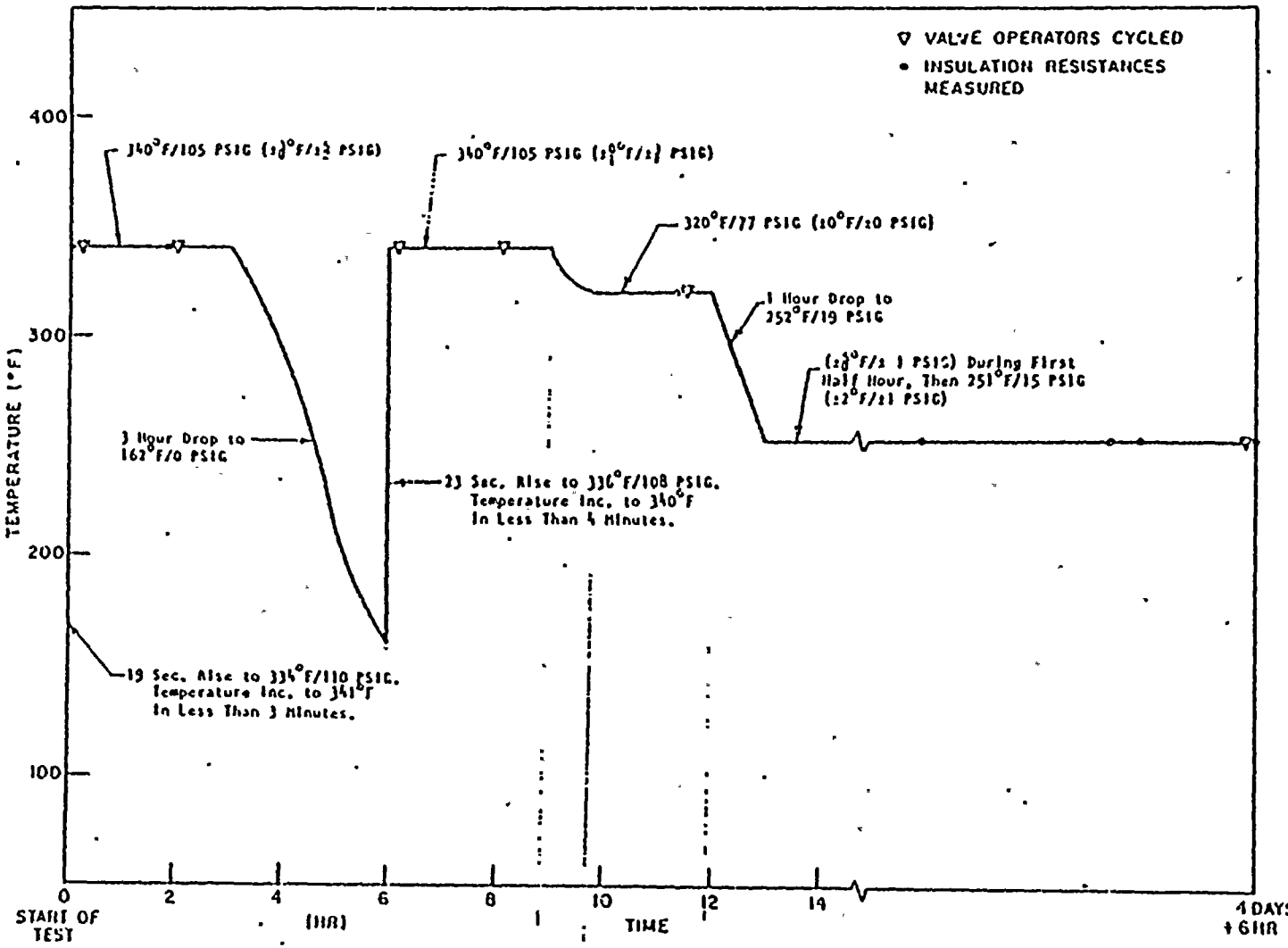


Figure 3. Actual Steam Exposure Profile

Page VI-2

DONALD C. COOK NUCLEAR PLANT UNIT NO. 1 DOCKET NO. 50-315 LICENSE NO. DPR-58

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: SAFETY INJECTION PLANT ID NO: IMO-315, 316 325, 326 COMPONENT: VALVE MOTOR OPERATOR MANUFACTURER: LIMITORQUE MODEL NUMBER: SMB-1 FUNCTION: SWITCHOVER TO HOT LEG INJECTION ACCURACY: SPEC: NA DEMON: NA SERVICE: ECCS SAFETY INJECTION LOCATION: INSIDE CONTAINMENT	Operating Time	1DAY	30 days	110	16	SEQ.	NONE
	Temperature (°F)	244	315	102	16	"	"
	Pressure (PSIA)	29.1	84.7	103	16	"	"
	Relative Humidity (%)	100	100	102 103	16	"	"
	Chemical Spray	2000ppm B 1.14% wt. Boric Acid ph 9-11	3000ppm B 1.72% wt. Boric Acid ph 8.5-11	114	16 72	COMBINATION	NONE See Ref 72
	Radiation (10^6 rads)	28	204	105	16	SEQ.	NONE
	Aging (years)						
FLOOD LEVEL ELEV: 614' ABOVE FLOOD LEVEL: YES	Submergence	NA	NA	NA	NA	NA	NA

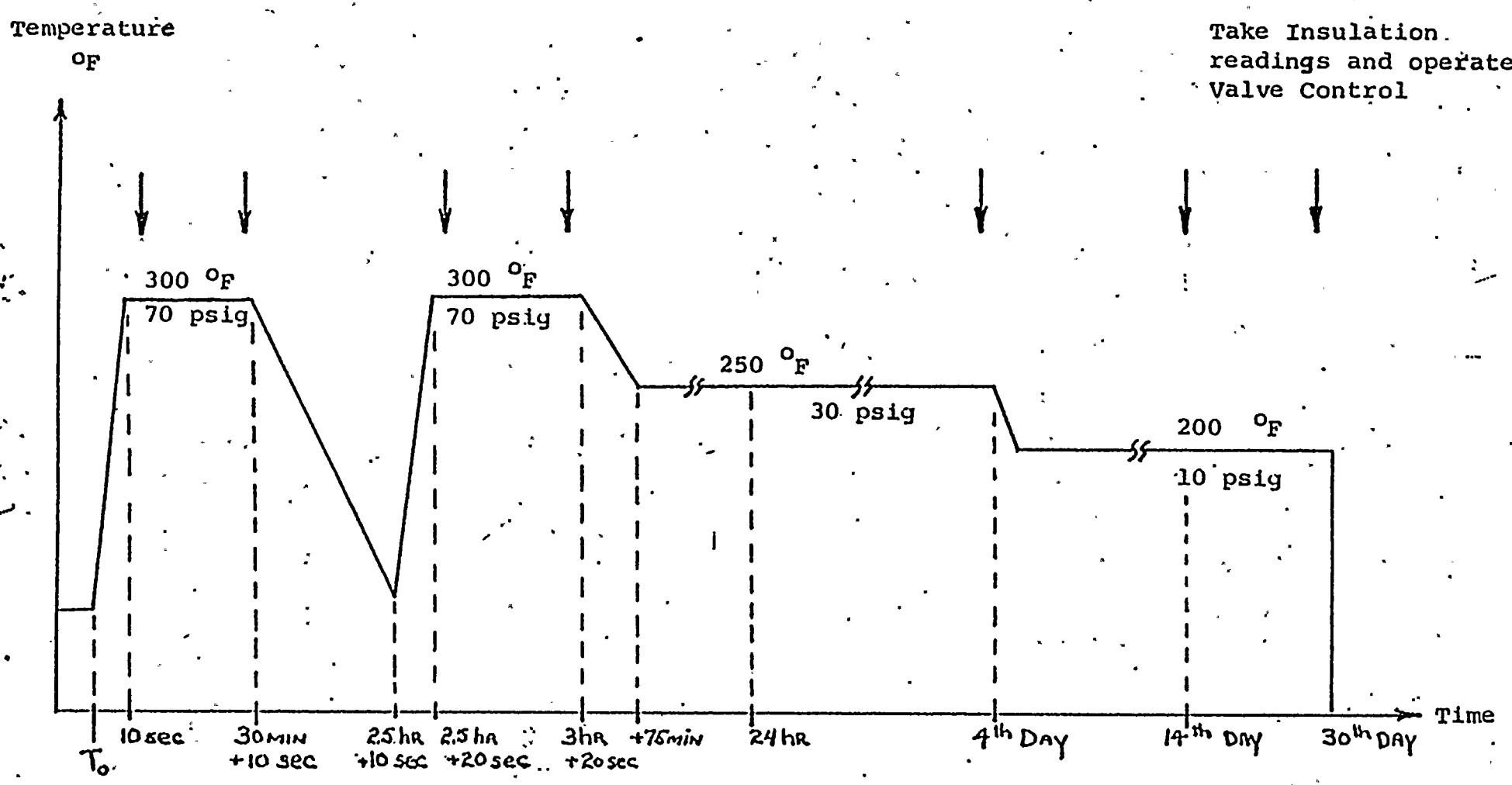
82
83
87
88

*Documentation References:

Notes:

FROM REF. #16

Specified Accident Profile



FROM REF. #16

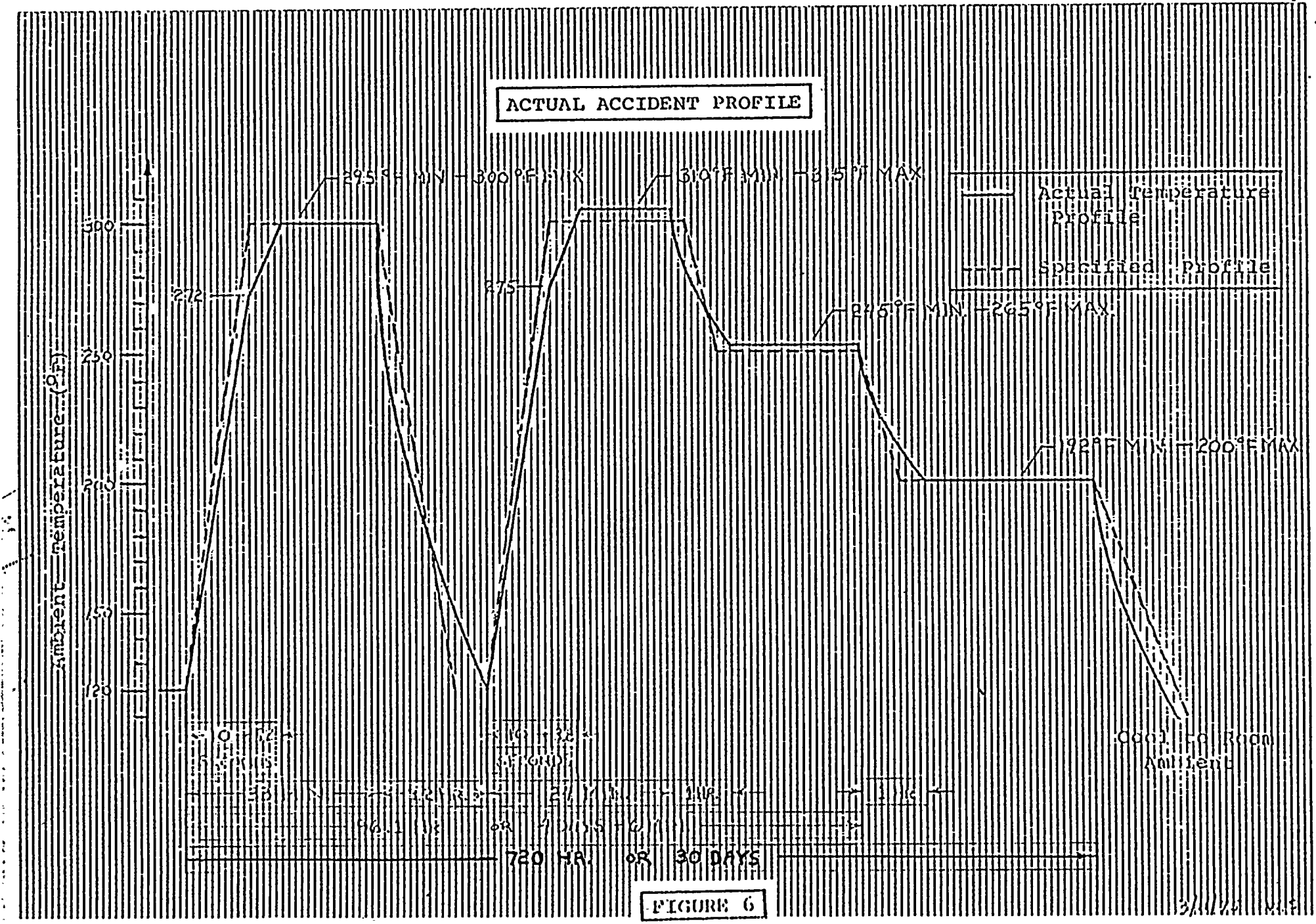


FIGURE 6

DONALD C. COOK NUCLEAR PLANT UNIT NO. 1 DOCKET NO. 50-315 LICENSE NO. DPR-58

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM:	Operating Time						
PLANT ID NO:	Temperature (°F)						
COMPONENT:	Pressure (PSIA)						
MANUFACTURER:	Relative Humidity (%)						
MODEL NUMBER:	Chemical Spray						
FUNCTION:	Radiation (10^6 rads)						
ACCURACY: SPEC: DEMON:	Aging (years)						
SERVICE:	Submergence						
LOCATION:							
FLOOD LEVEL ELEV: ABOVE FLOOD LEVEL:							

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*Documentation References:

Notes:

Form EGG #971-1

DONALD C. COOK NUCLEAR PLANT UNIT NO. 1 DOCKET NO. 50-315 LICENSE NO. DPR-58

111
112.

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: CONTAINMENT AIR RECIRCULATION PLANT ID NO: VM0 101, 102 COMPONENT: VALVE MOTOR OPERATOR MANUFACTURER: LIMITORQUE MODEL NUMBER: SMB-000 FUNCTION: CT AIR RECIRC. BACKDRAFT DAMPERS ACCURACY: SPEC: NA DEMON: NA SERVICE: CT AIR RECIRC. BACKDRAFT DAMPERS LOCATION: INSIDE CONTAINMENT	Operating Time	1/2 HR.	16 days	108	24	SEQ.	NONE
	Temperature (°F)	244	250	102	24	"	"
	Pressure (PSIA)	29.1	39.7	103	24	"	"
	Relative Humidity (%)	100	100	102 103	24	"	"
	Chemical Spray	See note below	See Ref 115	118	115	Eng. Review	NONE See Ref 118, 115
	Radiation (10^6 rads)	4.31	.20	105	24	SEQ.	NONE
	Aging (years)						
FLOOD LEVEL ELEV: 614' ABOVE FLOOD LEVEL: YES	Submergence	NA	NA	NA	NA	NA	NA

*Documentation References:

Notes: VALVE LOCATION IS NOT SUBJECT TO DIRECT SPRAY IMPINGEMENT AS PER MECHANICAL INSTALLATION DWG. 1-

See Ref 118

TEMPERATURE PROFILE

from Ref. 24

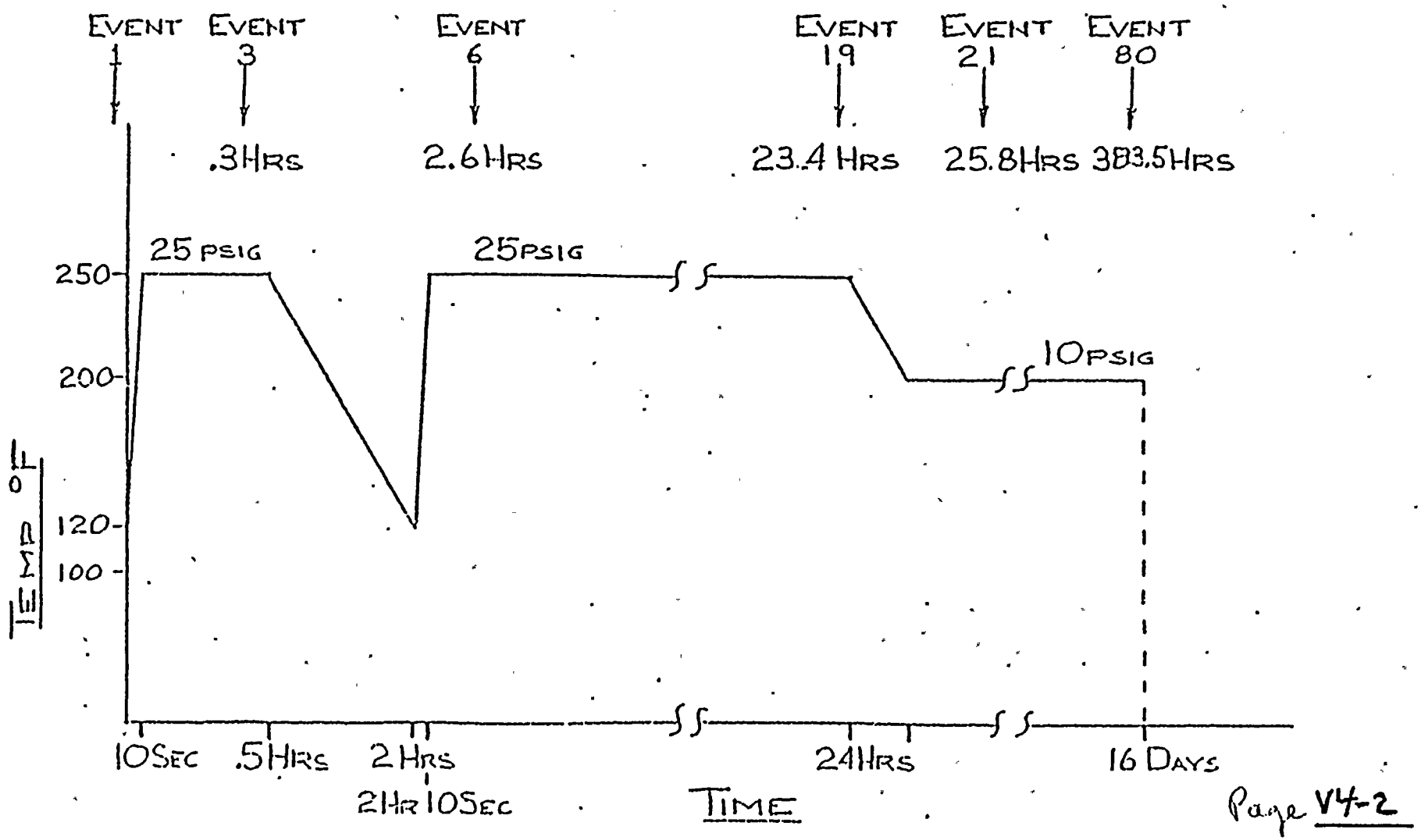

FIGURE 1

DONALD C. COOK NUCLEAR PLANT UNIT NO. 1 DOCKET NO. 50-315 LICENSE NO. DPR-58

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: CVCS PLANT ID NO: QCM-250 COMPONENT: VALVE MOTOR OPERATOR MANUFACTURER: LIMITORQUE MODEL NUMBER: SMB-000 FUNCTION: RCP SEAL WATER CT ISOLATION ACCURACY: SPEC: NA DEMON: NA SERVICE: RCP SEAL WATER DISCHARGE LOCATION: INSIDE CONTAINMENT	Operating Time	60 secs.	7 days	108	22	Simul.	NONE
	Temperature (°F)	244	330	102	22	"	"
	Pressure (PSIA)	29.1	104.7	103	22	"	"
	Relative Humidity (%)	100	100	102 103	22	"	"
	Chemical Spray	2000ppm B 1.14% wt. Boric Acid ph 8.5-11	2600ppm B 1.5% wt. Boric Acid ph 8.5-11	114	22 72	Combination	NONE See Ref 72
	Radiation (10^6 rads)	18	See note below	105	See note below	Eng. review	NONE See Note below
	Aging (years)						
FLOOD LEVEL ELEV: 614' ABOVE FLOOD LEVEL: NO	Submergence	Submerged	See Ref. 68	117	68	Eng. Review	NONE See Ref 68

*Documentation References:

Notes:
This valve closes within 15 secs (tech spec table 3.6-1) of receiving a phase A containment isolation signal, therefore it is not exposed to a radiation dose significantly beyond its normal environment and does not require radiation qualification.

from Ref. 22. Qualified by Limitorque Corp. Test Laboratory
Project #600198. November 1968

9.22

Type of Test: simultaneous, steam
chemical spray
separate seismic test

Type Profile:

328°F, 90 psig for 1 hr
312°F, 70 psig for 2 hrs
287°F, 40 psig for 2 hrs
271°F, 20 psig for 19 hrs
250°F, 15 psig for 6 days

Chemical Spray:

1.5% boric acid buffered with Na OH to a PH of 7.67.

Seismic Test 8/20/79
Horizontal Force, 5.3 G at 35 Hz
Vertical force 5.3 G at 35 Hz
No resonance freq from 5 to 35 Hz

DONALD C. COOK NUCLEAR PLANT UNIT NO. 1 DOCKET NO. 50-315 LICENSE NO. DPR-58

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: VARIOUS PLANT ID NO: VARIOUS COMPONENT: VALVE MOTOR OPERATOR MANUFACTURER: LIMITORQUE MODEL NUMBER: VARIOUS FUNCTION: VARIOUS ACCURACY: SPEC: NA DEMON: NA SERVICE: VARIOUS LOCATION: OUTSIDE CONTAINMENT	Operating Time	1 DAY	16 days	110	2Y	SEQ.	NONE
	Temperature (°F)	230	250	107	2Y	"	
	Pressure (PSIA)	26.2	39.7	107	2Y	"	
	Relative Humidity (%)	100	100	107	2Y	"	
	Chemical Spray	NA	NA	NA	NA	NA	NA
	Radiation (10^6 rads)	4	20	106	2Y	SEQ.	NA
	Aging (years)					"	NA
FLOOD LEVEL ELEV: NA ABOVE FLOOD LEVEL: NA	Submergence	NA	NA	NA	NA	NA	NA

17-24
30-33
35-38
43
44
49
50
61
62
64-67
79-81
84-86
204-207
212
213

*Documentation References:

Notes:

TEMPERATURE PROFILE

from Ref. 24

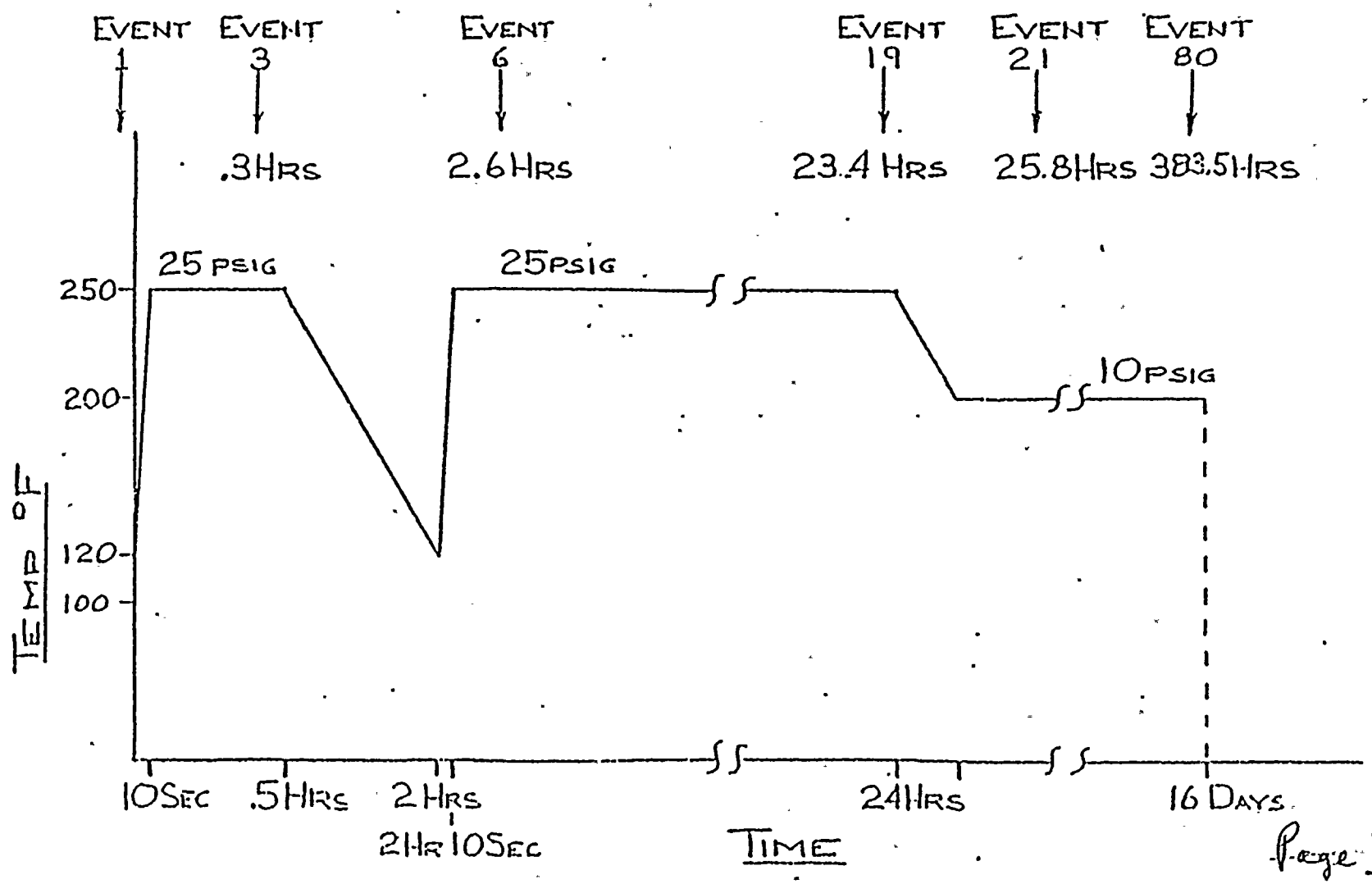

FIGURE 1

DONALD C. COOK NUCLEAR PLANT UNIT NO. 1 DOCKET NO. 50-315 LICENSE NO. DPR-58

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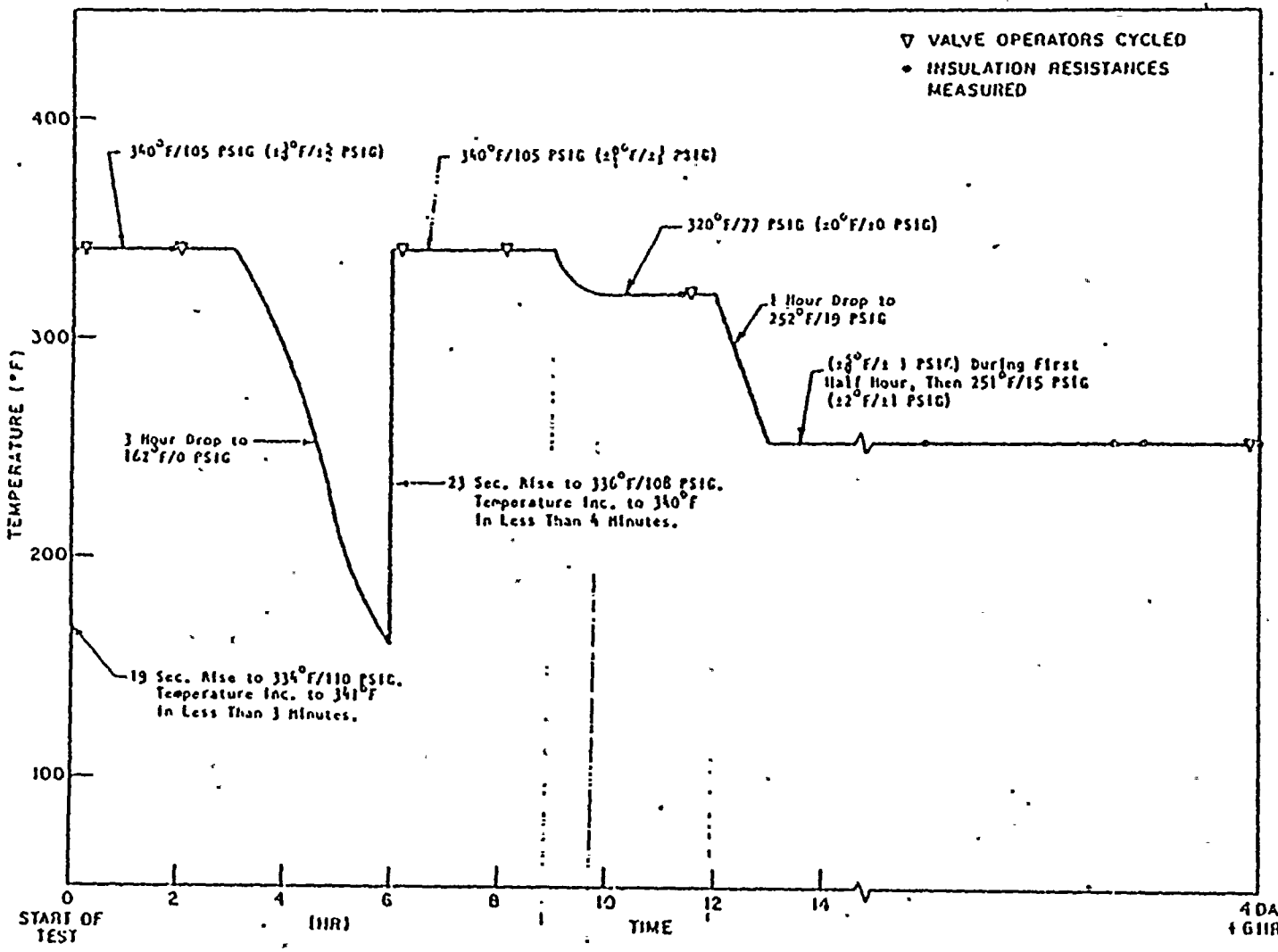
90
101-108

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: VARIOUS PLANT ID NO: VARIOUS COMPONENT: VALVE MOTOR OPERATOR MANUFACTURER: LIMITORQUE MODEL NUMBER: VARIOUS FUNCTION: VARIOUS ACCURACY: SPEC: NA DEMON: NA SERVICE: VARIOUS LOCATION: OUTSIDE CONTAINMENT	Operating Time	1DAY	30 days	110	23	Sequential	NONE
	Temperature (°F)	230	340	107	23	"	"
	Pressure (PSIA)	26.2	119.7	107	23	"	"
	Relative Humidity (%)	100	100	107	23	"	"
	Chemical Spray	NA	2600 PPM B 155 O. Wt BA pH: 8.5-11	NA	23 72	Combination	NONE See Ref 72
	Radiation (10^6 rads)	4	20*	106	23	SEQ	NONE
	Aging (years)						
FLOOD LEVEL ELEV: NA ABOVE FLOOD LEVEL: NA	Submergence	NA	submergence	NA	23	Sequential	NONE

*Documentation References:

Notes:



Ref. 23.

Figure 3. Actual Steam Exposure Profile

DONALD C. COOK NUCLEAR PLANT UNIT NO. 1 DOCKET NO. 50-315 LICENSE NO. DPR-58

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: Pressurizer PLANT ID NO: NMO-151,-152, -153 COMPONENT: VALVE MOTOR OPERATOR MANUFACTURER: Limitorque MODEL NUMBER: SMB-00 FUNCTION: PER PORV'S BLOCK VALVES ACCURACY: SPEC: NA DEMON: NA SERVICE: PER RELIEF LINE LOCATION: IN CONTAINMENT	Operating Time	14 DAYS	16 DAYS	118	24	SEQ.	NONE
	Temperature (°F)	234	250	102	24	"	"
	Pressure (PSIA)	27	39.7	103	24	"	"
	Relative Humidity (%)	100	100	102 103	24	"	"
	Chemical Spray	See note below	See Ref 116	116	116	Eng. Review	NONE See Ref 116
	Radiation (10^6 rads)	7	20	105	24	Sequential	NONE
	Aging (years)						
FLOOD LEVEL ELEV: 614' ABOVE FLOOD LEVEL: YES	Submergence	NA	NA	NA	NA	NA	NA

229.231

*Documentation References:

Notes:
Valve Location is not subject to direct caustic spray impingement as per mech installation dwgs.
See Ref 116

TEMPERATURE PROFILE

from Ref. 24

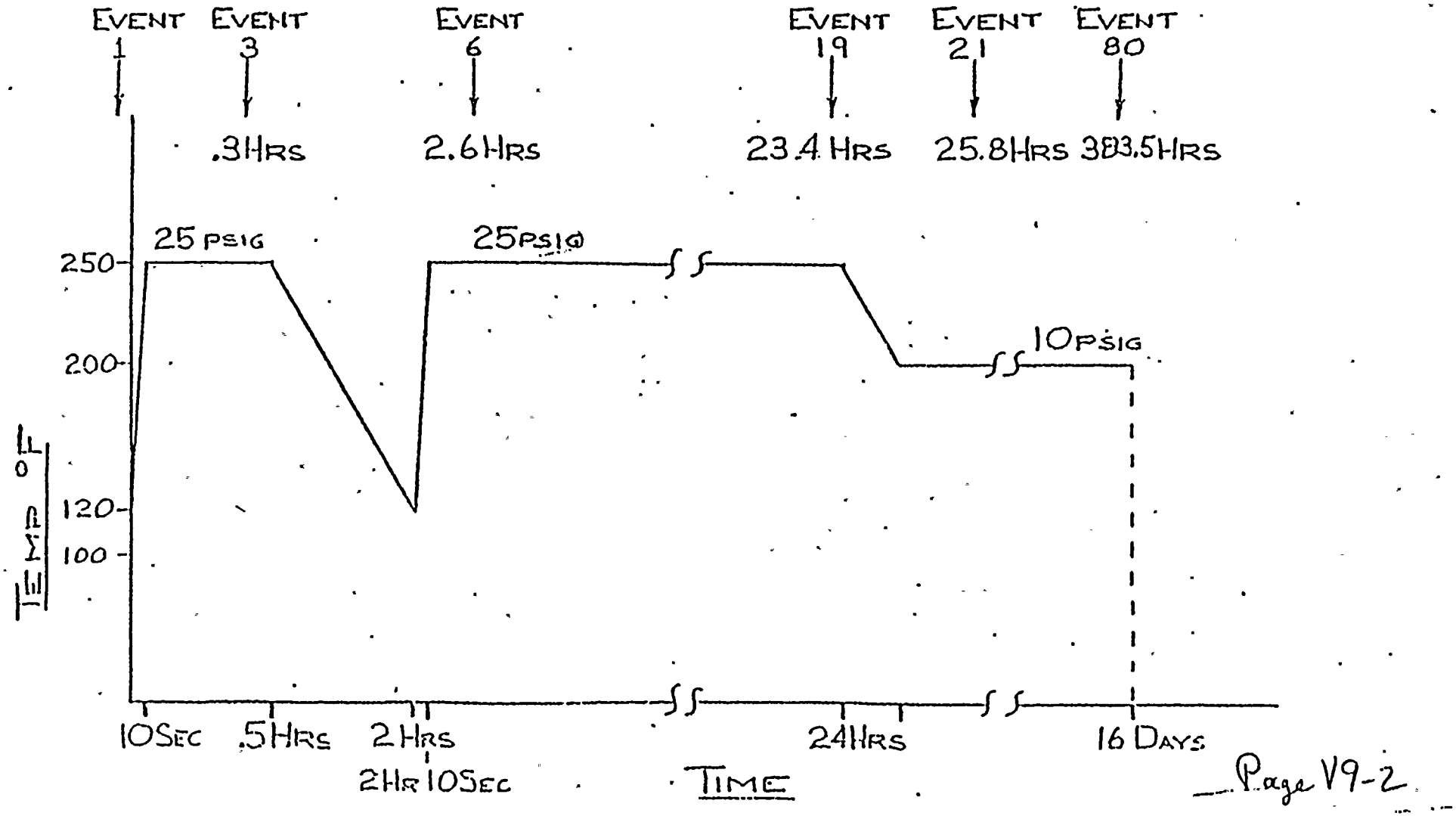


FIGURE 1

DONALD C. COOK NUCLEAR PLANT UNIT NO. 1 | DOCKET NO. 50-315 | LICENSE NO. DPR-58

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: Residual Heat Removal PLANT ID NO: ICM-305,-306 COMPONENT: Valve Motor Operator MANUFACTURER: Limitorque MODEL NUMBER: SMB-2 FUNCTION: Long Term Post Accident Cooling ACCURACY: SPEC: NA DEMON: NA SERVICE: RHR Suction from CT sump LOCATION: Outside Containment	Operating Time	2 hrs	7 DAYS	118	22	Simul.	None
	Temperature (°F)	NA -	330	NA.	22	"	NA
	Pressure (PSIA)	NA	104.7	NA	22	"	NA
	Relative Humidity (%)	NA	100	NA	22	"	NA
	Chemical Spray	NA	2600ppm B 1.5% Wt Boric Acid PH 8-5-11	NA	22 72	Combination	NA
	Radiation (10^6 rads)	1.0	SEE NOTE	106	SEE NOTE	SEE NOTE	None See note below
	Aging (years)						
FLOOD LEVEL ELEV: NA ABOVE FLOOD LEVEL: NA	Submergence	NA	NA	NA	NA	NA	NA

*Documentation References:

Notes: These are Westinghouse insulation class H, specified for Nuclear Service inside Cont. Limit Switch material for valves is white melamine (Rad. Resist. material). Valve operator is located 5 ft. from radiation source. 0.2×10^6 rads was determined for a device 2 ft. from Rad. source.

Ref 22.

Qualified by Limitorque Corp. Test Laboratory
Project #600198. November 1968

Type of Test: simultaneous, steam
chemical spray
separate seismic test

Type Profile:

328°F, 90 psig for 1 hr
312°F, 70 psig for 2 hrs
287°F, 40 psig for 2 hrs
271°F, 20 psig for 19 hrs
250°F, 15 psig for 6 days

Chemical Spray:

1.5% boric acid buffered with Na OH to a PH of 7.67.

Seismic Test 8/20/79

Horizontal Force, 5.3 G at 35 Hz
Vertical force 5.3 G at 35 Hz
No resonance freq from 5 to 35 Hz

DONALD C. COOK NUCLEAR PLANT UNIT NO. 1 DOCKET NO. 50-315 LICENSE NO. DPR-58

41-42
68-70
91-92
210-211

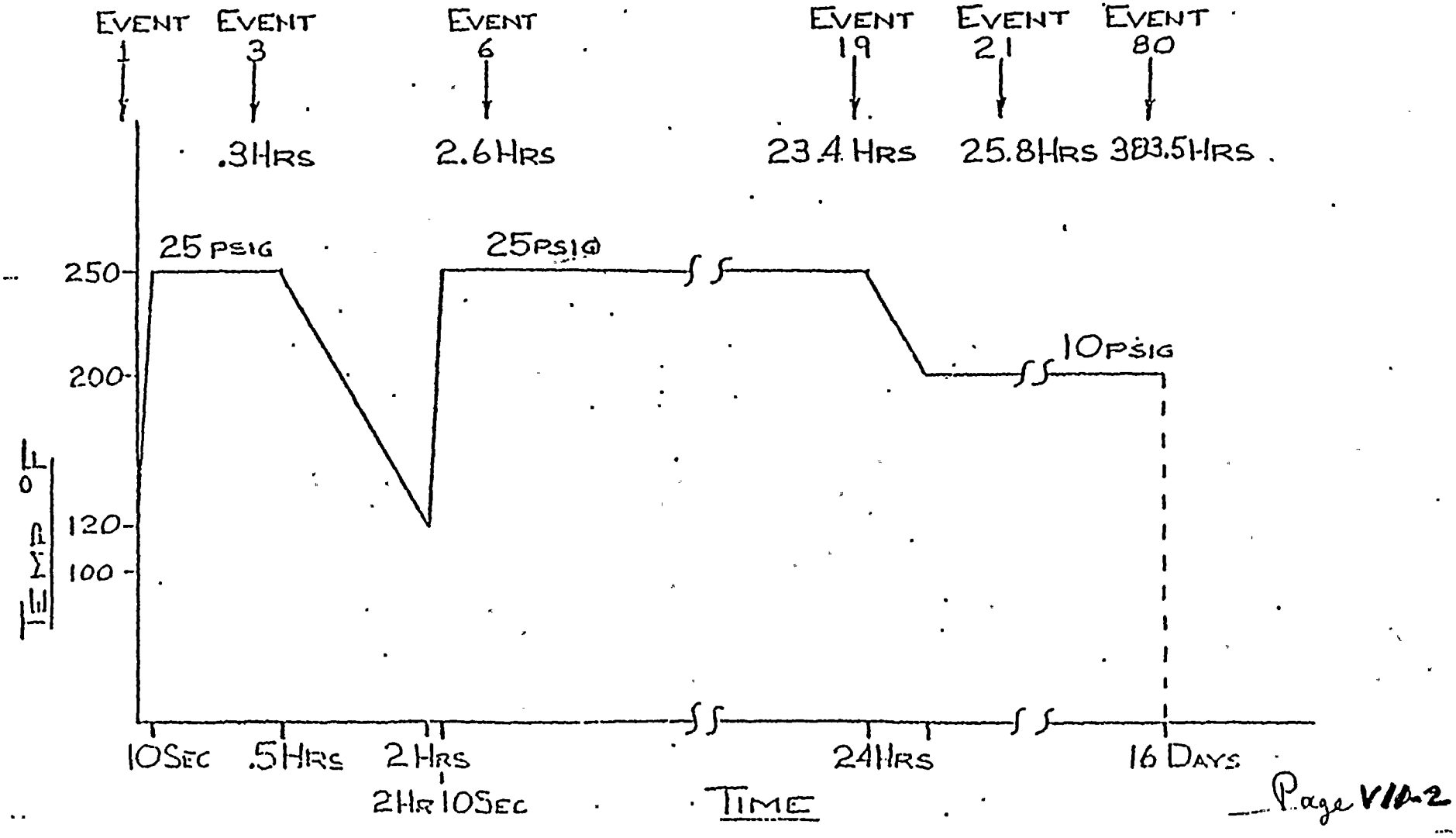
EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: RHR PLANT ID NO: VARIOUS. COMPONENT: VALVE MOTOR OPERATOR MANUFACTURER: LIMITORQUE MODEL NUMBER: VARIOUS FUNCTION: LONG TERM ACCURACY: SPEC: NA DEMON: NA SERVICE: RESIDUAL HEAT REMOVAL LOCATION: OUTSIDE CONTAINMENT	Operating Time	1 DAY	16 DAYS	110	24	SEQUENTIAL	NONE
	Temperature (°F)	NA	250	NA	24	"	"
	Pressure (PSIA)	NA	39.7	NA	24	"	"
	Relative Humidity (%)	NA	100	NA	24	"	"
	Chemical Spray	NA	NA	NA	NA	NA	NA
	Radiation (10^6 rads)	4	20	106	24 74	COMBINATION	NONE See Ref 74
	Aging (years)						
FLOOD LEVEL ELEV: NA ABOVE FLOOD LEVEL: NA	Submergence	NA	NA	NA	NA	NA	NA

*Documentation References:

Notes:

TEMPERATURE PROFILE

from Ref. 24



Attachment No. 5 to AEP:NRC:0578B
Donald C. Cook Nuclear Plant Unit No. 2
Response to NRC SER on IE Bulletin 79-01B
Environmental Qualification of Equipment
Summary Sheets

DONALD C. COOK NUCLEAR PLANT UNIT NO. 2 | DOCKET NO. 50-316 | LICENSE NO. DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: VARIOUS PLANT ID NO: Various COMPONENT: CONTROL CABLE MANUFACTURER: CONTINENTAL WIRE AND CABLE CO. MODEL NUMBER: Item # 3119 FUNCTION: VARIOUS ACCURACY: SPEC: NA DEMON: NA SERVICE: VARIOUS LOCATION: IN AND OUT OF CONTAINMENT	Operating Time	14 DAYS	>14 DAYS	118	8 63	COMBINATION	NONE SEE REF. #63
	Temperature (°F)	328.2	345	102	8	SEQUENTIAL	NONE
	Pressure (PSIA)	29.1	124.7	103	8	"	"
	Relative Humidity (%)	100	100	102 103	8	"	"
	Chemical Spray	2000 PPMB 1.14% WT BORIC ACID PH 8.5-11	2500 PPMB 1.43% WT BORIC ACID PH 8.5-11	104	8 72	Combination	NONE SEE REF. #72
	Radiation (10^6 rads)	81	150	105	8	Sequential	NONE
	Aging (years)						
FLOOD LEVEL ELEV: 614' ABOVE FLOOD LEVEL: YES	Submergence	NA	NA	NA	NA	NA	NA

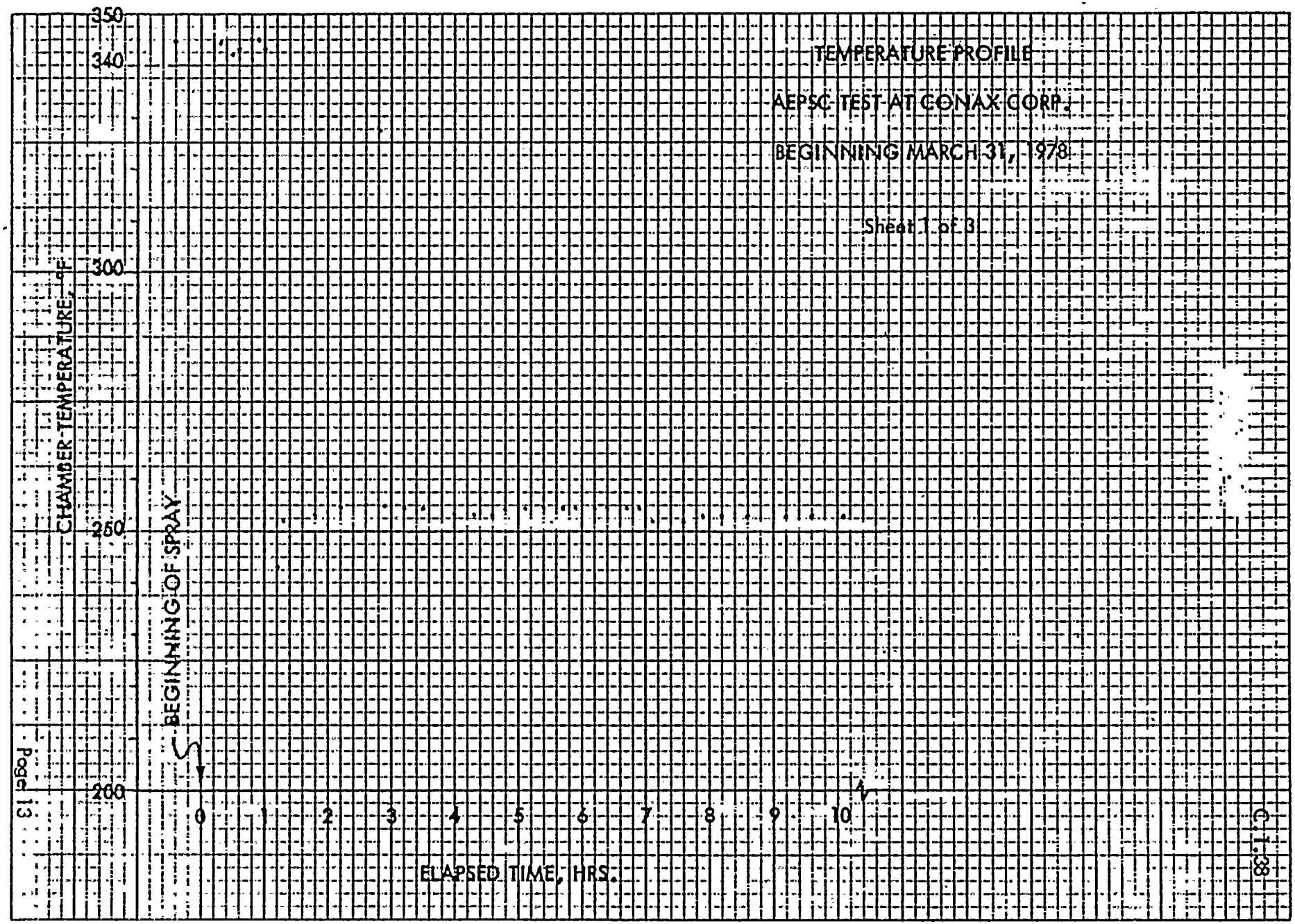
Page Equip
5-12 S7
17-20 S3
30 V6
35 V6
218-220 S17
232 S11
LS1
222-226 S17

*Documentation References:

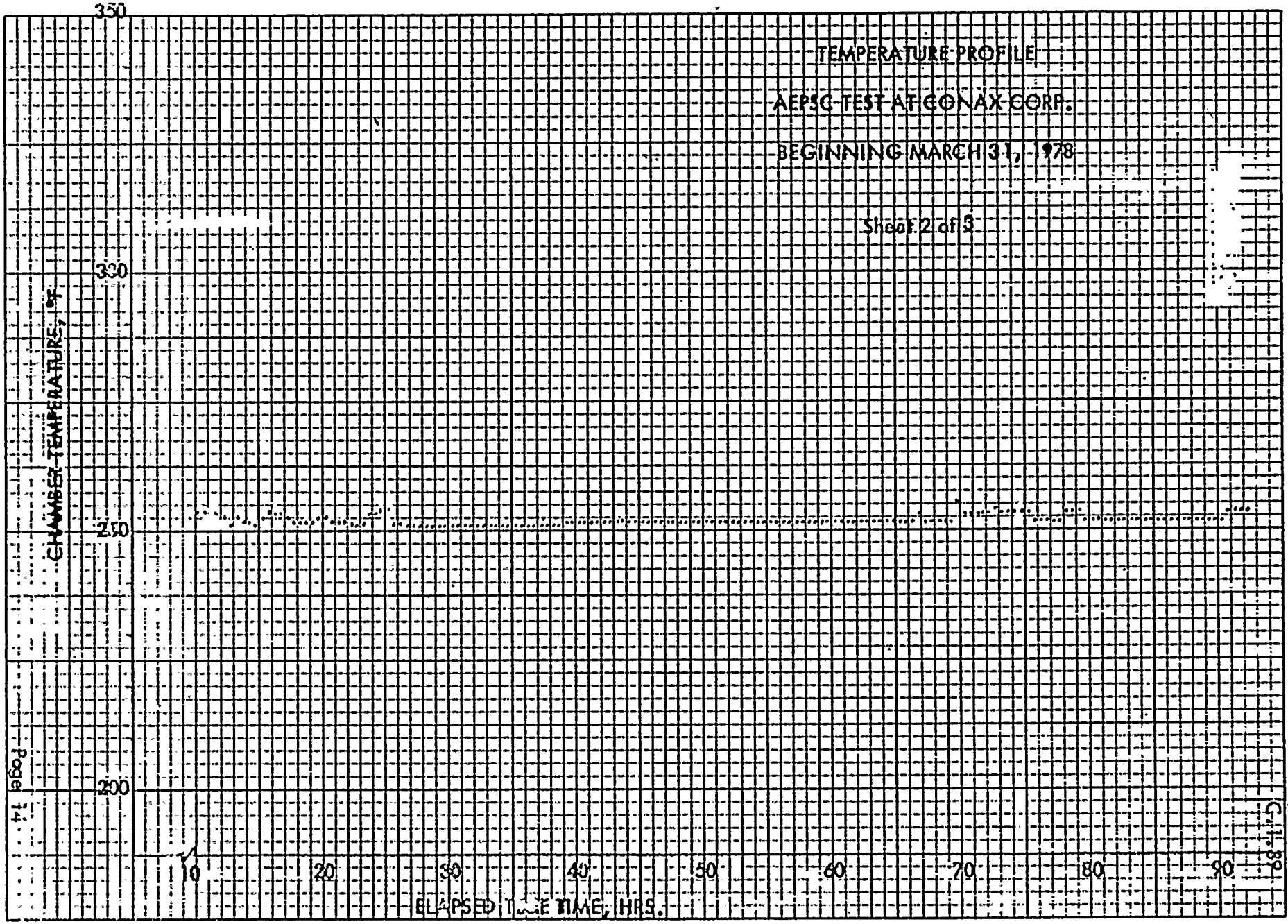
Notes:

Form EGQ #97-2

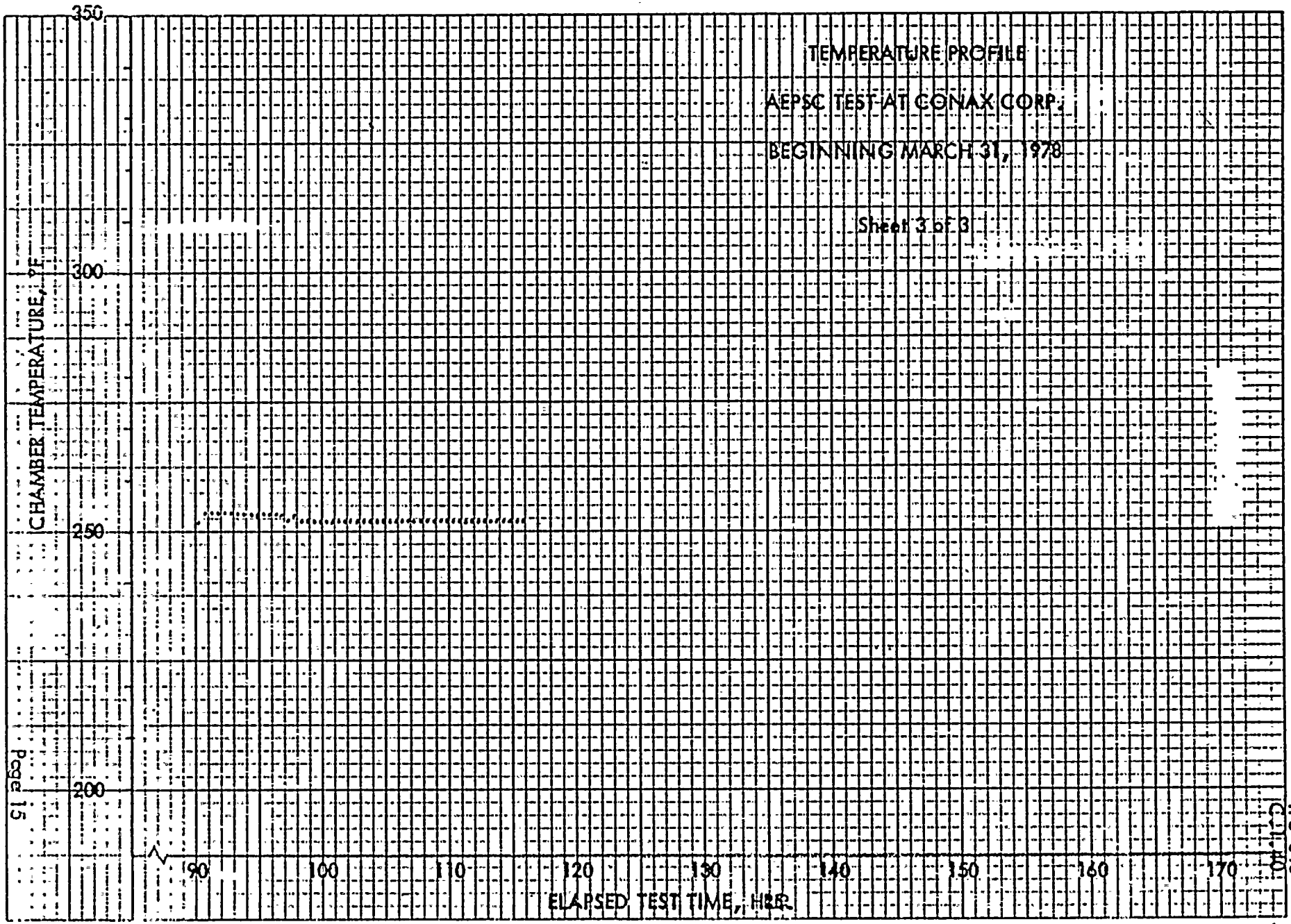
from REF. #8


TEMPERATURE PROFILE
AEPSC TEST AT CONAX CORP.
BEGINNING MARCH 31, 1978
Sheet 1 of 3
CHAMBER TEMPERATURE, °F
350
340
300
250
200
BEGINNING OF SPRAY
0
1
2
3
4
5
6
7
8
9
10
ELAPSED TIME, HRS.
IPS-348
C1-1-88

from REF. #8


TEMPERATURE PROFILE
AEPSC TEST AT CONAX CORP.
BEGINNING MARCH 31, 1978
Sheet 2 of 3
CHAMBER TEMPERATURE, °F.
350
300
250
200
10
20
30
40
50
60
70
80
90
ELAPSED TIME TIME, HRS.
IPS-348
Page 14

from Ref. #8



IPS-348 C-1.40

page 15

PAGE CC 1-4

DONALD C. COOK NUCLEAR PLANT UNIT NO. 2 DOCKET NO. 50-316 LICENSE NO. DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: VARIOUS PLANT ID NO: VARIOUS COMPONENT: CONTROL CABLE MANUFACTURER: CONTINENTAL WIRE AND CABLE CO. MODEL NUMBER: ITEM # 3120 FUNCTION: VARIOUS ACCURACY: SPEC: NA DEMON: NA SERVICE: VARIOUS LOCATION: IN AND OUT OF CONTAINMENT	Operating Time	1.4 DAYS	714 DAYS	118	8 63	COMBINATION	NONE SEE REF. #63
	Temperature (°F)	328.2	345	102	8	SEQUENTIAL	NONE
	Pressure (PSIA)	29.1	124.7	103	8	"	"
	Relative Humidity (%)	100	100	102 103	8	"	"
	Chemical Spray	2000 PPMB 1.14% WT. BORIC ACID PH 8.5-11	2500 PPMB 1.43% WT. BORIC ACID PH 8.5-11	104	8 72	COMBINATION	NONE SEE REF. #72
	Radiation (10^6 rads)	81	150	105	8	SEQUENTIAL	NONE
	Aging (years)						
FLOOD LEVEL ELEV: 614' ABOVE FLOOD LEVEL: YES	Submergence	NA	NA	NA	NA	NA	NA

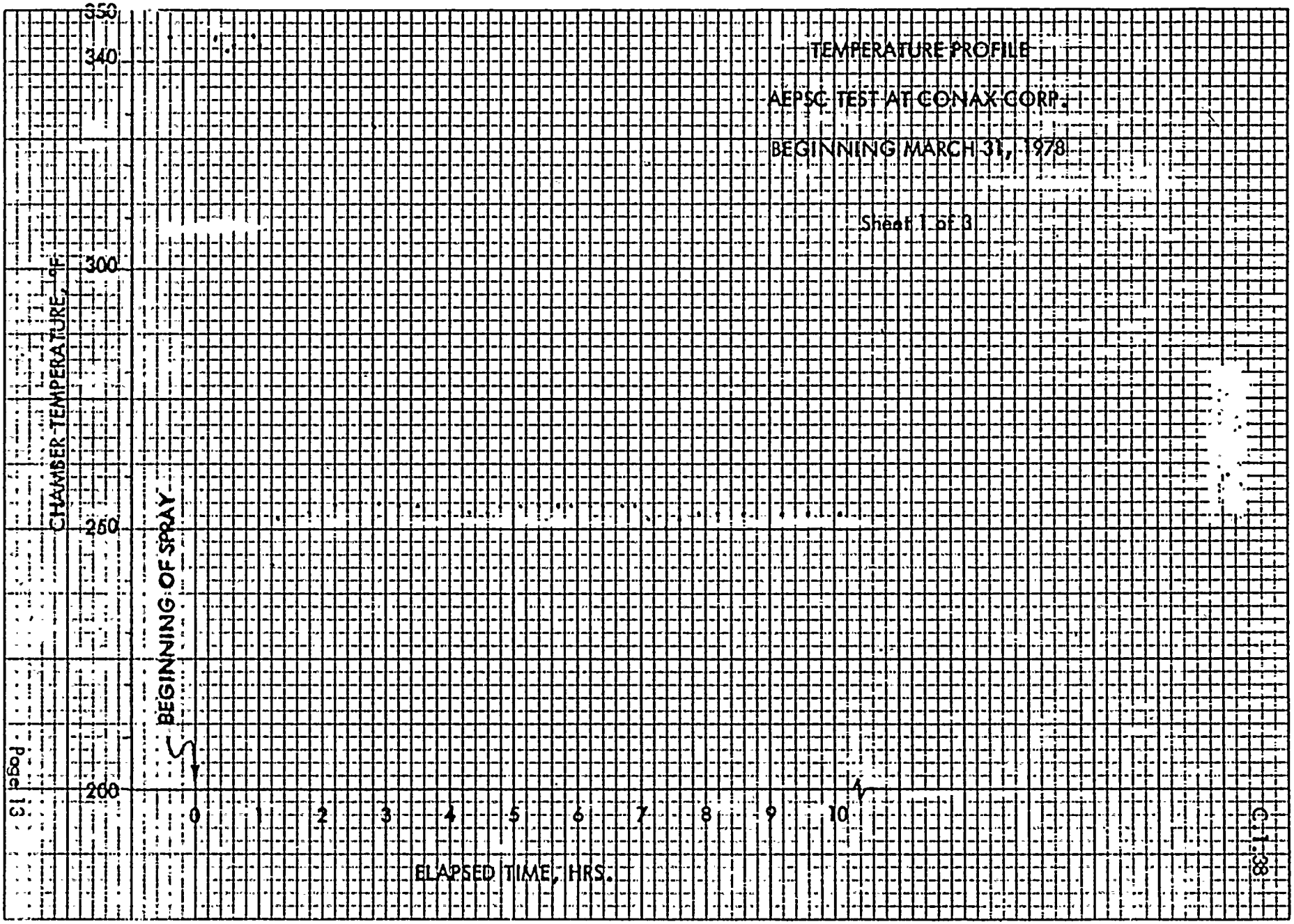
25 V6
27 V6
29 V6
31 V6
52 V6
53 V6
112 V7
232 S11&LS1
233 S11&LS1
234 S11&LS1

*Documentation References:

Notes:

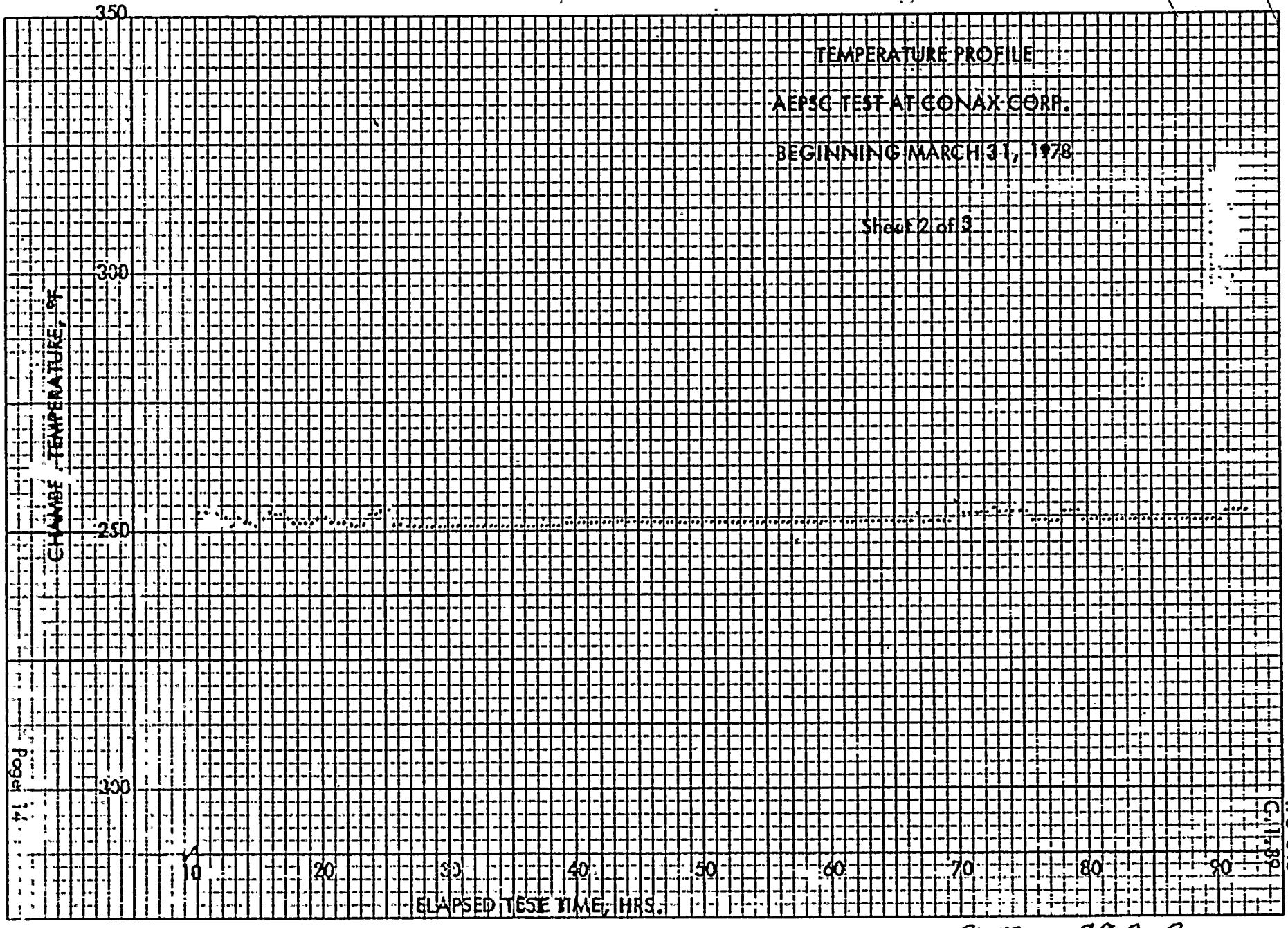
Form EGQ #97-2

from REF. #8

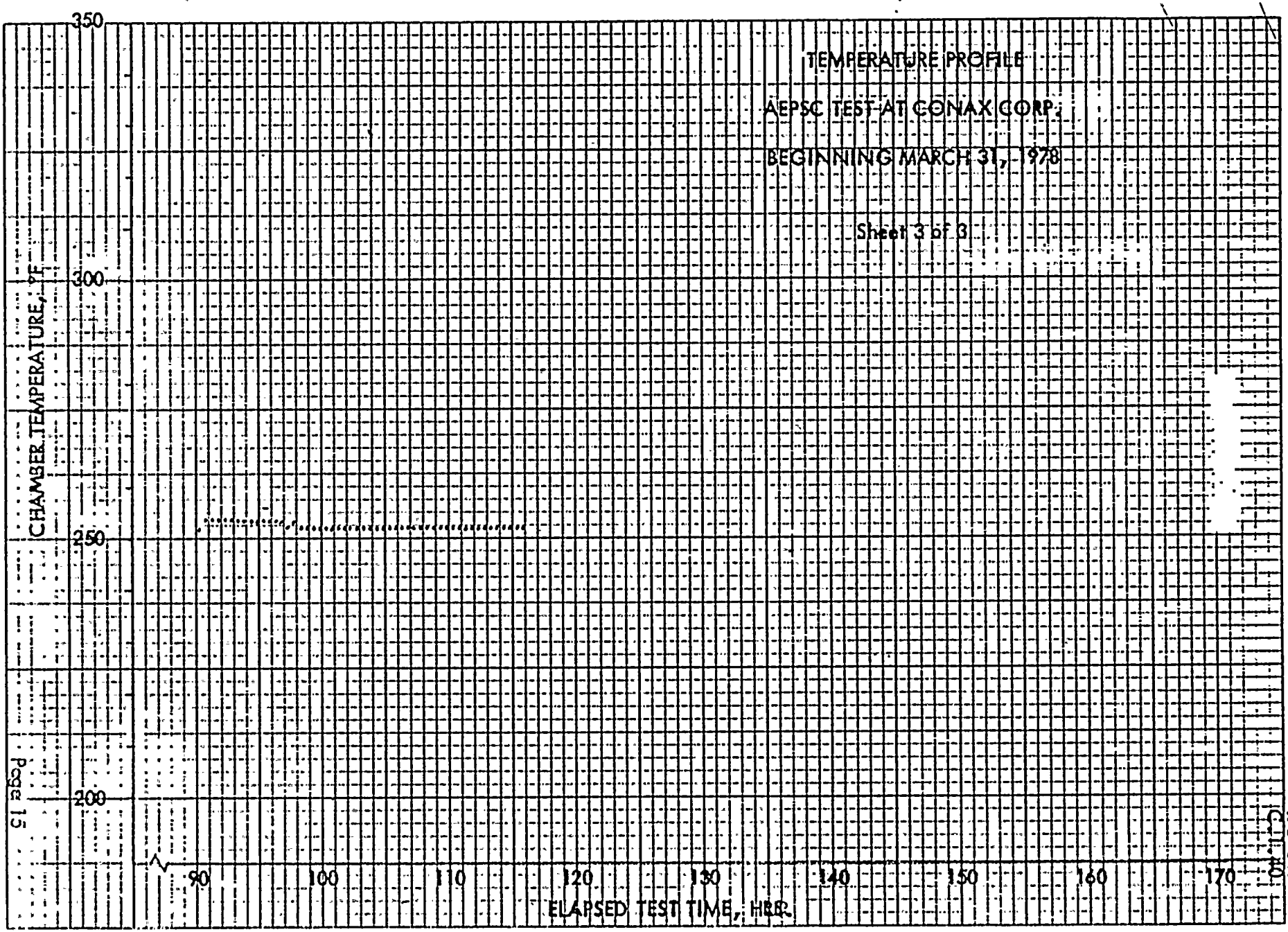


PAGE CC2-2

from REF. #8


TEMPERATURE PROFILE
AEPSC TEST AT CONAX CORP.
BEGINNING MARCH 31, 1978
Sheet 2 of 3
CHAMBE TEMPERATURE, °F
350
300
250
200
10
20
30
40
50
60
70
80
90
ELAPSED TESE TIME, HRS.
IPS-348
G.11.89
Page 14

From Ref. #8


TEMPERATURE PROFILE
AEPSC TEST AT CONAX CORP.
BEGINNING MARCH 31, 1978
Sheet 3 of 3
CHAMBER TEMPERATURE, °F
350
300
250
200
90
100
110
120
130
140
150
160
170
ELAPSED TEST TIME, HRS.
IPS-348
C-11,140

DONALD C. COOK NUCLEAR PLANT UNIT NO. 2 DOCKET NO. 50-316 LICENSE NO. DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: VARIOUS PLANT ID NO: VARIOUS COMPONENT: CONTROL CABLE MANUFACTURER: GENERAL ELECTRIC MODEL NUMBER: ITEM #3120 FUNCTION: VARIOUS ACCURACY: SPEC: NA DEMON: NA SERVICE: VARIOUS LOCATION: IN AND OUT OF CONTAINMENT	Operating Time	14 DAYS	7.14 DAYS	118	8 63	COMBINATION	NONE SEE REF. #63
	Temperature (°F)	328.2	345	102	8	SEQUENTIAL	NONE
	Pressure (PSIA)	29.1	124.7	103	8	"	"
	Relative Humidity (%)	100	100	102 103	8	"	"
	Chemical Spray	2000 PPMB 1.14% WT BORIC ACID PH 8.5-11	2500 PPMB 1.43% WT BORIC ACID PH 8.5-11	104	8 72	COMBINATION	NONE SEE REF. # 72
	Radiation (10^6 rads)	81	150	105	8	SEQUENTIAL	NONE
	Aging (years)						
FLOOD LEVEL ELEV: 614' ABOVE FLOOD LEVEL: YES	Submergence	NA	NA	NA	NA	NA	NA

25 V6
27 V6
29 V6
31 V6
52 V6
53 V6
112 V7
232-234 SII LS I

*Documentation References:

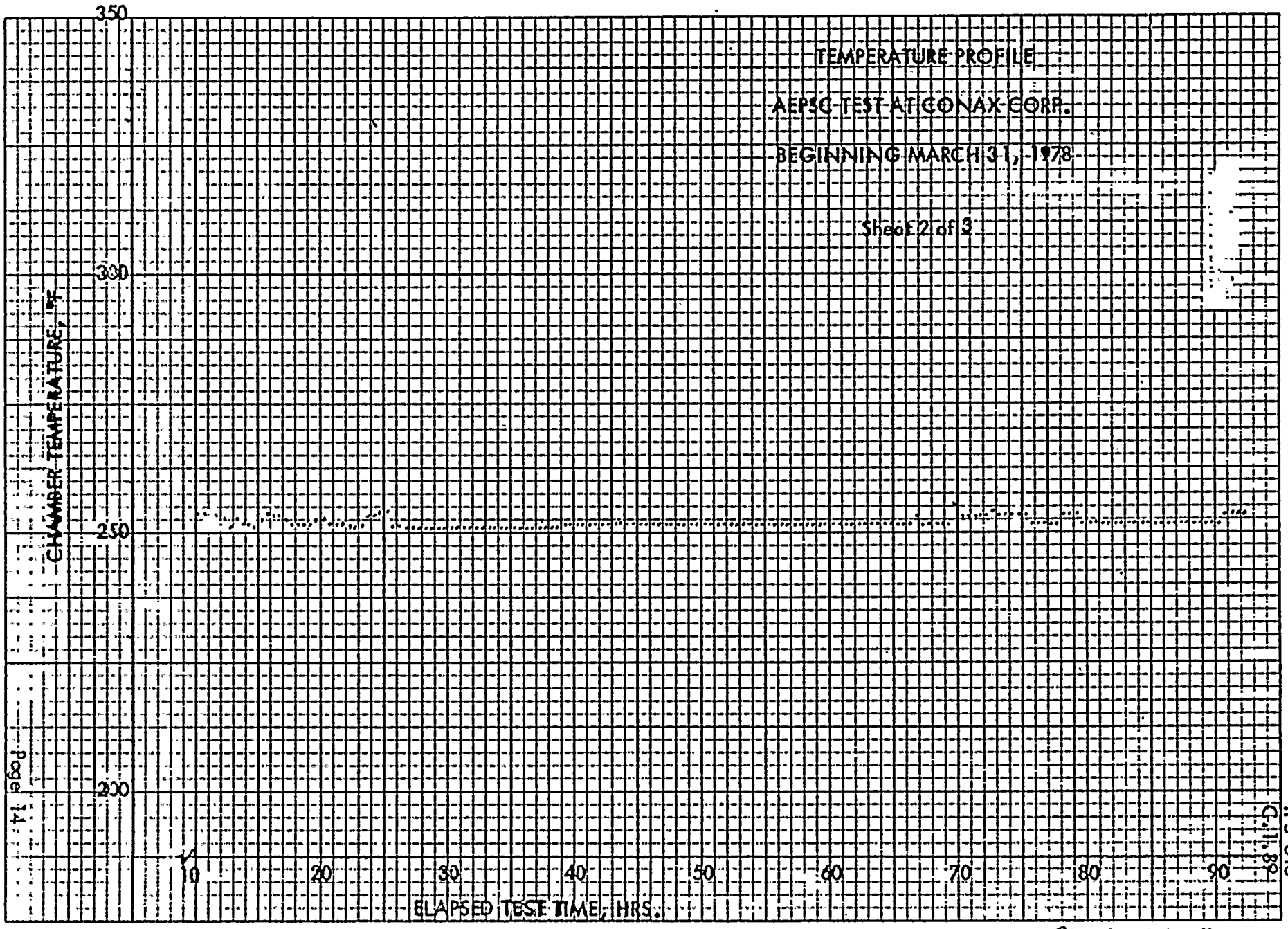
Notes:

Form EGQ #97-2

from REF. #8

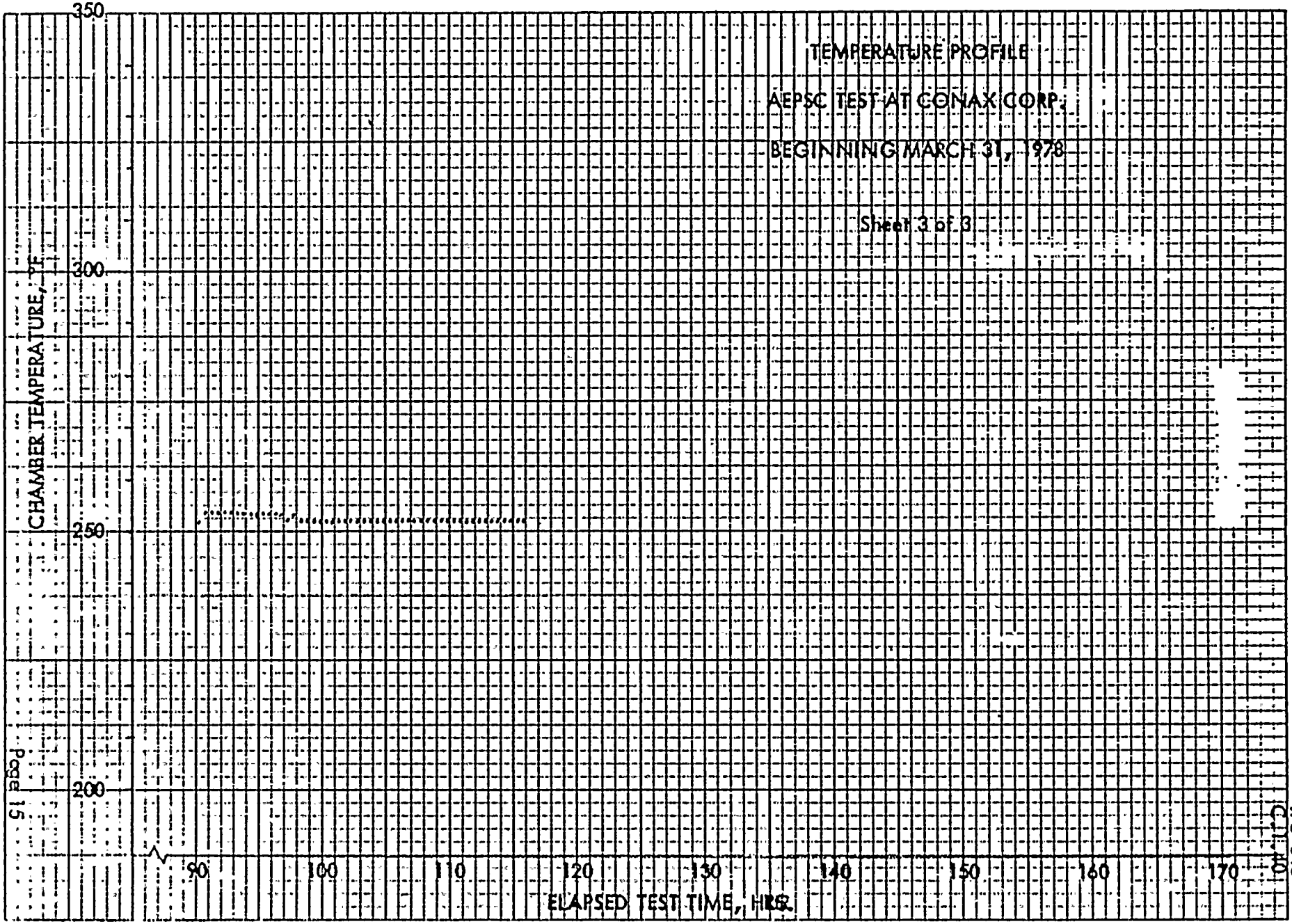

TEMPERATURE PROFILE
AEPSC TEST AT CONAX CORP.
BEGINNING MARCH 31, 1978
Sheet 1 of 3
CHAMBER TEMPERATURE, °F
350
340
300
250
200
BEGINNING OF SPRAY
0
1
2
3
4
5
6
7
8
9
10
ELAPSED TIME, HRS.
C-1-38
IPS-348

from REF. #8



IPS-348 G.11.89

From Ref. #8



IPS-348

DONALD C. COOK NUCLEAR PLANT UNIT NO. 2 | DOCKET NO. 50-316 | LICENSE NO. DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: VARIOUS PLANT ID NO: VARIOUS COMPONENT: CONTROL CABLE MANUFACTURER: ANACONDA MODEL NUMBER: ITEM #3120 FUNCTION: VARIOUS ACCURACY: SPEC: NA DEMON: NA SERVICE: VARIOUS LOCATION: IN AND OUT OF CONTAINMENT FLOOD LEVEL ELEV: 614' ABOVE FLOOD LEVEL: YES	Operating Time	14 DAYS	7140 HRS	118	5 63	COMBINATION	NONE SEE REF #63
	Temperature (°F)	328.2	340	102	5	SEQUENTIAL	NONE
	Pressure (PSIA)	29.1	119.7	103	5	"	"
	Relative Humidity (%)	100	100	102 103	5	"	"
	Chemical Spray	2000 PPM B 1.14 % WT. BORIC ACID PH 8.5-11	3000 PPM B 1.72 % WT. BORIC ACID P.H 8.5-11	104	5 72	COMBINATION	NONE SEE REF #72
	Radiation (10^6 rads)	81	200	105	5	SIMULTANEOUS	NONE
	Aging (years)						
	Submergence	NA	NA	NA	NA	NA	NA

25 V6
27 V6
29 V6
31 V6
52-53 V6
112 V7
232-234 SII
LSI

*Documentation References:

Notes:

Form EGQ #97-2

5. Qualified by Franklin Institute Research Laboratory (FIRL) Test Report #F-C3341, Jan. 1973.

Type of Test: Simultaneous, gamma radiation
steam
chemical spray

Test Profile:

.51 Mrads/hr, 200 Mrads
340°F, 105 psig for 3 hrs
320°F, 75 psig for 3 hrs
250°F, 15 psig for 4 days
210°F, 5 psig for 9 days

Chemical Spray: Solution of boric acid and Na OH , PH = 9.5

DONALD C. COOK NUCLEAR PLANT UNIT NO. 2 | DOCKET NO. 50-316 | LICENSE NO. DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: VARIOUS PLANT ID NO: VARIOUS COMPONENT: CONTROL CABLE MANUFACTURER: CONTINENTAL WIRE AND CABLE CO. MODEL NUMBER: ITEM # 3121 FUNCTION: VARIOUS ACCURACY: SPEC: NA DEMON: NA SERVICE: VARIOUS LOCATION: IN AND OUT OF CONTAINMENT	Operating Time	140 DAYS	≥140 DAYS	118	8 63	COMBINATION	NONE SEE REF. #63
	Temperature (°F)	328.2	345	102	8	SEQUENTIAL	NONE
	Pressure (PSIA)	29.1	124.7	103	8	"	"
	Relative Humidity (%)	100	100	102 103	8	"	"
	Chemical Spray	2000 PPMB 1.14% WT. BORIC ACID PH 8.5-11	2500 PPMB 1.43% WT. BORIC ACID PH 8.5-11	104	8 72	COMBINATION	NONE SEE REF. #72
	Radiation (10^6 rads)	81	150	105	8	SEQUENTIAL	NONE
	Aging (years)						
FLOOD LEVEL ELEV: 614 ABOVE FLOOD LEVEL: YES	Submergence	NA	NA	NA	NA	NA	NA

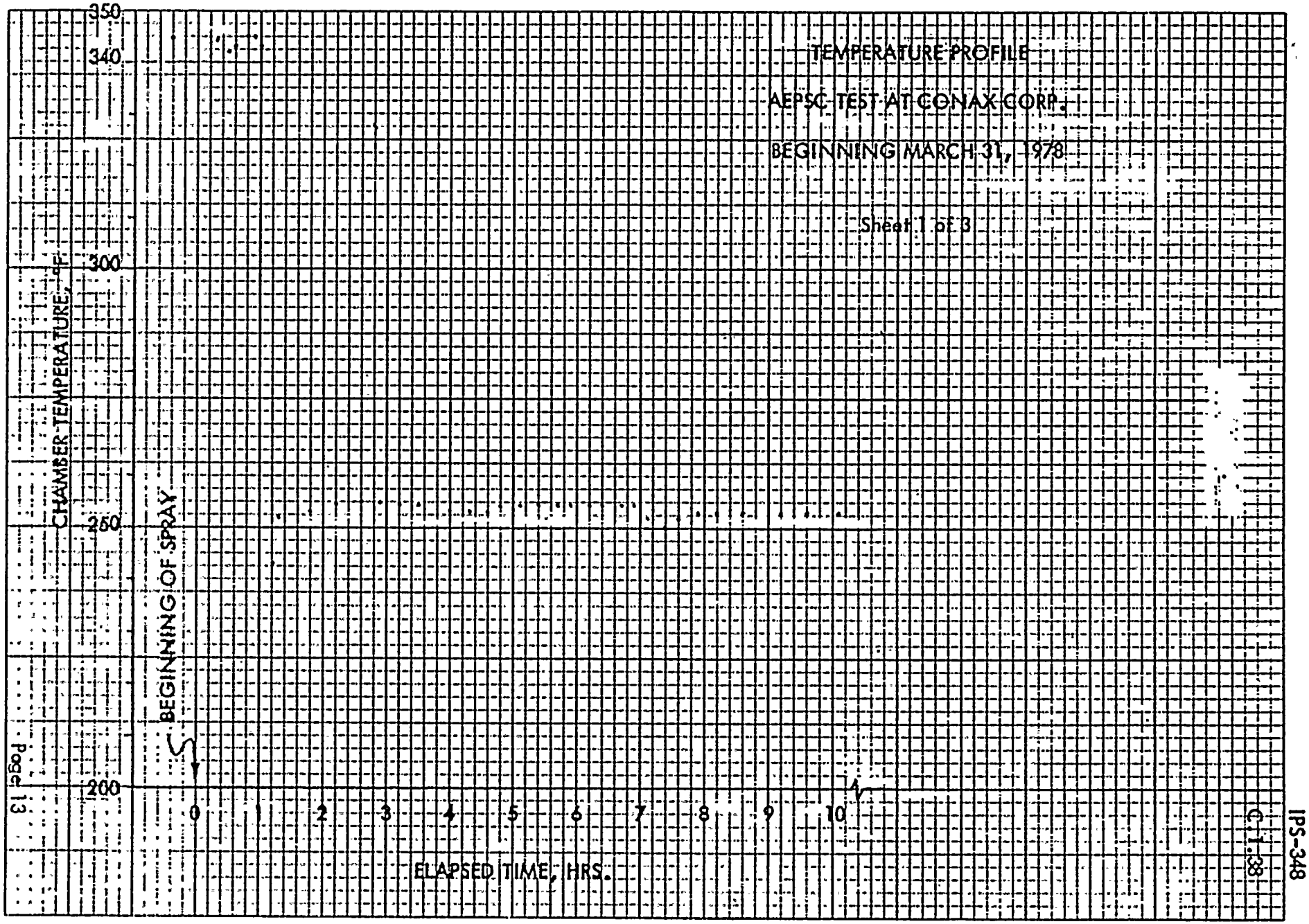
52-53 V6
233-234 S11
LS1

*Documentation References:

Notes:

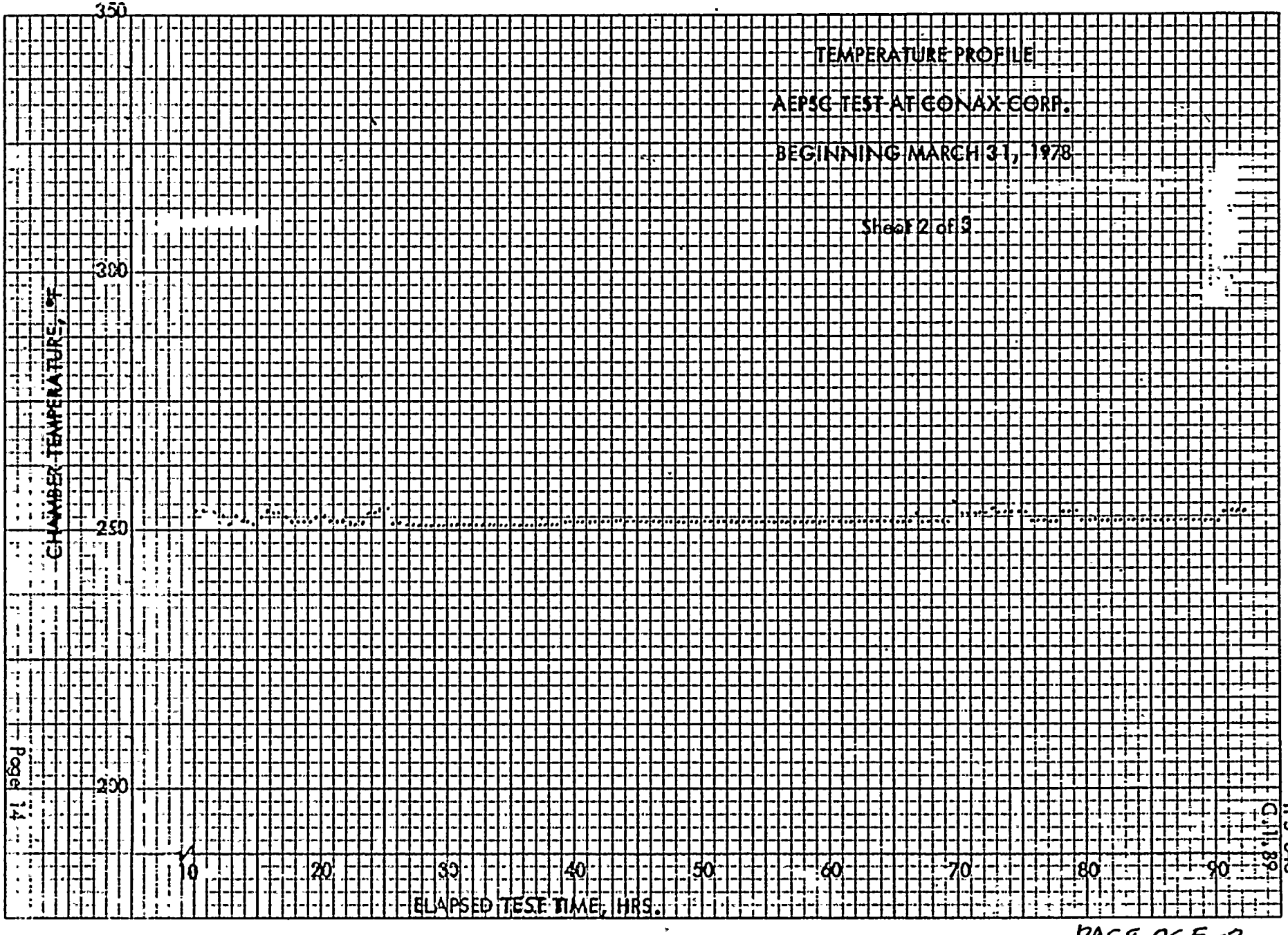
Form EGQ #97-2

from REF. #8



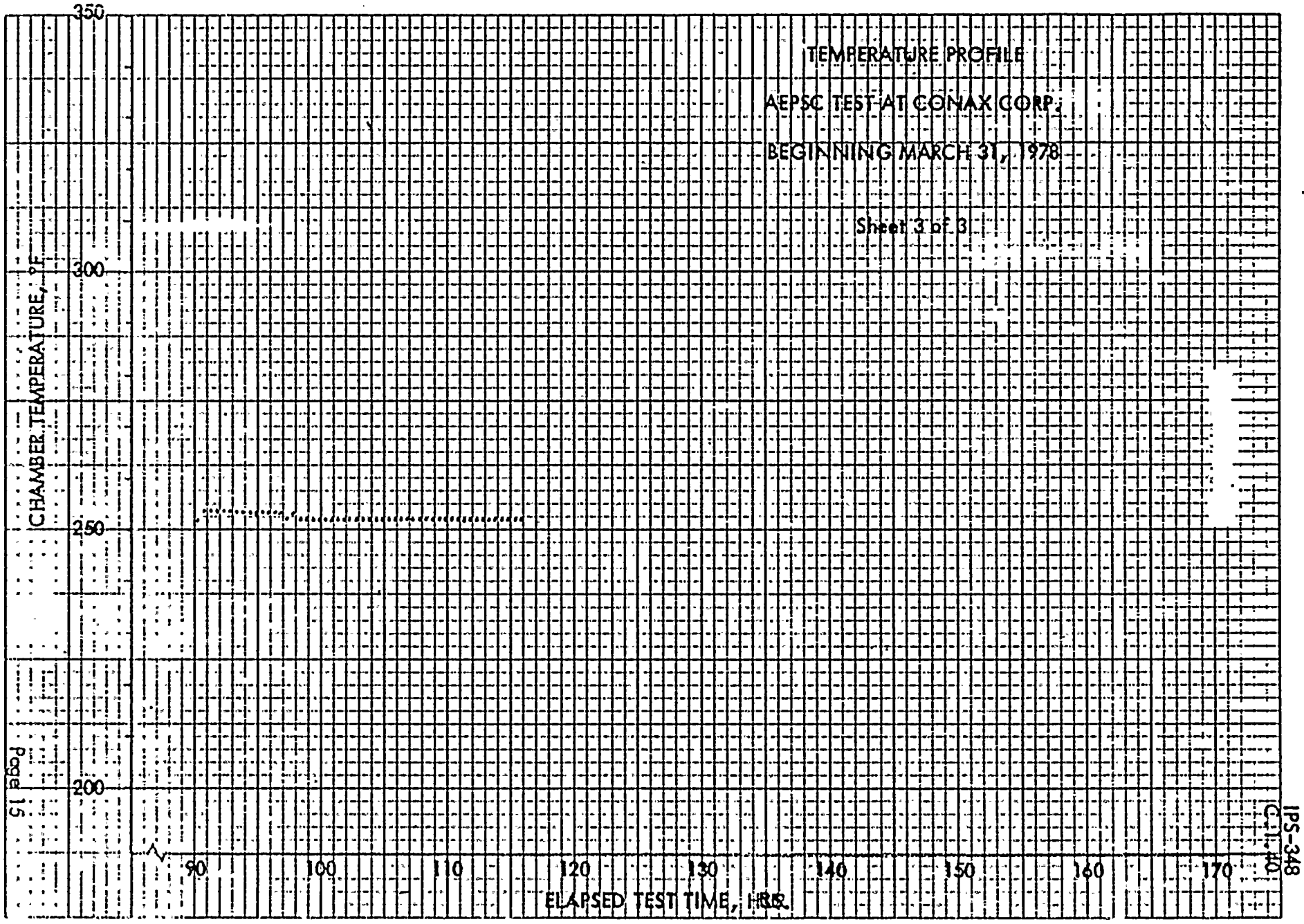
PAGE CC 5-2

from Ref. #8



PAGE CC 5-3

from Ref. #8


TEMPERATURE PROFILE
AEPSC TEST AT CONAX CORP.
BEGINNING MARCH 31, 1978
Sheet 3 of 3
CHAMBER TEMPERATURE, °F
350
300
250
200
90
100
110
120
130
140
150
160
170
ELAPSED TEST TIME, HRS.
IPS-348
C-11-40

DONALD C. COOK NUCLEAR PLANT UNIT NO. 2 | DOCKET NO. 50-316 | LICENSE NO. DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: VARIOUS PLANT ID NO: VARIOUS COMPONENT: CONTROL CABLE MANUFACTURER: GENERAL ELECTRIC MODEL NUMBER: ITEM # 3121 FUNCTION: VARIOUS ACCURACY: SPEC: NA DEMON: NA SERVICE: VARIOUS LOCATION: IN AND OUT OF CONTAINMENT	Operating Time	14 DAYS	7,14 DAYS	118	8 63	COMBINATION	NONE SEE REF. # 63
	Temperature (°F)	328.2	345	102	8	SEQUENTIAL	NONE
	Pressure (PSIA)	29.1	124.7	103	8	"	"
	Relative Humidity (%)	100	100	102 103	8	"	"
	Chemical Spray	2000 PPMB 1.14% WT. BORIC ACID PH 8.5-11	2500 PPMB 1.43% WT. BORIC ACID PH 8.5-11	104	8 72	COMBINATION	NONE SEE REF. # 72
	Radiation (10^6 rads)	81	150	105	8	SEQUENTIAL	NONE
	Aging (years)						
FLOOD LEVEL ELEV: 614' ABOVE FLOOD LEVEL: YES	Submergence	NA	NA	NA	NA	NA	NA

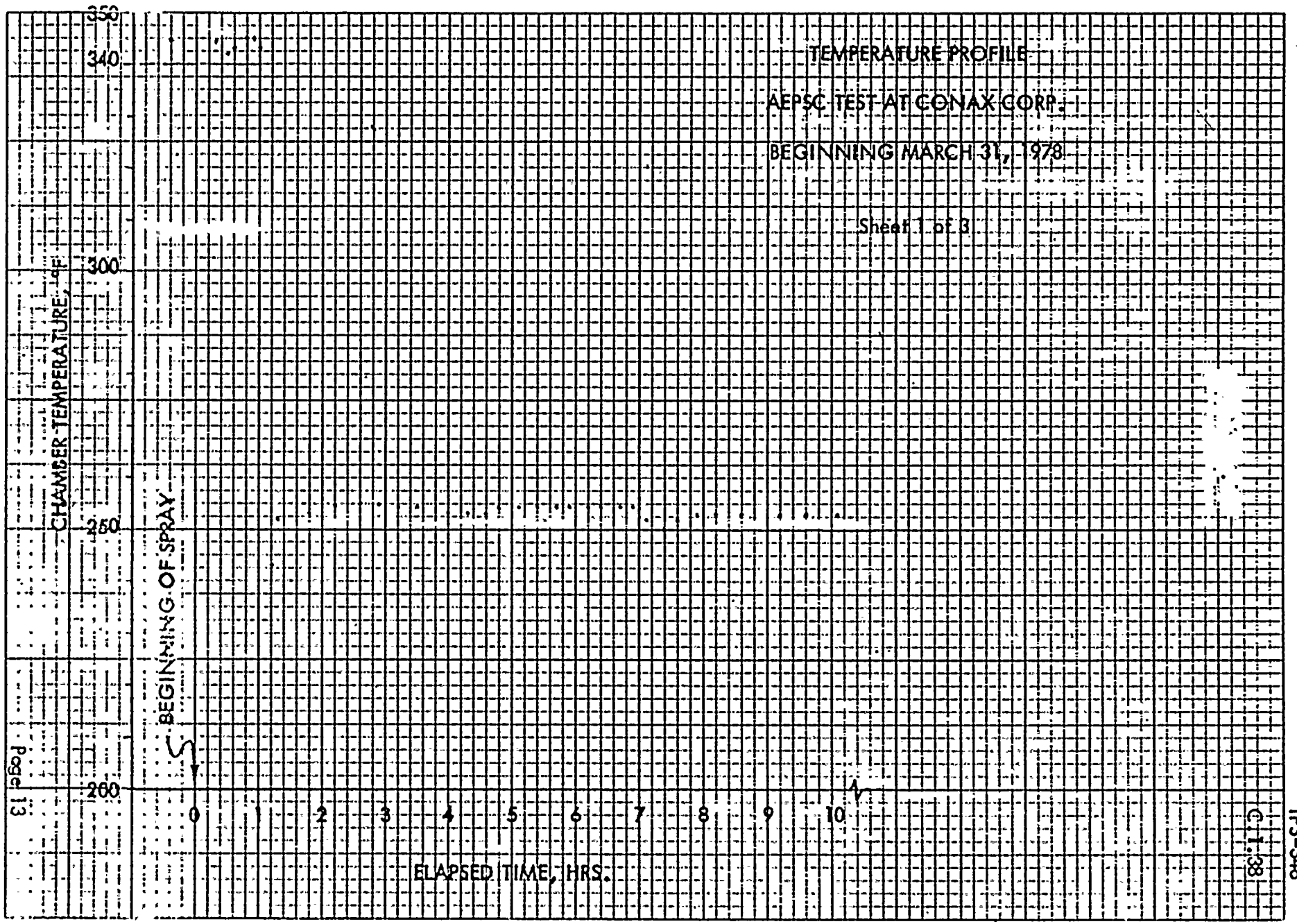
52-53 V6
235-234 S11
LS1.

*Documentation References:

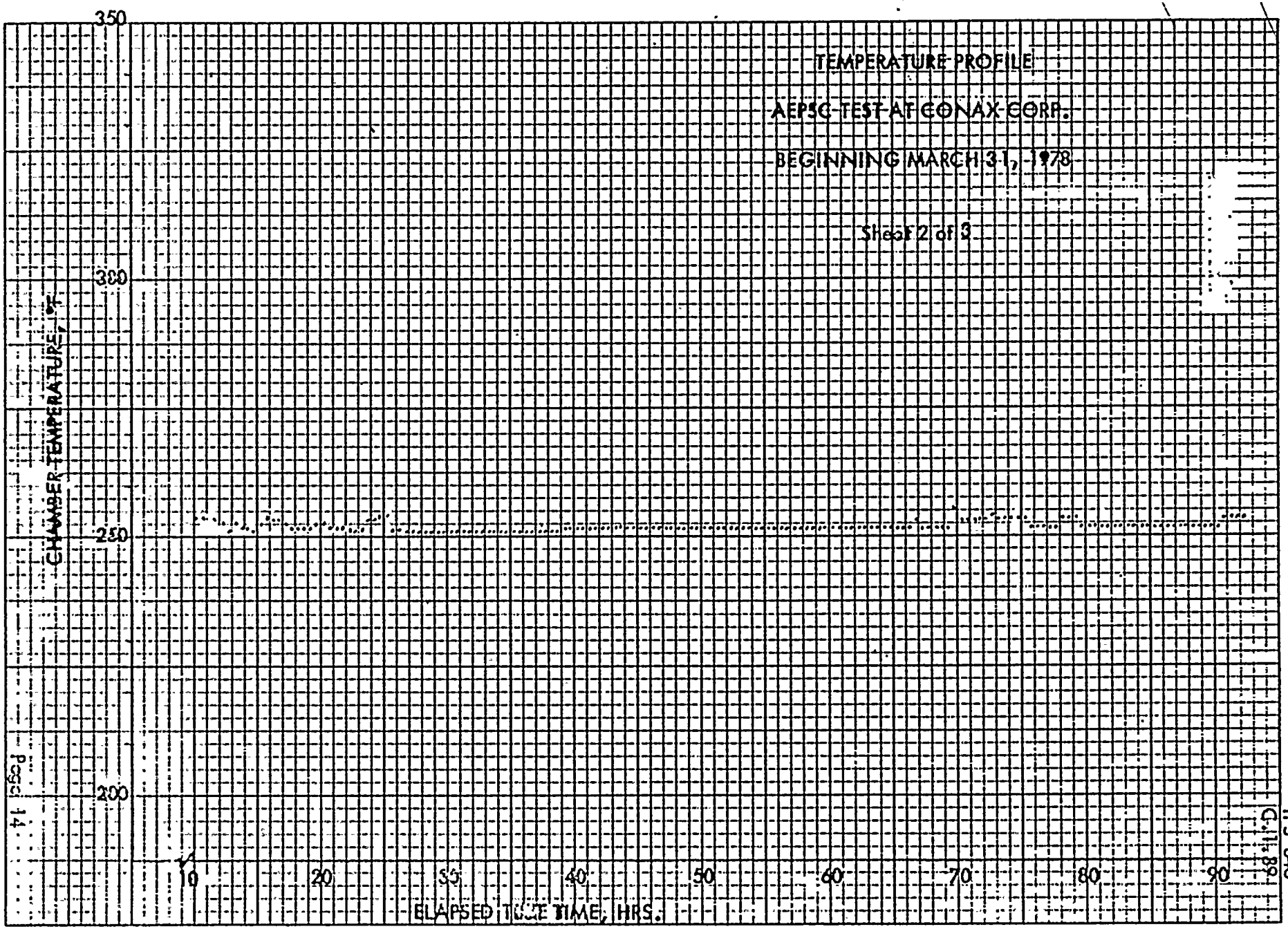
Notes:

Form EGQ #97-2

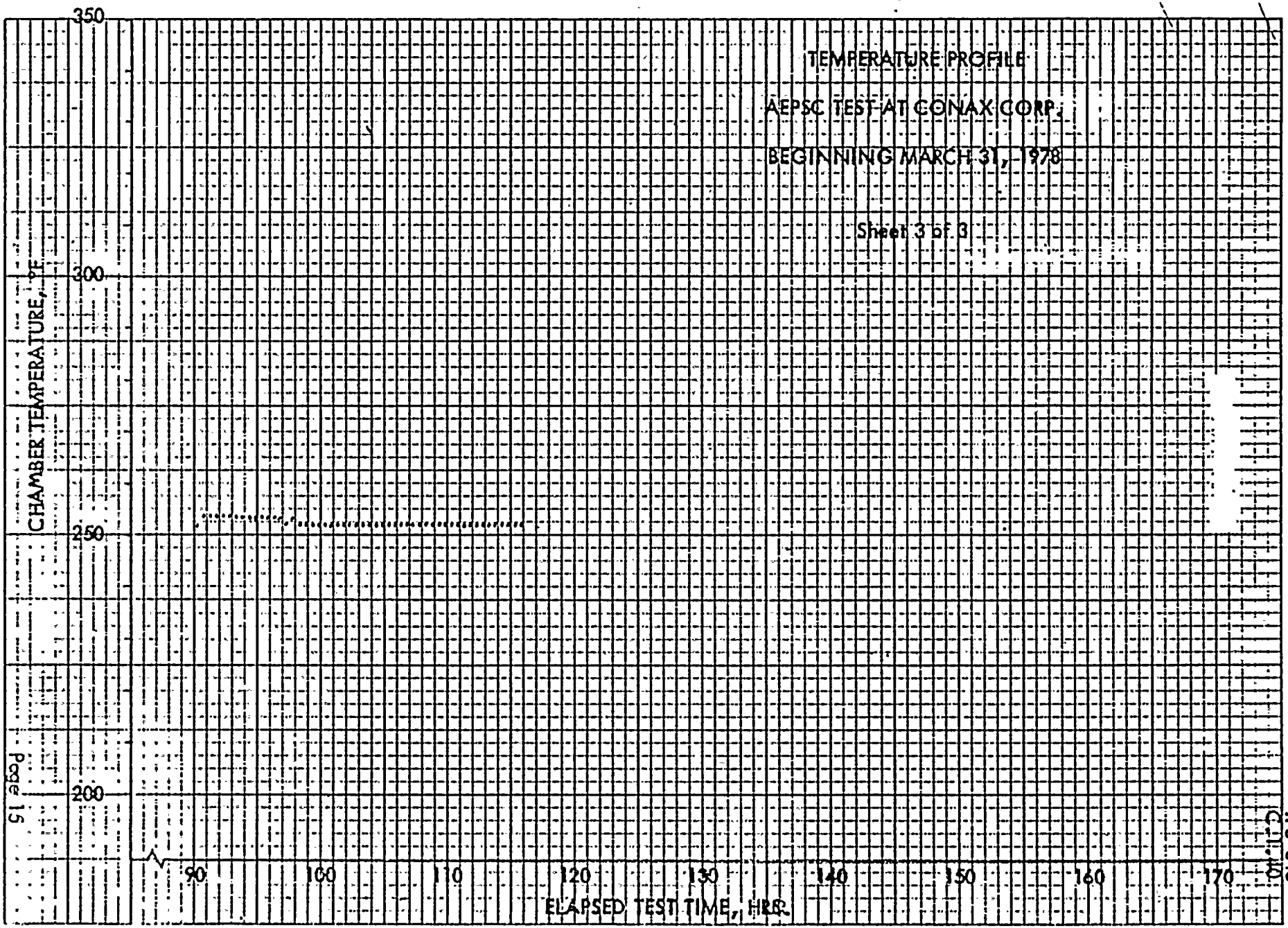
from REF. *8


TEMPERATURE PROFILE
AEPSC TEST AT CONAX CORP.
BEGINNING MARCH 31, 1978
Sheet 1 of 3
CHAMBER TEMPERATURE, °F
350
340
300
250
200
BEGINNING OF SPRAY
0
1
2
3
4
5
6
7
8
9
10
ELAPSED TIME, HRS.
C-1-38
IPS-348

from Ref. #8


TEMPERATURE PROFILE
AEPSC TEST AT CONAX CORP.
BEGINNING MARCH 31, 1978
Sheet 2 of 3
CHAMBER TEMPERATURE, °F.
350
300
250
200
10
20
30
40
50
60
70
80
90
ELAPSED TIME, HRS.
Page 14
IPS-348

From Ref. #8



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PAGE CC6-4

DONALD C. COOK NUCLEAR PLANT UNIT NO. 2 | DOCKET NO. 50-316 | LICENSE NO. DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: VARIOUS PLANT ID NO: VARIOUS COMPONENT: CONTROL CABLE MANUFACTURER: CONTINENTAL WIRE AND CABLE CO. MODEL NUMBER: ITEM #3122 FUNCTION: VARIOUS ACCURACY: SPEC: NA DEMON: NA SERVICE: VARIOUS LOCATION: IN AND OUT OF CONTAINMENT	Operating Time	1 DAY	119 HRS	109	8	SEQUENTIAL	NONE
	Temperature (°F)	328.2	345	102	8	"	"
	Pressure (PSIA)	29.1	124.7	103	8	"	"
	Relative Humidity (%)	100	100	102 103	8	"	"
	Chemical Spray	2000 PPM B 1.14 % WT. BORIC ACID PH 8.5-11	2500 PPM B 1.43% WT BORIC ACID PH 8.5-11	114	8 72	COMBINATION	NONE SEE REF. #72.
	Radiation (10^6 rads)	32	150	105	8	SEQUENTIAL	NONE
	Aging (years)						
FLOOD LEVEL ELEV: 614' ABOVE FLOOD LEVEL: NO	Submergence	SUBMERGED	IMMERSION	117	68	ENG. REVIEW	NONE SEE. REF. #68

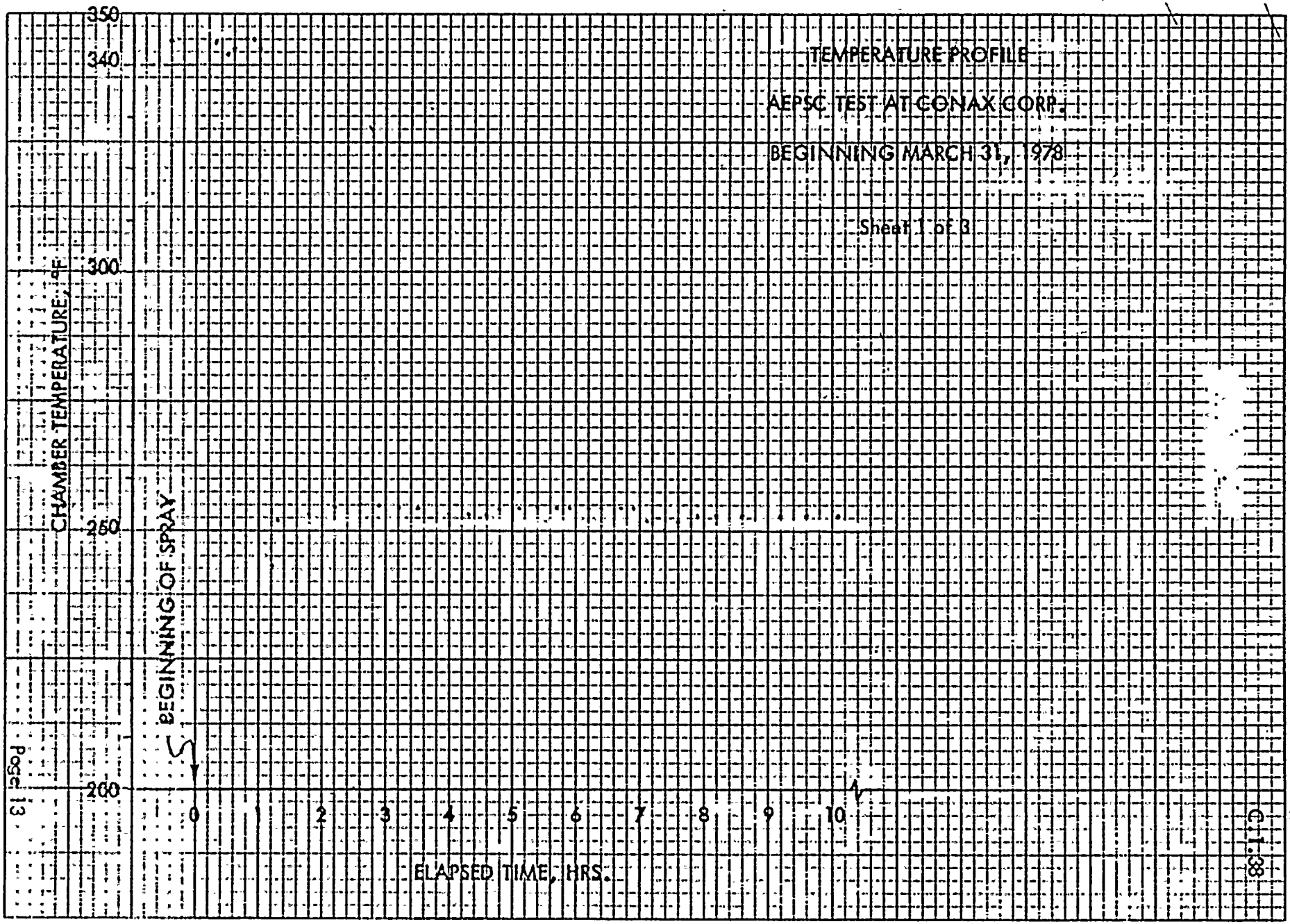
5 S7
6 S7
17-20 S3
25-29 V6
31-32 V6
34,35 V6
36-37 V6
39-42 V6
46-47 V6
52-53 V6
~~60-79 V6,11,2~~
82-85 V6,2
90-99A V2,6,7,11
108-115 V7
118-119 V4
205-210 V6
213-226 V6 S17 VII
229-234 V9 S11 S1
60-63 V1
99A V1
205-206 V1
217 V5
64-65-V6
67-70-V6
71-73-V11

*Documentation References:

Notes:

Form EGQ #97-2

from REF. #8



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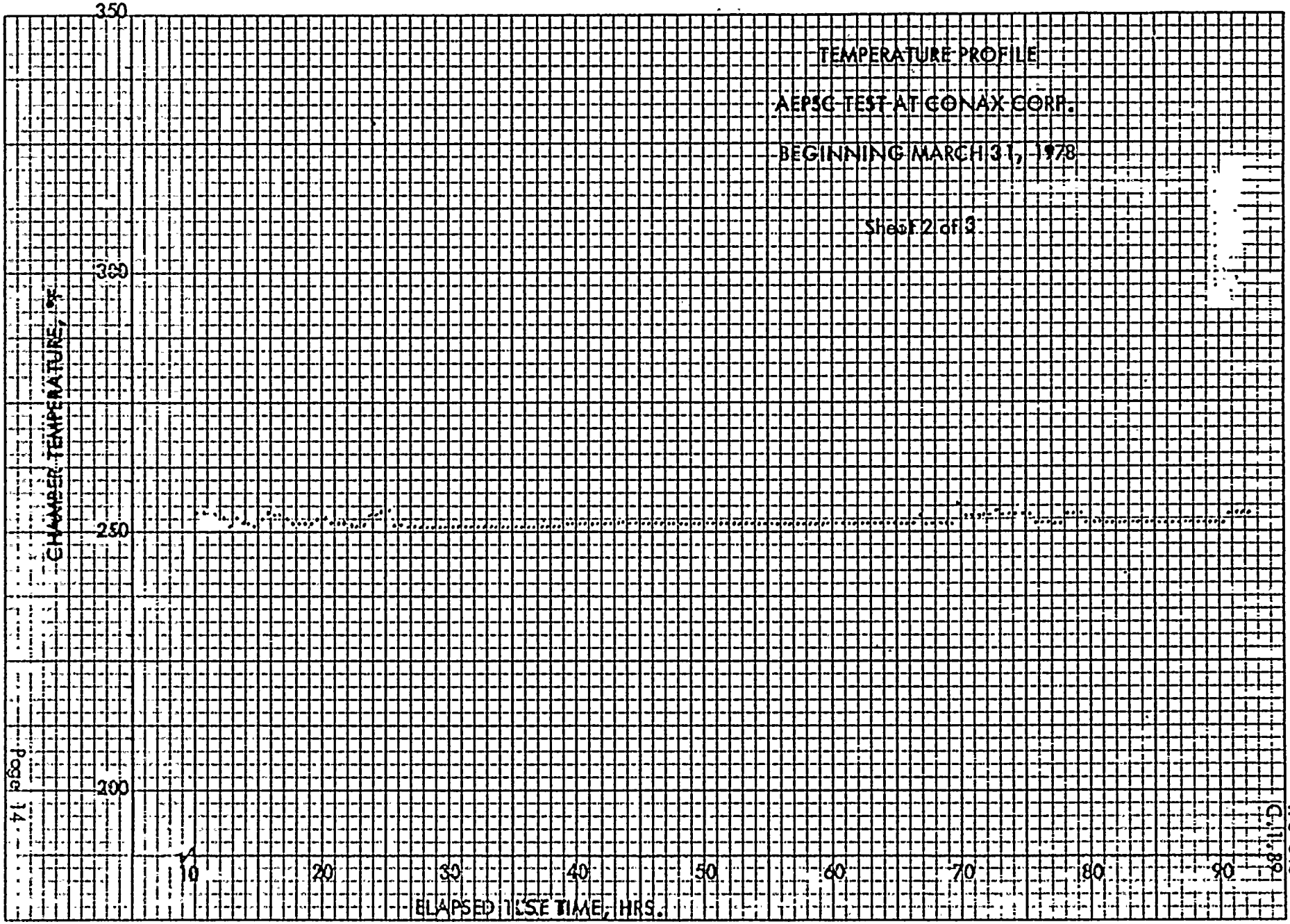
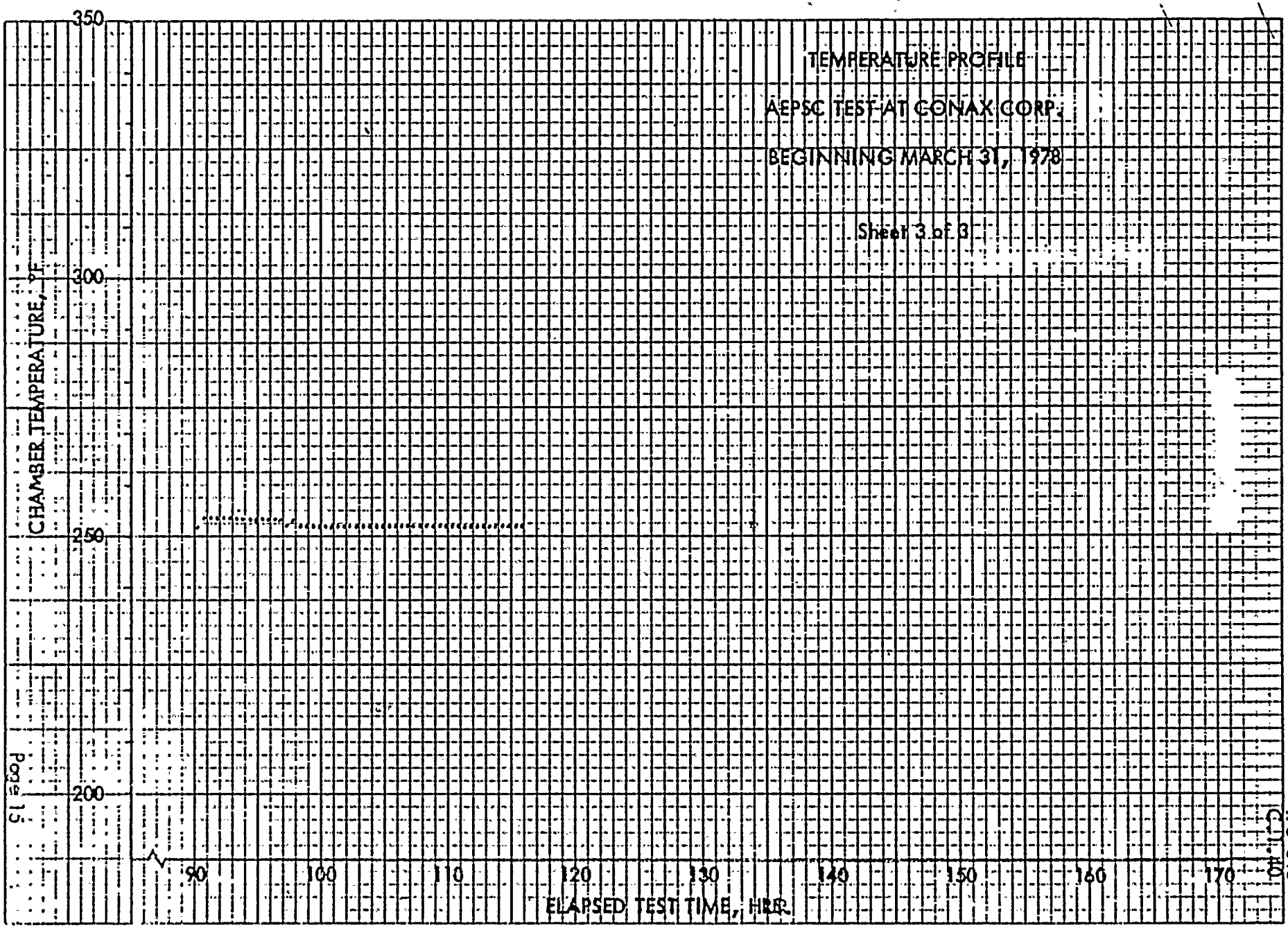
PAGE CC 7-2

from REF. #8


TEMPERATURE PROFILE
AEPSC TEST AT CONAX CORP.
BEGINNING MARCH 31, 1978
Sheet 2 of 3
CHAMBER TEMPERATURE, °F.
350
300
250
200
10
20
30
40
50
60
70
80
90
ELAPSED TIME, HRS.
IPS-348
G.11.82

From Ref. #8



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CC1.40

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PAGE CC7-4

DONALD C. COOK NUCLEAR PLANT UNIT NO. 2 · DOCKET NO. 50-316 · LICENSE NO. DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: VARIOUS PLANT ID NO: VARIOUS COMPONENT: CONTROL CABLE MANUFACTURER: GENERAL ELECTRIC MODEL NUMBER: ITEM # 3122 FUNCTION: VARIOUS ACCURACY: SPEC: NA DEMON: NA SERVICE: VARIOUS LOCATION: IN AND OUT OF CONTAINMENT	Operating Time	1 DAY	119 HRS	109	8	SEQUENTIAL	NONE
	Temperature (°F)	328.2	345	102	8	"	"
	Pressure (PSIA)	29.1	124.7	103	8	"	"
	Relative Humidity (%)	100	100	102 103	8	"	"
	Chemical Spray	2000 PPMB 1.14% WT BORIC ACID PH 8.5-11	2500 PPMB 1.43% WT. BORIC ACID PH 8.5-11	114	8 72	COMBINATION	NONE SEE REF. #72
	Radiation (10^6 rads)	32	150	105	8	SEQUENTIAL	NONE
	Aging (years)						
FLOOD LEVEL ELEV: 614' ABOVE FLOOD LEVEL: NO	Submergence	SUBMERGED	IMMERSION	117	68	ENG REVIEW.	NONE SEE REF. #68

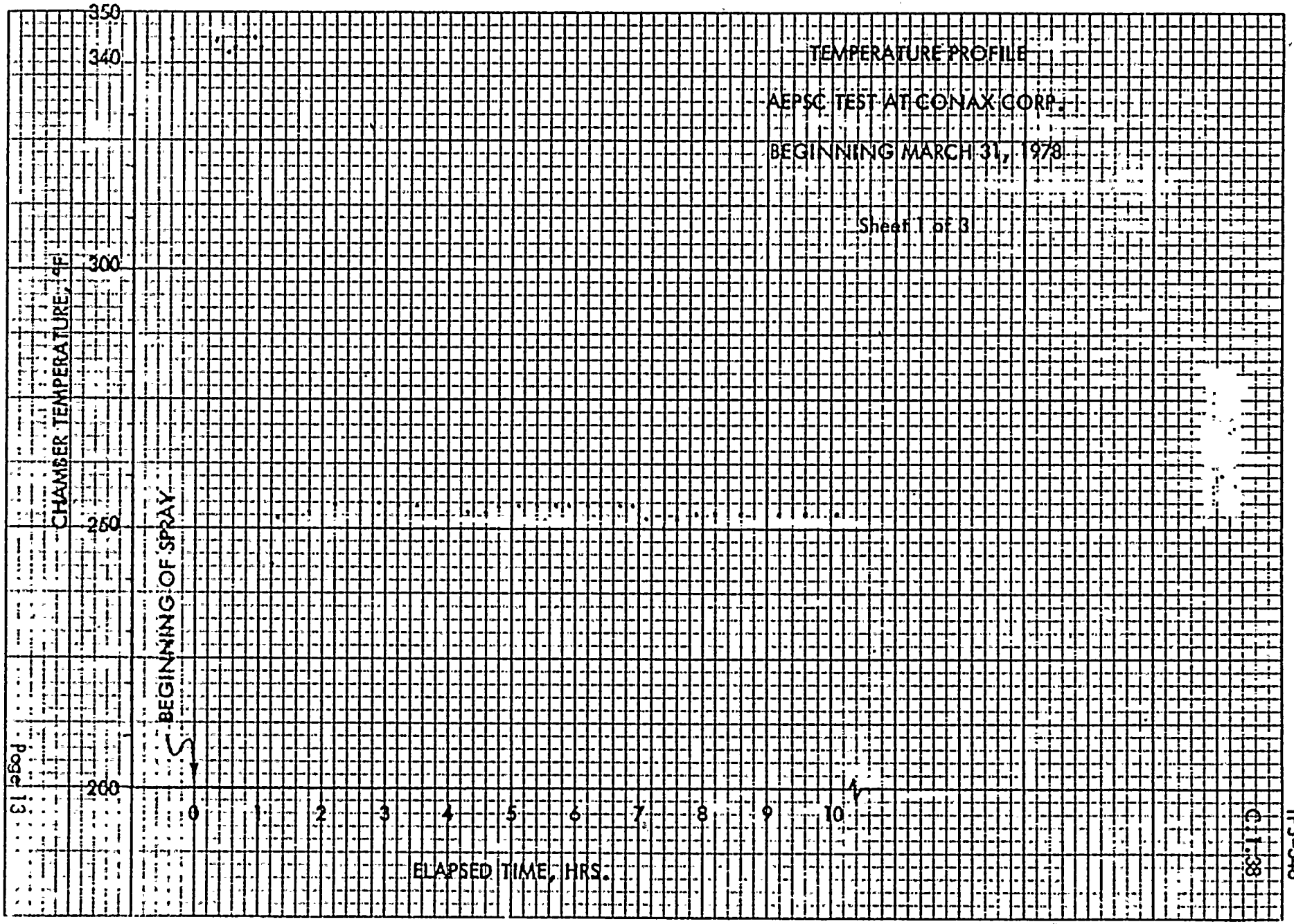
*Documentation References:

Notes:

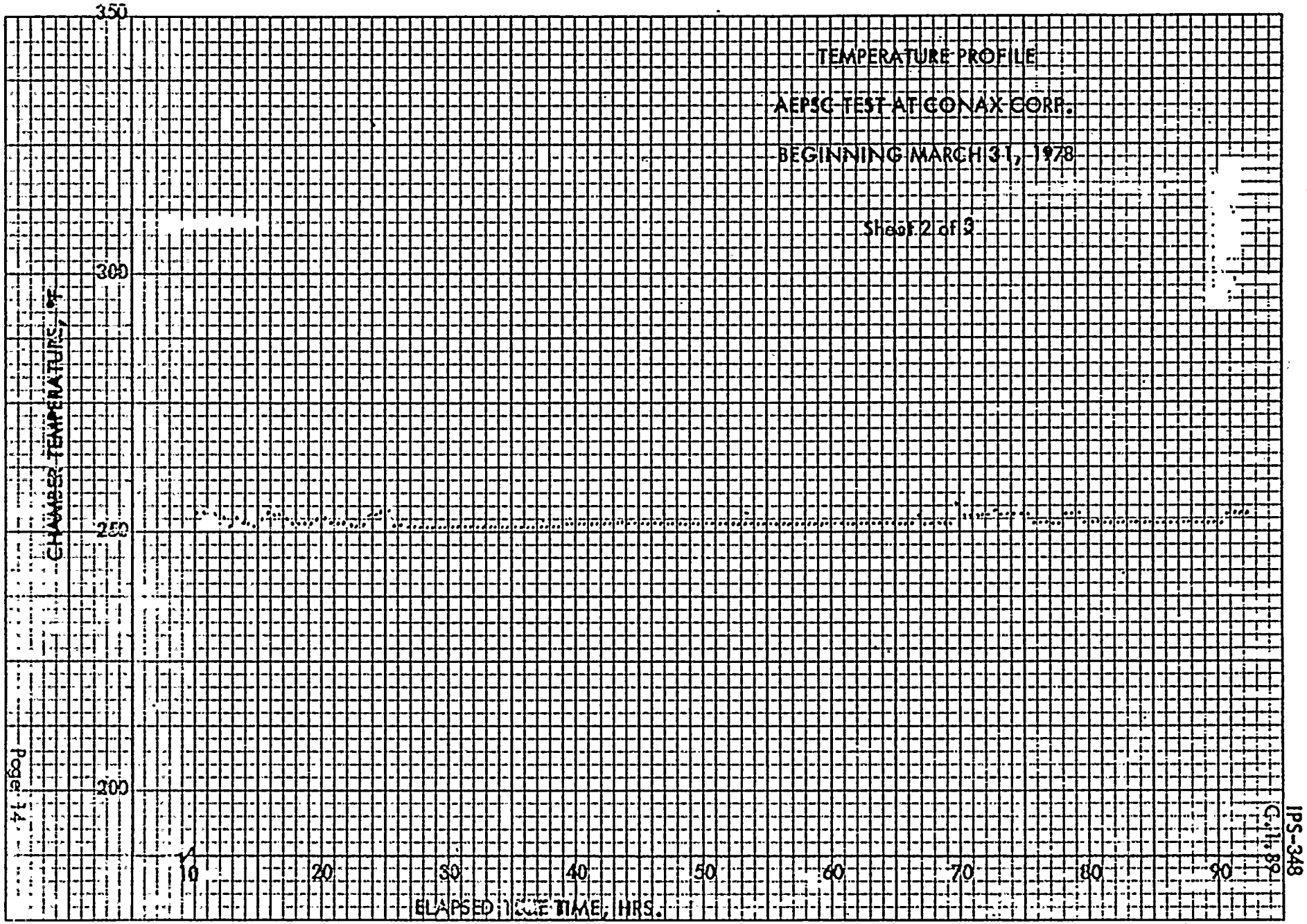
5 S7
6 S7
17-20 S3
25-29 V6
31-32 V6
34,35 V6
36-37 V6
39-42 V6
46-47 V6
52-53 V6
~~60-73 V6, 11.8~~
82-85 V2,6
108-115 V7
205-210 V6
229-234 V9
S11
LS1
60-63 VI
99A VI
205-206 VI
217 V5
118, 119 V4
213, 21x VII
215, 21c VI
218, 219 S17
220, 221 S17
222 223 S17
224 S17
225, 226 S17
90 V2
91-93 V6
94,95 V2
96,97 V7
98,99 VII
64-65-V6
67-7?-V6
71-73-VII

Form EGQ #97-2

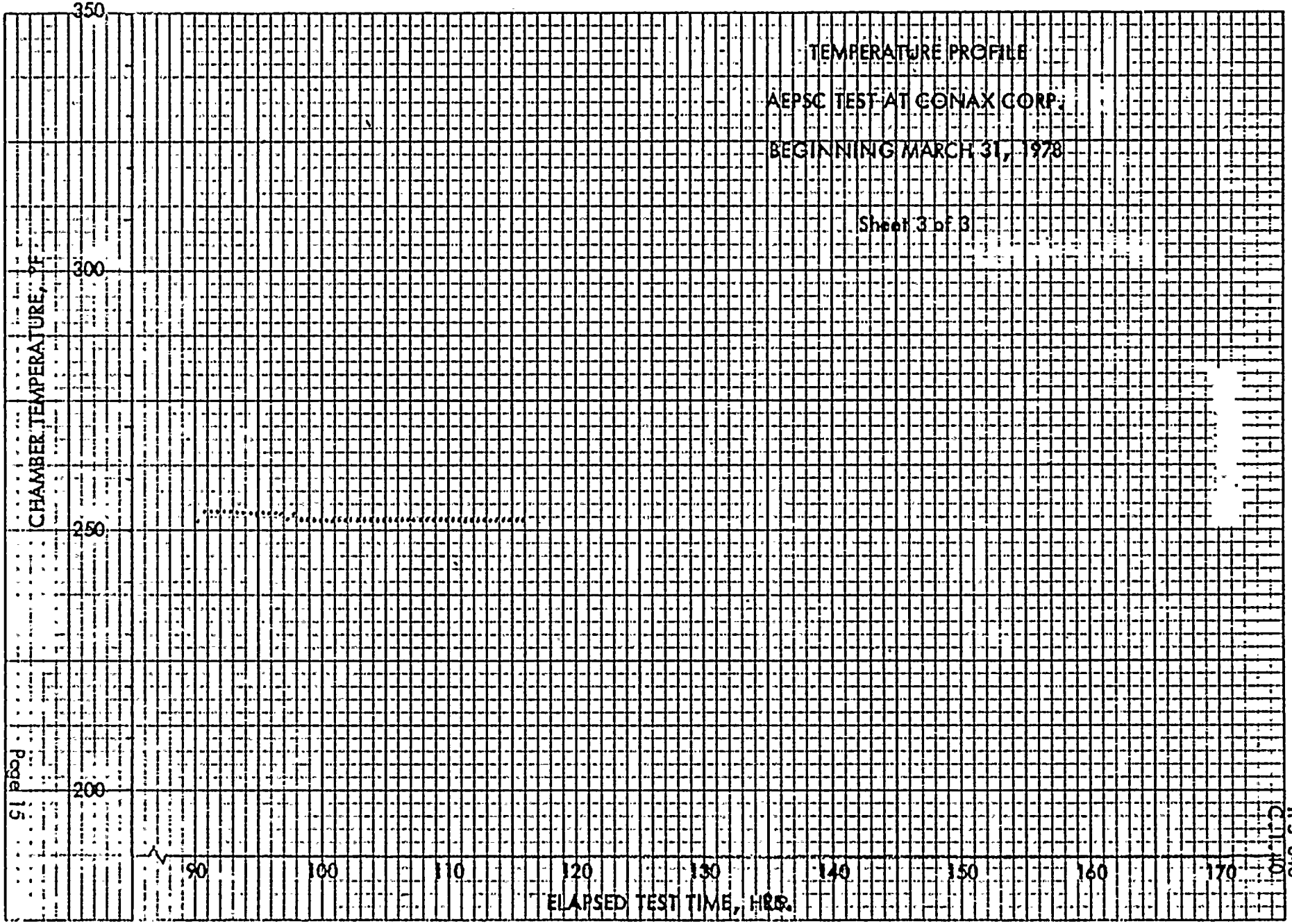
from REF. #8


TEMPERATURE PROFILE
AEPSC TEST AT CONAX CORP.
BEGINNING MARCH 31, 1978
Sheet 1 of 3
CHAMBER TEMPERATURE, °F
350
340
300
250
200
BEGINNING OF SPRAY
0
1
2
3
4
5
6
7
8
9
10
ELAPSED TIME, HRS.
C.I. 88
IPS-348

from REF. #8


TEMPERATURE PROFILE
AEPSC TEST AT CONAX CORP.
BEGINNING MARCH 31, 1978
Sheet 2 of 3
CHAMBER TEMPERATURE, °F.
350
300
250
200
10
20
30
40
50
60
70
80
90
ELAPSED TIME, HRS.
IPS-348
G-11, 8C

from Ref. #8



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PAGE CC 8-4

DONALD C. COOK NUCLEAR PLANT UNIT NO. 2 | DOCKET NO. 50-316 | LICENSE NO. DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: VARIOUS PLANT ID NO: VARIOUS COMPONENT: CONTROL CABLE MANUFACTURER: CONTINENTAL WIRE & CABLE CO. MODEL NUMBER: ITEM# 3123 FUNCTION: VARIOUS ACCURACY: SPEC: NA DEMON: NA SERVICE: VARIOUS LOCATION: OUTSIDE CONTAINMENT	Operating Time	1 DAY	119 HRS	116	8	SEQUENTIAL	NONE
	Temperature (°F)	230	345	107	8	"	"
	Pressure (PSIA)	26.2	124.7	107	8	"	"
	Relative Humidity (%)	100	100	107	8	"	"
	Chemical Spray	NA	2500 PPMB 1.43% WT. BORIC ACID PH 8.5-11	NA	8 72	COMBINATION	NONE SEE REF. #72
	Radiation (10^6 rads)	4	150	106	8	SEQUENTIAL	NONE
	Aging (years)						
FLOOD LEVEL ELEV: NA ABOVE FLOOD LEVEL: NA	Submergence	NA	NA	NA	NA	NA	NA

~~21-24 V8~~
44-45 V11
67 V6
207 V6

*Documentation References:

Notes:

Form EGQ #97-2

from REF. #8

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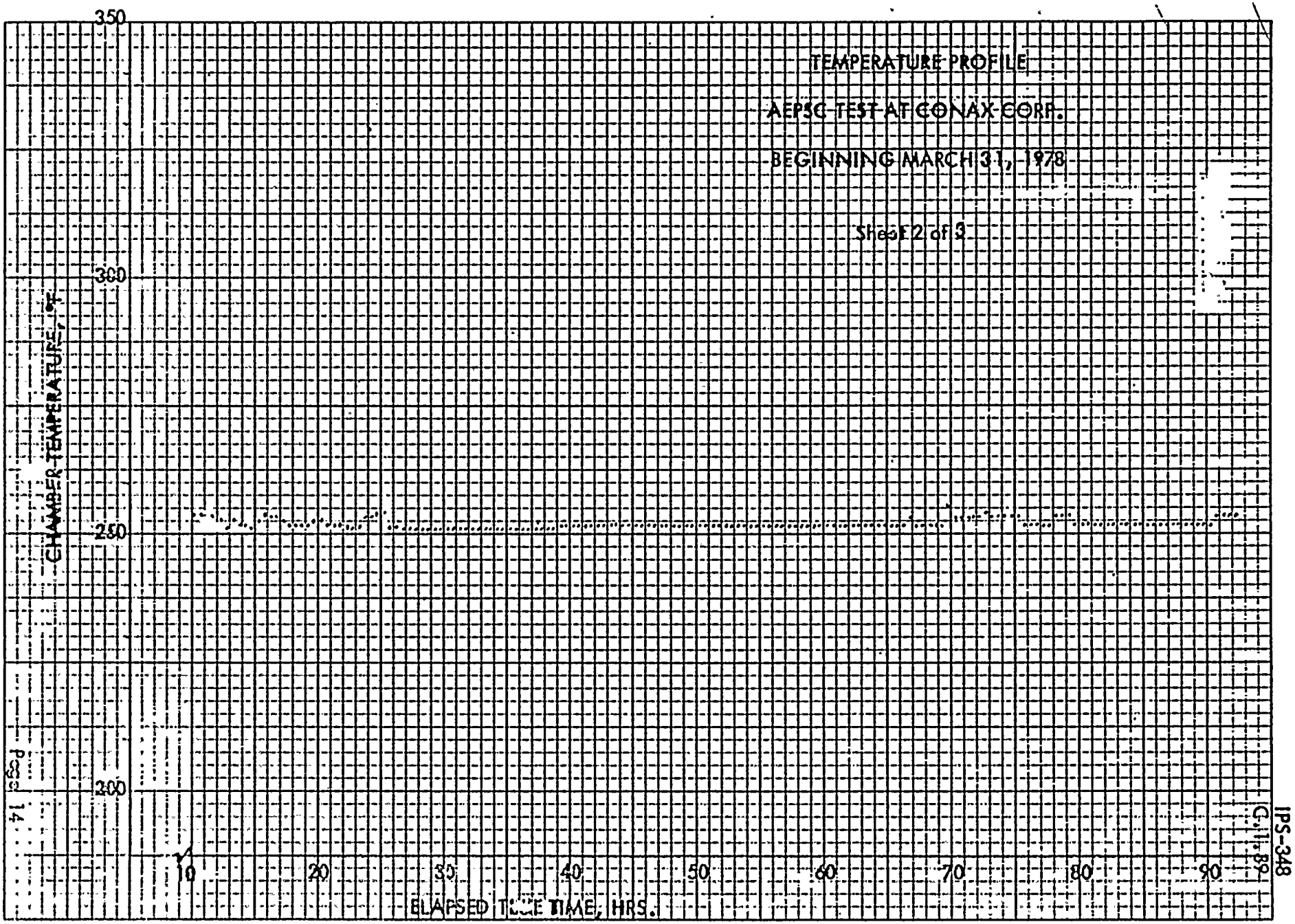
PAGE CC9-2

from Ref. #8



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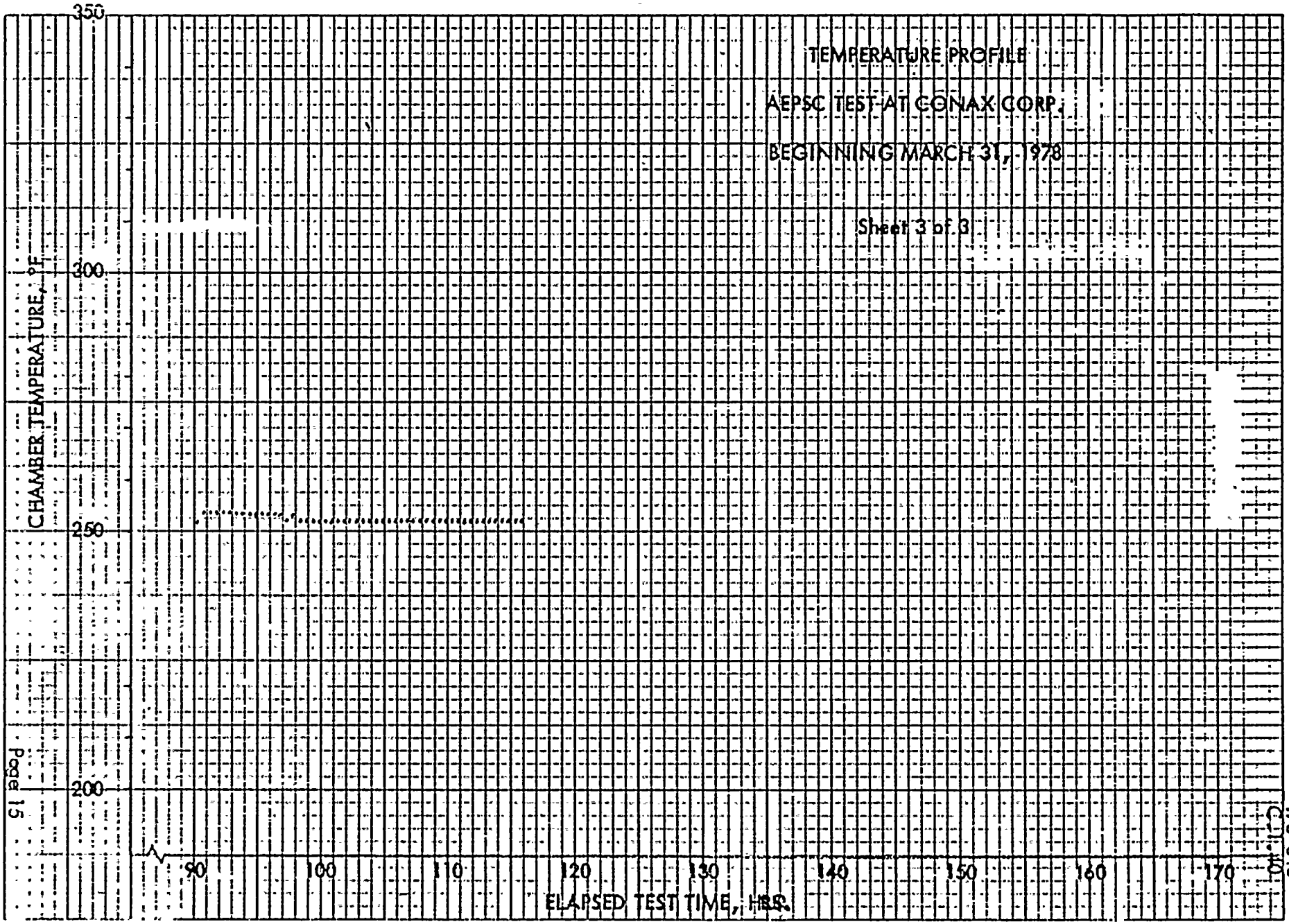
From Ref. #8



IPS-348
C.I. #10

DONALD C. COOK NUCLEAR PLANT UNIT NO. 2 DOCKET NO. 50-316 LICENSE NO. DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: PLANT ID NO: COMPONENT: MANUFACTURER: MODEL NUMBER: FUNCTION: ACCURACY: SPEC: DEMON: SERVICE: LOCATION:	Operating Time						
	Temperature (^{0}F)						
	Pressure (PSIA)	THIS PAGE LEFT BLANK AS					
	Relative Humidity (%)	ITEM 3064 IS NOT APPLICABLE					
	Chemical Spray	TO D.C. COOK UNIT #2.					
	Radiation (10^{6} rads)						
	Aging (years)						
FLOOD LEVEL ELEV: ABOVE FLOOD LEVEL:	Submergence						

*Documentation References:

Notes:

DONALD C. COOK NUCLEAR PLANT UNIT NO. 2 DOCKET NO. 50-316 LICENSE NO. DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: PLANT ID NO: COMPONENT: MANUFACTURER: MODEL NUMBER: FUNCTION: ACCURACY: SPEC: DEMON: SERVICE: LOCATION:	Operating Time						
	Temperature (^{0}F)						
	Pressure (PSIA)	THIS PAGE LEFT BLANK AS					
	Relative Humidity (%)	ITEM #3064 IS NOT APPLICABLE					
	Chemical Spray	TO D.C. COOK UNIT #2					
	Radiation (10^6 rads)						
	Aging (years)						
FLOOD LEVEL ELEV: ABOVE FLOOD LEVEL:	Submergence						

*Documentation References:

Notes:

DONALD C. COOK NUCLEAR PLANT UNIT NO. 2 | DOCKET NO. 50-316 | LICENSE NO. DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: VARIOUS PLANT ID NO: VARIOUS COMPONENT: INSTRUMENT CABLE MANUFACTURER: SAMUEL MOORE AND CO. MODEL NUMBER: ITEM # 3075 FUNCTION: VARIOUS ACCURACY: SPEC: NA DEMON: NA SERVICE: VARIOUS LOCATION: IN AND OUT OF CONTAINMENT	Operating Time	4 MONTHS	> 4.4 MTHS	101	63 10	COMBINATION	NONE SEE REF. # 63
	Temperature (°F)	328.2	340	102	10	SEQUENTIAL	NONE
	Pressure (PSIA)	29.1	119.7	103	10	"	"
	Relative Humidity (%)	100	100	102 103	10	"	"
	Chemical Spray	2000 PPMB 1.14% WT. BORIC ACID PH 8.5-11	3000 PPMB 1.72 % WT. BORIC ACID PH 8.5-11	104	11 72	COMBINATION	NONE SEE REF # 72
	Radiation (10^6 rads)	119	200	105	10	SEQUENTIAL	NONE
	Aging (years)						
FLOOD LEVEL ELEV: 614' ABOVE FLOOD LEVEL: NO	Submergence	SUBMERGED	SUBMERGED	117	68	COMBINATION	NONE SEE REF. # 68

14-16 I5
58&59 I10
102-104 I29
155&156 I19
158&159 I20, 21, 22
175-178 I4
201 S9
204 S9
43-43A I23, 24
54-59 I7, 8, 9
106-107
160 I25
161-163 I1, 2
164-167 I1, 2
168-169 I1, 2
170-172 I1, 2
181-188 I13
227-228

*Documentation References:

Notes:

Form EGQ #97-2

FROM REF. #10

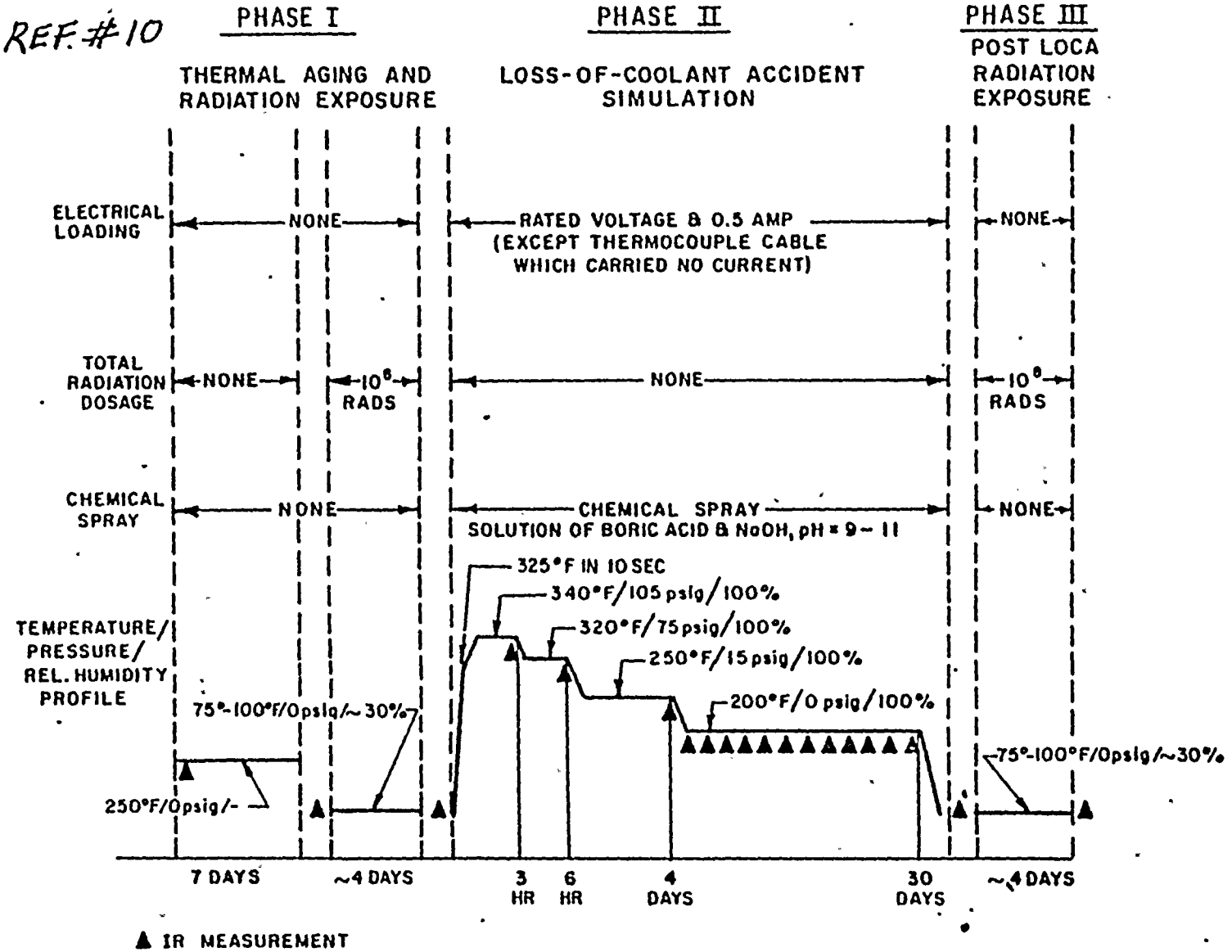


Figure 2. Profile of Test Phases

3-4

F-C3683

PAGE CI5-2

FROM REF. #11

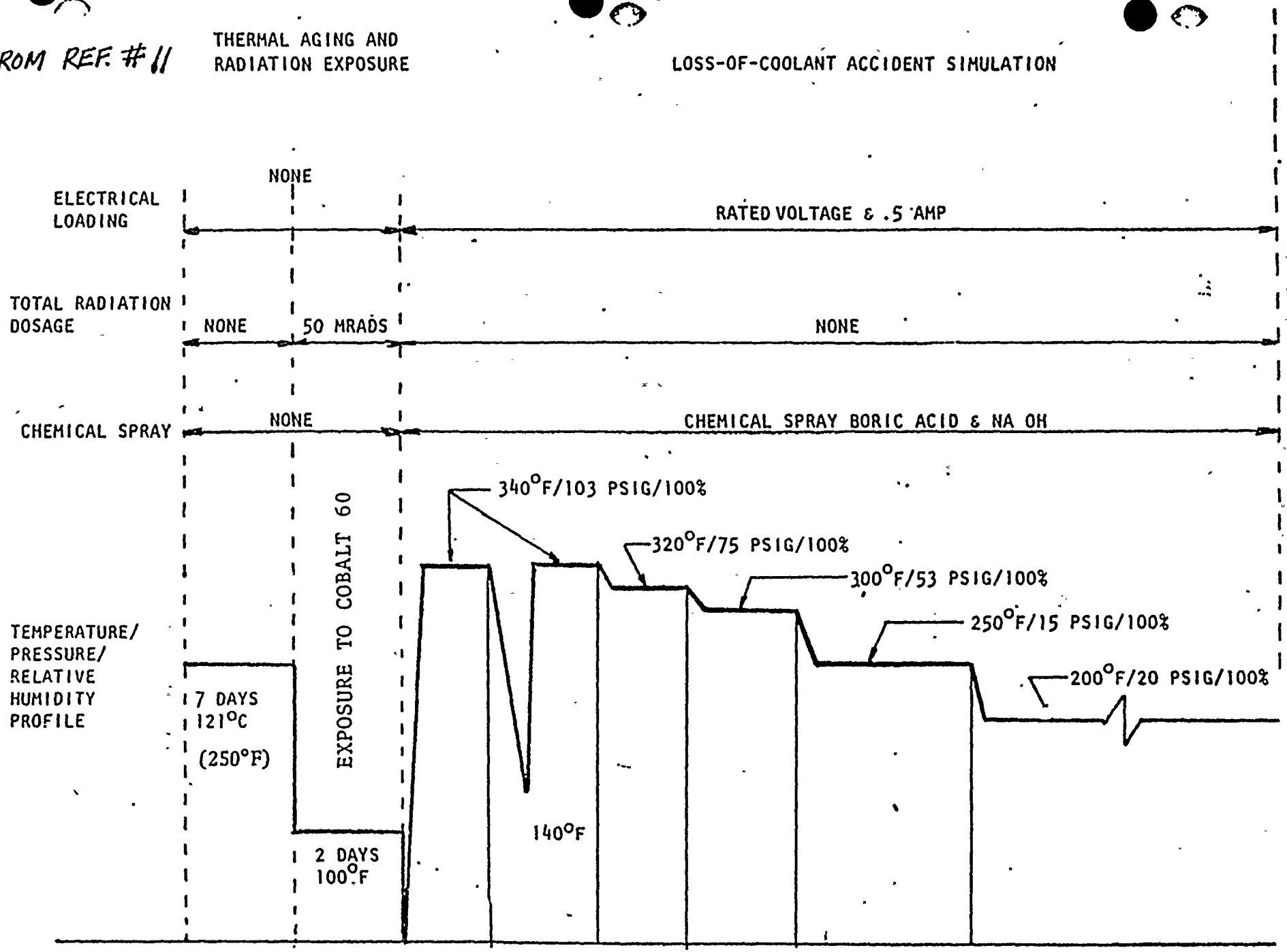


FIGURE 1 - SPECIFIED ENVIRONMENTAL EXPOSURE PROFILE

SAMUEL MOORE AND COMPA

DONALD C. COOK NUCLEAR PLANT UNIT NO. 2 DOCKET NO. 50-316 LICENSE NO. DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: VARIOUS PLANT ID NO: VARIOUS COMPONENT: INSTRUMENT CABLE MANUFACTURER: CONTINENTAL WIRE AND CABLE CO. MODEL NUMBER: ITEM# 3075 FUNCTION: VARIOUS ACCURACY: SPEC: NA DEMON: NA SERVICE: VARIOUS LOCATION: OUT OF CONTAINMENT	Operating Time	4 MONTHS	>4.4 MTHS	101	33 63	COMBINATION	NONE SEE REF #63
	Temperature (°F)	230	340	107	33	SEQUENTIAL	NONE
	Pressure (PSIA)	26.2	114.7	107	33	"	"
	Relative Humidity (%)	100	100	107	33	"	"
	Chemical Spray	NA	NA	NA	NA	NA	NA
	Radiation (10^6 rads)	NA	10	NA	33	SEQUENTIAL	NONE
	Aging (years)						
FLOOD LEVEL ELEV: NA ABOVE FLOOD LEVEL: NA	Submergence	NA	NA	NA	NA	NA	NA

14-16 I5
58-59 I10
102-104 I29
106-107
175-178 I4
201 S9
204 S9
227-228

*Documentation References:

Notes:

Form EGQ #97-2

From Ref. 33

FIRL Test Report F-C 2935, Excerpt from

Type of Test: Sequential

Gamma Radiation

Steam

. 45 MRAD/HR; 10 MRAD

340°F; 100 psig; 2 Hrs.

161°F; ; 20 Hrs.

Item #3075, 3077 Continental Wire & Cable Co.

DONALD C. COOK NUCLEAR PLANT UNIT NO. 2 DOCKET NO. 50-316 LICENSE NO. DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: VARIOUS PLANT ID NO: VARIOUS COMPONENT: INSTRUMENT CABLE MANUFACTURER: BOSTON INSULATED WIRE CO MODEL NUMBER: ITEM # 3075 FUNCTION: VARIOUS ACCURACY: SPEC: NA DEMON: NA SERVICE: VARIOUS LOCATION: IN AND OUT OF CONTAINMENT	Operating Time	4 MONTHS	> 4.4 MTHS	101	8 63	COMBINATION	NONE SEE REF. #63
	Temperature (°F)	328.2	345	102	8	SEQUENTIAL	NONE
	Pressure (PSIA)	29.1	124.7	103	8	"	"
	Relative Humidity (%)	100	100	102 103	8	"	"
	Chemical Spray	2000 PPMB 1.14% WT. BORIC ACID PH 8.5-11	2500 PPMB 1.43% WT. BORIC ACID PH 8.5-11	104	8 72	COMBINATION	NONE SEE REF. #72
	Radiation (10^6 rads)	119	150	105	8	SEQUENTIAL	NONE
	Aging (years)						
FLOOD LEVEL ELEV: 614' ABOVE FLOOD LEVEL: NO	Submergence	SUBMERGED	SUBMERGED	117	68	COMBINATION	NONE SEE REF. #68

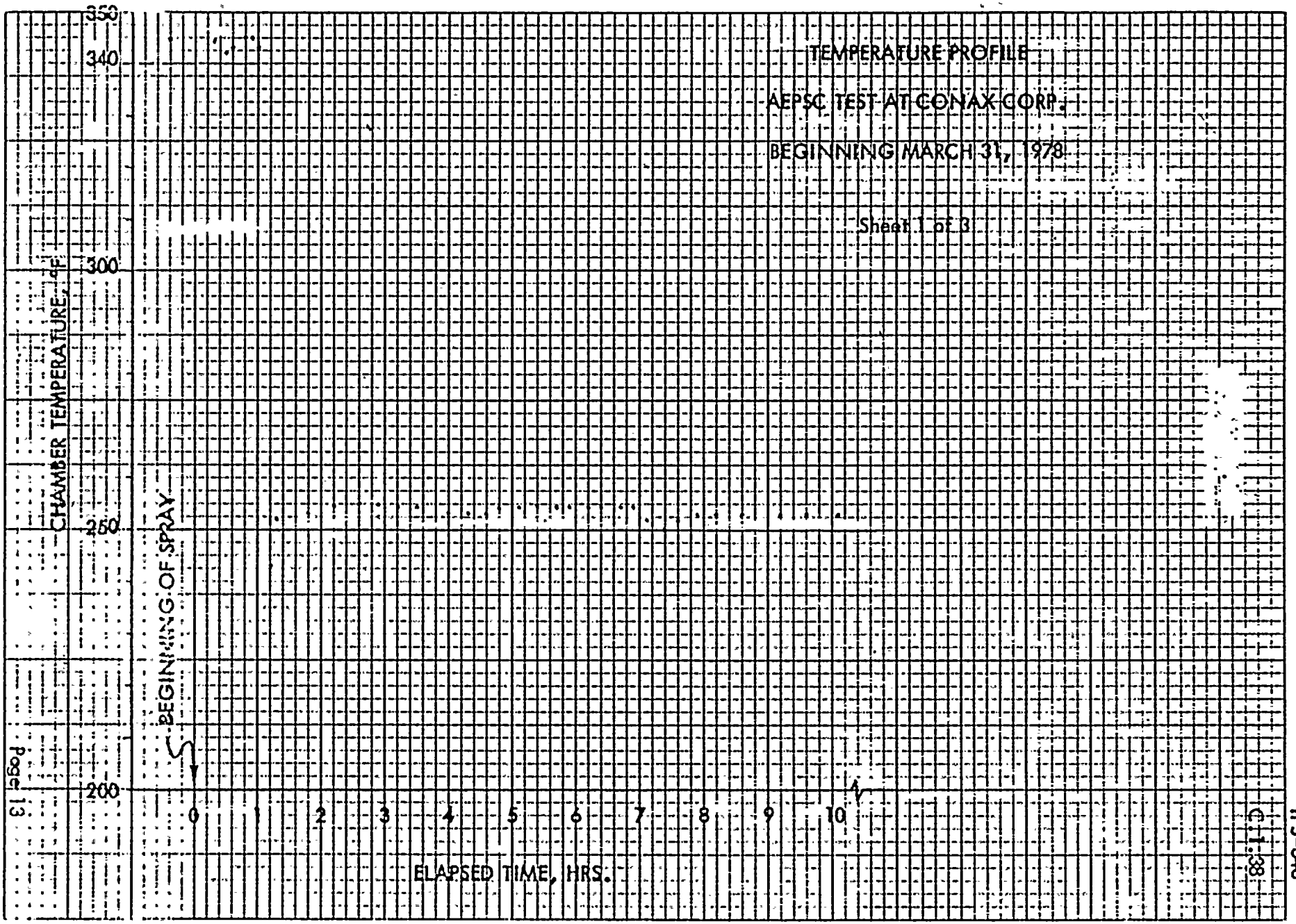
14-16 I 5
58-59 I 10
155-156 I 9
157-159 I 20, 21, 22
175-178 I 4
201 S 9
204 S 9
43-43A I 23, 24
54-57 I 7, 8, 9
102-104 I 29
106-107
160 I 25
161-164 I 1, 2
165-172 I 1, 2
181-188 I 13
227-228

*Documentation References:

Notes:

Form EGQ #97-2

from REF. #8



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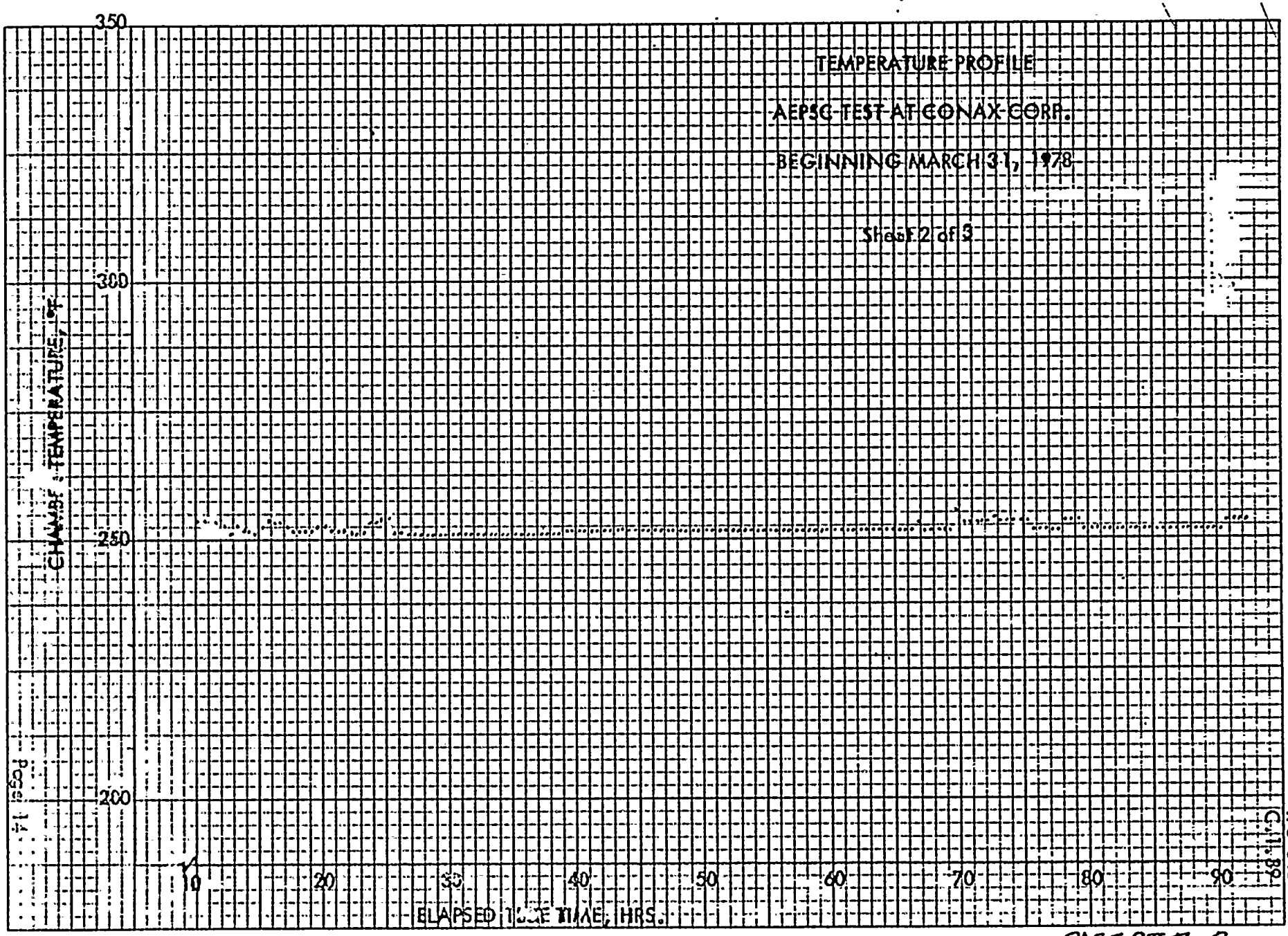
from REF. #8



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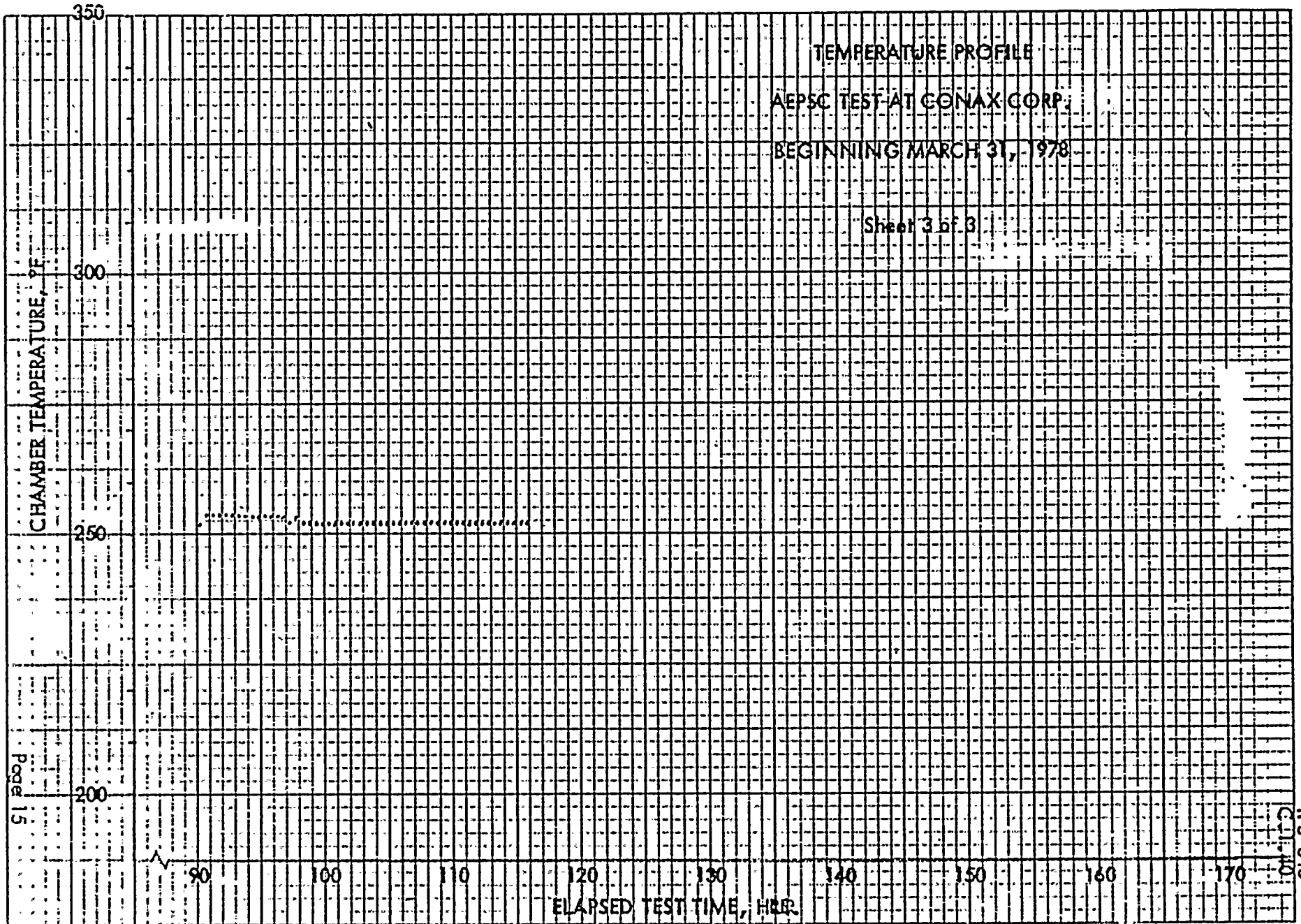
From Ref. #8



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C-1-40

DONALD C. COOK NUCLEAR PLANT UNIT NO. 2 | DOCKET NO. 50-316 | LICENSE NO. DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: VARIOUS PLANT ID NO: VARIOUS COMPONENT: INSTRUMENT CABLE MANUFACTURER: CERRO WIRE AND CABLE CO. MODEL NUMBER: ITEM# 3077 FUNCTION: VARIOUS ACCURACY: SPEC: NA DEMON: NA SERVICE: VARIOUS LOCATION: IN AND OUT OF CONTAINMENT	Operating Time	4 MONTHS	>4.4 MTHS	101	12 63	COMBINATION	NONE SEE REF #63
	Temperature (°F)	328.2	346	102	12	SEQUENTIAL	NONE
	Pressure (PSIA)	29.1	127.7	103	12	"	"
	Relative Humidity (%)	100	100	102 103	12	"	"
	Chemical Spray	2000 PPMB 1.14% WT. BORIC ACID PH 8.5-11	3000 PPMB 1.72% WT. BORIC ACID PH 8.5-11	104	12 72	COMBINATION	NONE SEE REF. #72
	Radiation (10^6 rads)	119	200	105	12	SEQUENTIAL	NONE
	Aging (years)						
FLOOD LEVEL ELEV: 614' ABOVE FLOOD LEVEL: NO	Submergence	SUBMERGED	IMMERSION	117	68	ENG. REVIEW	NONE SEE REF# 68

13 I5
17-20 S3
76-81 I6,11,12
105 I30
137 I28
146-153 I28
154 I19
173-174 I4
179-180 I4
189-191 I15,16
192-200 I15,16
202-203 S9
130-136 I26,27
138-145 I26,27

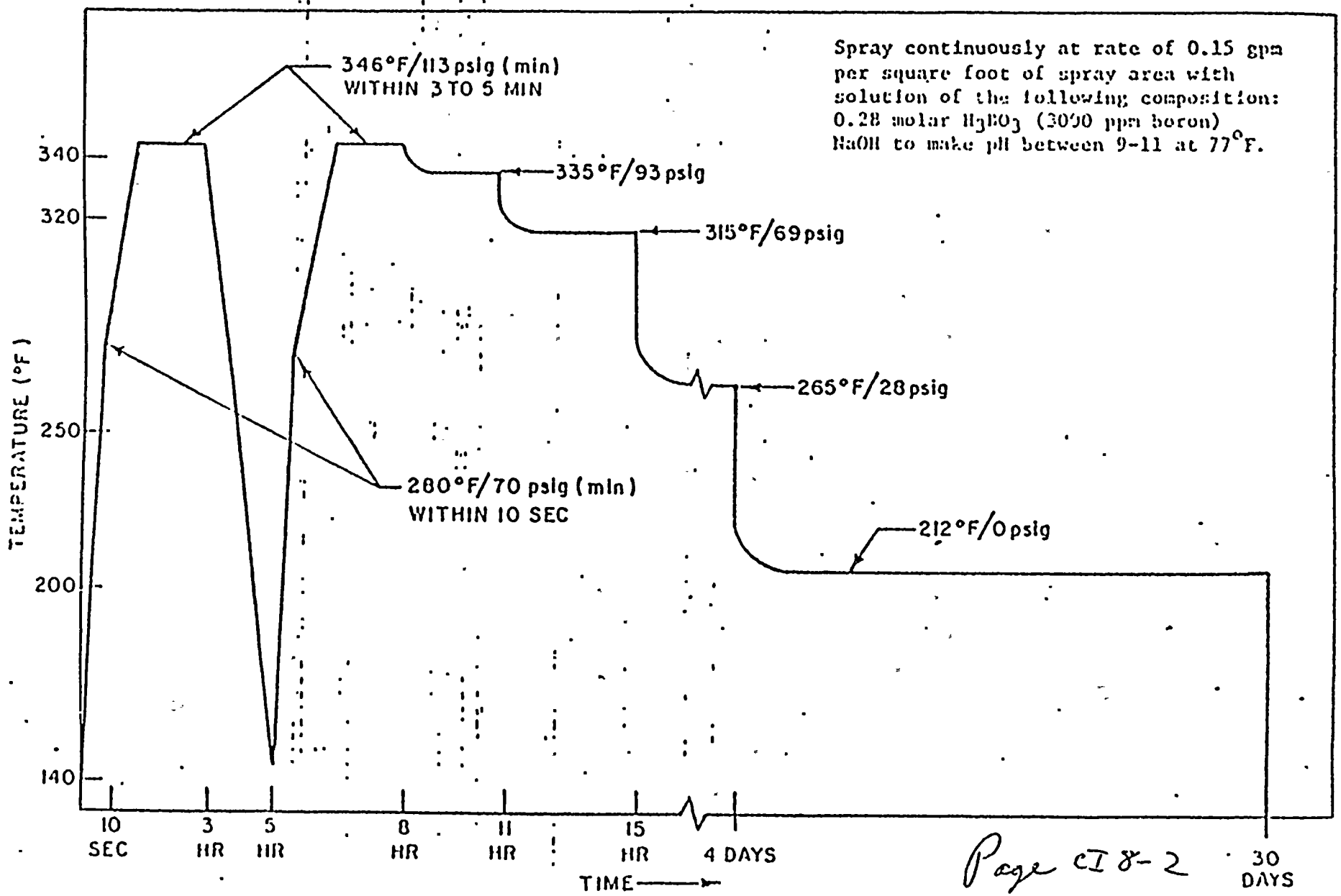
*Documentation References:

Notes:

Form EGQ #97-2

LOCA Profile

FROM REF#12



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LOCA PROFILE

7.

DONALD C. COOK NUCLEAR PLANT UNIT NO. 2 | DOCKET NO. 50-316 | LICENSE NO. DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: VARIOUS PLANT ID NO: VARIOUS COMPONENT: INSTRUMENT CABLE MANUFACTURER: SAMUEL MOORE AND CO. MODEL NUMBER: ITEM # 3077 FUNCTION: VARIOUS ACCURACY: SPEC: NA DEMON: NA SERVICE: VARIOUS LOCATION: IN AND OUT OF CONTAINMENT	Operating Time	4 MONTHS	> 4.4 MTHS	101	10 63	COMBINATION	NONE SEE REF. # 63
	Temperature (°F)	328.2	340	102	10	SEQUENTIAL	NONE
	Pressure (PSIA)	29.1	119.7	103	10	"	"
	Relative Humidity (%)	100	100	102 103	10	"	"
	Chemical Spray	2000 PPMB 1.14% WT. BORIC ACID PH 8.5 - 11	3000 PPMB 1.72 % WT. BORIC ACID PH 8.5 - 11	104	11 72	COMBINATION	NONE SEE REF. # 72
	Radiation (10^6 rads)	119	200	105	10	SEQUENTIAL	NONE
	Aging (years)						
FLOOD LEVEL ELEV: 614' ABOVE FLOOD LEVEL: NO	Submergence	SUBMERGED	IMMERSION	117	68	ENG. REVIEW	NONE SEE REF. # 68

13 I5
17-20 S3
76-81 I6, 11, 12
105 I30
137 I28
146-153 I28
154 I19
173-174 I4
179-180 I4
189-191 I15, 16
202-203 S9
130-136 I26, 27
138-145 I26, 27
192-200 I15, 16

*Documentation References:

Notes:

Form EGQ #97-2

FROM REF. #10

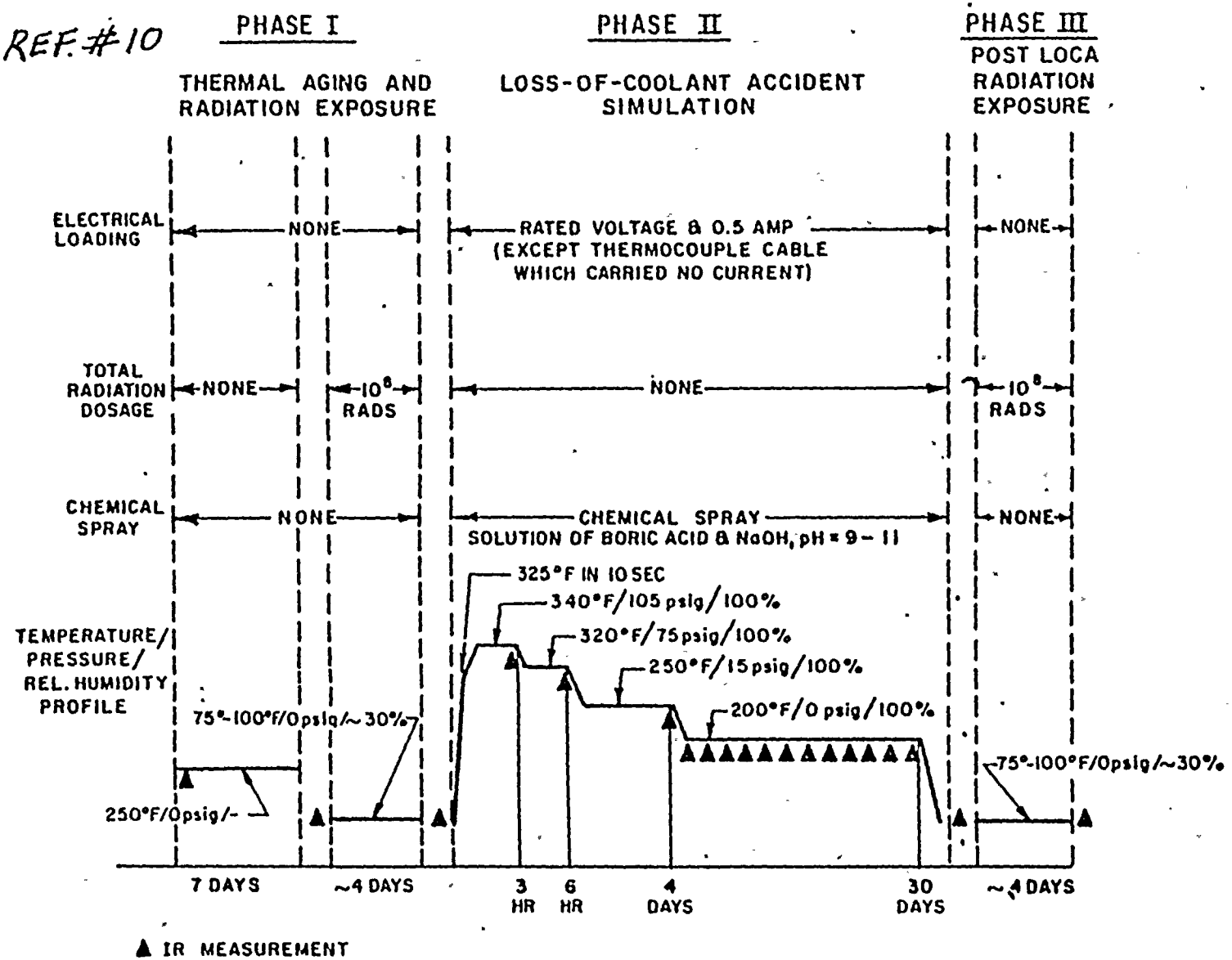


Figure 2. Profile of Test Phases

3-4

F-C3683

PAGE CI 9-2

FROM REF. #11

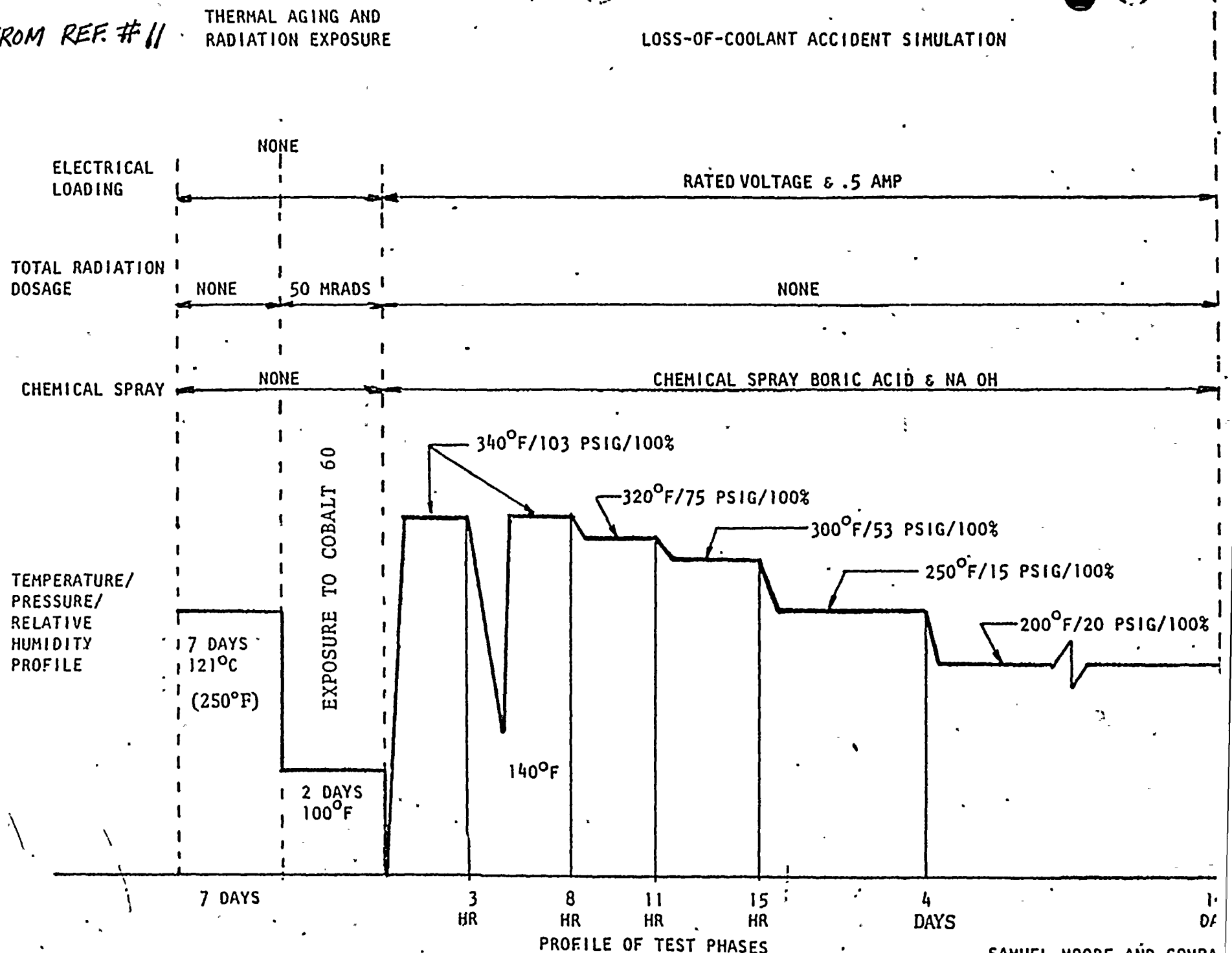


FIGURE 1 - SPECIFIED ENVIRONMENTAL EXPOSURE PROFILE

DONALD C. COOK NUCLEAR PLANT UNIT NO. 2 | DOCKET NO. 50-316 | LICENSE NO. DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: VARIOUS PLANT ID NO: VARIOUS COMPONENT: INSTRUMENT CABLE MANUFACTURER: CONTINENTAL WIRE AND CABLE CO. MODEL NUMBER: ITEM # 3077 FUNCTION: VARIOUS ACCURACY: SPEC: NA DEMON: NA SERVICE: VARIOUS LOCATION: OUTSIDE CONTAINMENT	Operating Time	4 MONTHS	> 4.4 MTHS	101	33 63	COMBINATION	NONE SEE REF. #63
	Temperature (°F)	230	340	107	33	SEQUENTIAL	NONE
	Pressure (PSIA)	26.2	114.7	107	33	"	"
	Relative Humidity (%)	100	100	107	33	"	"
	Chemical Spray	NA	NA	NA	NA	NA	NA
	Radiation (10^6 rads)	NA	10	NA	33	SEQUENTIAL	NA
	Aging (years)						
FLOOD LEVEL ELEV: NA ABOVE FLOOD LEVEL: NA	Submergence	NA	NA	NA	NA	NA	NA

I3 I5
17-20 S3
76-81 I6,11,12
105 I30
173-174 I4
179-180 I4
189-191 I15,16
192-200 I15,16
202-203 S9

*Documentation References:

Notes:

Form EGQ #97-2

From Ref. 33

FIRL Test Report F-C 2935, Excerpt from

Type of Test: Sequential

Gamma Radiation

Steam /

. 45 MRAD/HR; 10 MRAD

340°F; 100 psig; 2 Hrs.

161°F; ; 20 Hrs.

Item #3075, 3077 Continental Wire & Cable Co.

DONALD C. COOK NUCLEAR PLANT UNIT NO. 2 DOCKET NO. 50-316 LICENSE NO. DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: VARIOUS PLANT ID NO: VARIOUS COMPONENT: INSTRUMENT CABLE MANUFACTURER: BOSTON INSULATED WIRE CO. MODEL NUMBER: ITEM# 3077 FUNCTION: VARIOUS ACCURACY: SPEC: NA DEMON: NA SERVICE: VARIOUS LOCATION: IN AND OUT OF CONTAINMENT	Operating Time	4 MONTHS	>4.4 MTHS	101	8 63	COMBINATION	NONE SEE REF. #63
	Temperature (°F)	328.2	345	102	8	SEQUENTIAL	NONE
	Pressure (PSIA)	29.1	124.7	103	8	"	"
	Relative Humidity (%)	100	100	102 103	8	"	"
	Chemical Spray	2000 PPMB 1.14% WT. BORIC ACID PH 8.5 - 11	2500 PPMB 1.43% WT BORIC ACID PH 8.5-11	104	8 72	COMBINATION	NONE SEE REF. #72
	Radiation (10^6 rads)	119	150	105	8	SEQUENTIAL	NONE
	Aging (years)						
FLOOD LEVEL ELEV: 614' ABOVE FLOOD LEVEL: NO	Submergence	SUBMERGED	IMMERSION	117	68	ENG REVIEW	NONE SEE REF. #68

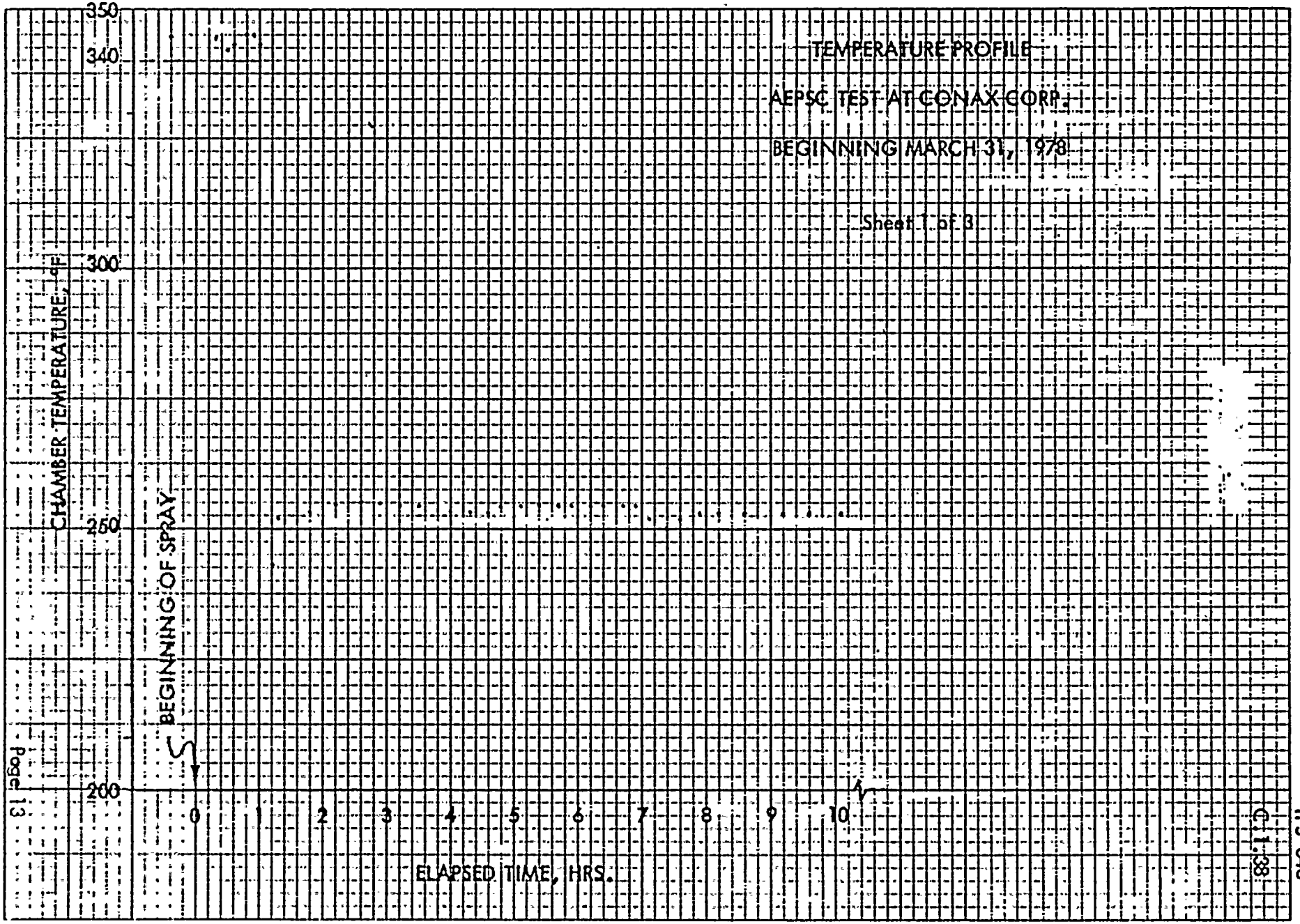
13I5
17-20 S3
76-81 I6,11,12
105 I30
137 I28
146-153 I28
154 I19
173-174 I4
179-180 I4
189-191 I15,16
192-200 I15,16
202-203 S9
130-136 I26,27
138-145 I26,27

*Documentation References:

Notes:

Form EGQ #97-2

from REF. #8



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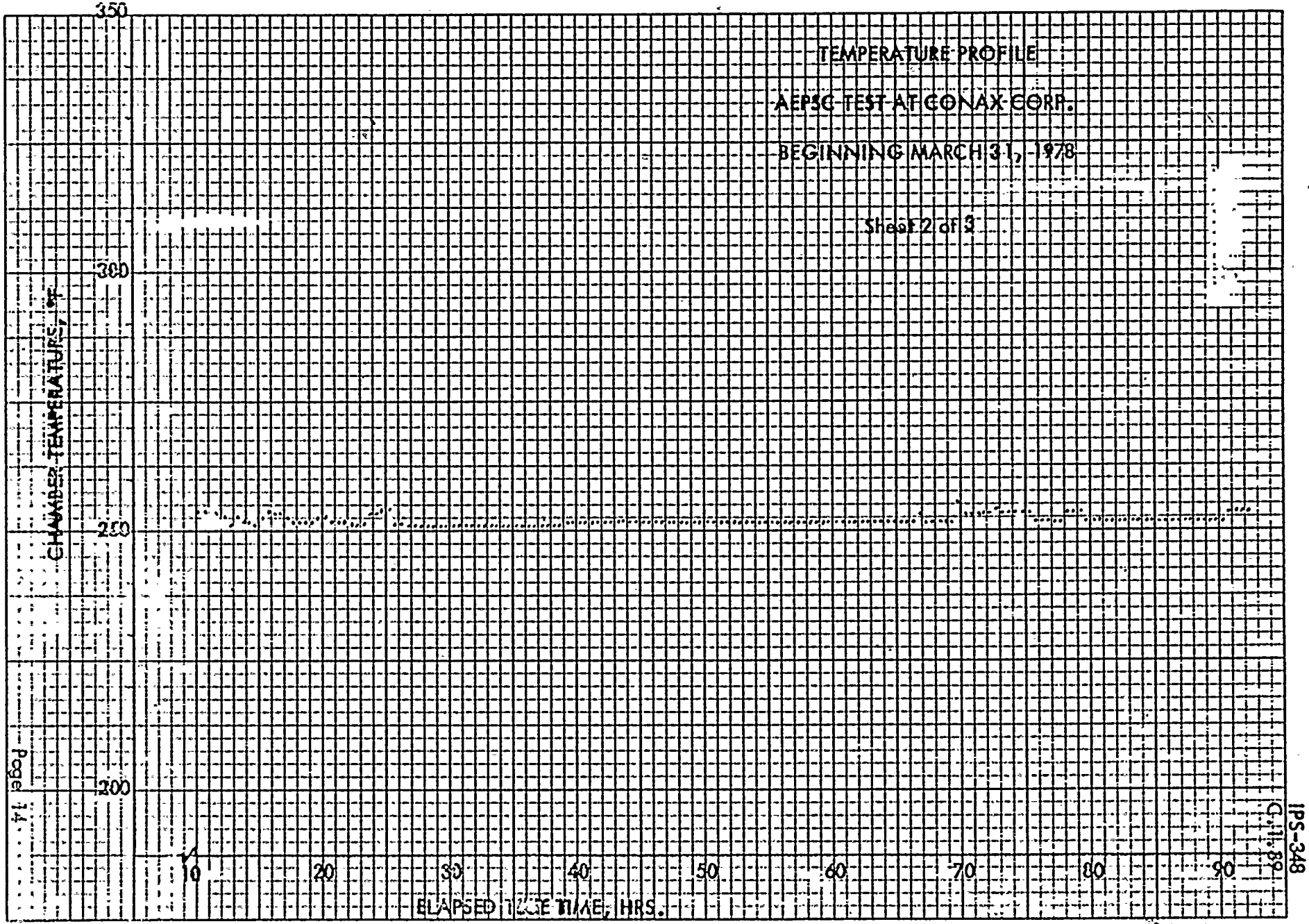
C.I. 1.38

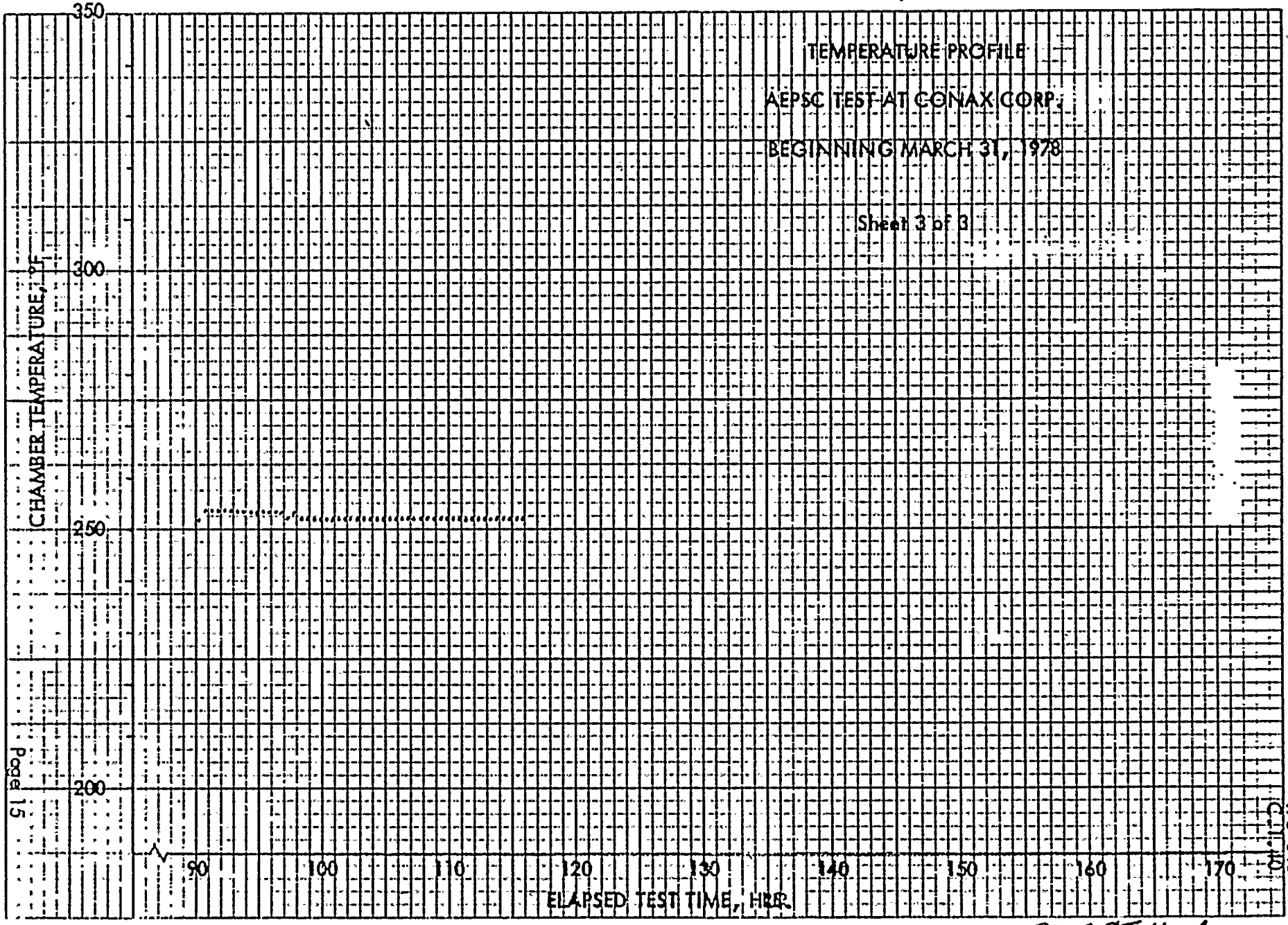
PG CI 11-2

from REF. #8



PG CIV-3

From Ref. #8



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DONALD C. COOK NUCLEAR PLANT UNIT NO. 2 DOCKET NO. 50-316 LICENSE NO. DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: VARIOUS PLANT ID NO: VARIOUS COMPONENT: INSTRUMENT CABLE MANUFACTURER: RAYCHEM CORP. MODEL NUMBER: ITEM # 3111 FUNCTION: VARIOUS ACCURACY: SPEC: NA DEMON: NA SERVICE: VARIOUS LOCATION: OUTSIDE CONTAINMENT	Operating Time	1DAY	30 DAYS	110	9	SIMULTANEOUS	NONE
	Temperature (°F)	230	357	107	9	"	"
	Pressure (PSIA)	26.2	84.7	107	9	"	"
	Relative Humidity (%)	100	100	107	9	"	"
	Chemical Spray	NA	3000 PPMB 1.72% WT. BORIC ACID PH8.5-11	NA	9 72	COMBINATION	NA
	Radiation (10^6 rads)	4	200	106	9	SIMULTANEOUS	NONE
	Aging (years)						
FLOOD LEVEL ELEV: NA ABOVE FLOOD LEVEL: NA	Submergence	NA	NA	NA	NA	NA	NA

35 V6

*Documentation References:

Notes:

Form EGQ #97-2

From Ref. 9. Qualified by FIRL Test Report F-C4033-1 of Jan. 1975 9

Type of Test: Simultaneous, gamma radiation
steam
chemical spray

Test Profile:

.2 - .3 Mrads/hr, 200 Mrads
351°F, 70 psig for 10 hrs
275°F, 31 psig for 4.5 days
212°F, 10 psig for 26 days

Chemical Spray: 3000 ppm boron as boric acid, .064 molar sodium thiosulfate and adjusted with Na OH to a PH of 10.5 at room temp.

DONALD C. COOK NUCLEAR PLANT UNIT NO. 2 - DOCKET NO. 50-316 LICENSE NO. DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: VARIOUS PLANT ID NO: VARIOUS COMPONENT: INSTRUMENT CABLE MANUFACTURER: CONTINENTAL WIRE AND CABLE CO. MODEL NUMBER: ITEM # 3069 FUNCTION: VARIOUS ACCURACY: SPEC: NA DEMON: NA SERVICE: VARIOUS LOCATION: OUTSIDE CONTAINMENT	Operating Time	1 DAY	> 1.1 day	110	63	Eng. Review	NONE SEE REF. #63
	Temperature (°F)	230	> 230	107	65	"	NONE
	Pressure (PSIA)	26.2	> 26.2	107	65	"	"
	Relative Humidity (%)	100	100	107	65	"	"
	Chemical Spray	NA	NA	NA	NA	NA	NA
	Radiation (10^6 rads)	4	10	106	65	Combination	NONE SEE REF. #65
	Aging (years)						
FLOOD LEVEL ELEV: NA ABOVE FLOOD LEVEL: NA	Submergence	NA	NA	NA	NA	NA	NA

25-32 V6

*Documentation References:

Notes:

Form EGQ #97-2

DONALD C. COOK NUCLEAR PLANT UNIT NO. 2 | DOCKET NO. 50-316 | LICENSE NO. DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: ALL LONG TERM INSIDE CONTAINMENT PLANT ID NO: NA COMPONENT: KAPTON INSULATED WIRE MANUFACTURER: HAVEG MODEL NUMBER: NA FUNCTION: PENETRATION FEEDTHROUGH EXTENSION WIRE ACCURACY: SPEC: NA DEMON: NA SERVICE: POWER, CONTROL AND INSTRUMENT CKTS LOCATION: INSIDE CONTAINMENT	Operating Time	1YR	>1.1YR	109	13 71	COMBINATION	NONE SEE REF. #71
	Temperature (°F)	328.2	340	102	13	SEQUENTIAL	NONE
	Pressure (PSIA)	29.1	118	103	13	"	"
	Relative Humidity (%)	100	100	102 103	13	"	"
	Chemical Spray	NA	2500 PPMB 1.43% WT BORIC ACID PH 8.5-11	NA	13 72	COMBINATION	NA
	Radiation (10^6 rads)	26.1	60	105	13	SEQUENTIAL	NONE
	Aging (years)						
FLOOD LEVEL ELEV: 614 ABOVE FLOOD LEVEL: NO	Submergence	NOT SUBMERGED	FLOOD-UP TUBES	NA	13 61	ENG REVIEW	NONE SEE REF. #61

43-43A, I23, I24
54-57, I7, I8, I9
60-63 V1
85, 90 V2
94-95 V2
FA V1
118-123 V4, F1, H1
146-157, I28, I19, I21, I20, I22
161-172-I1, I2
205-206 V1
217-227 V5, S17
228-234 V9, S11

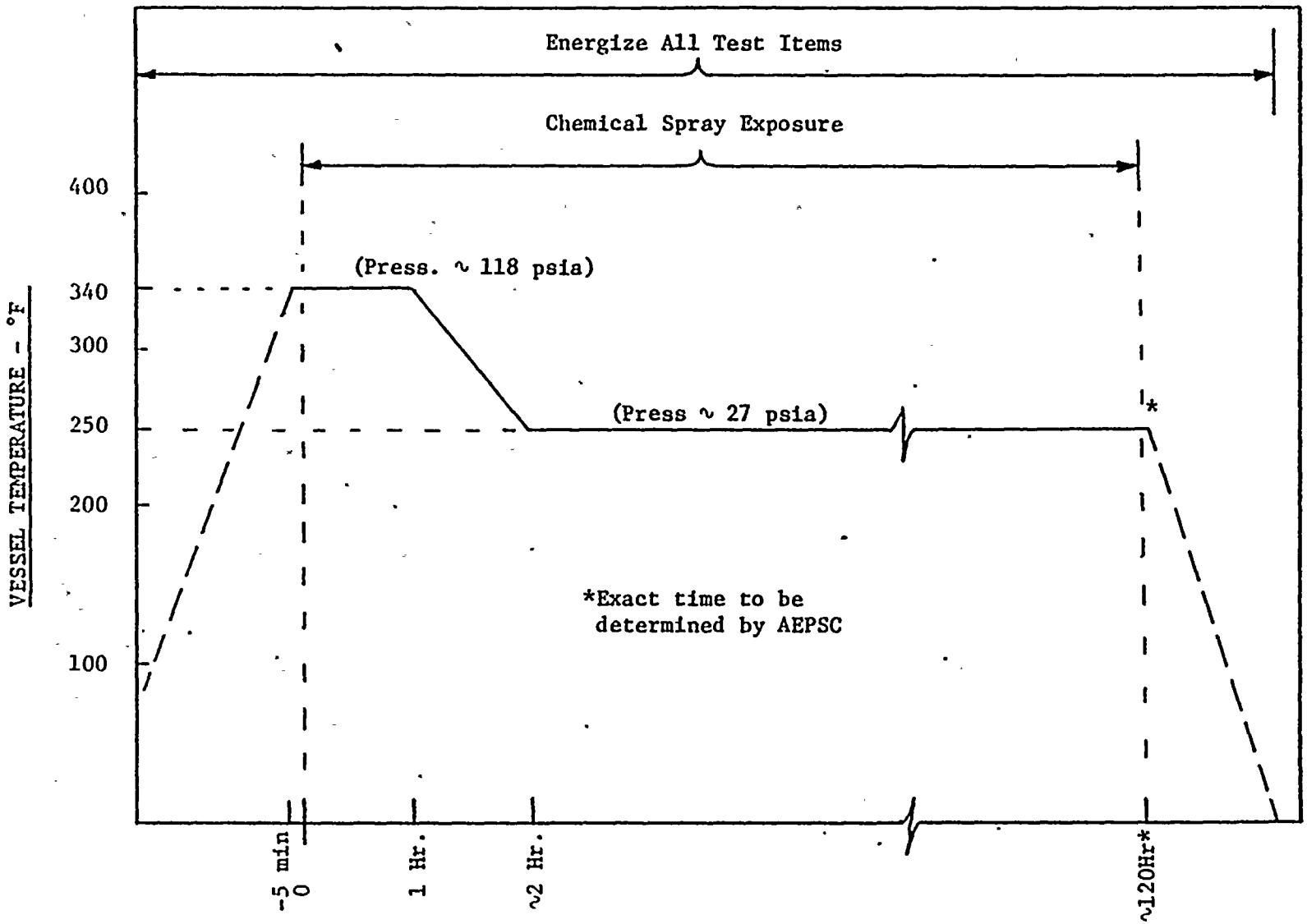
*Documentation References:

Notes:

Form EGQ #97-2

FROM REF. #13.

FIGURE 2 TEST PROFILE



DONALD C. COOK NUCLEAR PLANT UNIT NO. 2 | DOCKET NO. 50-316 | LICENSE NO. DPR-74

130-145 I27, I26

160 I25

181-188 I13

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: SHORT TERM INSTRUMENTS PLANT ID NO: NA COMPONENT: KAPTON INSULATED WIRE MANUFACTURER: HAVEG MODEL NUMBER: NA FUNCTION: PENETRATION FEEDTHRU WIRE ACCURACY: SPEC: NA DEMON: NA SERVICE: INSTRUMENT CONDUCTOR (SHORT TERM) LOCATION: INSIDE CONTAINMENT	Operating Time	10 SECS	2 HRS	101	13	SEQUENTIAL	NONE
	Temperature (°F)	328.2	340	102	13	"	"
	Pressure (PSIA)	29.1	118	103	13	"	"
	Relative Humidity (%)	100	100	102 103	13	"	"
	Chemical Spray	2000 PPMB 1.14% WT BORIC ACID PH 8.5-11	2500 PPMB 1.43% WT BORIC ACID PH 8.5-11	104	13 72	COMBINATION	NONE SEE REF. #72
	Radiation (10^6 rads)	0.8	150	105	13	"	NONE
	Aging (years)						
FLOOD LEVEL ELEV: 614 ABOVE FLOOD LEVEL: NO	Submergence	SUBMERGED	QUALIFIED FOR SHORT TERM SUBM.	117	68	COMBINATION	NONE SEE REF. #68

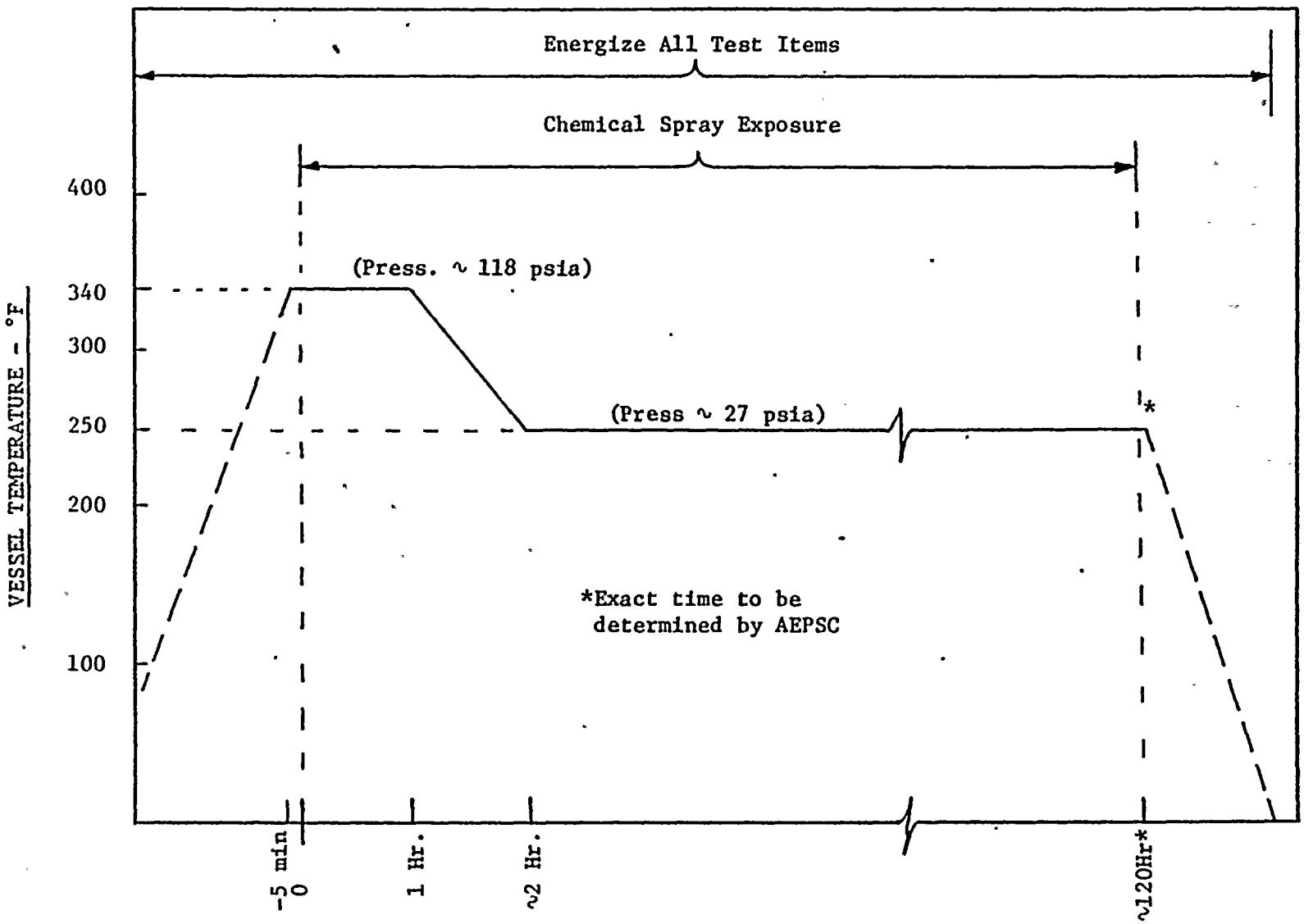
*Documentation References:

Notes:

Form EGQ #97-2

FROM REF.#13

FIGURE 2 TEST PROFILE



DONALD C. COOK NUCLEAR PLANT UNIT NO. 2 | DOCKET NO. 50-316 | LICENSE NO. DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: VARIOUS PLANT ID NO: VARIOUS COMPONENT: POWER CABLE MANUFACTURER: ESSEX MODEL NUMBER: ITEM # 324 FUNCTION: VARIOUS ACCURACY: SPEC: NA DEMON: NA SERVICE: VARIOUS LOCATION: OUTSIDE CONTAINMENT	Operating Time	1 MONTH	>1140.	118	63	Combination	NONE SEE REF. # 63
	Temperature (°F)	230	276	107	65	Combination	NONE SEE REF. # 65
	Pressure (PSIA)	26.2	45	107	65	Combination	↓
	Relative Humidity (%)	100	100	107	65	Combination	11 ↓
	Chemical Spray	NA	NA	NA	NA	NA	NA
	Radiation (10^6 rads)	4	100	106	65	Combination	NONE SEE REF. # 65
	Aging (years)						
FLOOD LEVEL ELEV: NA ABOVE FLOOD LEVEL: NA	Submergence	NA	NA	NA	NA	NA	NA

~~27-34 V8~~
26 V6
28 V6
30 V6
32 V6
34-37 V6
39-42 V6
44-47 V6,11
50-53 M1,V6
~~64-78 V6,11,8~~
82-84 V6
91-93 V6
96-99 V7,11
108-115 V7
207-210 V6
213-216 V6,11
64-65-V6
67-70-V6
71-75 V11

*Documentation References:

Notes:

Form EGQ #97-2

DONALD C. COOK NUCLEAR PLANT UNIT NO. 2 | DOCKET NO. 50-316 | LICENSE NO. DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: VARIOUS PLANT ID NO: VARIOUS COMPONENT: POWER CABLE MANUFACTURER: CYPRUS MODEL NUMBER: ITEM# 324 FUNCTION: VARIOUS ACCURACY: SPEC: NA DEMON: NA SERVICE: VARIOUS LOCATION: OUTSIDE CONTAINMENT	Operating Time	1 MO.	>1 MO.	118	40 63	COMBINATION	NONE SEE REF. #63
	Temperature (°F)	230	250	113	65 40	Combination	NONE SEE REF. #65
	Pressure (PSIA)	26.2	14.7	113	65 40	Combination	11
	Relative Humidity (%)	100	100	113	65 38	Combination	NA
	Chemical Spray	NA	NA	NA	NA	NA	NA
	Radiation (10^6 rads)	4	200	106	65 38	Combination	NONE SEE REF. # 65
	Aging (years)						
FLOOD LEVEL ELEV: NA ABOVE FLOOD LEVEL: NA	Submergence	NA	NA	NA	NA	NA	NA

*Documentation References:

Notes:

~~22-24 V8~~
26 V6
28 V6
30 V6
32 V6
34-37 V6
39-42 V6
44-47 V6,11
50-53 M1,V6
~~64-78 V6,11,8~~
82-84 V6
96-99 V7,11
108-115 V7
~~202-216 V6,8,10~~
91-93 V6
207-210 V6
213-216 V6,11
64-65-V6
67-71-V6
71-73-V11

Form EGQ #97-2

From Ref. #40

Cypros Report No. 3525 Item #324, 325

Air Oven Test: 168 HRS. @ 250 °F

DONALD C. COOK NUCLEAR PLANT UNIT NO. 2 DOCKET NO. 50-316 LICENSE NO. DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: VARIOUS PLANT ID NO: VARIOUS COMPONENT: POWER CABLE MANUFACTURER: CYPRUS MODEL NUMBER: ITEM # 347 FUNCTION: VARIOUS ACCURACY: SPEC: NA DEMON: NA SERVICE: VARIOUS LOCATION: INSIDE CONTAINMENT	Operating Time	1 YR	>1.1 YR	109	35 63	COMBINATION	NONE SEE REF. #63
	Temperature (°F)	244.	303	102	35	SEQUENTIAL	NONE
	Pressure (PSIA)	29.1	80.7	103	35	"	"
	Relative Humidity (%)	100	100	102 103	35	"	"
	Chemical Spray	2000 PPM B 1.14% WT. BORIC ACID PH 8.5-11	2000 PPM B 1.14% WT. BORIC ACID PH 8.5-11	114	35 72	COMBINATION	NONE SEE REF. #72
	Radiation (10^6 rads)	135	300	105	35	SEQUENTIAL	NONE
	Aging (years)						
FLOOD LEVEL ELEV: 614' ABOVE FLOOD LEVEL: YES	Submergence	NA	NA	NA	NA	NA	NA

120-123 F1, H1

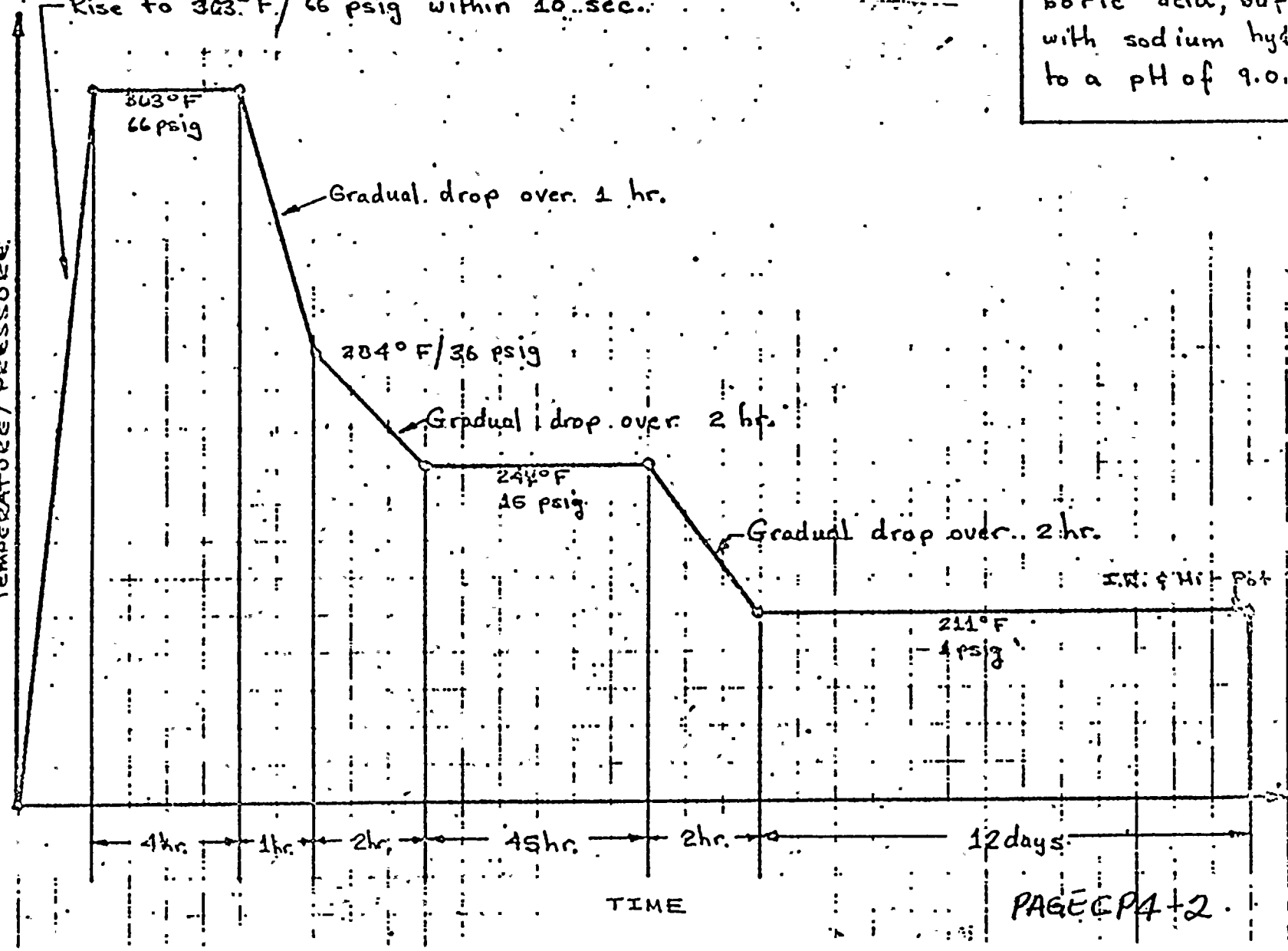
*Documentation References:

Notes:

Form EGQ #97-2

FROM REF. #35

Chemical spray maintained during entire test: 2000 ppm solution of boron as boric acid, buffered with sodium hydroxide to a pH of 9.0.



DONALD C. COOK NUCLEAR PLANT UNIT NO. 2 | DOCKET NO. 50-316 | LICENSE NO. DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: VARIOUS PLANT ID NO: VARIOUS COMPONENT: POWER CABLE MANUFACTURER: ANACONDA WIRE AND CABLE CO. MODEL NUMBER: ITEM #347 FUNCTION: VARIOUS ACCURACY: SPEC: NA DEMON: NA SERVICE: VARIOUS LOCATION: IN AND OUT OF CONTAINMENT	Operating Time	1 YEAR	>1.1 YR	109	5 63	COMBINATION	NONE SEE REF. #63.
	Temperature (°F)	328.2	340	102	5	SIMULTANEOUS	NONE
	Pressure (PSIA)	29.1	119.7	103	5	"	"
	Relative Humidity (%)	100	100	102 103	5	"	"
	Chemical Spray	2000 PPM B 1.14% WT. BORIC ACID PH 8.5-11	3000 PPM B 1.72% WT. BORIC ACID PH 8.5-11	114	5 72	COMBINATION	NONE SEE REF. #72
	Radiation (10^6 rads)	135	200	105	5	SIMULTANEOUS	NONE
	Aging (years)						
FLOOD LEVEL ELEV: 614' ABOVE FLOOD LEVEL: YES	Submergence	NA	NA	NA	NA	NA	NA

120-123 F1, H1

*Documentation References:

Notes:

Form EGQ #97-2

from Ref. 5. Qualified by Franklin Institute Research Laboratory (FIRL) Test Report #F-C3341, Jan. 1973.

Type of Test: Simultaneous, gamma radiation
steam
chemical spray

Test Profile:

.51 Mrads/hr, 200 Mrads
340°F, 105 psig for 3 hrs
320°F, 75 psig for 3 hrs
250°F, 15 psig for 4 days
210°F, 5 psig for 9 days

Chemical Spray: Solution of boric acid and Na OH , PH = 9.5

DONALD C. COOK NUCLEAR PLANT UNIT NO. 2 DOCKET NO. 50-316 LICENSE NO. DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: VARIOUS PLANT ID NO: VARIOUS COMPONENT: POWER CABLE MANUFACTURER: OKONITE MODEL NUMBER: ITEM # 399 FUNCTION: VARIOUS ACCURACY: SPEC: NA DEMON: NA SERVICE: VARIOUS LOCATION: IN AND OUT OF CONTAINMENT	Operating Time	3 MONTHS	> 3.3 MTHS	109	6 63	COMBINATION	NONE SEE REF. #63
	Temperature (°F)	328.2	346	102	6	SIMULTANEOUS	NONE
	Pressure (PSIA)	29.1	127.7	103	6	"	"
	Relative Humidity (%)	100	100	102 103	6	"	"
	Chemical Spray	2000 PPMB 1.14% WT. BORIC ACID PH 8.5 - 11	2000 PPMB 1.14% WT. BORIC ACID PH 8.5-11	114	6 72	COMBINATION	NONE SEE REF. #72
	Radiation (10^6 rads)	116	200	105	6	SIMULTANEOUS	NONE
	Aging (years)						
FLOOD LEVEL ELEV: 614' ABOVE FLOOD LEVEL: YES	Submergence	NA	NA	NA	NA	NA	NA

122-123 HI

*Documentation References:

Notes:

Form EGQ #97-2

FROM REF. #6

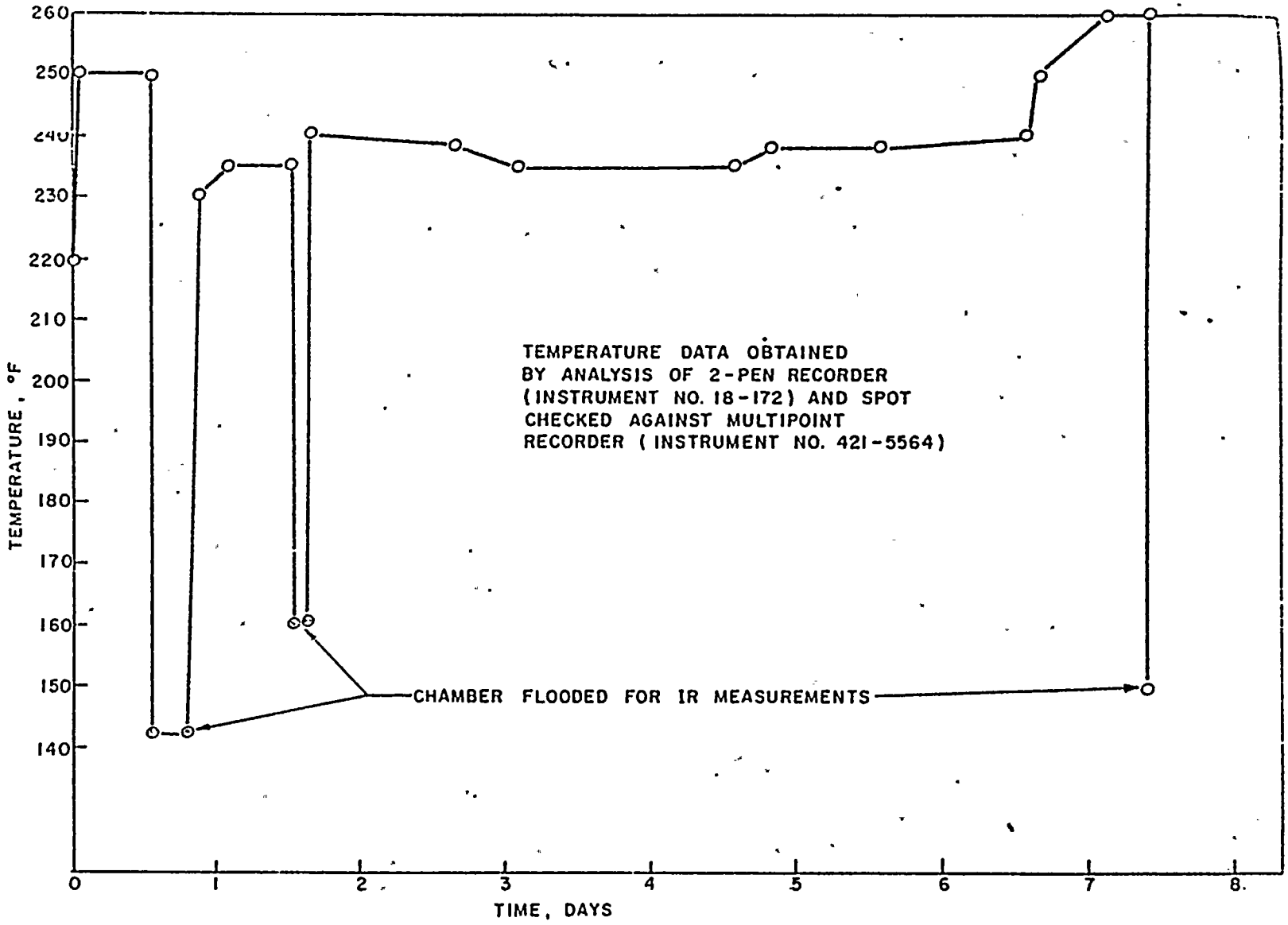
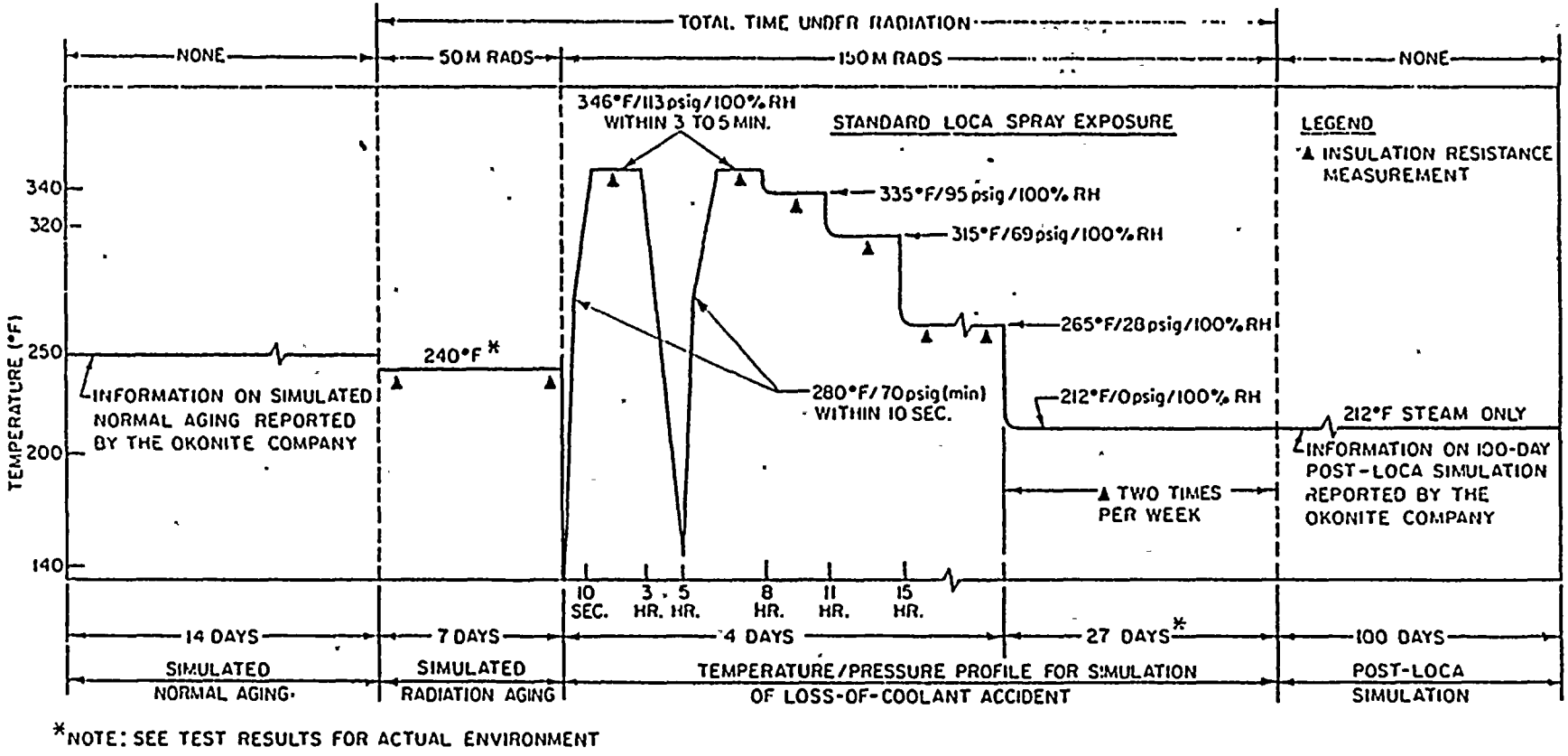


Figure 6. Actual Temperature Profile for Simultaneous Thermal Aging with Radiation

PAGE CP6-2.

F-C3694

FROM REF. #6



*NOTE: SEE TEST RESULTS FOR ACTUAL ENVIRONMENT

Figure 1. Cable Qualification Test Profile for Life, LOCA and Post-LOCA Simulation

F-C3694

PG. CP6-3

DONALD C. COOK NUCLEAR PLANT UNIT NO. 2 | DOCKET NO. 50-316 | LICENSE NO. DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: VARIOUS PLANT ID NO: VARIOUS COMPONENT: POWER CABLE MANUFACTURER: CYPRUS MODEL NUMBER: ITEM 3102 FUNCTION: VARIOUS ACCURACY: SPEC: NA DEMON: NA SERVICE: VARIOUS LOCATION: OUTSIDE CONTAINMENT	Operating Time	1 MO.	>1 MO.	118	41 63	COMBINATION	NONE SEE REF. #63.
	Temperature (°F)	NA	250	NA	65 41	COMBINATION	NA
	Pressure (PSIA)	NA	14.7	NA	65 41	"	NA
	Relative Humidity (%)	NA	100	NA	65 41	"	NA
	Chemical Spray	NA	NA	NA	NA	NA	NA
	Radiation (10^6 rads)	2.	200	106	65 39	COMBINATION	NONE SEE REF. #65
	Aging (years)						
FLOOD LEVEL ELEV: NA ABOVE FLOOD LEVEL: NA	Submergence	NA	NA	NA	NA	NA	NA

74-75 MI

*Documentation References:

Notes:

Form EGQ #97-2

From Ref. #41

CYPRUS REPORT No. 3658 ITEM #3102

AIR OVEN TEST: 168 HRS. @ 250°F

DONALD C. COOK NUCLEAR PLANT UNIT NO. 2 | DOCKET NO. 50-316 | LICENSE NO. DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: VARIOUS PLANT ID NO: VARIOUS COMPONENT: POWER CABLE MANUFACTURER: OKONITE MODEL NUMBER: ITEM # 3102 FUNCTION: VARIOUS ACCURACY: SPEC: NA DEMON: NA SERVICE: VARIOUS LOCATION: OUTSIDE CONTAINMENT	Operating Time	1 YEAR	>1.1 YR	118	37 63	COMBINATION	NONE SEE REF. # 63.
	Temperature (°F)	NA	346	NA	37	SEQUENTIAL	NA
	Pressure (PSIA)	NA	127.7	NA	37	"	"
	Relative Humidity (%)	NA	100	NA	37	"	"
	Chemical Spray	NA	3000 PPMB 1.72 % WT. BORIC ACID PH 8.5-11	NA	37 72'	COMBINATION	NA
	Radiation (10^6 rads)	6	200	106	37	SEQUENTIAL	NONE
	Aging (years)						
FLOOD LEVEL ELEV: NA ABOVE FLOOD LEVEL: NA	Submergence	NA	NA	NA	NA	NA	NA

74-75 MI
100-101 MI

*Documentation References:

Notes:

Form EGQ #97-2

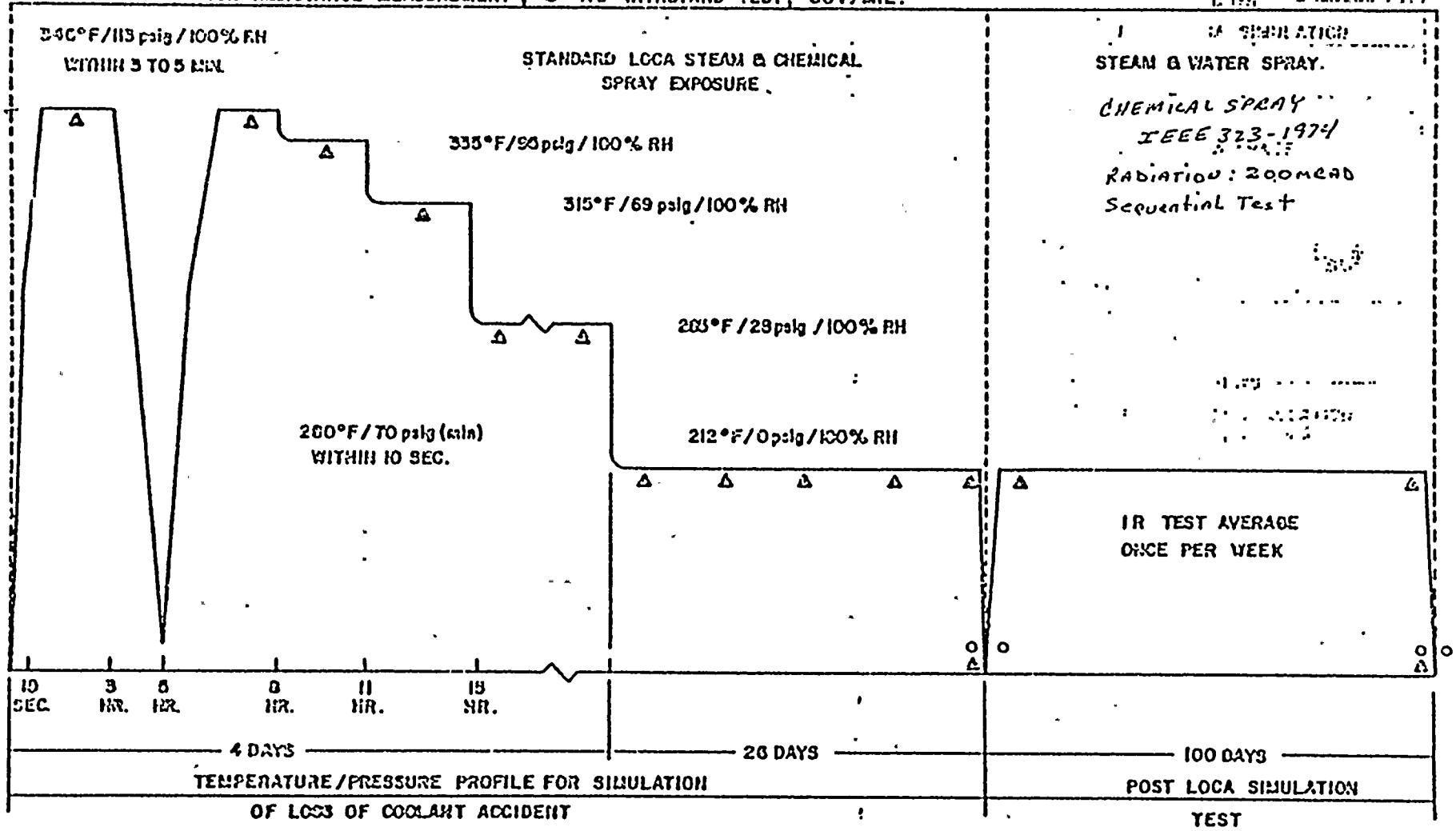
37

OKONITE Co. QUAL. of OKOGUARD Ethylene-Propylene Rubber Insulation for Nuclear Plant Service

FIGURE 11 CABLE QUALIFICATION TEST PROFILE FOR LIFE & LOCA CONDITIONS

from Ref. 37

LEGEND: Δ INSULATION RESISTANCE MEASUREMENT ; O AC WITHSTAND TEST, 60V/MIL.



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DONALD C. COOK NUCLEAR PLANT UNIT NO. 2 | DOCKET NO. 50-316 | LICENSE NO. DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: VARIOUS PLANT ID NO: VARIOUS COMPONENT: POWER CABLE MANUFACTURER: ANACONDA WIRE AND CABLE CO. MODEL NUMBER: ITEM# 3116 FUNCTION: VARIOUS ACCURACY: SPEC: NA DEMON: NA SERVICE: VARIOUS LOCATION: IN AND OUT OF CONTAINMENT	Operating Time	14 DAYS	12 MO.	118	5	SIMULTANEOUS	NONE
	Temperature (°F)	328.2	340	102	5	"	"
	Pressure (PSIA)	29.1	119.7	103	5	"	"
	Relative Humidity (%)	100	100	102 103	5	"	"
	Chemical Spray	2000 PPMB 1.14% WT BORIC ACID PH 8.5-11	3000 PPMB 1.72% WT. BORIC ACID PH 8.5-11	114	5 72	COMBINATION	NONE SEE REF. # 72.
	Radiation (10^6 rads)	92	200	105	5	SIMULTANEOUS	NONE
	Aging (years)						
FLOOD LEVEL ELEV: 614' ABOVE FLOOD LEVEL: NO	Submergence	SUBMERGED	IMMERSION	117	68	ENG REVIEW	NONE SEE REF. # 68

85 V2
90 V2
94-95 V2
118-119 V4
229-231 V7
60-63 V1
99A V1
205-206 V1
217 V5

*Documentation References:

Notes:

Form EGQ #97-2

from Ref. 5. Qualified by Franklin Institute Research Laboratory (FIRL) Test Report #F-C3341, Jan. 1973.

Type of Test: Simultaneous, gamma radiation
steam
chemical spray

Test Profile:

.51 Mrads/hr, 200 Mrads
340°F, 105 psig for 3 hrs
320°F, 75 psig for 3 hrs
250°F, 15 psig for 4 days
210°F, 5 psig for 9 days

Chemical Spray: Solution of boric acid and Na OH , PH = 9.5

from Ref #5

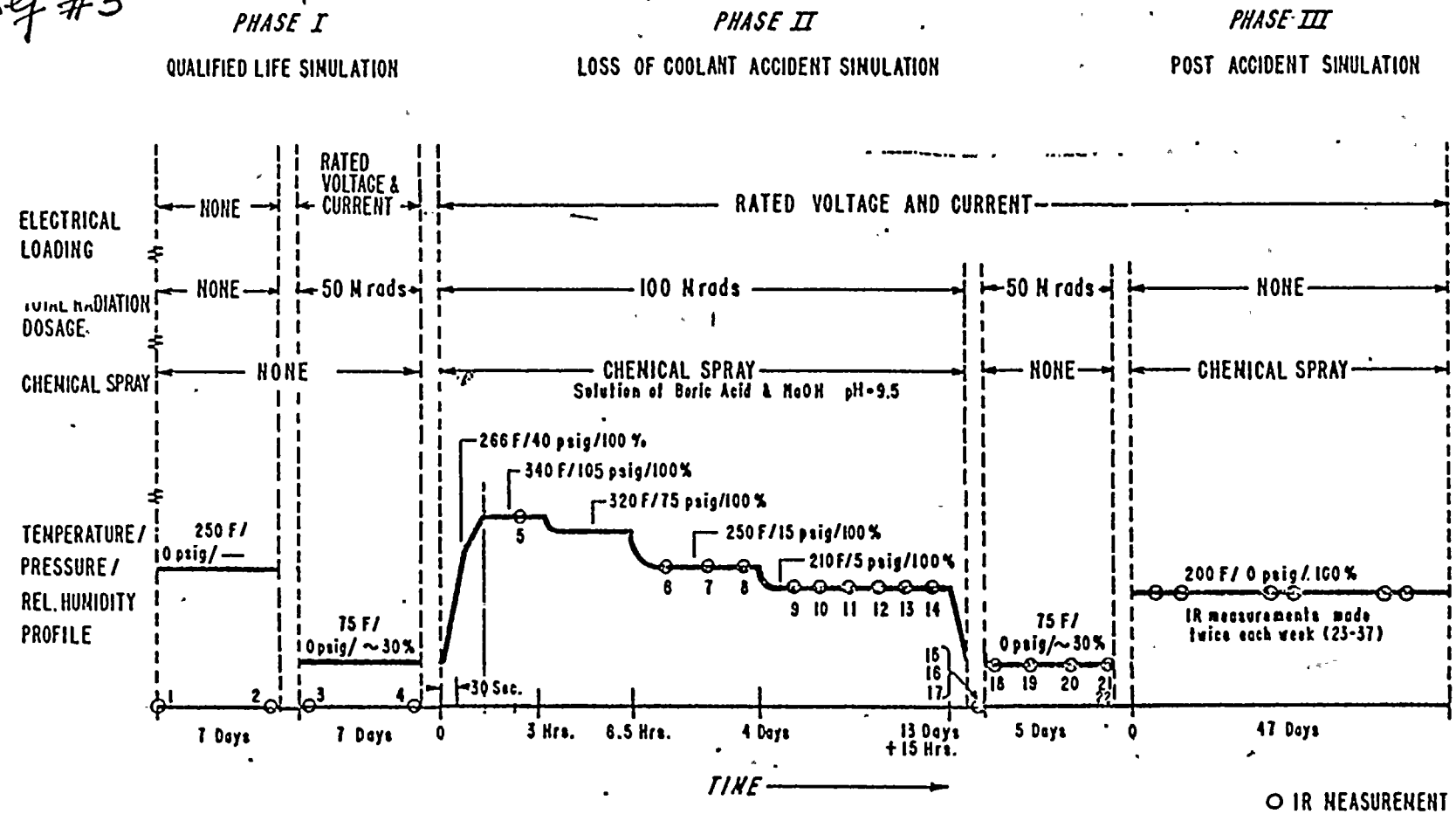


Figure 5. Specified Profile of Test Phases

F-C3341

page CP9-3

DONALD C. COOK NUCLEAR PLANT UNIT NO. 2 DOCKET NO. 50-316 LICENSE NO. DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: VARIOUS PLANT ID NO: VARIOUS COMPONENT: POWER CABLE MANUFACTURER: ESSEX INTERNATIONAL MODEL NUMBER: ITEM # 3116 FUNCTION: VARIOUS ACCURACY: SPEC: NA DEMON: NA SERVICE: VARIOUS LOCATION: IN AND OUT OF CONTAINMENT	Operating Time	14 DAY	30 DAYS	118	25	SIMULTANEOUS	NONE
	Temperature (°F)	328.2	346	102	25	"	"
	Pressure (PSIA)	29.1	127.7	103	25	"	"
	Relative Humidity (%)	100	100	102 103	25	"	"
	Chemical Spray	2000 PPM B 1.14% WT. BORIC ACID PH 8.5-11	3000 PPM B 1.72% WT. BORIC ACID PH 8.5-11	114	25 72	COMBINATION	NONE SEE REF. # 72
	Radiation (10^6 rads)	83	200	105	25	SIMULTANEOUS	NONE
	Aging (years)						
FLOOD LEVEL ELEV: 614' ABOVE FLOOD LEVEL: NO	Submergence	SUBMERGED	IMMERSED	117	68	ENG. REVIEW	NONE SEE REF. #68

85 V2
90 V2
94-95 V2
118-119 V4
217 V5
229-231 V9
60-63 V1
99A V1
205-206 V1

*Documentation References:

Notes:

Form EGQ #97-2

--

from Ref. 25. Qualified by Isomedix Corp. Test Report of November 1975

Type of Test: Simultaneous, gamma radiation
steam
chemical spray

Test Profile:

.2 - .3 Mrads/hr, 200 Mrads
346°F, 113 psig for 5 hrs
265°F, 28 psig for 4 days
215°F, 2 psig for 26 days

Chemical Spray: 3000 ppm boron as boric acid in solution with .064 molar sodium thiosulfate buffered with sodium hydroxide to a PH of 9 to 11.

DONALD C. COOK NUCLEAR PLANT UNIT NO. 2 DOCKET NO. 50-316 LICENSE NO. DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: VARIOUS PLANT ID NO: VARIOUS COMPONENT: POWER CABLE MANUFACTURER: KERITE CO. MODEL NUMBER: ITEM # 3116 FUNCTION: VARIOUS ACCURACY: SPEC: NA DEMON: NA SERVICE: VARIOUS LOCATION: IN AND OUT OF CONTAINMENT	Operating Time	14DAY	7.14DAYS	118	7 63	COMBINATION	NONE SEE REF# 63
	Temperature (°F)	328.2	325	102	7	SEQUENTIAL	NONE
	Pressure (PSIA)	29.1	96.7	103	7	"	"
	Relative Humidity (%)	100	100	102 103	7	"	"
	Chemical Spray	2000 PPM B 1.14% WT. BORIC ACID PH 8.5 - 11	2600 PPM B 1.5% WT BORIC ACID PH 8.5-11	114	7 72	COMBINATION	NONE SEE REF. # 72
	Radiation (10^6 rads)	81	120	105	7	SEQUENTIAL	NONE
	Aging (years)						
FLOOD LEVEL ELEV: 614' ABOVE FLOOD LEVEL: NO	Submergence	SUBMERGED	IMMERSION	117	68	ENG REVIEW	NONE SEE REF.# 68

85 V2
90 V2
94-95 V2
118-119 V4
217 V5
229-231 V9
60-63 V1
99A V1
205-206 V1

*Documentation References:

Notes:

Form EGQ #97-2

From Ref. 7. Qualified by Kerite Co. Report on the effects of Gamma Radiation and Autoclaving on Kerite Power Control Cables April 30, 1970.

Type of Test: Sequential, gamma radiation
steam
chemical spray

Test Profile:

.8 Mrads/hr, 120 Mrads
325°F, 82 psig for 13 hrs
228°F, 5 psig for 7 days

Chemical Spray: Borated water, 1-1/2% solution of boric acid and distilled water buffered at a PH of 9.5

DONALD C. COOK NUCLEAR PLANT UNIT NO. 2 DOCKET NO. 50-316 LICENSE NO. DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: VARIOUS PLANT ID NO: VARIOUS COMPONENT: POWER CABLE MANUFACTURER: ANACONDA WIRE AND CABLE CO. MODEL NUMBER: ITEM#3102 FUNCTION: VARIOUS ACCURACY: SPEC: NA DEMON: NA SERVICE: VARIOUS LOCATION: OUTSIDE CONTAINMENT	Operating Time	1 Mo.	>1MO.	118	36 63	Combination	NONE SEE REF. #63.
	Temperature (°F)	NA	346	NA	36	SEQUENTIAL	NA
	Pressure (PSIA)	NA	127.7	NA	36	"	"
	Relative Humidity (%)	NA	100	NA	36	"	"
	Chemical Spray	NA	3000 ppm B 1-72% wt B.A. pH 8.5-11	NA	36 72	COMBINATION	"
	Radiation (10^6 rads)	2	200	106	36	SEQUENTIAL	NONE
	Aging (years)						
FLOOD LEVEL ELEV: NA ABOVE FLOOD LEVEL: NA	Submergence	NA	NA	NA	NA	NA	NA

74 MI
75 MI

*Documentation References:

Notes:

Form EGQ #97-2

FROM REF. #36

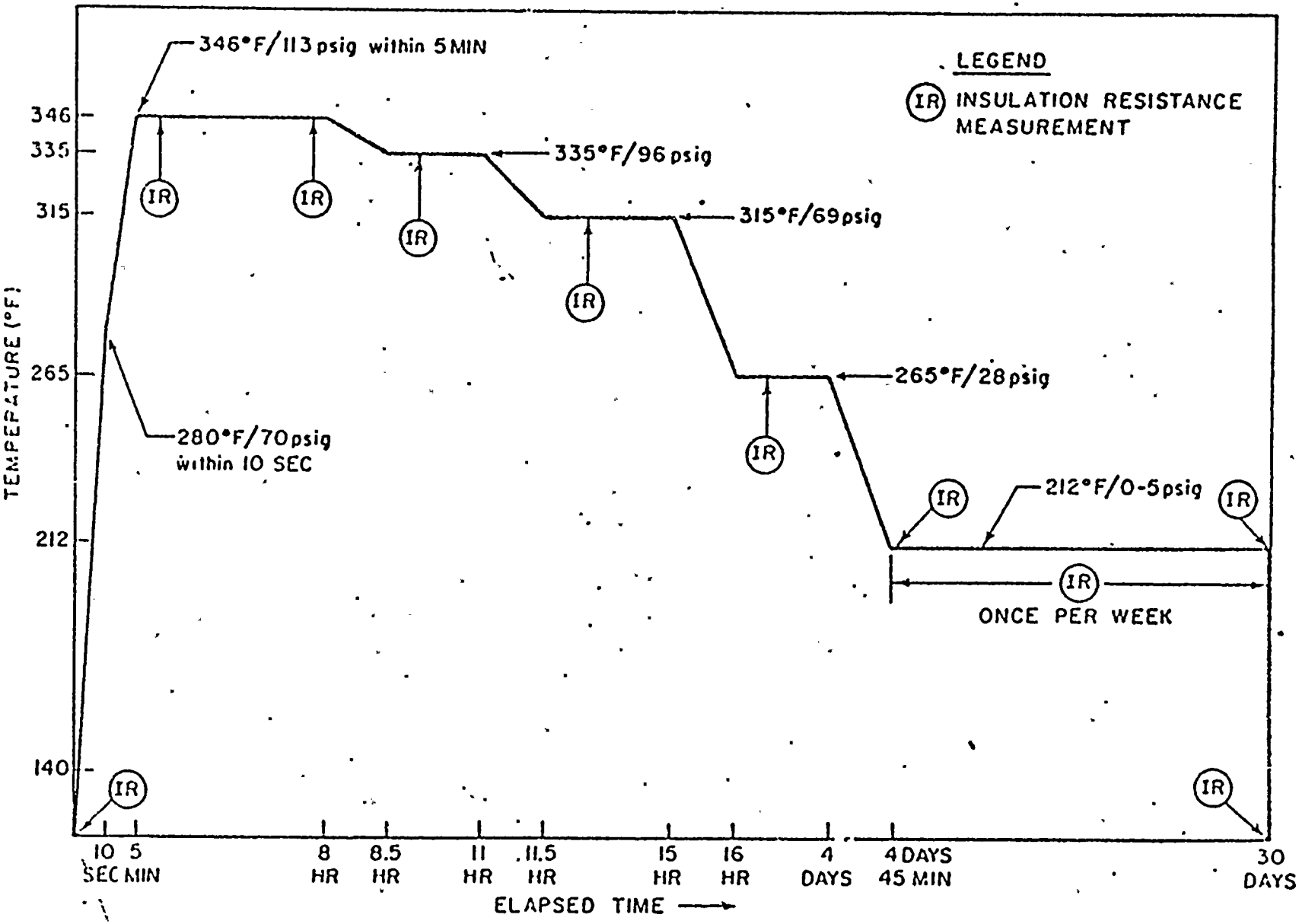


Figure 2. Temperature/Pressure Profile for Simulation of Loss-of-Coolant Accident (LOCA) Environment

F-C4350-3

PAGE CP12-2.

DONALD C. COOK NUCLEAR PLANT UNIT NO. 2 DOCKET NO. 50-316 LICENSE NO. DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: VARIOUS PLANT ID NO: VARIOUS COMPONENT: POWER CABLE MANUFACTURER: ANACONDA WIRE AND CABLE CO. MODEL NUMBER: ITEM # 3103 FUNCTION: VARIOUS ACCURACY: SPEC: NA DEMON: NA SERVICE: VARIOUS LOCATION: OUTSIDE CONTAINMENT	Operating Time	1 MO.	>1 MO.	118	36 63	Combination	NONE SEE: REF. # 63
	Temperature (°F)	NA	346	NA	36	SEQUENTIAL	NA
	Pressure (PSIA)	NA	127.7	NA	36	"	"
	Relative Humidity (%)	NA	100	NA	36	"	"
	Chemical Spray	NA	3000 PPMB 1.72% wt BA PH = 8.5-11	NA	36 72	COMBINATION	"
	Radiation (10^6 rads)	4	200	106	36	SEQUENTIAL	NONE
	Aging (years)						
FLOOD LEVEL ELEV: NA ABOVE FLOOD LEVEL: NA	Submergence	NA	NA	NA	NA	NA	NA

48-49 MI
116-117 MZ

*Documentation References:

Notes:

Form EGQ #97-2

FROM REF. #36

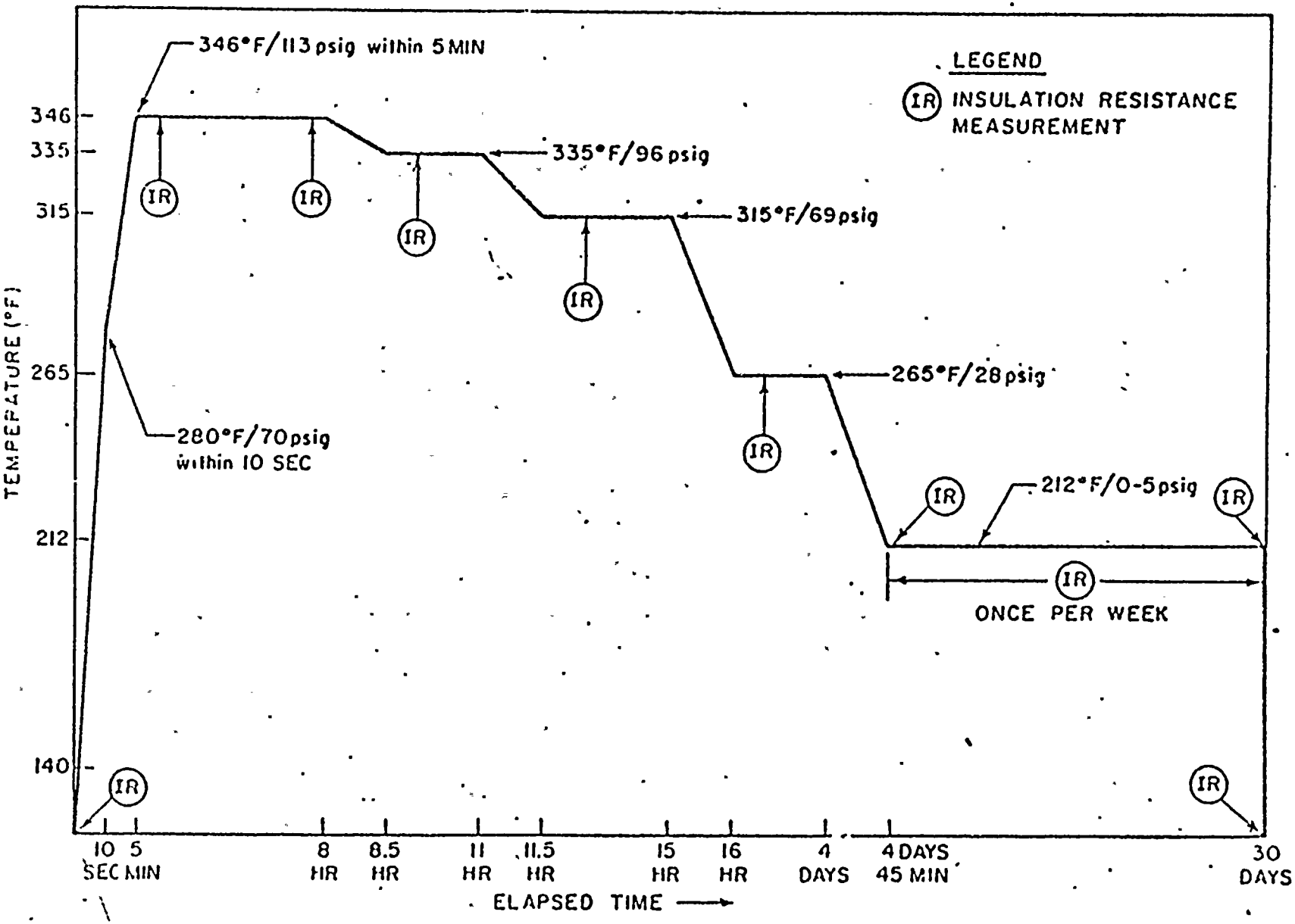


Figure 2. Temperature/Pressure Profile for Simulation of Loss-of-Coolant Accident (LOCA) Environment

F-C4350-3

PAGE CP13-2

DONALD C. COOK NUCLEAR PLANT UNIT NO. 2 | DOCKET NO. 50-316 | LICENSE NO. DPR-74

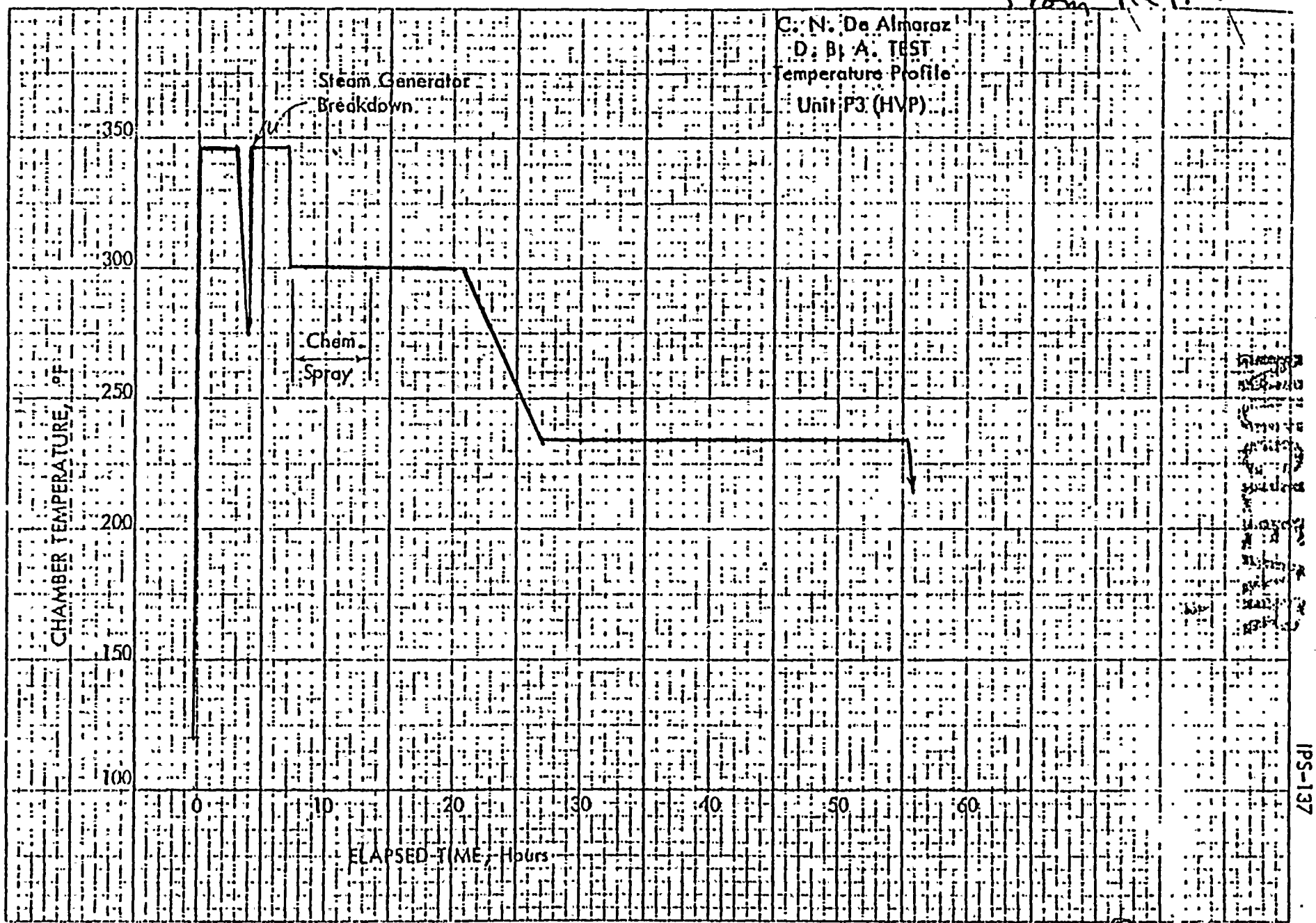
EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: Electrical Penetration PLANT ID NO: VARIOUS COMPONENT: 4KV ELECTRICAL PENETRATION MANUFACTURER: CONAX CORP. MODEL NUMBER: EP-1 FUNCTION: CONTAINMENT ISOLATION ACCURACY: SPEC: NA DEMON: NA SERVICE: ISOLATE CONTAINMENT LOCATION: INSIDE CONTAINMENT	Operating Time	1 YEAR	> 1.1 YR	109	3 60	COMBINATION	NONE SEE REF. #60
	Temperature (°F)	328.2	346	102	3	SEQUENTIAL	NONE
	Pressure (PSIA)	29.1	122	103	3	"	"
	Relative Humidity (%)	100	100	102 103	3	"	"
	Chemical Spray	2000 PPMB 1.14% WT. BORIC ACID PH 8.5-11	2000 PPMB 1.2% WT. BORIC ACID PH 8.5-11	114	3 72	COMBINATION	NONE SEE REF. #72.
	Radiation (10^6 rads)	32	100	105	3	SEQUENTIAL	NONE
	Aging (years)						
FLOOD LEVEL ELEV: 612' ABOVE FLOOD LEVEL: NO	Submergence	SUBMERGED	Submerged	117	60	Combination	NONE SEE REF. #60

*Documentation References:

Notes:

Form EGQ #97-2

from Ref. 3



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DONALD C. COOK NUCLEAR PLANT UNIT NO. 2 DOCKET NO. 50-316 LICENSE NO. DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: ELECTRICAL PENETRATION PLANT ID NO: VARIOUS COMPONENT: ≤ 600V ELECTRICAL PENETRATION MANUFACTURER: CONAX CORP MODEL NUMBER: EP-2 THRU EP-14 FUNCTION: CONTAINMENT ISOLATION ACCURACY: SPEC: NA DEMON: NA SERVICE: ISOLATE CONTAINMENT LOCATION: INSIDE CONTAINMENT	Operating Time	1 YEAR	>1.1 YR	109	1, 60	COMBINATION	NONE SEE REF. #60 2-4 211-212
	Temperature (°F)	328.2	340	102	1	SEQUENTIAL	NONE
	Pressure (PSIA)	29.1	116	103	1	"	"
	Relative Humidity (%)	100	100	102, 103	1	"	"
	Chemical Spray	2000 PPMB 1.14% WT. BORIC ACID PH 8.5-11	2000 PPMB 1.2% WT. BORIC ACID PH 8.5-11	114	3, 72	COMBINATION	NONE SEE REF. #72
	Radiation (10^6 rads)	32	100	105	1	SEQUENTIAL	NONE
	Aging (years)						
FLOOD LEVEL ELEV: 614' ABOVE FLOOD LEVEL: NO	Submergence	SUBMERGED	Submerged	117	60	Combination	NONE SEE REF. #60

*Documentation References:

Notes:

Form EGQ #97-2

FROM REF. #1

1. QUALIFIED BY CONAX CORP. TEST REPORT IPS-234
JUNE 9 1977

TYPE OF TEST: SEQUENTIAL. IRRADIATION/STEAM

TEST PROFILE:

1.0-1.1 MRADS/HR FOR 100 HRS.
100-110 MRADS. TOTAL DOSE
340°F; 116 PSIA FOR 3 HRS.
PERFORM LEAKAGE TEST AND REPEAT STEAM TEST
340°F; 116 PSIA FOR 3 HRS.

DONALD C. COOK NUCLEAR PLANT UNIT NO. 2 | DOCKET NO. 50-316 | LICENSE NO. DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: CONTAINMENT AIR RECIRCULATION PLANT ID NO: HV-CEQ-1 HV-CEQ-2 COMPONENT: FAN MOTORS MANUFACTURER: WESTINGHOUSE CORP. MODEL NUMBER: TBDP FUNCTION: AIR CIRCULATION ACCURACY: SPEC: NA DEMON: NA SERVICE: AIR RECIRCULATION LOCATION: INSIDE CONTAINMENT	Operating Time	1 YEAR	>1.1 YEAR	109	21 63	COMBINATION	NONE SEE REF. #63
	Temperature (°F)	244	320	102	21	SEQUENTIAL	NONE
	Pressure (PSIA)	29.1	89.7	103	21	"	"
	Relative Humidity (%)	100	100	102 103	21	"	"
	Chemical Spray	2000 PPMB 1.14 % WT BORIC ACID PH 8.5 - 11	2500 PPMB 1.43 % WT BORIC ACID PH 8.5-11	115	21 72	COMBINATION	NONE SEE REF. #72
	Radiation (10^6 rads)	126	200	105	21	SEQUENTIAL	NONE
	Aging (years)						
FLOOD LEVEL ELEV: 614' ABOVE FLOOD LEVEL: YES	Submergence	NA	NA	NA	NA	NA	NA

120-121

*Documentation References:

Notes:

Form EGQ #97-2

from Ref. 21.

Qualified by Westinghouse Corp. Test Reports:
WCAP-7829, April, 1972.

Type of Test: Sequential: Irradiation
Steam
Chemical Spray

Test Profile (for motor without heat exchanger)

324°F, 80 psig for 4 hrs.
250°F, 16 psig for 7 days

Test Profile (for motor with heat exchanger)

320°F, 75 psig for 24 hrs.
250°F, 16 psig for 168 hrs.

Chemical Spray: 1.43 weight percent boric acid
PH=9.5 with Na OH

Irradiation: .5 Mrad/hr., 200 Mrads.

See page 33 of WCAP-7829 for Test Profile summary.

DONALD C. COOK NUCLEAR PLANT UNIT NO. 2 | DOCKET NO. 50-316 | LICENSE NO. DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: VARIOUS PLANT ID NO: MOBILUX EP-2 COMPONENT: GREASE MANUFACTURER: MOBIL MODEL NUMBER: FUNCTION: VARIOUS ACCURACY: SPEC: NA DEMON: NA SERVICE: VARIOUS—Valve OPERATOR MOTORS LOCATION: In + Out Containment	Operating Time	1 DAY	>1yr.	See Note C	Ref. 47	TEST	NONE
	Temperature (°F)	Fig Att. 9-1, -2	250 Cont. Service 350 drop pt.	FSAR APP Q	Ref. 48	Tech Description sheet	"
	Pressure (PSIA)	Fig 1 Fig 2	See Note A	AEW 6504	Ref. 48	"	"
	Relative Humidity (%)	100	100		Ref. 48	"	"
	Chemical Spray	2000PPM 1.14% WT BORIC ACID PH 9-11	See Note B	T.S. 3/4.5 3/4.6.5	1 NA	NA	"
	Radiation (10^6 rads)	26	240	WCAP 7410-L Vol. 1	Ref. 47	TEST	"
	Aging (years)						
FLOOD LEVEL ELEV: ABOVE FLOOD LEVEL:	Submergence	NA	NA				NA

*Documentation References:

47. Qual. by Letter of 6-2-71
From: WF Hergrueter - Customer Service Lab BKlyn, NY
To: AH. Statton - Boston Edison Co.

48. Letter of 4-11-80 from J. M. Allen (Mobil Oil Corp) to Allen Feibelman (AEP).

Notes:

A. Refer to Tech. Description sheet.

B. Grease enclosed in a container will not be subjected to direct caustic spray impingement

C. Letters from J. Tillinghast (AEP) to K. Kniel (NRC) dated 4-14-75 and 9-29-75.

Mobilux® EP 0, 1, 2

Extreme Pressure Industrial Greases

Mobilux EP 0, 1, and 2 are unleaded multiservice, extreme pressure greases designed for normal through heavy-duty industrial applications. They are formulated to resist the effects of both the extremely heavy loads and shock loads to which plant equipment is commonly exposed. Heavy loads tend to squeeze lubricant from mating surfaces, and shock loads rupture the lubricant film, thus creating a condition of metal-to-metal contact and causing parts wear, shortening equipment life. Equipment experiencing these loading extremes may also be exposed to conditions where extremes of temperature, moisture, or water washing are present. Greases for these applications must provide good extreme pressure characteristics and cling strongly to resist the pressures and pounding to which they are exposed. They must also provide good protection against rust and corrosion, resist water washing and dispense and lubricate satisfactorily over a broad range of temperature. The Mobilux EP greases fulfill these requirements.

PRODUCT DESCRIPTION

The Mobilux EP greases are lithium 12 hydroxystearate soap based greases which contain an unleaded EP additive and oxidation, rust and corrosion inhibitors. They are smooth textured, brown colored greases in the NLGI No. 0, 1, or 2 consistency classification.

The use of lithium 12 hydroxystearate as the soap base for these greases ensures good resistance to softening under severe working, good water resistance and a consistency which will remain relatively constant over the recommended operating temperature range.

The extreme pressure characteristic of the Mobilux EP greases is supplied by an unleaded additive which provides them with exceptional wear protection, also improving their ecological acceptability. Other formulation improvements provide good water wash resistance, low temperature dispensing, and long service life in bearings operating at elevated temperatures.

The petroleum oil used in the greases meets the lubrication requirements of most heavy-duty industrial operations. It also provides low temperature pumpability and enhances the greases' high temperature oxidation resistance.

The Mobilux EP greases pass the ASTM Rust Test (D 1743) and are noncorrosive to steel and copper. The latter is of importance because of the use of bronze cages in many antifriction bearings. The greases show good resistance to bleeding and superior resistance to water washout. Their load carrying and antiwear characteristics are illustrated by their Timken OK load of 40 lbs., 18.2 Kg.

Characteristic	Mobilux EP 0	Mobilux EP 1	Mobilux EP 2
NLGI No.	0	1	2
Structure	smooth	smooth	smooth
Soap Type	Unleaded Lithium 12 Hydroxystearate		
Color	brown	brown	brown
Penetration at 77°F (25°C)			
Unworked, min-max	350-390	305-345	260-300
Worked 60 strokes, min-max	355-385	310-340	265-295
Dropping Point, min, F (C)	340 (171)	340 (171)	350 (177)
Mineral Oil %	92	89	87
Viscosity			
SUS at 100°F	750	750	750
SUS at 210°F	75	75	75
cSt at 40°C	143	143	143
cSt at 100°C	13.8	13.8	13.8
Timken OK Load, min, lb (kg)	40 (18)	40 (18)	40 (18)
Rust Test ASTM D 1743	Pass	Pass	Pass
Bomb Oxidation Stability			
ASTM D942			
PSI Drop, max	10	10	10

Mobilux EP 0, 1, 2

TYPICAL CHARACTERISTICS

Physical and chemical characteristics of the Mobilux EP greases are shown in the data sheet table. Values not shown as maximums or minimums are typical characteristics and may vary slightly.

APPLICATION

Mobilux EP greases are recommended for the lubrication of plain and rolling element bearings in normal through heavy-duty industrial applications. They are particularly recommended where loads are high or shock loads are present, or where severe vibration is a problem. They are also suitable for the lubrication of geared couplings. The softer grade may be considered for the lubrication of gear sets that do not have oil-tight cases.

Mobilux EP 0 and 1 greases have excellent handling and dispensing properties at low temperature. The lowest recommended ambient temperature for operating bearings lubricated with Mobilux EP 0 or 1 is about -20°F (-29°C); and for Mobilux EP 2, a stiffer grease, about -10°F (-23°C).

All three Mobilux EP greases are recommended for the lubrication of plain bearings. The highest operating temperature recommended for these greases is 250°F (121°C). For continuous service at temperatures above 200°F, proper purging and relubrication frequencies are critical to maintenance of correct bearing protection.

The excellent water resistance and rust and corrosion protection afforded by the Mobilux EP greases makes them particularly applicable for equipment such as the wet ends of paper machines, steel mill hot strip rolling operations, underground mining equipment, tunneling projects and ore crushing plants where moisture or wet conditions are common. Their excellent dispensing characteristics will also be advantageous in many of these applications because of the exposed nature of the operations.

Mobilux EP greases are compatible with some other greases, particularly those made with lithium soap. However, the best procedure is not to mix greases of different soap types. When replacing another grease with a Mobilux EP grease, the previously used grease should be completely cleaned or flushed from the system.

In plants where human or animal foods are being processed, Mobilux EP greases, despite their unleaded extreme pressure formulation, are not recommended for applications where contamination of food could result. Mobilux EP greases have U.S. Department of Agriculture (USDA) Category BB approval.

ADVANTAGES

When used as recommended, the Mobilux EP greases will provide the following outstanding benefits and advantages:

Superior lubrication under heavy or shock loading
Good load carrying ability
Longer service life in bearings at temperatures up to 250°F
Good low temperature dispensing characteristics
Excellent resistance to water washing
Good rust protection and corrosion resistance
Extreme pressure protection with an unleaded formulation
Reduction of plant inventories through multipurpose capabilities

DONALD C. COOK NUCLEAR PLANT UNITS NO. 1 & 2 DOCKETS NO. 50-315 & 50 - 316 LICENSES NO. DRR-58 & DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: Essential Service Water	Operating Time	500 hours for Pump	N/A	Mfgr Lit.	—	Tests & Consultation With Mobil	None
PLANT ID NO: PP-007	Temperature (°F)	110 Ambient	250 cont. Service 350 drop pt.	FSAR Sect 9.9.2	#48		
COMPONENT: Pump Grease	Pressure (PSIA)	1500	No effect	Mfgr Lit	—		
MANUFACTURER: Mobil	Relative Humidity (%)	N/A	No effect	—	—		
MODEL NUMBER: Mobilux #2	Chemical Spray	N/A	N/A	—	—		
FUNCTION: Lubrication	Radiation (10^6 rads)	N/A	100	—	#48		
ACCURACY: SPEC: DEMON: N/A	Aging (years)	N/A	N/A	—	—		
SERVICE: ESW Pump	Submergence	N/A	N/A	—	—		
LOCATION: Aux Bldg. 591'-0"							
FLOOD LEVEL ELEV: ABOVE FLOOD LEVEL: N/A							

*Documentation References: 48. Letter of 4-17-80 from J.M. Allen (Mobil) to A. Feibelman (AEP). Notes:

Pump manufacturer recommends the following greases:

Shell Oil Co. – Darina EP #2
Mobil Oil Co – Mobilux EP #2
Phillips Petroleum Co. – Philube EP #2
Std. Oil of Ca. – Chevron Industrial Grease – Heavy
Union Oil Co – Royal Unoba #2
Texaco Inc – Multifak #2
Atlantic Richfield Co – Rocolube #2 MP

AEP uses Mobilux No. 2 grease.

DONALD C. COOK NUCLEAR PLANT UNITS NO. 1 & 2 DOCKETS NO. 50-315 & 50 - 316 LICENSES NO. DRR-58 & DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: Containment Spray	Operating Time	N/A	N/A	—	—	Tests + Consultation With Mobil	None
PLANT ID NO: PP-009	Temperature (°F)	Ambient 110	250 cont. service 400 flash pt.	FSAR Sect. 9.7.2	#48		
COMPONENT: Motor Oil	Pressure (PSIA)	N/A	No Effect	—	—		
MANUFACTURER: Mobil	Relative Humidity (%)	N/A	No Effect	—	—		
MODEL NUMBER: D.T.E. Oil Medium	Chemical Spray	N/A	N/A	—	—		
FUNCTION: Lubrication	Radiation (10^6 rads)	17	100	AEPSC NS&L calc. DC-N-6420-2	#48		
ACCURACY: SPEC: N/A DEMON:	Aging (years)	N/A	N/A	—	—		
SERVICE: CTS Pump Motor	Submergence	N/A	N/A	—	—		
LOCATION: Aux Bldg El. 573'-0"							
FLOOD LEVEL ELEV: ABOVE FLOOD LEVEL: N/A							

*Documentation References:

48. Letter of 4-17-80 from J.M. Allen (Mobil) to A. Feibelman (AEP).

Notes:

DONALD C. COOK NUCLEAR PLANT UNITS NO. 1 & 2 DOCKETS NO. 50-315 & 50 - 316 LICENSES NO. DRR-58 & DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: Containment Spray PLANT ID NO: PP-009 COMPONENT: Motor Grease MANUFACTURER: Mobil MODEL NUMBER: Mobilux #2 FUNCTION: Lubrication ACCURACY: SPEC: DEMON: N/A SERVICE: CTS Pump Motor LOCATION: Aux Bldg El 573'-0"	Operating Time	N/A	N/A	—	—	Tests + Consultation With Mobil	None
	Temperature (°F)	Ambient 110	250 cont. service 350 drop pt.	FSAR Sect. 9.9.2	#48		
	Pressure (PSIA)	N/A	No effect	—	—		
	Relative Humidity (%)	N/A	No effect	—	—		
	Chemical Spray	N/A	N/A	—	—		
	Radiation (10^6 rads)	17	100	AEPSC NS&L calc. DC-N-6470-1	#48		
	Aging (years)	N/A	N/A	—	—		
FLOOD LEVEL ELEV: ABOVE FLOOD LEVEL: N/A	Submergence	N/A	N/A	—	—		

*Documentation References:

48. Letter Dated 4-17-80 from J. M. Allen (Mobil) to A. Teibelman (AEP).

Notes:

DONALD C. COOK NUCLEAR PLANT UNITS NO. 1 & 2 DOCKETS NO. 50-315 & 50 - 316 LICENSES NO. DRR-58 & DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: Component Cooling Water	Operating Time	N/A	N/A	—	—	Tests & Consultation With Mobil	NONE
PLANT ID NO: PP-010	Temperature (°F)	AMBIENT 110	Flash Pt. 410	FSAR Sect 9.7.2	# 48		
COMPONENT: Pump Oil	Pressure (PSIA)	N/A	NO EFFECT	-	—		
MANUFACTURER: Mobil	Relative Humidity (%)	N/A	NO EFFECT	—	—		
MODEL NUMBER: DTE 797 0.1	Chemical Spray	N/A	N/A	—	—		
FUNCTION: Lubrication	Radiation (10^6 rads)	N/A	100	—	# 48		
ACCURACY: SPEC: DEMON: N/A	Aging (years)	N/A	N/A	—	—		
SERVICE: CCW Pump	Submergence	N/A	N/A	—	—		
LOCATION: Aux Bldg El. 609'-6"							
FLOOD LEVEL ELEV: ABOVE FLOOD LEVEL: N/A							

*Documentation References: 48. Letter of 4-17-80 from J.A. Allen (Mobil) to A. Feibelman (AEP). Notes:

Pump Manufacturer recommends oil with characteristics:

Oil Characteristic	Napthene Base	Paraffin Base
Flash Point	300°F, min	360°F, min
Saybolt Viscosity 100°F	150 sec, min 200 sec, max	140 sec, min 185 sec, max
Pour Point	5°F max	30°F, max

AEP uses Mobil D.T.E. 797 0.1, a paraffinic oil which meets mfgr specifications.

DONALD C. COOK NUCLEAR PLANT UNITS NO. 1 & 2 DOCKETS NO. 50-315 & 50-316 LICENSES NO. DRR-58 & DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: Component Cooling Water PLANT ID NO: PP-DID COMPONENT: Coupling Grease MANUFACTURER: Mobil MODEL NUMBER: Coupling Grease FUNCTION: Lubrication ACCURACY: SPEC: N/A DEMON: SERVICE: CCW Pump Coupling LOCATION: Aux Bldg El 609'-6" FLOOD LEVEL ELEV: ABOVE FLOOD LEVEL: N/A	Operating Time	N/A	N/A	—	—	Tests & Consultation With Mobil	NONE
	Temperature (°F)	AMBIENT 110	250 cont. service 350 drop pt.	FSAR Sect 9.9.2	#48		
	Pressure (PSIA)	N/A	No Effect	—	—		
	Relative Humidity (%)	N/A	No Effect	—	—		
	Chemical Spray	N/A	N/A	—	—		
	Radiation (10^6 rads)	N/A	100	—	#48		
	Aging (years)	N/A	N/A	—	—		
	Submergence	N/A	N/A	—	—		

*Documentation References: #48. Letter of 4-17-80 from J.M. Allen (Mobil) to A. Fejfelman (AEPSC).

Notes:
Coupling manufacturer recommends grease with NGLI No. 2 with worked penetration value of 250 to 300.

AEP uses Mobilux No. 2 grease which meets mfgr specs.

DONALD C. COOK NUCLEAR PLANT UNITS NO. 1 & 2 DOCKETS NO. 50-315 & 50 - 316 LICENSES NO. DRR-58 & DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: SAFETY INJECTION PLANT ID NO: PP-026 COMPONENT: PUMP OIL MANUFACTURER: MOBIL MODEL NUMBER: DTE 797 FUNCTION: Lubrication ACCURACY: SPEC: 0.1 DEMON: N/A SERVICE: SI Pump LOCATION: Aux Bldg El 587'-0"	Operating Time	N/A	N/A	—	—	TESTS + CONSULTATION WITH MOBIL	NONE
	Temperature (°F)	AMBIENT 110	Flash pt. 410	FSAR Sect 9.9.2	#48		
	Pressure (PSIA)	N/A	NO EFFECT	—	—		
	Relative Humidity (%)	N/A	NO EFFECT	—	—		
	Chemical Spray	N/A	N/A	—			
	Radiation (10^6 rads)	.17	100	AEPSC NS&L calc. QC-N-80420-1	#48		
	Aging (years)	N/A	N/A	—	—		
FLOOD LEVEL ELEV: ABOVE FLOOD LEVEL: N/A	Submergence	N/A	N/A	—	—		

*Documentation References: 48. Letter of 4-17-80 From J. M. Allen (Mobil) to A. Feikelman (AEP).

Notes:

Pump manufacturer recommends high grade turbine oil with a viscosity of 150 SSU @ 100°F. AEP uses Mobil DTE 797 oil which meets listed spec.

DONALD C. COOK NUCLEAR PLANT UNITS NO. 1 & 2 · DOCKETS NO. 50-315 & 50-316 · LICENSES NO. DRR-58 & DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: Safety Injection PLANT ID NO: pp-026 COMPONENT: Motor Oil MANUFACTURER: Mobil MODEL NUMBER: DTE O.L Heavy Medium FUNCTION: Lubrication ACCURACY: SPEC: DEMON: N/A SERVICE: SI Pump Motor LOCATION: Aux Bldg El. 587'-0"	Operating Time	N/A	N/A	—	—	Tests + Consultation with Mobil	None
	Temperature (°F)	Ambient 110	250 cont. service 400 flash pt	FSAR Sect 9.9.2	# 48		
	Pressure (PSIA)	N/A	No Effect	—	—		
	Relative Humidity (%)	N/A	No Effect	—	—		
	Chemical Spray	N/A	N/A	—	—		
	Radiation (10^6 rads)	17	100	AEPSC NS&L calc. DC-N-6430-2	#18		
	Aging (years)	N/A	N/A	—	—		
FLOOD LEVEL ELEV: ABOVE FLOOD LEVEL: N/A	Submergence	N/A	N/A	—	—		

*Documentation References: 48. letter dt. 4-17-80 from J. M. Allen (Mobil) to A. Feibelman (AEP). Notes:

Motor manufacturer recommends oil with viscosity of 180 to 220 SSU @ 100°F. AEP uses Mobil D.T.E. O.I Heavy Medium.

DONALD C. COOK NUCLEAR PLANT UNITS NO. 1 & 2 DOCKETS NO. 50-315 & 50-316 LICENSES NO. DRR-58 & DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: Residual Heat Removal PLANT ID NO: PP-035 COMPONENT: Pump + Motor Grease MANUFACTURER: Mobil MODEL NUMBER: Mobilux #2 FUNCTION: Lubrication ACCURACY: SPEC: N/A DEMON: SERVICE: RHR Pump RHR Pump Motor LOCATION: Aux Bldg. El. 573'-0"	Operating Time	N/A	N/A	—	—	Tests + Consultation with Mobil	NONE
	Temperature (°F)	110 Ambient	250 cont. Service 350 drop pt.	FSAR Sect 9.9.2	# 48		
	Pressure (PSIA)	N/A	No effect	—	—		
	Relative Humidity (%)	N/A	No effect	—	—		
	Chemical Spray	N/A	N/A	—	—		
	Radiation (10^6 rads)	17	100	AEPSC NSRL calc. DC-N-6470-2	#1/8		
	Aging (years)	N/A	N/A	—	—		
FLOOD LEVEL ELEV: ABOVE FLOOD LEVEL: N/A	Submergence	N/A	N/A	—	—		

*Documentation References: 48: Letter dtd 4-17-80 from J. M. Allen (Mobil) to A. Feibelman (AEP).

Notes:

Motor Manufacturer recommends Westinghouse Grease #55272-BA } AEP uses Mobilux No. 2 Grease, recommended by Mobil as a suitable substitute.

DONALD C. COOK NUCLEAR PLANT UNITS NO. 1 & 2 · DOCKETS NO. 50-315 & 50 - 316 LICENSES NO. DRR-58 & DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: CVCS/ECCS	Operating Time	N/A	N/A	—	—	Tests & Consultation With Mobil	None
PLANT ID NO: 1P-050	Temperature (°F)	Ambient 110	250 cont. service 400 flash pt.	FSAR Sect 3.11.2	# 48		
COMPONENT: Pump & Motor 01	Pressure (PSIA)	N/A	No effect	—	—		
MANUFACTURER: Mobil	Relative Humidity (%)	N/A	No effect	—	—		
MODEL NUMBER: D.T.E 01 Heavy Medium	Chemical Spray	N/A	N/A	—	—		
FUNCTION: Lubrication	Radiation (10^6 rads)	17	100	AEPSC NSRL calc. PC-N-C-420-1	# 48		
ACCURACY: SPEC: N/A DEMON:	Aging (years)	N/A	N/A	—	—		
SERVICE: CCh$_1$ Pump	Submergence	N/A	N/A	—	—		
LOCATION: Aux Bldg El 587'-0"							
FLOOD LEVEL ELEV: ABOVE FLOOD LEVEL: N/A							

TS-AND. OF EQUIP. (Page 1 of 1)

*Documentation References: 48. Letter of 4-17-80 from J. M. Allen (Mobil) to A. Feibelman (AEP).

Notes:

Pump manufacturer recommends using high grade mineral oil of the turbine type, having viscosity of 150-250 SSU @ 100 °F.

Motor manufacturer recommends bearing oil with a viscosity of 200 SSU @ 100 °F

Gear case manufacturer recommends oil with viscosity of 180-240 SSU @ 100°F

AEP uses: Mobil D.T.E Oil Heavy Medium.

DONALD C. COOK NUCLEAR PLANT UNITS NO. 1 & 2 DOCKETS NO. 50-315 & 50 - 316 LICENSES NO. DRR-58 & DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: CVCS/ECCS PLANT ID NO: PP-050 COMPONENT: Coupling Grease MANUFACTURER: Mobil MODEL NUMBER: Sovarex L-0 FUNCTION: Lubrication ACCURACY: SPEC: DEMON: N/A SERVICE: Cent. Charging Pump Coupling LOCATION: Aux Bldg El 587'-0"	Operating Time	N/A	N/A	—	—	Tests & Consultation With Mobil	None
	Temperature (°F)	AMBIENT 110	drop pt. 400	FSAR Sect 9.9.2	A 48		
	Pressure (PSIA)	N/A	NO EFFECT	—	—		
	Relative Humidity (%)	N/A	NO EFFECT	—	—		
	Chemical Spray	N/A	N/A	—	—		
	Radiation (10^6 rads)	17	100	AEPSC NSLL Calc. DC-N-6420-2	# 48		
	Aging (years)	N/A	N/A	—	—		
FLOOD LEVEL ELEV: ABOVE FLOOD LEVEL: N/A	Submergence	N/A	N/A	—	—	▼	▼

*Documentation References: 48. Letter (M. Bilisoly) dt. 4-17-80 from J. M. Allen to A. Feiteiman (AEP). Notes:

Coupling manufacturer recommends the following greases:

ATLANTIC REFINING COMPANY	ATLANTIC LUBRICANT #17
MERICAN OIL COMPANY	AMOBAR S
OORS OIL COMPANY	LEADOLENE 375 LIGHT
ES SERVICE PETROLEUM, Inc.	TROJAN GREASE A-1
NTINENTAL OIL COMPANY	CONOCO SUPER LUBE
E BROTHERS REFINING COMPANY	LUBRIPLATE #630 AA
E OIL CORPORATION	CROWN #1
OBIE OIL AND REFINING COMPANY	FIBRAX 370 OR NEBULA EP 0
YSTONE LUBRICATING COMPANY	KEYSTONE #15 EP XX LIGHT
KSTER LUBRICANTS COMPANY	LUBRIKO GREASE M-54
LLIS PETROLEUM COMPANY	PHILUBE #1 STOCK 401
E OIL COMPANY	POCO FIBRE GREASE #1
RICHFIELD OIL CORPORATION	ROCOLUBE RR
SHELL OIL COMPANY	SHELL ALVANIA GREASE #2 SIMNIA 012
SINCLAIR REFINING COMPANY	SINCOLURE #1, OR LITHOLINE MULTI-PURPOSE GREASE #2
SOCONY-MOBIL OIL CO., Inc.	SOVAREX L-O MOBILPLEX EP #0
STANDARD OIL CO. OF CALIFORNIA	CALOL SA #1
STANDARD OIL CO. OF OHIO	SOHIO #77
SUN OIL COMPANY	N 751 AND 741 EP
TEXAS COMPANY	MARFAK #1
TIDEWATER ASSOCIATED OIL CO.	TYCOL ALITHO #10
UNION OIL CO. OF CALIFORNIA	BALL ROLL #1 OR EINOBA #1

AEP uses Mobil Sovarex L-0 grease

DONALD C. COOK NUCLEAR PLANT UNIT NO. 2 | DOCKET NO. 50-316 | LICENSE NO. DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: HYDROGEN RECOMBINER PLANT ID NO: HR-1, HR-2 COMPONENT: HYDROGEN RECOMBINERS MANUFACTURER: WESTINGHOUSE MODEL NUMBER: NA FUNCTION: RECOMBINES HYDROGEN ACCURACY: SPEC: NA DEMON: NA SERVICE: REDUCES HYDROGEN CONCENTRATION IN CONTAINMENT LOCATION: INSIDE CONTAINMENT	Operating Time	3 MONTHS	>3.3 MTHS	109	20 63	COMBINATION	NONE SEE REF. #63
	Temperature (°F)	244	310	102	20	SEQUENTIAL	NONE
	Pressure (PSIA)	29.1	77.	103	20	"	"
	Relative Humidity (%)	100	100	102 103	20	"	"
	Chemical Spray	2000 PPMB 1.14% WT. BORIC ACID PH 8.5 - 11	2500 PPMB 1.43% WT. BORIC ACID PH 8.5-11	114	20 72	COMBINATION	NONE SEE REF. #72.
	Radiation (10^6 rads)	121	200	105	20	SEQUENTIAL	NONE
	Aging (years)						
FLOOD LEVEL ELEV: 614' ABOVE FLOOD LEVEL: YES	Submergence	NA	NA	NA	NA	NA	NA

122-123 H1

*Documentation References:

Notes:

Form EGQ #97-2

From Ref. 20. Qualified by Westinghouse report WCAP-7709-L, supplement 2 of Sept. 1973.

Type of Test: Separate, seismic steam/chem. spray gamma radiation.

Test Profile:

Horizontal (side-to-side) force = 2g
(back-to-back) force = 2g
Vertical force = 1.33g
Frequencies = 1 through 35 Hz

.33 to .80 Mrads/hr
200-220 Mrads

Assumed saturated steam. (310°F, 77 psia for 4 hrs
) 259°F, 35 psia for 20 hrs
(228°F, 20 psia for 1 hr

Chemical Spray: Sodium thiosulfate 2500 ppm boron as boric acid with Na OH added for a PH = 10.

DONALD C. COOK NUCLEAR PLANT UNIT NO. 2 | DOCKET NO. 50-316 | LICENSE NO. DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: LIST H PLANT ID NO: BLP-110, 111, 112, 120, 121, 122, 130, 131, 132, 140, 141 & 142 COMPONENT: DIFFERENTIAL PRESSURE TRANSMITTER MANUFACTURER: ITT BARTON MODEL NUMBER: 764 FUNCTION: ACTUATION ACCURACY: SPEC: ±10% DEMON: ± 5%‖ SERVICE: STEAM GENERATOR LEVEL LOCATION: INSIDE CONTAINMENT	Operating Time	22.1 SEC	≈330 days	REF 101	REF 66	SEQUENTIAL & ENGRG ANAL. NOTE ‖‖	NONE
	Temperature (°F)	328.2 NOTE Lv	385	REF 102	REF 66	SEQUENTIAL	NONE
	Pressure (PSIA)	26.2 NOTE Lv	89.7	REF 103	REF 66	SEQUENTIAL	NONE
	Relative Humidity (%)	100	100	7.5	REF 66	SEQUENTIAL	NONE
	Chemical Spray	1.14% BORIC ACID & .15% NAOH PH8.4	1.14% BORIC ACID & .17% NAOH PH8.5	REF 104	REF 66	SEQUENTIAL	NONE
	Radiation (10^6 rads)	0.079	50	REF 105	REF .66	SEQUENTIAL	NONE
	Aging (years)						
FLOOD LEVEL ELEV: 614'-0" ABOVE FLOOD LEVEL: NO	Submergence	12 FT.	75 PSIG	DRWG 5570E	ENGRG JDGMT	ENGINEERING REVIEW	NONE NOTE ‖

*Documentation References: UNLESS OTHERWISE NOTED ALL REFERENCES ARE FSAR SECTIONS.

REF 66 - WESTINGHOUSE ELECTRIC CORP COMMUNICATION: NS-TMA-2120

Notes: 14.2.8 IS THE ACCIDENT ANALYSIS GENERATING AN ADVERSE ENVIRONMENT FOR WHICH CREDIT IS ASSUMED FOR OPERATION OF THESE DEVICES.

‖‖ : SEE ATTACHED SHEET
‖ : SEE ATTACHED SHEET
Lv : SEE ATTACHED SHEET

REP: NRC: 00578

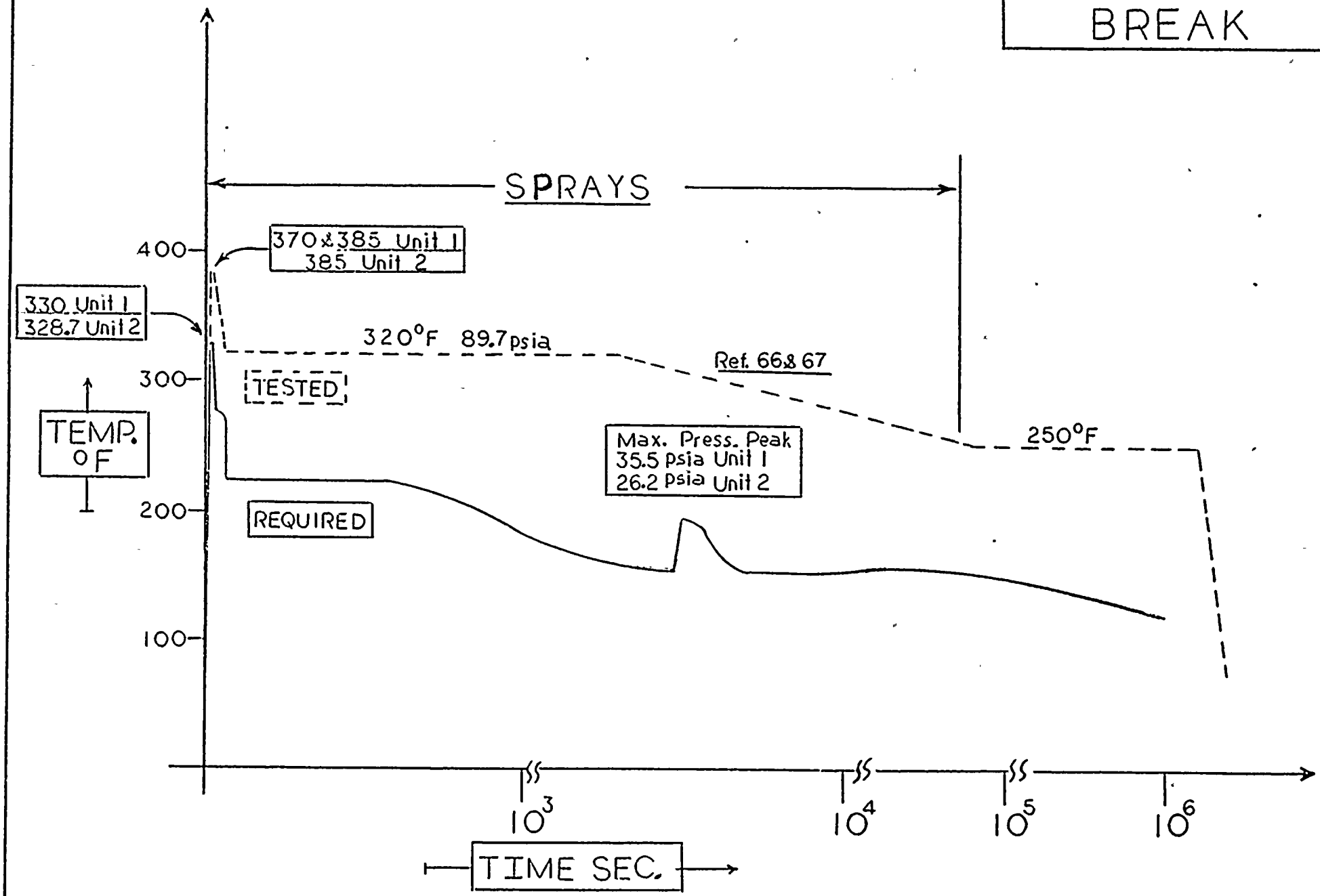
REP: NRC: 00578B

ii The engineering review and judgement regarding submergence consisted of an evaluation that the tested transmitter had been subjected to combination test of spray and 60 psi saturated steam conditions for a period of at least 1 hour followed by spray and 20 psi saturated steam for at least an additional 22 hours with no report of moisture conditions in the electronics housing. The pressure corresponding to the submergence is less than 5 psig. The transmitter was therefore considered acceptable for submergence.

iii Arrhenius Analysis was performed which reflected the FSAR containment lower volume temperature rather than the very conservative temperature of 160°F previously used by References 30, 66 & 67. These references predicted a value of an equivalent 120 days based on the tested temperature of 250°F for 14 days.

iv For FSAR predicted values see attached temperature profile.

STEAM LINE BREAK



DONALD C. COOK NUCLEAR PLANT UNIT NO. 2 DOCKET NO. 50-316 LICENSE NO. DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: LIST H PLANT ID NO: BLP-110,111,112,120, 121,122,130,131,132,140,141 & 141 COMPONENT: DIFFERENTIAL PRESSURE TRANSMITTER MANUFACTURER: ITT BARTON MODEL NUMBER: 764 LONG TERM FUNCTION: POST ACCIDENT & NORMAL MONITORING ACCURACY: SPEC: ±25% DEMON: +17% -10% SERVICE: STEAM GENERATOR LEVEL LOCATION: INSIDE CONTAINMENT	Operating Time	4 MONTH	≈330 days	REF 10,1	REF. 66	SEQUENTIAL & ENGRG. ANAL. NOTE ‡‡	NONE
	Temperature (°F)	160 NOTE ‡v	160	REF 102	REF. 66	SEQUENTIAL	NONE
	Pressure (PSIA)	26.2 NOTE ‡v	89.7	REF 103	REF. 66	SEQUENTIAL	NONE
	Relative Humidity (%)	100	100	7.5	REF. 66	SEQUENTIAL	NONE
	Chemical Spray	1.14% BORIC ACID & 0.15% NAOH pH 8.4	1.14% BORIC ACID & 0.17% NAOH pH 8.55	REF 104	REF. 66	SEQUENTIAL	NONE
	Radiation (10^6 rads)	0.079	50	REF 105	REF. 66	SEQUENTIAL	NONE
	Aging (years)						
FLOOD LEVEL ELEV: 614'-0" ABOVE FLOOD LEVEL: NO	Submergence	12 FT.	75 PSIG	DRAWING 5570E	ENGRG JDGMT	ENGINEERING REVIEW	NONE NOTE ‡‡

*Documentation References: UNLESS OTHERWISE NOTED ALL REFERENCES ARE FSAR SECTIONS.

REF 66 WESTINGHOUSE ELECTRIC CORP COMMUNICATIONS NS-TMA-2120

Notes: 14.2.8 IS THE ACCIDENT ANALYSIS GENERATING AN ADVERSE ENVIRONMENT FOR WHICH CREDIT IS ASSUMED FOR OPERATION OF THESE DEVICES.

CBI REQUIREMENTS ADDRESSED IN REF 30 WHICH WAS SUBMITTED IN RESPONSE TO QUESTION 030.1

‡‡ SEE ATTACHED SHEET

‡v SEE ATTACHED SHEET

AEP: NRC: 00578

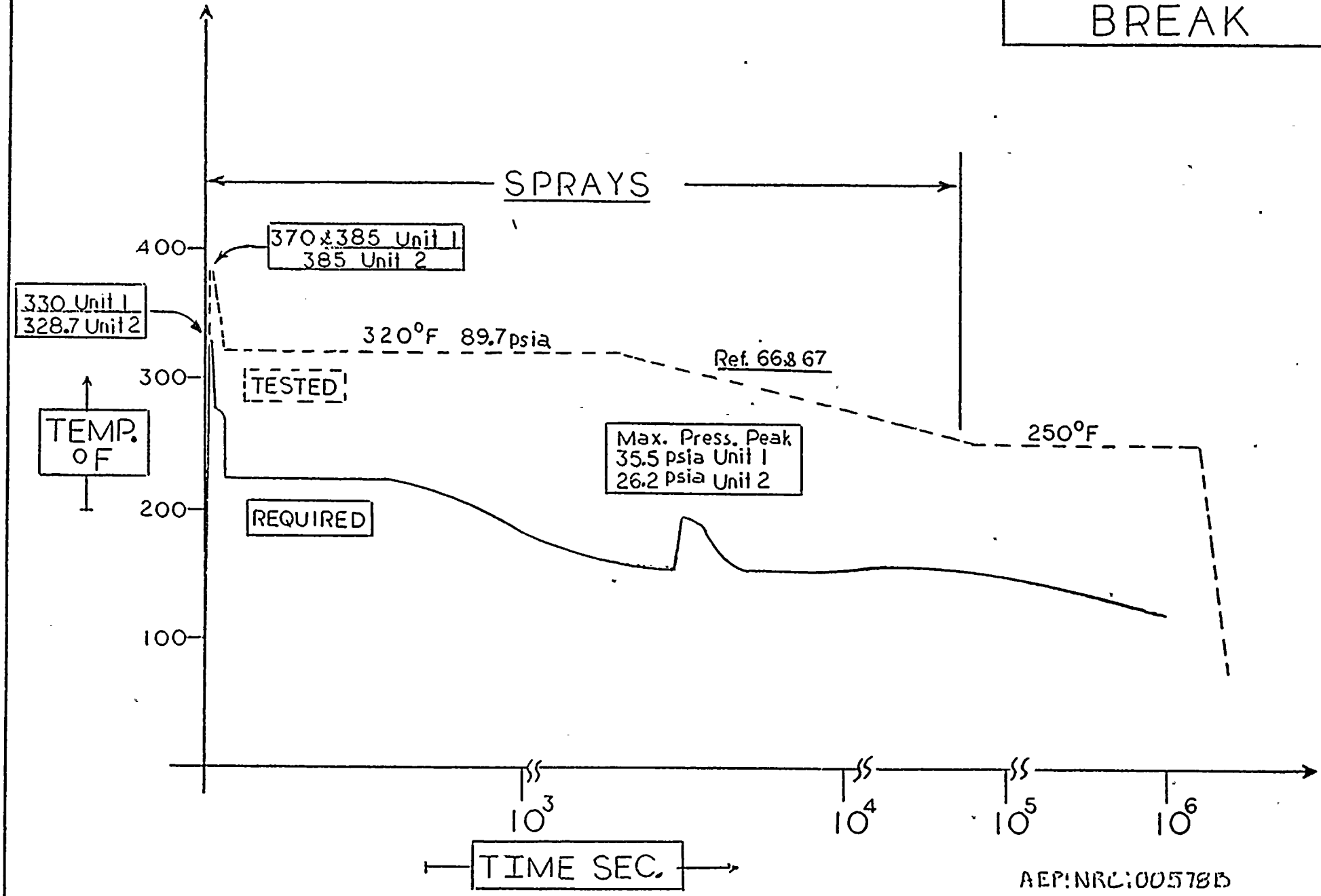
AEP: NRC: 00578B

ii The engineering review and judgement regarding submergence consisted of an evaluation that the tested transmitter had been subjected to combination test of spray and 60 psi saturated steam conditions for a period of at least 1 hour followed by spray and 20 psi saturated steam for at least an additional 22 hours with no report of moisture conditions in the electronics housing. The pressure corresponding to the submergence is less than 5 psig. The transmitter was therefore considered acceptable for submergence.

iii Arrhenius Analysis was performed which reflected the FSAR containment lower volume temperature rather than the very conservative temperature of 160°F previously used by References 30, 66 & 67. These references predicted a value of an equivalent 120 days based on the tested temperature of 250°F for 14 days.

iv For FSAR predicted values see attached temperature profile.

STEAM LINE BREAK



DONALD C. COOK NUCLEAR PLANT UNITS NO. 1 & 2 DOCKETS NO. 50-315 & 50 - 316 LICENSES NO. DRR-58 & DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: AUXILIARY FEEDWATER PLANT ID NO: CLR 110 & 111 COMPONENT: DIFFERENTIAL PRESSURE TRANSMITTER MANUFACTURER: TAYLOR INSTRUMENT MODEL NUMBER: 304TD00212 FUNCTION: MONITORING ACCURACY: SPEC: DEMON: SERVICE: CONDENSATE STORAGE TANK LEVEL LOCATION: OUTSIDE CONTAINMENT	Operating Time						
	Temperature (°F)						
	Pressure (PSIA)						
	Relative Humidity (%)						
	Chemical Spray						
	Radiation (10^6 rads)	NOT APPLICABLE					
	Aging (years)						
FLOOD LEVEL ELEV: ABOVE FLOOD LEVEL: N/A	Submergence						

*Documentation References:

Notes:

THE TRANSMITTER IS LOCATED SUCH THAT NO SOURCE-TARGET INTERACTION OR ADVERSE ENVIRONMENT WILL EFFECT IT. THE SIGNAL LINES ARE SUBJECT TO MSLB AND MFWLB ENVIRONMENT. HOWEVER, FAILURE OF THE SIGNAL LINE (PNEUMATIC) CAUSES THE SIGNAL TO GO TO ZERO THEREBY CAUSING THE OPERATOR TO SWITCH TO AUXILIARY FEEDWATER BACKUP SOURCE.

AEP:NRC:00578B

DONALD C. COOK NUCLEAR PLANT UNITS NO. 1 & 2 DOCKETS NO. 50-315 & 50-316 LICENSES NO. DRR-58 & DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: MAIN FEEDWATER & REACTOR TRIP ACTUATION PLANT ID NO: FFC 210,211, 220,221,230,231,240 & 241 COMPONENT: DIFFERENTIAL PRESSURE TRANSMITTER MANUFACTURER: FOXBORO MODEL NUMBER: E13DM-HSAH1 (MCR) FUNCTION: NORMAL MONITOR & ACTUATION ACCURACY: SPEC: ± 16% DEMON: -11.75% SERVICE: MAIN FEEDWATER FLOW LOCATION: OUTSIDE CONTAINMENT	Operating Time	1.5 ≤ 25 SEC	15 MIN	REF 10.1	WCAP 8541	COMBINED EFFECT	NONE
	Temperature (°F)	223	290	REF 10.7	WCAP 8541	SEQUENTIAL	NONE
	Pressure (PSIA)	20.5	74.7	REF 10.7	WCAP 8541	SEQUENTIAL	NONE
	Relative Humidity (%)	100	100	7.5	WCAP 8541	SEQUENTIAL	NONE
	Chemical Spray	NA	NA	NA	NA		NONE
	Radiation (10^6 rads)	NA	NA	NA	NA		NONE
	Aging (years)						
FLOOD LEVEL ELEV: N/A ABOVE FLOOD LEVEL:	Submergence	NA	NA	NA	NA		NONE

*Documentation References: UNLESS OTHERWISE NOTED ALL REFERENCES ARE FSAR SECTIONS.
WCAP 8541 - WESTINGHOUSE ELECTRIC CORP TOPICAL REPORT FOR ENVIRONMENTAL TESTING OF FOXBORO TRANSMITTERS

Notes: 0.4.2 & 14.2.8 ARE THE ADVERSE ENVIRONMENT GENERATING ACCIDENT ANALYSIS FOR WHICH CREDIT IS ASSUMED FOR OPERATION OF THESE DEVICES.

REF: NRC: 00578

REF: NRC: 00578 B

DONALD C. COOK NUCLEAR PLANT UNITS NO. 1 & 2 DOCKETS NO. 50-315 & 50-316 LICENSES NO. DRR-58 & DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: AUXILIARY FEEDWATER PLANT ID NO: FFI 210 220 230 & 240 COMPONENT: DIFFERENTIAL PRESSURE TRANSMITTER MANUFACTURER: FOXBORO MODEL NUMBER: N-E13DM-H-I-M1-D FUNCTION: MONITORING ACCURACY: SPEC: DEMON: SERVICE: AUXILARY FEEDWATER FLOW LOCATION: OUTSIDE CONTAINMENT	Operating Time	4 MONTH	NOTE(L)	REF 10.1	NOTE(L)	NOTE (L)	NONE
	Temperature (°F)	230		REF 10 7			NONE
	Pressure (PSIA)	26.2		REF 107			NONE
	Relative Humidity (%)	100	↓	7.5	↓	↓	NONE
	Chemical Spray	NA					NONE
	Radiation (10^6 rads)	NA					NONE
	Aging (years)						
FLOOD LEVEL ELEV: ABOVE FLOOD LEVEL: N/A	Submergence	NA					NONE

*Documentation References: LINLESS OTHERWISE NOTED ALL REFERENCES ARE FSAR SECTIONS.

Notes: (L) PRESENTLY INSTALLED DEVICES ARE PART OF THE QUALIFICATION TEST PROGRAM FOR UTILITY TRANSMITTER QUALIFICATION GROUP BEING PERFORMED TO MEET THE REQUIREMENTS ON NUREG 0578 ITEM 2.1.7.b. SEE AEP: NRC: 00253 DATED OCT. 24 1979.

THESE DEVICES ARE NOT EXPOSED TO LOCA LONGTERM RECIRCULATION RADIATION EXPOSURE DOSES.

TEST COMPLETION IS ANTICIPATED IN JUNE 1982

AEP:NRC:00578

AEP:NRC:00578B

DONALD C. COOK NUCLEAR PLANT UNITS NO. 1 & 2 DOCKETS NO. 50-315 & 50-316 LICENSES NO. DRR-58 & DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: EMERGENCY CORE COOLING PLANT ID NO: IFC 315 & 325 COMPONENT: DIFFERENTIAL PRESSURE SWITCH MANUFACTURER: ITT BARTON MODEL NUMBER: 289 A/199 FUNCTION: PUMP PROTECTION ACCURACY: SPEC: FUNCTIONAL DEMON: ± 6% SERVICE: RHR PUMP MINIMUM FLOW CONTROLLER LOCATION: OUTSIDE CONTAINMENT	Operating Time	4 MONTHS	4 MONTHS	REF 101	ENGRG JDGMT	ENGINEERING REVIEW	NONE
	Temperature (°F)	110	200	REF 107	MNFTR LIT.	ENGINEERING REVIEW	NONE
	Pressure (PSIA)	14.7	14.7	REF 107	MNFTR LIT	ENGINEERING REVIEW	NONE
	Relative Humidity (%)	90°F DRY BULB 76°F WET BULB	WEATHER-PROOF CASE	9.9	MNFTR LIT	ENGINEERING REVIEW	NONE
	Chemical Spray	NA	NA				NONE
	Radiation (10^6 rads)	NOTE (M)	NA	NOTE (A)	NOTE (M)	ENGINEERING REVIEW	NONE
	Aging (years)						
FLOOD LEVEL ELEV: ABOVE FLOOD LEVEL: N/A	Submergence	NA	NA				NONE

*Documentation References: UNLESS OTHERWISE NOTED ALL REFERENCES ARE TO FSAR SECTIONS MNFTR LIT ITT BARTON PRODUCT/BULLETIN 288A/289A-2 AND TECHNICAL MANUAL 505-4(A)

Notes: (M) LOCATION OF PRESSURE SWITCH IS OUTSIDE ROOM CONTAINING RADIATION SOURCE AND IS THEREFORE SHIELDED FROM EFFECT.

AEP:NRC:00578

AEP:NRC:00578B

DONALD C. COOK NUCLEAR PLANT UNIT NO. 2 DOCKET NO. 50-316 LICENSE NO. DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: EMERGENCY CORE COOLING PLANT ID NO: IFI 51, 52, 53 & 54 COMPONENT: DIFFERENTIAL PRESSURE TRANSMITTER MANUFACTURER: FOXBORO MODEL NUMBER: E13DH-HSAHI MCA FUNCTION: MONITORING ACCURACY: SPEC: FUNCTIONAL DEMON: ± 6% SERVICE: BORON INJECTION TANK DISCHARGE FLOW LOCATION: INSIDE CONTAINMENT	Operating Time	4.5 MIN	90 MIN	REF 1.01	WCAP 8541	SEPARATE EFFECTS	NONE NOTE L
	Temperature (°F)	250 NOTE LV	290	REF 1.02	WCAP 8541	SEQUENTIAL	NONE
	Pressure (PSIA)	29.1	74.7	REF 1.03	WCAP 8541	SEQUENTIAL	NONE
	Relative Humidity (%)	100	100	7.5	WCAP 8541	SEQUENTIAL	NONE
	Chemical Spray	1.44% BORIC ACID .15% NAOH PH 8.4	1.5% BORIC ACID @ 125 TO 10PH NAOH	REF 1.04	WCAP 8541	SEQUENTIAL	NONE
	Radiation (10^6 rads)	3.9	76	REF 1.05	WCAP 8541	SEPARATE EFFECTS	NONE
	Aging (years)						
FLOOD LEVEL ELEV: 614'-0" ABOVE FLOOD LEVEL: NO	Submergence	11'-6"	60 PSIG	DRWG 5570B C DEE	ENGRG JDGMT	ENGINEERING REVIEW	NONE NOTE LL

*Documentation References: UNLESS OTHERWISE NOTED ALL REFERENCES ARE FSAR SECTIONS

WCAP-8541 WESTINGHOUSE ELECTRIC CORP TOPICAL REPORT FOR ENVIRONMENTAL TESTING OF FOXBORO TRANSMITTERS

Notes: NO SPECIFIC ACCIDENT ANALYSIS TAKES CREDIT FOR ASSUMED OPERATION OF THESE DEVICES. THEIR USE IS REFERENCED BY EMERGENCY OPERATING PROCEDURES.

LV SEE ATTACHED SHEET

LL SEE ATTACHED SHEET

L SEE ATTACHED SHEET

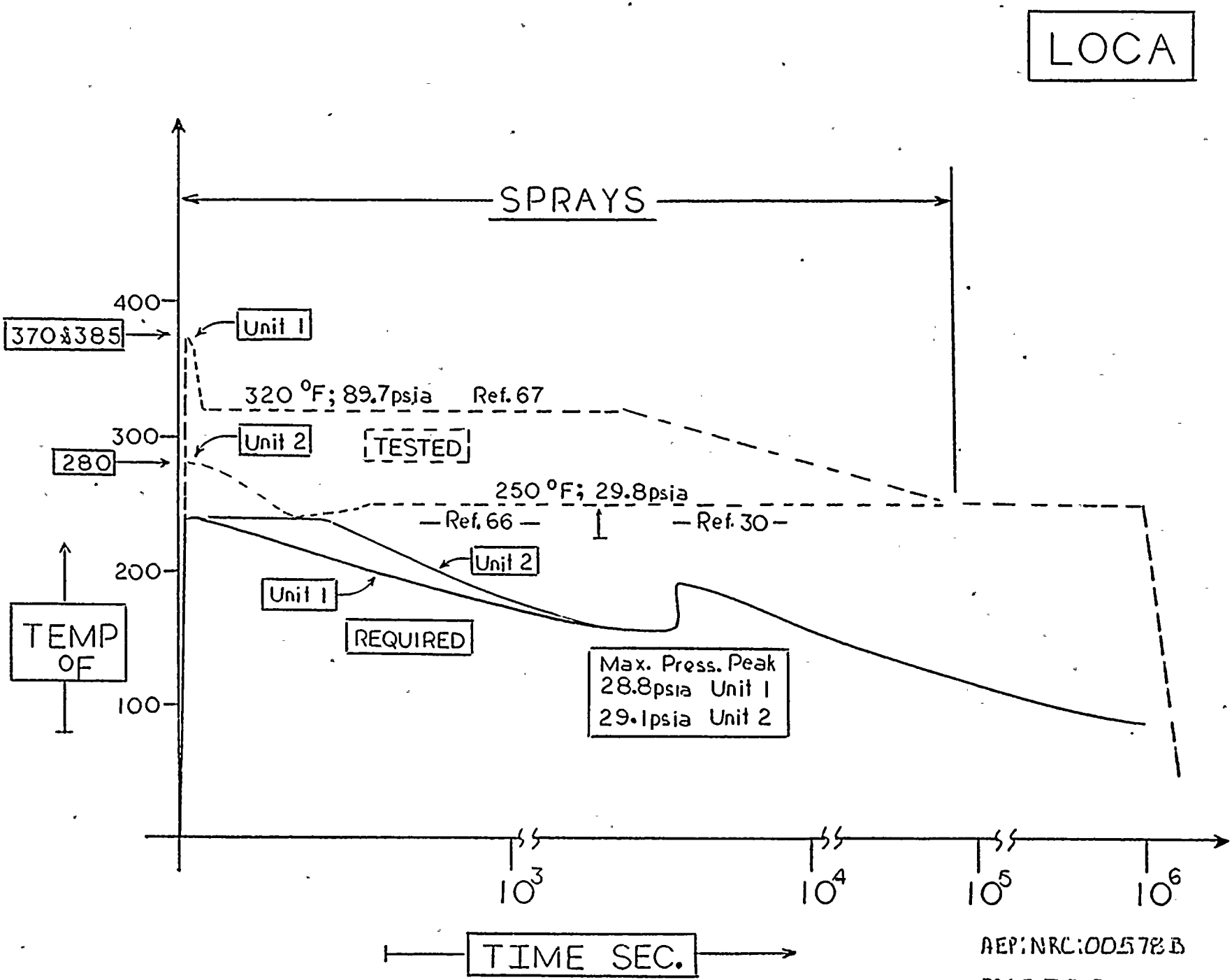
AEP:NRC:00578

AEP:NRC:00578B

i Four separate tests were preformed on similar transmitters varying in length from 1 hour to 40½ hours in duration. The 90 minute time was selected since this represented the point during one of the four tests at which transmitter output varied by 6% of span.

ii The engineering review and judgement regarding submergence consisted of an evaluation that the tested transmitter had been subjected to combination test of spray and 60 psi saturated steam conditions for a period of at least 1 hour followed by spray and 20 psi saturated steam for at least an additional 22 hours with no report of moisture conditions in the electronics housing. The pressure corresponding to the submergence is less than 5 psig. The transmitter was therefore considered acceptable for submergence.

iv For FSAR predicted values see attached temperature profile.


LOCA
SPRAYS
400
370&385
Unit 1
320 °F; 89.7psia Ref. 67
300
Unit 2
TESTED
280
250 °F; 29.8psia
Ref. 66
Ref. 30
Unit 2
200
Unit 1
REQUIRED
TEMP °F
Max. Press. Peak
28.8psia Unit 1
29.1psia Unit 2
100
10^3
10^4
10^5
10^6
TIME SEC.

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DONALD C. COOK NUCLEAR PLANT UNIT NO. 2 DOCKET NO. 50-316 LICENSE NO. DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: EMERGENCY CORE COOLING PLANT ID NO: IFI 51, 52, 53 & 54 COMPONENT: DIFFERENTIAL PRESSURE TRANSMITTER MANUFACTURER: FOXBORO MODEL NUMBER: E13DH-HSAHI MCA FUNCTION: MONITORING ACCURACY: SPEC: FUNCTIONAL DEMON: ± 6% SERVICE: BORON INJECTION TANK DISCHARGE FLOW LOCATION: INSIDE CONTAINMENT FLOOD LEVEL ELEV: 611'-0" ABOVE FLOOD LEVEL: NO	Operating Time	4.5 MIN	90 MIN	REF 1.01	WCAP 8541	SEPARATE EFFECTS	NONE NOTE 1.
	Temperature (°F)	328.2	290	REF 1.02	WCAP 8541	SEQUENTIAL	NONE
	Pressure (PSIA)	26.2	74.7	REF 1.03	WCAP 8541	SEQUENTIAL	NONE
	Relative Humidity (%)	100	100	7.5	WCAP 8541	SEQUENTIAL	NONE
	Chemical Spray	1.99% BORIC ACID .15% NIOH @ 8.4 PH	1.5% BORIC ACID @ 275° 10 PH NAOH	REF 1.04	WCAP 8541.	SEQUENTIAL	NONE
	Radiation (10^6 rads)	0.079	76	REF 1.05	WCAP 8541.	SEPARATE EFFECTS	NONE
	Aging (years)						
	Submergence	11'-6"	60 PSIG	DRWG 5570B 2 DEE	ENGRG JDGMT	ENGINEERING REVIEW	NOTE 11 NONE

*Documentation References: UNLESS OTHERWISE NOTED ALL REFERENCES ARE FSAR SECTIONS

AEW-8541 WESTINGHOUSE ELECTRIC CORP TOPICAL REPORT FOR ENVIRONMENTAL TESTING OF FOXBORO TRANSMITTERS

REF 66 WESTINGHOUSE ELECTRIC CORP COMMUNICATION: NS-TMA-2120

Notes: NO SPECIFIC ACCIDENT ANALYSIS TAKES CREDIT FOR ASSUMED OPERATION OF, THESE DEVICES. THEIR USE IS REFERENCED BY EMERGENCY OPERATING PROCEDURES. INDICATIONS FROM OTHER, DIVERSE INSTRUMENTS CAN SERVE OR CORROBORATE THE INTENDED FUNCTION.

1: SEE ATTACHED SHEET

11: SEE ATTACHED SHEET

REP: NRC: 00578

REP: NRC: 00578B

i Four separate tests were preformed on similar transmitters varying in length from 1 hour to 40½ hours in duration. The 90 minute time was selected since this represented the point during one of the four tests at which transmitter output varied by 6% of span.

ii The engineering review and judgement regarding submergence consisted of an evaluation that the tested transmitter had been subjected to combination test of spray and 60 psi saturated steam conditions for a per. at least 1 hour followed by spray and 20 psi saturated steam for at least an additional 22 hours with no report of moisture conditions in the electronics housing. The pressure corresponding to the submergence is less than 5 psig. The transmitter was therefore considered acceptable for submergence.

DONALD C. COOK NUCLEAR PLANT UNITS NO. 1 & 2 DOCKETS NO. 50-315 & 50 - 316 LICENSES NO. DRR-58 & DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: EMERGENCY CORE COOLING PLANT ID NO: IFI-260 & 266 COMPONENT: DIFFERENTIAL PRESSURE TRANSMITTER MANUFACTURER: ITT BARTON MODEL NUMBER: 332 FUNCTION: MONITORING ACCURACY: SPEC: FUNCTIONAL DEMON: FUNCTIONAL SERVICE: SIS PUMP DISCHARGE FLOW LOCATION: OUTSIDE CONTAINMENT	Operating Time	4 MONTH	4 MONTH	REF 101	ENGRG MGMT	ENG'G REVIEW	NONE
	Temperature (°F)	110	160	REF 107	MNFTR LIT.	ENG'G REVIEW	NONE
	Pressure (PSIA)	14.7	14.7	REF 107	MNFTR LIT.	ENG'G REVIEW	NONE
	Relative Humidity (%)	90°F DRY BULB 76°F WET BULB	99+	9.9	MNFTR LIT.	ENG'G REVIEW	NONE
	Chemical Spray	NA	NA				NONE
	Radiation (10^6 rads)	NA(M)	NA (M)	NA (M)	NOTE (M)	ENG'G REVIEW	NONE
	Aging (years)						
FLOOD LEVEL ELEV: ABOVE FLOOD LEVEL: N/A	Submergence	NA	NA				NONE

*Documentation References:
ALL REFS ARE TO FSAR SECTIONS UNLESS OTHERWISE NOTED

Notes: (M) TRANSMITTER IS LOCATED OUTSIDE ROOM CONTAINING RADIATION SOURCE & IS THUS SHIELDED FROM EFFECT.

MNFTR LIT: ITT BARTON PRODUCT/BULLETIN G-1-23-3

AEP:NRC:00578
AEP:NRC:00578B

DONALD C. COOK NUCLEAR PLANT UNITS NO. 1 & 2 DOCKETS NO. 50-315 & 50 - 316 LICENSES NO. DRR-58 & DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: EMERGENCY CORE COOLING PLANT ID NO: IFI 310 & 320 COMPONENT: DIFFERENTIAL PRESSURE TRANSMITTER MANUFACTURER: FOXBORO MODEL NUMBER: E13DM - HSAM1 FUNCTION: MONITORING ACCURACY: SPEC: FUNCTIONAL DEMON: ± 6% SERVICE: RHR FLOW HEAT EXCHANGER OUTLET LOCATION: OUTSIDE CONTAINMENT	Operating Time	4 MONTH	4 MONTH	REF 101	MNFTR LIT & WCAP8587	SEPARATE EFFECTS & ENGINEERING REVIEW	NONE
	Temperature (°F)	110	180	REF 107	MNFTR LIT.	ENGINEERING REVIEW	NONE
	Pressure (PSIA)	14.7	14.7	REF 107	MNFTR LIT	ENGINEERING REVIEW	NONE
	Relative Humidity (%)	90°F DRY BULB 76°F WET BULB	NEMA 4 WATERTIGHT	9.9	MNFTR LIT	ENGINEERING REVIEW	NONE
	Chemical Spray	NA	NA				NONE
	Radiation (10^6 rads)	NA (M)	NA (M)	NA (M)	NOTE (M)	ENGINEERING REVIEW	NONE
	Aging (years)						
FLOOD LEVEL ELEV: N/A ABOVE FLOOD LEVEL:	Submergence	NA	NA				NONE

*Documentation References: UNLESS OTHERWISE NOTED ALL REFERENCES ARE FSAR SECTIONS.
MNFTR-LIT - FOXBORO GENERAL SPECIFICATION GS-2A-1C1E
WCAP 8587 WESTINGHOUSE ELECTRIC CORP. TOPICAL REPORT FOR ENVIRONMENTAL TESTING OF FOXBORO TRANSMITTERS

Notes: (M) LOCATION OF TRANSMITTER IS OUTSIDE ROOM FOR WHICH RADIATION SOURCE IS GENERATED THEREFORE SHIELDED FROM EFFECT

DONALD C. COOK NUCLEAR PLANT UNITS NO. 1 & 2 DOCKETS NO. 50-315 & 50-316 LICENSES NO. DRR-58 & DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: EMERGENCY CORE COOLING PLANT ID NO: IFI 311 & 321 COMPONENT: DIFFERENTIAL PRESSURE TRANSMITTER MANUFACTURER: ITT BARTON MODEL NUMBER: 332 FUNCTION: MONITORING ACCURACY: SPEC: FUNCTIONAL DEMON: FUNCTIONAL SERVICE: RHR FLOW HEAT EXCHANGER OUTLET LOCATION: OUTSIDE CONTAINMENT	Operating Time	4 MONTH	4 MONTH	REF 101	ENGRG JDGMT	ENGINEERING REVIEW	NONE
	Temperature (°F)	110	160	REF 107	MNFTR LIT.	ENGINEERING REVIEW	NONE
	Pressure (PSIA)	14.7	14.7	REF 107	MNFTR LIT.	ENGINEERING REVIEW	NONE
	Relative Humidity (%)	90°F DRY BULB 76°F WET BULB	99+	9.9	MNFTR LIT.	ENGINEERING REVIEW	NONE
	Chemical Spray	NA	NA				NONE
	Radiation (10^6 rads)	NA (M)	NA(M)	NA	NOTE (M)	ENGINEERING REVIEW	NONE
	Aging (years)						
FLOOD LEVEL ELEV: N/A ABOVE FLOOD LEVEL:	Submergence	NA	NA				NONE

*Documentation References: ALL REFERENCES ARE FSAR SECTIONS UNLESS OTHERWISE NOTED
MNFTR LIT. ITT BARTON PRODUCT / BULLETIN G1-23-3

Notes: (M) LOCATION OF TRANSMITTER IS OUTSIDE ROOM FOR WHICH RADIATION SOURCE IS GENERATED THEREFORE SHIELDED FROM EFFECT.

AEP: NRC: 00578

AEP: NRC: 00578 B

DONALD C. COOK NUCLEAR PLANT UNIT NO. 2 | DOCKET NO. 50-316 | LICENSE NO. DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: LIST A PLANT ID NO: MFC-110, 111, 120, 121, 130, 131, 140 & 141 COMPONENT: DIFFERENTIAL PRESSURE TRANSMITTER MANUFACTURER: ITT BARTON MODEL NUMBER: 764 FUNCTION: ACTUATION + NORMAL MONITORING ACCURACY: SPEC: -10% DEMON: +17% -10% SERVICE: MAIN STEAM FLOW LOCATION: IN CONTAINMENT	Operating Time	1.5 SEC	≈3307 days	REF 101	REF 67	SEQUENTIAL & ENGRG ANAL NOTE iii	NONE
	Temperature (°F)	328.2 NOTE iv	385	REF 102	REF. 67	SEQUENTIAL	NONE
	Pressure (PSIA)	26.2 NOTE iv	89.7	REF 103	REF 67	SEQUENTIAL	NONE
	Relative Humidity (%)	100	100	7.5	REF 67	SEQUENTIAL	NONE
	Chemical Spray	1.14% BORIC ACID + .15% NAOH PH 8.4	1.14% BORIC ACID + .17% NAOH PH 8.65	REF 104	REF 67	SEQUENTIAL	NONE
	Radiation (10^6 rads)	0.079	50 @ 2.5/HR	REF 105	REF 67	SEQUENTIAL	NONE
	Aging (years)						
FLOOD LEVEL ELEV: 614'-0" ABOVE FLOOD LEVEL: NO	Submergence	18 FT	75 PSIG	DRWG 5570D	ENGR JDGMT	ENGINEERING REVIEW	NONE NOTE ii

*Documentation References: UNLESS OTHERWISE NOTED ALL REFERENCES ARE FSAR SECTIONS.

REF 67 - WESTINGHOUSE ELECTRIC CORP
COMMUNICATION NS-TMA-2441
WCAP-9885

Notes: ADVERSE ENVIRONMENT GENERATING ACCIDENT ANALYSIS FOR WHICH CREDIT IS ASSUMED FOR OPERATION OF THESE DEVICES ARE 14.2.5 AND UNIT 2 14.2.8

iii SEE ATTACHED SHEET

iv SEE ATTACHED SHEET

ii SEE ATTACHED SHEET

AEP: NRC: 00578

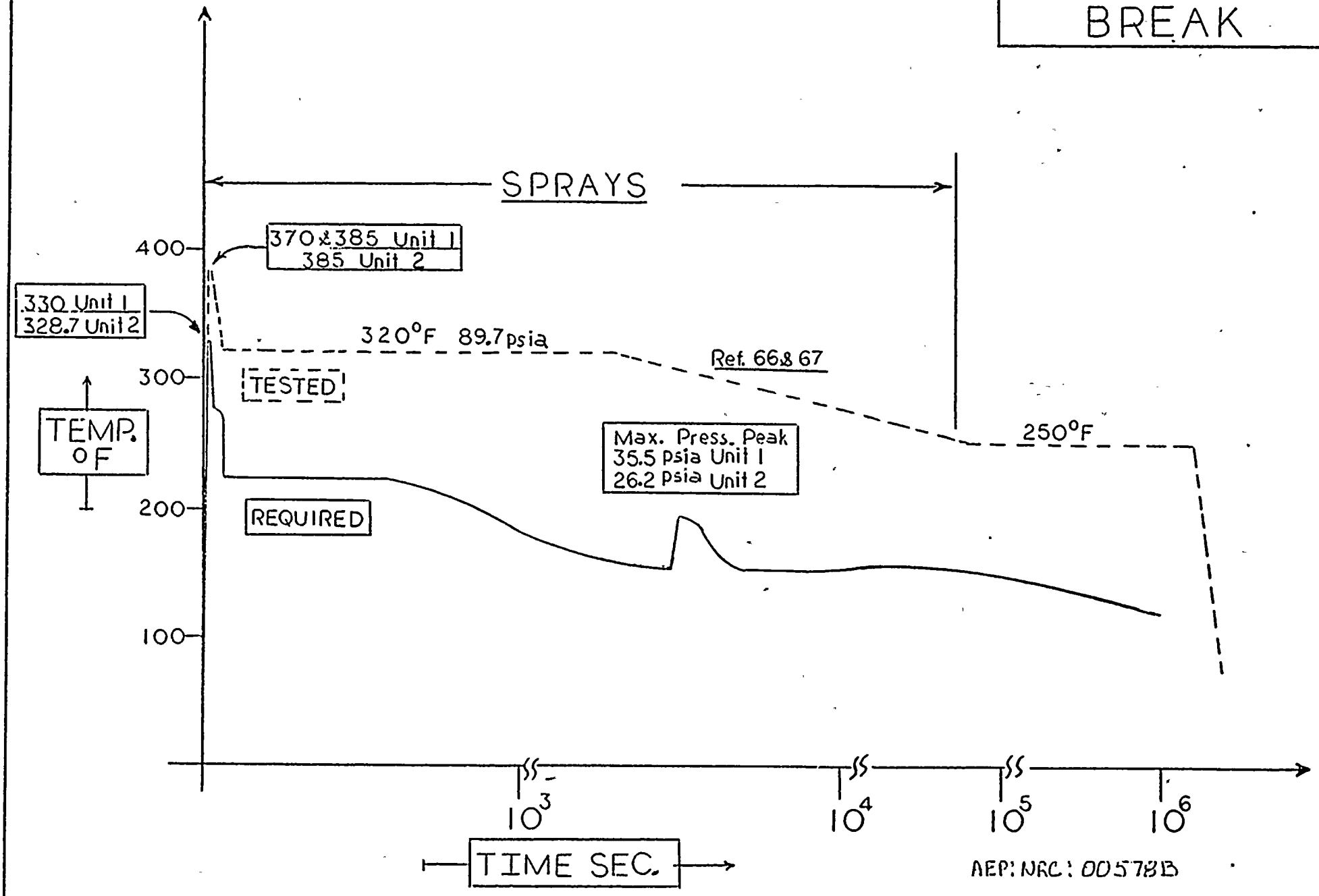
AEP: NRC: 00578 B

ii The engineering review and judgement regarding submergence consisted of an evaluation that the tested transmitter had been subjected to combination test of spray and 60 psi saturated steam conditions for a period of at least 1 hour followed by spray and 20 psi saturated steam for at least an additional 22 hours with no report of moisture conditions in the electronics housing. The pressure corresponding to the submergence is less than 5 psig. The transmitter was therefore considered acceptable for submergence.

iii Arrhenius Analysis was performed which reflected the FSAR containment lower volume temperature rather than the very conservative temperature of 160°F previously used by References 30, 66 & 67. These references predicted a value of an equivalent 120 days based on the tested temperature of 250°F for 14 days.

iv For FSAR predicted values see attached temperature profile.

STEAM LINE BREAK



DONALD C. COOK NUCLEAR PLANT UNITS NO. 1 & 2 DOCKETS NO. 50-315 & 50 - 316 LICENSES NO. DRR-58 & DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: MAIN STEAM & REACTOR TRIP ACTUATION	Operating Time						
PLANT ID NO: MPC 253 & 254	Temperature (°F)						
COMPONENT: PRESSURE TRANSMITTER	Pressure (PSIA)						
MANUFACTURER: FOXBORO	Relative Humidity (%)						
MODEL NUMBER: EIIGM-HSADI	Chemical Spray						
FUNCTION: NORMAL MONITOR & ACTUATION	Radiation (10^6 rads)						
ACCURACY: SPEC: DEMON:	Aging (years)						
SERVICE: FIRST STAGE TURBINE PRESSURE	Submergence						
LOCATION: OUTSIDE CONTAINMENT							
FLOOD LEVEL ELEV: ABOVE FLOOD LEVEL: N/A							

NOT APPLICABLE

*Documentation References:

Notes:

THESE DEVICES WERE INCLUDED IN THE FIRST SUBMITTAL OF IEB 79-01B TO ACCOUNT FOR DEVICES REFERENCED BY 14.2.5 ACCIDENT ANALYSIS. THESE DEVICES ARE NOT REQUIRED EQUIPMENT DUE TO THE Q 022.16 EXCLUSION OF THE NEUTRON DETECTOR. THE DETECTORS AND THESE DEVICES FORMED A COINCIDENCE LOGIC FOR REACTOR TRIP. THEREFORE EXCLUSION OF THE DETECTORS CAUSES EXCLUSION OF THESE DEVICES.

AEP: NRC: 00578

AEP: NRC: 00578 B

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: LIST B PLANT ID NO: MPP 210, 211 220, 221, 230, 231, 240 & 241 COMPONENT: PRESSURE TRANSMITTER MANUFACTURER: FOXBORO MODEL NUMBER: EIIGM-II5AE1 (MCA) FUNCTION: POST ACCIDENT NORMAL MONITOR & ACTUATION ACCURACY: SPEC: + 10% DEMON: - 12.5% SERVICE: MAIN STEAM PRESSURE LOCATION: OUTSIDE CONTAINMENT	Operating Time	4 MONTH	> 4 MONTH	REF 10.1	NS-PLC-5023	SEQUENTIAL	NONE
	Temperature (°F)	230	318	REF 10.7	NS-PLC-5023	SEQUENTIAL	NONE
	Pressure (PSIA)	26.2	90	REF 10.7	NS-PLC-5023	SEQUENTIAL	NONE
	Relative Humidity (%)	100	100	7.5	NS-PLC-5023	SEQUENTIAL	NONE
	Chemical Spray	NONE	NONE	N/A	N/A	N/A	NONE
	Radiation (10^6 rads)	N/A	50	N/A	NS-PLC-5023	SEPARATE EFFECTS	NONE
	Aging (years)						
FLOOD LEVEL ELEV: N/A ABOVE FLOOD LEVEL:	Submergence	N/A	N/A				

*Documentation References: UNLESS OTHERWISE NOTED ALL REFERENCES ARE TO FSAR SECTIONS

NS-PLC-5023 WESTINGHOUSE ELECTRIC CORP. CORRESPONDENCE WITH AS NOTED IDENTITY.

Notes: ADVERSE ENVIRONMENT GENERATING ACCIDENT ANALYSIS FOR WHICH CREDIT IS ASSUMED FOR OPERATION OF THESE DEVICES IS 14.2.5

DONALD C. COOK NUCLEAR PLANT UNITS NO. 1 & 2 DOCKETS NO. 50-315 & 50 - 316 LICENSES NO. DRR-58 & DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: LIST C PLANT ID NO: MPP-212, 222, 232 & 242 COMPONENT: PRESSURE TRANSMITTER MANUFACTURER: FOXBORO MODEL NUMBER: EIIGM-HSAE1 FUNCTION: POST ACCIDENT & NORMAL MONITOR & ACTUATION ACCURACY: SPEC: ±10% DEMON: ± 2.5% SERVICE: MAIN STEAM PRESSURE LOCATION: OUTSIDE CONTAINMENT	Operating Time	4 MONTH	4 MONTH	REF 101	MANF LIT.	ENGINEERING REVIEW	NONE
	Temperature (°F)	230	180	REF 107	MANFTR LIT.	ENGINEERING REVIEW	NONE.
	Pressure (PSIA)	26.2	14.7	REF 107	NONE	ENGINEERING REVIEW	NONE
	Relative Humidity (%)	100	NEMA 4 WATER-TIGHT	7.5	MANFTR LIT.	ENGINEERING REVIEW	NONE
	Chemical Spray	NONE	NONE	N/A	N/A	N/A	NONE
	Radiation (10^6 rads)	N/A	N/A	N/A	N/A	N/A	NONE
	Aging (years)						
FLOOD LEVEL ELEV: ABOVE FLOOD LEVEL: N/A	Submergence	N/A	N/A				

*Documentation References: UNLESS OTHERWISE NOTED ALL REFERENCES ARE TO FSAR SECTIONS.
MANFTR LIT FOXBORO PRODUCT SPECIFICATION PSS 2A-1B3A

Notes: THE ARRANGEMENT OF THE DIFFERENTIAL PRESSURE BETWEEN STEAMLINES LOGIC IS SUCH THAT FAILURE OF THESE DEVICES COUPLED WITH A SINGLE FAILURE WILL STILL GENERATE THE ACCIDENT ANALYSIS ASSUMED OPERATION. THEREFORE CONTROL GRADE HARDWARE IS ACCEPTABLE. ACCIDENT ANALYSIS SECTION IS 14.2.5.

AEP:NRC:00578

AEP:NRC:00578B

DONALD C. COOK NUCLEAR PLANT UNITS NO. 1 & 2 DOCKETS NO. 50-315 & 50 - 316 LICENSES NO. DRR-58 & DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: REACTOR TRIP ACTUATION PLANT ID NO: N 35 & 36 COMPONENT: ION CHAMBER MANUFACTURER: WESTINGHOUSE MODEL NUMBER: WL 23690 FUNCTION: NORMAL MONITORING & ACTUATION (D) ACCURACY: SPEC: DEMON: SERVICE: INTERMEDIATE RANGE NEUTRON FLUX LOCATION: INSIDE CONTAINMENT	Operating Time						
	Temperature (°F)						
	Pressure (PSIA)						
	Relative Humidity (%)						
	Chemical Spray	NOT APPLICABLE					
	Radiation (10^6 rads)						
	Aging (years)						
FLOOD LEVEL ELEV: ABOVE FLOOD LEVEL:	Submergence						

*Documentation References:

Notes: (D) ACTUATION REQUIREMENTS ARE FOR NON-ADVERSE ENVIRONMENT ACCIDENT ANALYSIS. CREDIT FOR FUNCTION OF DEVICE REFERENCED BY F.1, 14.3.1, 14.2.5 & 14.2.8 ANALYSIS. ACTUATION IS NOT ASSUMED IN LOCA OR MELB ANALYSIS.

AEP:NRC:00578

AEP:NRC:00578B

DONALD C. COOK NUCLEAR PLANT UNITS NO. 1 & 2 DOCKETS NO. 50-315 & 50 - 316 LICENSES NO. DRR-58 & DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: REACTOR TRIP ACTUATION PLANT ID NO: N 41A, 41B, 42A, 42B, 43A, 43B, 44A & 44B COMPONENT: ION CHAMBER MANUFACTURER: WESTINGHOUSE MODEL NUMBER: WL 23686 FUNCTION: NORMAL MONITORING & ACTUATION (D) ACCURACY: SPEC: DEMON: SERVICE: POWER RANGE NEUTRON FLUX LOCATION: INSIDE CONTAINMENT	Operating Time						
	Temperature (°F)						
	Pressure (PSIA)						
	Relative Humidity (%)						
	Chemical Spray	NOT APPLICABLE					
	Radiation (10^6 rads)						
	Aging (years)						
FLOOD LEVEL ELEV: ABOVE FLOOD LEVEL:	Submergence						

*Documentation References:

Notes: (D) ACTUATION REQUIREMENTS ARE FOR NON-ADVERSE ENVIRONMENT ACCIDENT ANALYSIS. CREDIT FOR FUNCTION OF DEVICE REFERENCED BY P.I, 14.3.1, 14.2.5 & 14.2.8 ANALYSIS. AS PER Q022.16, OPERATION IS NOT ASSUMED IN LOCA OR MCLB ANALYSIS.

DONALD C. COOK NUCLEAR PLANT UNIT NO. 2 | DOCKET NO. 50-316 | LICENSE NO. DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: L I ST J PLANT ID NO: NLP-151 NLP-152 NLP-153 COMPONENT: DIFFERENTIAL PRESSURE TRANSMITTER MANUFACTURER: ITT BARTON MODEL NUMBER: 764 FUNCTION: POST ACCIDENT & LONG TERM NORMAL MANITORING * ACCURACY: SPEC: ±25% DEMON: +17% -10% SERVICE: PRESSURIZER LEVEL LOCATION: INSIDE CONTAINMENT	Operating Time	4 MONTHS	≥330 DAYS	REF 101	REF 66	SEQUENTIAL & ENGR ANAL NOTE(1)	NONE
	Temperature (°F)	160 Note iv	160	REF 102	REF 66	SEQUENTIAL	NONE
	Pressure (PSIA)	29.1	89.7	REF 103	REF 66	SEQUENTIAL	NONE
	Relative Humidity (%)	100	100	7.5	REF 66	SEQUENTIAL	NONE
	Chemical Spray	1.14% BORIC ACID & 0.15% NAOH PH 8.4	1.14% BORIC ACID & 0.17% NAOH PH 8.55	REF 104	REF 66	SEQUENTIAL	NONE
	Radiation (10^6 rads)	40	50 AT 2.5 /HR.	REF 105	REF 66	SEQUENTIAL	NONE
	Aging (years)						
FLOOD LEVEL ELEV: 614'-0" ABOVE FLOOD LEVEL: YES	Submergence	NA	NA	DRWG 5581B	NA	NA	NONE

*Documentation References: UNLESS OTHERWISE NOTED ALL REFERENCES ARE FSAR SECTIONS.

REF 66 WESTINGHOUSE ELECTRIC CORP. COMMUNICATIONS NS-TMA-2120

Notes: (1): REQUIREMENTS ADDRESSED IN REF. 30 WHICH WAS SUBMITTED IN RESPONSE TO QUESTION 030.1

* ACTUATION FUNCTION IN 14.2.5 ANALYSIS RELIEVED PER OUR RESPONSE TO IEB-79-06A WHICH REPLACED LEVEL CONTRIBUTION TO ACTUATION LOGIC WITH A CONSTANT "TRIP" SIGNAL.

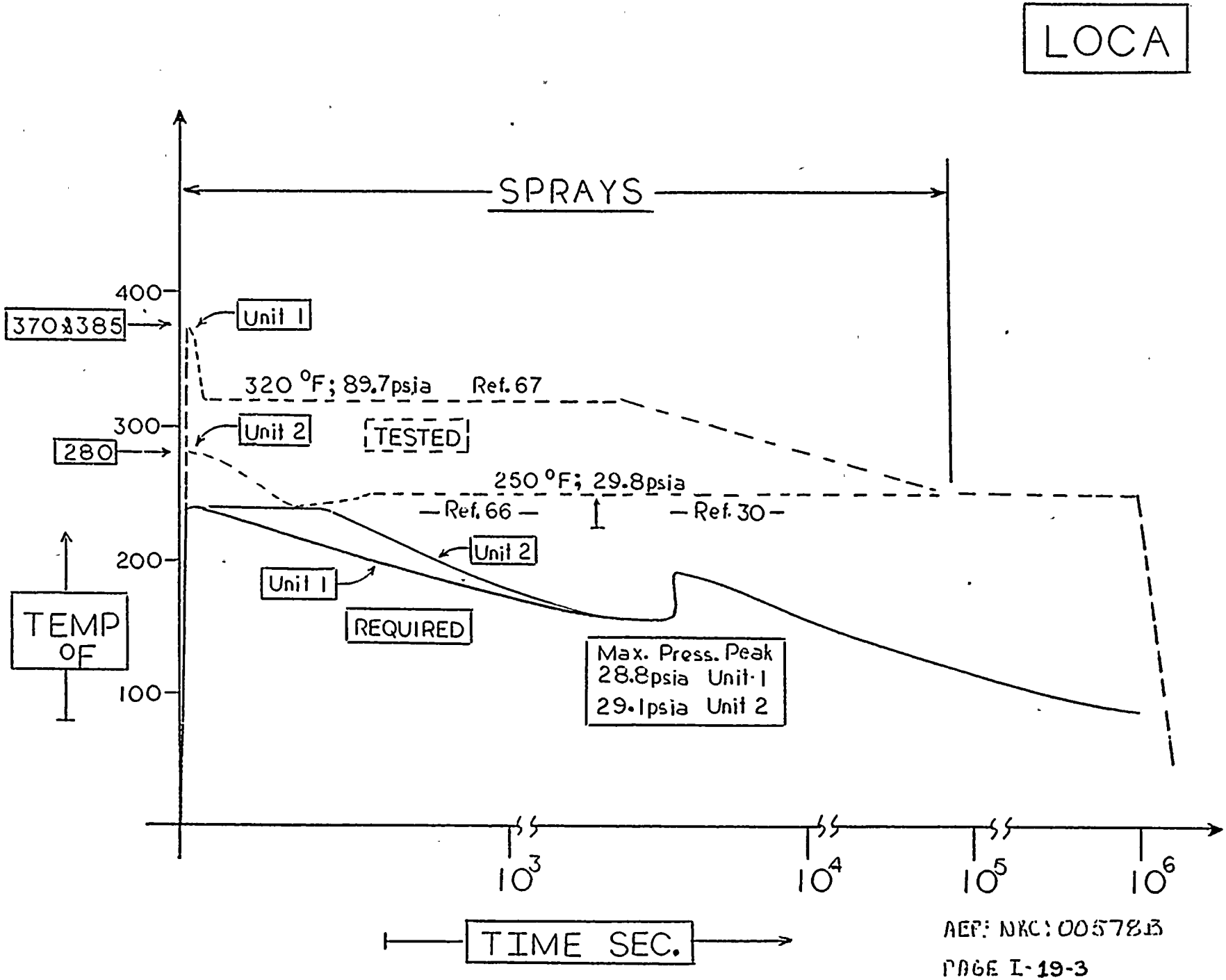
LLL, iv } SEE ATTACHED SHEET

AEP:NRC:00578

AEP:NRC:00578B

iii Arrhenius Analysis was performed which reflected the FSAR containment lower volume temperature rather than the very conservative temperature of 160°F previously used by References 30, 66 & 67. These references predicted a value of an equivalent 120 days based on the tested temperature of 250°F for 14 days.

iv For FSAR predicted values see attached temperature profile.


LOCA
SPRAYS
400
370&385
Unit 1
320 °F; 89.7psia Ref. 67
300
280
Unit 2
TESTED
250 °F; 29.8psia
— Ref. 66 —
— Ref. 30 —
Unit 2
200
Unit 1
REQUIRED
TEMP °F
100
Max. Press. Peak
28.8psia Unit 1
29.1psia Unit 2
10^3
10^4
10^5
10^6
TIME SEC.

DONALD C. COOK NUCLEAR PLANT UNIT NO. 2 | DOCKET NO. 50-316 | LICENSE NO. DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: LIST E PLANT ID NO: NPP-151 152 E153 COMPONENT: PRESSURE TRANSMITTER MANUFACTURER: ITT BARTON MODEL NUMBER: 763 FUNCTION: POST ACCIDENT & NORMAL MONITOR + ACTUATION ACCURACY: SPEC: ± 10% DEMON: +5% SERVICE: PRESSURIZER PRESSURE LOCATION: INSIDE CONTAINMENT	Operating Time	1.5 SEC & 4 MONTH	≥ 330 days	REF 101	REF 67	SEQUENTIAL & ENGRG ANAL NOTE (B)	NONE
	Temperature (°F)	328.2 Note iv	385	REF 102	REF 67	SEQUENTIAL	NONE
	Pressure (PSIA)	26.2	89.7	REF 103	REF 67	SEQUENTIAL	NONE
	Relative Humidity (%)	100	100	7.5	REF 67	SEQUENTIAL	NONE
	Chemical Spray	1.14% BORIC ACID + 15% NAOH PH 8.4	1.14% BORIC ACID + .17% NAOH PH 8.55	REF 104	REF 67	SEQUENTIAL	NONE
	Radiation (10^6 rads)	0.079	50	REF 105	REF 67	SEQUENTIAL	NONE
	Aging (years)						
FLOOD LEVEL ELEV: 614'-0" ABOVE FLOOD LEVEL: YES	Submergence	NA	NA	NA	DRWG 55818	NA	NONE

*Documentation References: UNLESS OTHERWISE NOTED ALL REFERENCES ARE FSAR SECTIONS.

Notes: (B) REQUIREMENTS ADDRESSED IN REFERENCE 30 WHICH WAS SUBMITTED IN RESPONSE TO QUESTION 020.1 14.2.5 & 14.2.8 IS THE ACCIDENT ANALYSIS GENERATING AN ADVERSE ENVIRONMENT FOR WHICH CREDIT IS ASSUMED FOR OPERATION OF THESE DEVICES.

(iii) (w) SEE ATTACHED SHEET

REF 67 WESTINGHOUSE ELECTRIC CORP COMMUNICATION NS-TMA-2441 WCAP 9885

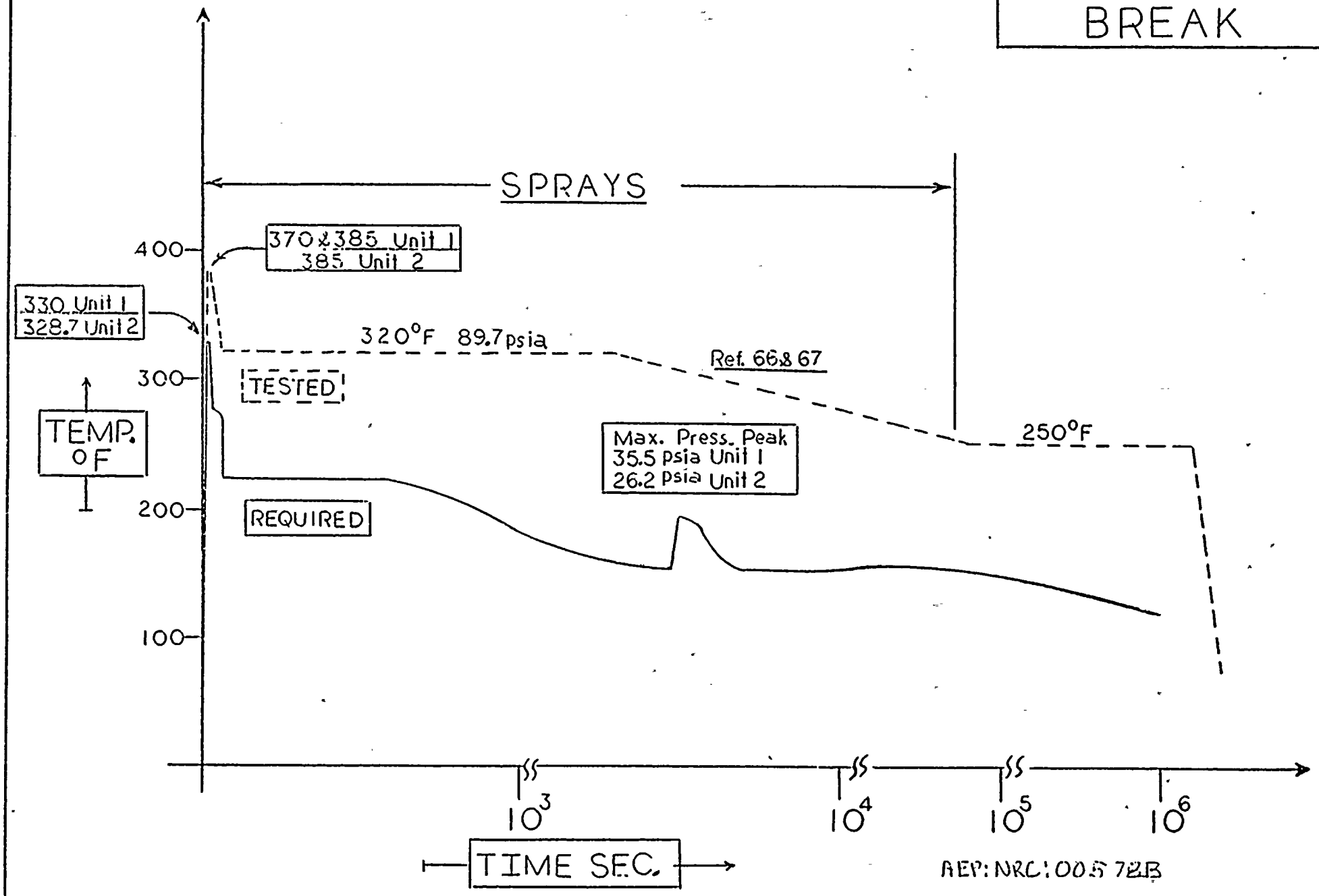
REP: NRC: 00578

AEP: NRC: 00578 B

iii Arrhenius Analysis was performed which reflected the FSAR containment lower volume temperature rather than the very conservative temperature of 160°F previously used by References 30, 66 & 67. These references predicted a value of an equivalent 120 days based on the tested temperature of 250°F for 14 days.

iv For FSAR predicted values see attached temperature profile.

STEAM LINE BREAK



AEP: NRC: 005 72B

DONALD C. COOK NUCLEAR PLANT UNIT NO. 2 | DOCKET NO. 50-316 | LICENSE NO. DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: LIST E PLANT ID NO: NPP 151 152 E153 COMPONENT: PRESSURE TRANSMITTER MANUFACTURER: ITT BARTON MODEL NUMBER: 763 FUNCTION: POST ACCIDENT MONITOR + ACTUATION ACCURACY: SPEC: ± 10% DEMON: +3% -10% SERVICE: PRESSURIZER PRESSURE LOCATION: INSIDE CONTAINMENT	Operating Time	.7 SEC LLOCA 28 SEC SLOCA	≈ 330 DAYS	REF 101	REF 67	SEQUENTIAL & ENGRG. ANAL NOTE III	NONE
	Temperature (°F)	250 NOTE IV	280	REF 102	REF 67	SEQUENTIAL	NONE
	Pressure (PSIA)	29.1	89.7	REF 103	REF 67	SEQUENTIAL	NONE
	Relative Humidity (%)	100	100	7.5	REF 67	SEQUENTIAL	NONE
	Chemical Spray	1.14% BORIC ACID + .15% NAOH PH 8.4	1.14% BORIC ACID + .17% NAOH PH 8.55	REF 104	REF 67	SEQUENTIAL	NONE
	Radiation (10^6 rads)	.07	50 @ 2.5/HR	REF 105	REF 67	SEQUENTIAL	NONE
	Aging (years)						
FLOOD LEVEL ELEV: 614'-0" ABOVE FLOOD LEVEL: YES	Submergence	NA	NA	NA	DRWG 55818	NA	NONE

*Documentation References: UNLESS OTHERWISE NOTED ALL REFERENCES ARE FSAR SECTIONS

Notes: 14.3-1 IS THE ACCIDENT ANALYSIS GENERATING AN ADVERSE ENVIRONMENT FOR WHICH CREDIT IS ASSUMED FOR OPERATION OF THESE DEVICES.

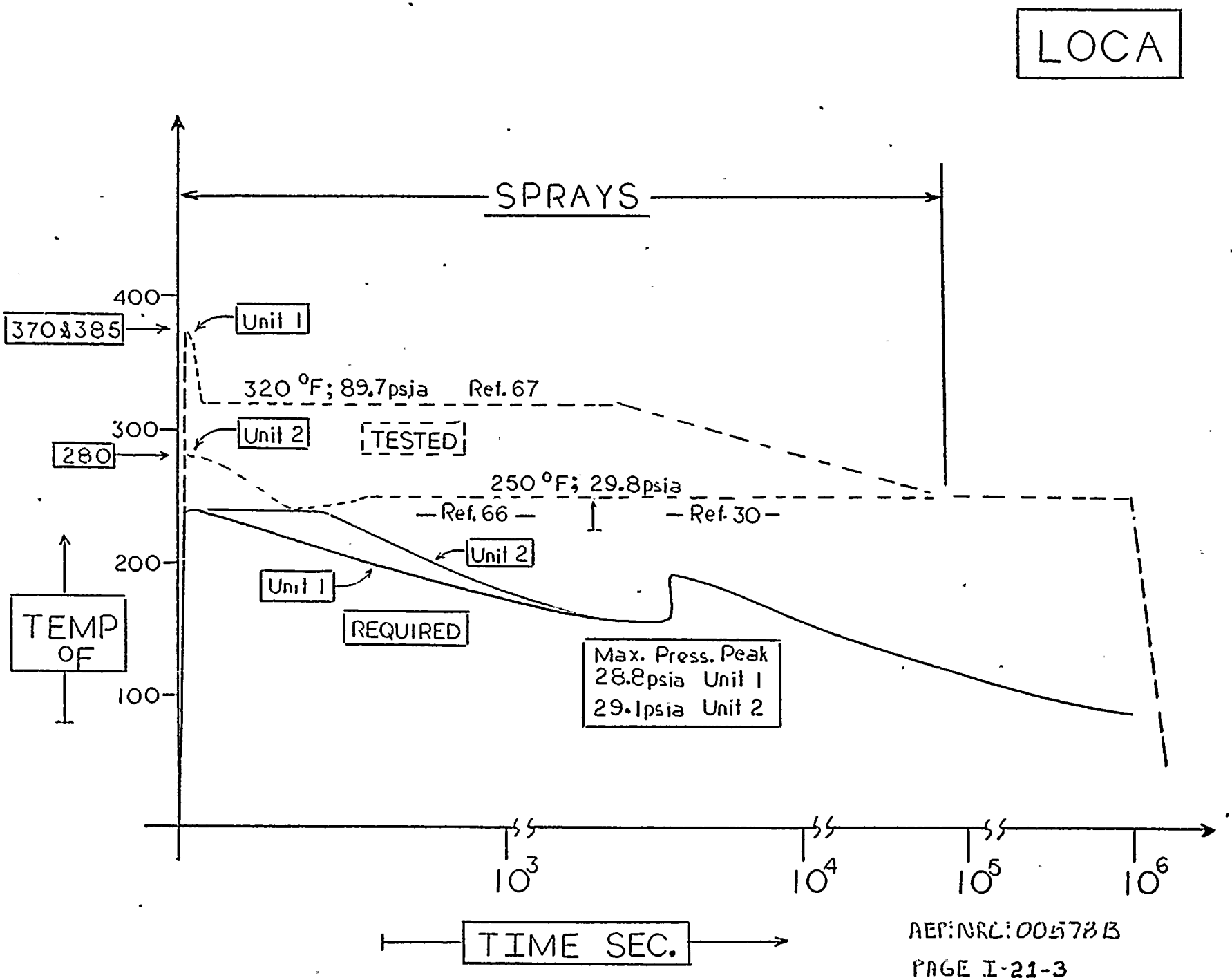
REF 67 WESTINGHOUSE ELECTRIC CORP
COMMUNICATIONS NS-TMA-2441
WCAP 9885

III SEE ATTACHED SHEET
IV SEE ATTACHED SHEET

AEP:NRC:00578
AEP:NRC:00578B

iii Arrhenius Analysis was performed which reflected the FSAR containment lower volume temperature rather than the very conservative temperature of 160°F previously used by References 30, 66 & 67. These references predicted a value of an equivalent 120 days based on the tested temperature of 250°F for 14 days.

iv For FSAR predicted values see attached temperature profile.


LOCA
SPRAYS
400
370&385
Unit 1
320 °F; 89.7psia Ref. 67
300
Unit 2
TESTED
280
250 °F; 29.8psia
— Ref. 66 —
— Ref. 30 —
Unit 2
200
Unit 1
REQUIRED
TEMP °F
100
Max. Press. Peak
28.8psia Unit 1
29.1psia Unit 2
10^3
10^4
10^5
10^6
TIME SEC.

DONALD C. COOK NUCLEAR PLANT UNIT NO. 2 | DOCKET NO. 50-316 | LICENSE NO. DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: LIST E PLANT ID NO: NPP-151, 152, E153 COMPONENT: PRESSURE TRANSMITTER MANUFACTURER: ITT BARTON MODEL NUMBER: 763 FUNCTION: POST ACCIDENT + NORMAL MONITOR + ACTUATION ACCURACY: SPEC: ±10% DEMON: +3% -10% SERVICE: PRESSURIZER PRESSURE LOCATION: INSIDE CONTAINMENT	Operating Time	4 MONTH	≈330 DAYS	REF 101	REF 67	SEQUENTIAL & ENGRG ANAL NOTE (b)	NONE
	Temperature (°F)	160 NOTE (v)	160	REF 102	REF 67	SEQUENTIAL	NONE
	Pressure (PSIA)	29.1	89.7	REF 103	REF 67	SEQUENTIAL	NONE
	Relative Humidity (%)	100	100	7.5	REF 67	SEQUENTIAL	NONE
	Chemical Spray	1.14% BORIC ACID + .15% NAOH PH 8.4	1.14% BORIC ACID + .17% NAOH PH 8.55	REF 104	REF 67	SEQUENTIAL	NONE
	Radiation (10^6 rads)	40	50 @ 2.5/HR	REF 105	REF 67	SEQUENTIAL	NONE
	Aging (years)						
FLOOD LEVEL ELEV: 614'-0" ABOVE FLOOD LEVEL: YES	Submergence	NA	NA	NA	DWRG 55818	NA	NONE

*Documentation References: UNLESS OTHERWISE NOTED ALL REFERENCES ARE FSAR SECTIONS.

REF 67 WESTINGHOUSE ELECTRIC CORP COMMUNICATION NS-TMA-2441 WCAP 9885

Notes: (b) REQUIREMENTS ADDRESSED IN REFERENCE 30 WHICH WAS SUBMITTED IN RESPONSE TO FSAR QUESTION 030.1 14.3.1 IS THE ACCIDENT ANALYSIS GENERATING AN ADVERSE ENVIRONMENT FOR WHICH CREDIT IS ASSUMED FOR OPERATION OF THESE DEVICES.

(v) - SEE ATTACHED SHEET

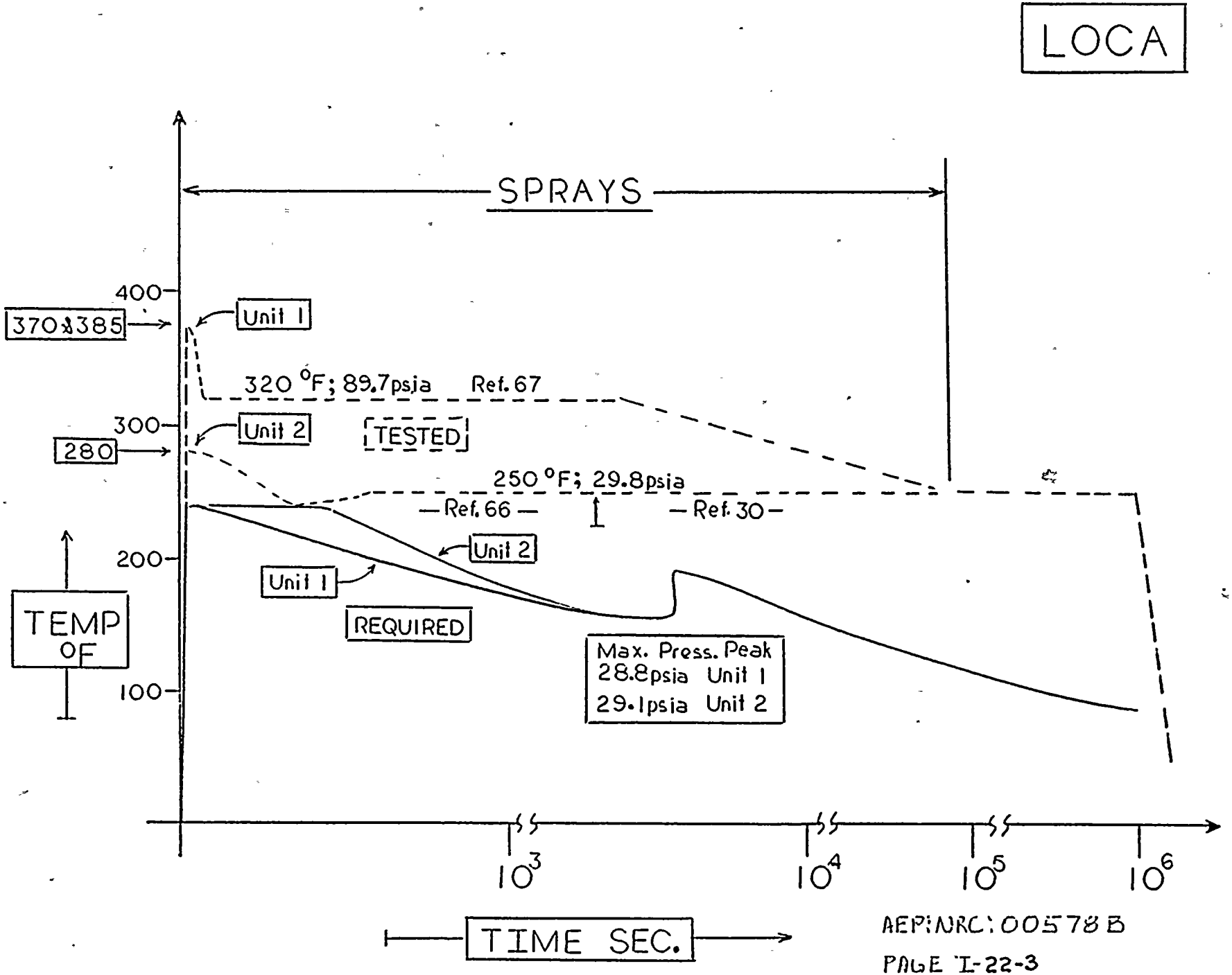
(w) SEE ATTACHED SHEET

REP: NRC: 00578

REP: NRC: 00578 B

iii Arrhenius Analysis was performed which reflected the FSAR containment lower volume temperature rather than the very conservative temperature of 160°F previously used by References 30, 66 & 67. These references predicted a value of an equivalent 120 days based on the tested temperature of 250°F for 14 days.

iv For FSAR predicted values see attached temperature profile.


LOCA
SPRAYS
400
370&385
Unit 1
320 °F; 89.7psia Ref. 67
300
280
Unit 2
TESTED
250 °F; 29.8psia
— Ref. 66 —
— Ref. 30 —
Unit 2
200
Unit 1
REQUIRED
TEMP °F
100
Max. Press. Peak
28.8psia Unit 1
29.1psia Unit 2
10^3
10^4
10^5
10^6
TIME SEC.

DONALD C. COOK NUCLEAR PLANT UNIT NO. 2 | DOCKET NO. 50-316 | LICENSE NO. DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: REACTOR COOLANT + POST ACCIDENT MONITOR PLANT ID NO: NPS 121+ 122 COMPONENT: PRESSURE TRANSMITTER MANUFACTURER: ITT BARTON MODEL NUMBER: 763 FUNCTION: MONITORING ACCURACY: SPEC: ±10%, DEMON: +3%, -10% SERVICE: REACTOR COOLANT PRESSURE LOCATION: INSIDE CONTAINMENT	Operating Time	4 MONTHS	≈330 DAYS	REF 101	REF 66	SEQUENTIAL + ENGRG ANAL NOTE LL	NONE
	Temperature (°F)	328.2 NOTE LV	385	REF 102	REF 66	SEQUENTIAL	NONE
	Pressure (PSIA)	26.2	89.7	REF 103	REF 66	SEQUENTIAL	NONE
	Relative Humidity (%)	100	100	7.5	REF 66	SEQUENTIAL	NONE
	Chemical Spray	1.14% BORIC ACID + .15% NAOH PH 11 84	1.14% BORIC ACID + .17% NAOH PH 8.55	REF 104	REF 66	SEQUENTIAL	NONE
	Radiation (10^6 rads)	0.079	50	REF 105	REF 66	SEQUENTIAL	NONE
	Aging (years)						
FLOOD LEVEL ELEV: 614'-0" ABOVE FLOOD LEVEL: NO	Submergence	12 FT	75 PSIG	DRWG 5570D1C	ENGR JUGMT	ENGINEERING REVIEW	NONE NOTE LL

*Documentation References: UNLESS OTHERWISE NOTED ALL REFERENCES ARE FSAR SECTIONS.

REF 66 WESTINGHOUSE ELECTRIC CORP COMMUNICATION NS-TMA-2120

Notes: Q022.8, Q022.16 & Q212.35 ARE THE ADVERSE ENVIRONMENT GENERATING ACCIDENT ANALYSIS FOR WHICH CREDIT IS ASSUMED FOR OPERATION OF THESE DEVICES.

LL SEE ATTACHED SHEET

L SEE ATTACHED SHEET

LV SEE ATTACHED SHEET

AEP:NRC:00578

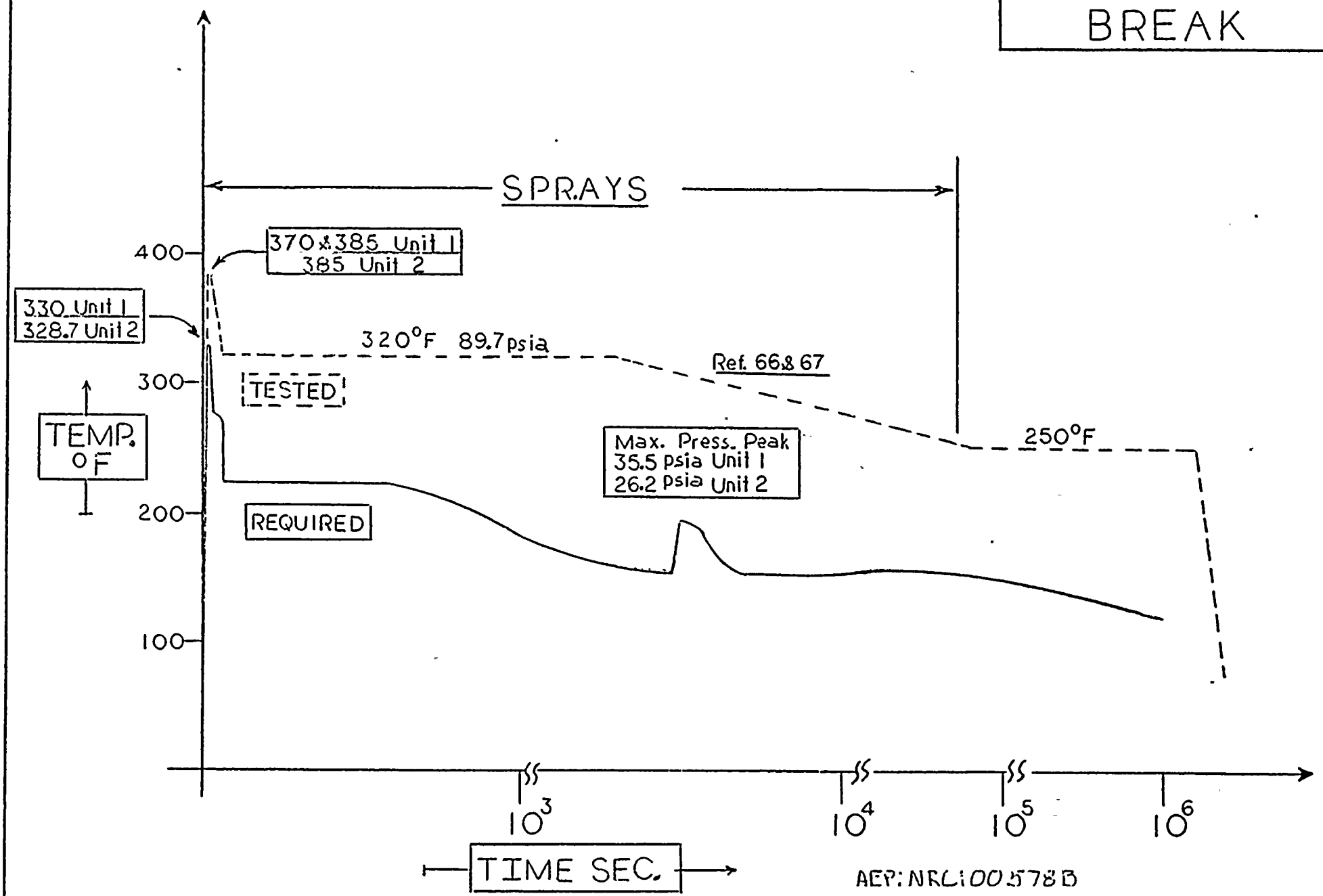
AEP:NRC:00578B

ii The engineering review and judgement regarding submergence consisted of an evaluation that the tested transmitter had been subjected to combination test of spray and 60 psi saturated steam conditions for a period of at least 1 hour followed by spray and 20 psi saturated steam for at least an additional 22 hours with no report of moisture conditions in the electronics housing. The pressure corresponding to the submergence is less than 5 psig. The transmitter was therefore considered acceptable for submergence.

iii Arrhenius Analysis was performed which reflected the FSAR containment lower volume temperature rather than the very conservative temperature of 160°F previously used by References 30, 66 & 67. These references predicted a value of an equivalent 120 days based on the tested temperature of 250°F for 14 days.

iv For FSAR predicted values see attached temperature profile.

STEAM LINE BREAK



DONALD C. COOK NUCLEAR PLANT UNIT NO. 2 | DOCKET NO. 50-316 | LICENSE NO. DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: REACTOR COOLANT & POST ACCIDENT MONITOR PLANT ID NO: NPS 121 & 122 COMPONENT: PRESSURE TRANSMITTER MANUFACTURER: ITT BARTON MODEL NUMBER: 763 FUNCTION: LONG TERM MONITORING ACCURACY: SPEC: ± 10% DEMON: +3% -10% SERVICE: REACTOR COOLANT PRESSURE LOCATION: INSIDE CONTAINMENT	Operating Time	4 MONTHS	≈ 330 DAYS	REF 101	REF 66	SEQUENTIAL & ENGRG ANAL NOTE iii	NONE
	Temperature (°F)	250 Note iv	280	REF 102	REF 66	SEQUENTIAL	NONE
	Pressure (PSIA)	29.1	89.7	REF 103	REF 66	SEQUENTIAL	NONE
	Relative Humidity (%)	100	100	7.5	REF 66	SEQUENTIAL	NONE
	Chemical Spray	1.14% BORIC ACID + .15% NAOH	1.14% BORIC ACID + .17% NAOH	REF 104	REF 66	SEQUENTIAL	NONE
	Radiation (10^6 rads)	40	50	REF 105	REF 66	SEQUENTIAL	NONE
	Aging (years)						
FLOOD LEVEL ELEV: 614'-0" ABOVE FLOOD LEVEL: NO	Submergence	12 FT	75 PSIG	DRWG SS708K	ENGR JDGMT	ENGINEERING REVIEW	NONE. NOTE ii

*Documentation References: UNLESS OTHERWISE NOTED ALL REFERENCES ARE FSAR SECTIONS.

REF 66 WESTINGHOUSE ELECTRIC CORP COMMUNICATION NS-TMA-2120

Notes: Q022.8, Q022.16 & Q212.35 ARE THE ADVERSE ENVIRONMENT GENERATING ACCIDENT ANALYSIS FOR WHICH CREDIT IS ASSUMEND FOR OPERATION OF THESE DEVICES.

ii SEE ATTACHED SHEET

iv SEE ATTACHED SHEET

ii SEE ATTACHED SHEET

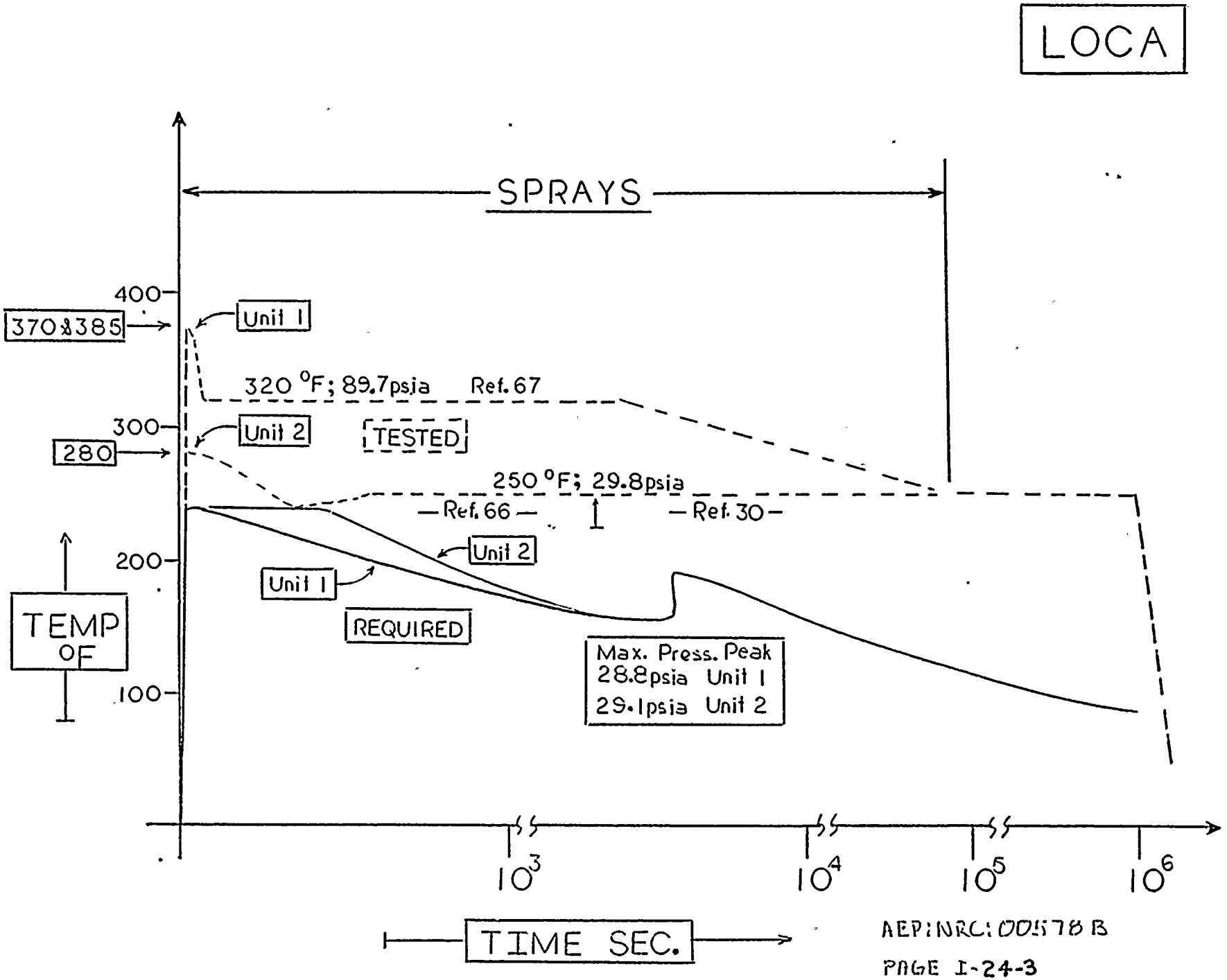
REP: NRC: 00578

REP: NRC: 00578B

ii The engineering review and judgement regarding submergence consisted of an evaluation that the tested transmitter had been subjected to combination test of spray and 60 psi saturated steam conditions for a period of at least 1 hour followed by spray and 20 psi saturated steam for at least an additional 22 hours with no report of moisture conditions in the electronics housing. The pressure corresponding to the submergence is less than 5 psig. The transmitter was therefore considered acceptable for submergence.

iii Arrhenius Analysis was performed which reflected the FSAR containment lower volume temperature rather than the very conservative temperature of 160°F previously used by References 30, 66 & 67. These references predicted a value of an equivalent 120 days based on the tested temperature of 250°F for 14 days.

iv For FSAR predicted values see attached temperature profile.


LOCA
SPRAYS
400
370&385
Unit 1
320 °F; 89.7psia Ref. 67
300
280
Unit 2
TESTED
250 °F; 29.8psia
Ref. 66
Ref. 30
200
Unit 2
Unit 1
REQUIRED
TEMP °F
100
Max. Press. Peak
28.8psia Unit 1
29.1psia Unit 2
10^3
10^4
10^5
10^6
TIME SEC.

DONALD C. COOK NUCLEAR PLANT UNITS NO. . 2 DOCKETS NO. .50 - 316 LICENSES NO. DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: REACTOR COOLANT & REMOTE SHUTDOWN MONITORING PLANT ID NO: NPS 153 COMPONENT: PRESSURE TRANSMITTER MANUFACTURER: I.T.T. BARTON MODEL NUMBER: 763 FUNCTION: LONG TERM MONITORING ACCURACY: SPEC: ± 10% DEMON: +3% -10% SERVICE: PRESSURIZER PRESSURE LOCATION: INSIDE CONTAINMENT	Operating Time	4 MONTH	≥330 DAYS	REF 101	REF. 67	SEQUENTIAL & ENGRG ANAL NOTE LLL	NONE
	Temperature (°F)	160 NOTE LV	160	REF 102	REF. 67	SEQUENTIAL	NONE
	Pressure (PSIA)	29.1	89.7	REF 103	REF. 67	SEQUENTIAL	NONE
	Relative Humidity (%)	100	100 &0	7.5	REF. 67	SEQUENTIAL	NONE
	Chemical Spray	1.14% boric acid & .15% NAOH PH 8.4	1.14% boric acid & .17% NAOH PH 8.55	REF 104	REF. 67	SEQUENTIAL	NONE
	Radiation (10^6 rads)	40	50 @ 2.5/HR	REF 105	REF. 67	SEQUENTIAL	NONE
	Aging (years)						
FLOOD LEVEL ELEV: 614'-0" ABOVE FLOOD LEVEL: YES	Submergence	NA	NA	DRWG 5581B	ENGRG REVIEW	ENGINEERING REVIEW	NONE Note ii

*Documentation References:
UNLESS OTHERWISE NOTED, ALL REFS ARE TO FSAR SECTIONS.

REF 67 WESTINGHOUSE ELECTRIC CORP. COMMUNICATIONS NS-TMA-2441 WCAP 9885

Notes: REQUIREMENT & QUALIFICATIONS SAME AS MONITORING PHASE REQUIREMENTS AND QUALIFICATIONS OF NPP-151, 152 & 153 DEVICES, HOWEVER DEVICE DOES NOT INITIATE SAFETY INJECTION OR ISOLATION SIGNALS. IT IS THEREFORE USED FOR MONITORING ONLY IF AVAILABLE.

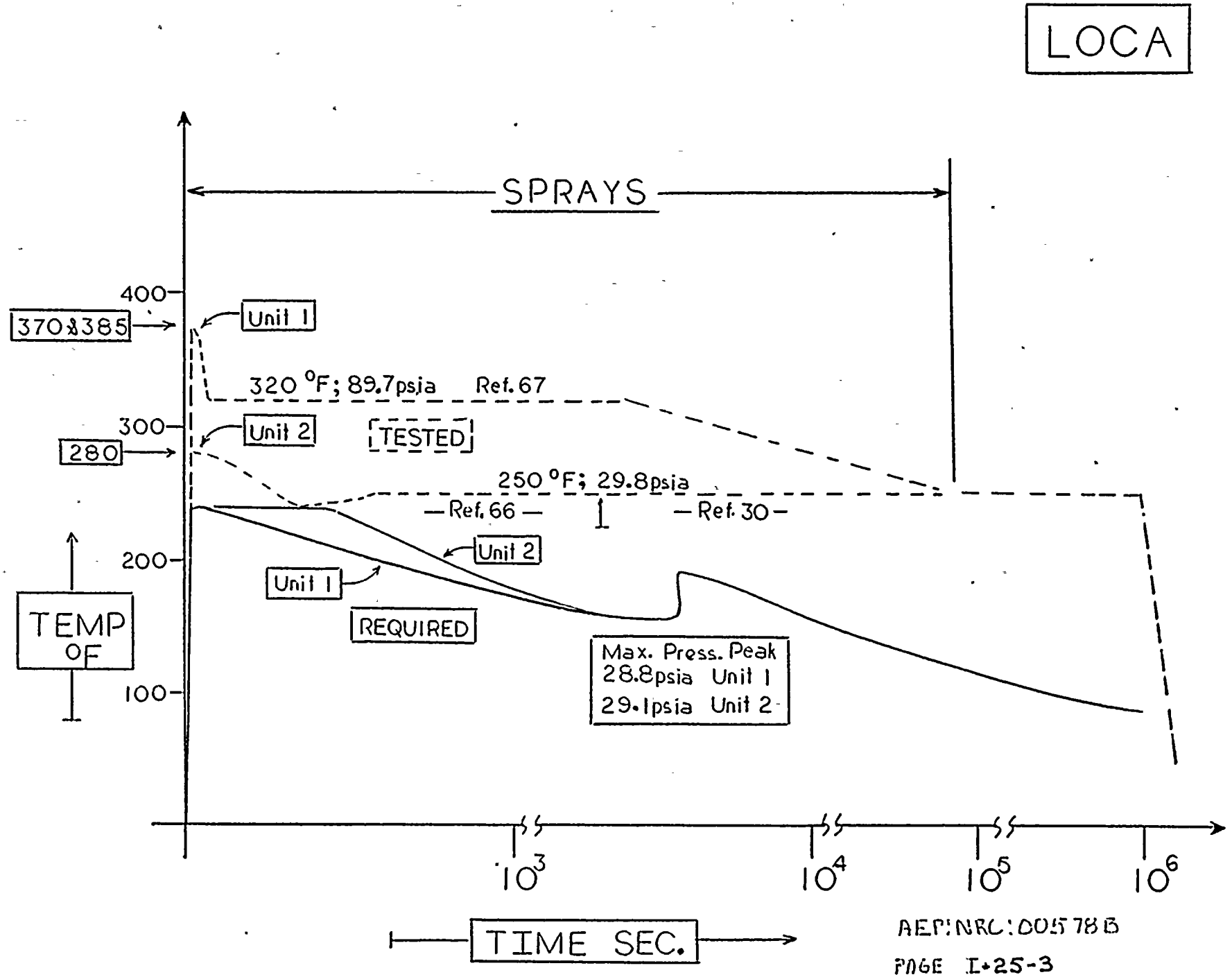
LLL SEE ATTACHED SHEET Page I 25-1
LV SEE ATTACHED SHEET
LL SEE ATTACHED SHEET

AEP:NRC:00578
AEP:NRC:00578B

ii The engineering review and judgement regarding submergence consisted of an evaluation that the tested transmitter had been subjected to combination test of spray and 60 psi saturated steam conditions for a period of at least 1 hour followed by spray and 20 psi saturated steam for at least an additional 22 hours with no report of moisture conditions in the electronics housing. The pressure corresponding to the submergence is less than 5 psig. The transmitter was therefore considered acceptable for submergence.

iii Arrhenius Analysis was performed which reflected the FSAR containment lower volume temperature rather than the very conservative temperature of 160°F previously used by References 30, 66 & 67. These references predicted a value of an equivalent 120 days based on the tested temperature of 250°F for 14 days.

iv For FSAR predicted values see attached temperature profile.


LOCA
SPRAYS
400
370&385
Unit 1
320 °F; 89.7psia Ref. 67
300
280
Unit 2
TESTED
250 °F; 29.8psia
— Ref. 66 —
— Ref. 30 —
Unit 2
Unit 1
200
TEMP °F
REQUIRED
Max. Press. Peak
28.8psia Unit 1
29.1psia Unit 2
100
10^3
10^4
10^5
10^6
TIME SEC.

DONALD C. COOK NUCLEAR PLANT UNIT NO. 2 DOCKET NO. 50-316 LICENSE NO. DPR

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: LIST D PLANT ID NO: NTP-111,121,131, 141,211,221,231 & 241 COMPONENT: RESISTANCE TEMPERATURE DETECTOR MANUFACTURER: SOSTMAN OR ROSEMOUNT MODEL NUMBER: 183418 OR 176 KF RESPECTIVELY FUNCTION: ISOLATION ACTUATION & NORMAL MONITOR ACCURACY: SPEC: ± 7.3% DEMON: - 2.29% SERVICE: REACTOR COOLANT TEMPERATURE LOCATION: INSIDE CONTAINMENT	Operating Time	10 SEC	2 WEEKS	REF 101	REF 28	SEQUENTIAL	NONE
	Temperature (°F)	328.2	330	REF 102	REF 28	SEQUENTIAL	NONE
	Pressure (PSIA)	22.0	89.7	REF 103	REF 28	SEQUENTIAL	NONE
	Relative Humidity (%)	100	100	7.5	REF 28	SEQUENTIAL	NONE
	Chemical Spray	1.14% BORIC ACID + .15% NAOH PH 8.4	1.14% BORIC ACID + .17% NAOH PH 8.35	REF 104	REF 28	SEQUENTIAL	NONE
	Radiation (10^6 rads)	.04	100	REF 105	REF. 28	SEQUENTIAL	NONE
	Aging (years)						
FLOOD LEVEL ELEV: 614'-0" ABOVE FLOOD LEVEL: YES	Submergence	NA	NA	NA	DRWG 5507		

*Documentation References: UNLESS OTHERWISE NOTED ALL REFERENCES ARE FSAR SECTIONS

28 - WESTINGHOUSE ELECTRIC CORP. ENVIRONMENTAL QUALIFICATIONS WCAP-9157

Notes: ADVERSE ENVIRONMENT GENERATING ACCIDENT ANALYSIS FOR WHICH CREDIT IS ASSUMED FOR OPERATION OF THESE DEVICES IS N13.7, 14.2.5 & 14.2.8.

DONALD C. COOK NUCLEAR PLANT UNITS NO. 1 & 2 DOCKETS NO. 50-315 & 50 - 316 LICENSES NO. DRR-58 & DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: REACTOR COOLANT PLANT ID NO: NTP 110 120 130 140 210 220 230 & 240 COMPONENT: RESISTANCE TEMPERATURE DETECTOR MANUFACTURER: SOSTMAN OR ROSEMOUNT MODEL NUMBER: 11834B OR 176KF RESPECTIVELY FUNCTION: IN PLACE SPARES ACCURACY: SPEC: DEMON: N A SERVICE: REACTOR COOLANT TEMPERATURE LOCATION: INSIDE CONTAINMENT	Operating Time						
	Temperature (°F)					SEE NTP-111, 121, 131, 141, 211, 221, 231 & 241 SHEETS	
	Pressure (PSIA)						
	Relative Humidity (%)						
	Chemical Spray						
	Radiation (10^6 rads)						
	Aging (years)						
FLOOD LEVEL ELEV: ABOVE FLOOD LEVEL:	Submergence						

*Documentation References:

Notes: REQUIREMENTS AND QUALIFICATION FOR THESE DEVICES IDENTICAL TO NTP-111 ETC. REQUIREMENTS AND QUALIFICATIONS

AEP: NRC: 00578

AEP: NRC: 00578B

DONALD C. COOK NUCLEAR PLANT UNIT NO. 2 | DOCKET NO. 50-316 | LICENSE NO. DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: REACTOR COOLANT. POST ACCIDENT MONITORING.	Operating Time	4 MONTHS	11 MONTHS	REF 101	REF. 28. NOTE VI	SEQUENTIAL, COMBINED EFFECTS & ENGINEERING ANALYSIS	NONE
PLANT ID NO: NTR-110,120,130, 140,210,220,230 & 240	Temperature (°F)	160 & 328.2	160 & 330	REF 102	11	SEQUENTIAL	11
COMPONENT: RESISTANCE TEMPERATURE DETECTOR	Pressure (PSIA)	27.2 & 22	89.7	REF 103	11	11	11
MANUFACTURER: SOXTMAN OR ROSEMOUNT	Relative Humidity (%)	100	100	7.5	11	11	11
MODEL NUMBER: 119018 AR 176 KS	Chemical Spray	1.14% BORIC ACID & 15% NaOH PH 8.4	1.14% BORIC ACID & 17% NaOH PH 8.55	REF 104	11	11	11
FUNCTION: NORMAL & ACCIDENT MONITORING	Radiation (10^6 rads)	40	100	NOTE (E)	11	COMBINED EFFECTS AND ENGINEERING ANALYSIS	11
ACCURACY: SPEC: FUNCTIONAL DEMON: ~7.5%	Aging (years)						
SERVICE: REACTOR COOLANT TEMPERATURE							
LOCATION: INSIDE CONTAINMENT							
FLOOD LEVEL ELEV: 611'-0" ABOVE FLOOD LEVEL: YES	Submergence	NA	NA	NA	DRWG-5507	ENGINEERING REVIEW	NONE

*Documentation References: UNLESS OTHERWISE NOTED REF 28 = WESTINGHOUSE ELECTRIC CORP ENVIRONMENTAL QUALIFICATION REPORT WCAP-9157

Notes: Q-022.8 Q022.16 & Q212.35 ARE THE ADVERSE ENVIRONMENT GENERATING ACCIDENT ANALYSES FOR WHICH CREDIT IS ASSUMED FOR THE OPERATION OF THESE DEVICES.

(E) REF 28 STATES THAT A RADIATION DOSE OF 1×10^8 RADS IS EQUIVALENT TO 12 YEARS OF OPERATION PLUS 2 WEEKS OF MONITORING. REVIEW OF FIG. 2-1 IN REF 28 SHOWS THAT FOR THE ACCIDENT DOSE OF 40×10^6 RADS SPECIFIED FOR OTHER ACCIDENT MONITORING DEVICES (11 MONTHS), THESE DEVICES WOULD QUALIFY FOR A MINIMUM 8 YEARS OF OPERATION).

VI SEE ATTACHED SHEET

AEP:NRC:00578

AEP:NRC:00578.B

vi Review of the Figure 2.1 from reference 28 using an operable life of eight (8) years shows an equivalent qualified life of 4 months during posulated accident conditions.

DONALD C. COOK NUCLEAR PLANT UNITS NO. 1 & 2 DOCKETS NO. 50-315 & 50 - 316 LICENSES NO. DRR-58 & DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: LIST F PLANT ID NO: PPP-300, 301 & 302. COMPONENT: PRESSURE TRANSMITTER MANUFACTURER: FOXBORO MODEL NUMBER: E11GM-HSAA1 FUNCTION: ACCIDENT MONITORING & ACTUATION ACCURACY: SPEC: DEMON: SERVICE: CONTAINMENT PRESSURE LOCATION: OUTSIDE CONTAINMENT	Operating Time						
	Temperature (°F)						
	Pressure (PSIA)						
	Relative Humidity (%)						
	Chemical Spray						
	Radiation (10^6 rads)						
	Aging (years)						
FLOOD LEVEL ELEV: ABOVE FLOOD LEVEL: N/A	Submergence						

NOT APPLICABLE

*Documentation References:

Notes:

THESE DEVICES WERE INCLUDED IN THE FIRST SUBMITTAL OF 79-01B TO ACCOUNT FOR DEVICES REFERENCED BY ACCIDENT ANALYSIS P.I, 14.2.5, 14.2.8 & 14.3.1. AS DISCUSSED IN Q 022.16 & Q 212.35 THESE DEVICES ARE NOT EXPOSED TO AN ADVERSE ENVIRONMENT FOR AN IN CONTAINMENT EVENT AND FOR AN ACCIDENT EVENT OUTSIDE CONTAINMENT NO CONTAINMENT PRESSURE SUPPRESSION IS REQUIRED. THESE DEVICES THEREFORE ARE ADEQUATLLY PROTECTED FROM THE ACCIDENT EVENT.

AEP:NRC:00578
AEP:NRC:00578B

DONALD C. COOK NUCLEAR PLANT UNITS NO. 1 & 2 DOCKETS NO. 50-315 & 50 - 316 LICENSES NO. DRR-58 & DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: LIST G PLANT ID NO: PPP-303 COMPONENT: PRESSURE TRANSMITTER MANUFACTURER: FOXBORO MODEL NUMBER: EIIGM-HSAAI FUNCTION: ACCIDENT MONITORING ACCURACY: SPEC: DEMON: SERVICE: CONTAINMENT PRESSURE LOCATION: OUTSIDE CONTAINMENT	Operating Time						
	Temperature (°F)						
	Pressure (PSIA)						
	Relative Humidity (%)						
	Chemical Spray					NOT APPLICABLE	
	Radiation (10^6 rads)						
	Aging (years)						
FLOOD LEVEL ELEV: ABOVE FLOOD LEVEL: N/A	Submergence						

*Documentation References:

Notes:

THESE DEVICES WERE INCLUDED IN THE FIRST SUBMITTAL OF 79-01B TO ACCOUNT FOR DEVICES REFERENCED BY ACCIDENT ANALYSIS P.1, 14.2.5, 14.2.8, & 14.3.1.

AS DISCUSSED IN Q 022.16 & Q 212.35, THESE DEVICES ARE NOT EXPOSED TO AN ADVERSE ENVIRONMENT FOR AN INCONTAINMENT EVENT AND FOR AN ACCIDENT EVENT OUTSIDE CONTAINMENT NO CONTAINMENT PRESSURE SUPPRESSION IS REQUIRED. THESE DEVICES THEREFORE ARE ADEQUATELY PROTECTED FROM THE ACCIDENT EVENT.

AEP:NRC:00578

AEP:NRC:00578B

DONALD C. COOK NUCLEAR PLANT UNITS NO. 1 & 2 DOCKETS NO. 50-315 & 50 - 316 LICENSES NO. DRR-58 & DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: CONTAINMENT VENTILATION ISOLATION PLANT ID NO: VRC-302 COMPONENT: RADIATION MONITOR MANUFACTURER: WESTINGHOUSE MODEL NUMBER: 1101 FUNCTION: ACTUATION ACCURACY: SPEC: ± 6% DEMON: < 1% SERVICE: CONTAINMENT AREA RADIATION LOCATION: INSIDE CONTAINMENT	Operating Time	NA	NA				
	Temperature (°F)	250	120	REF 102	E SPEC 677271		NONE (C)
	Pressure (PSIA)	28.8&29.1	28.7	REF 103	E SPEC 677271		NONE (C)
	Relative Humidity (%)	100	100	7.5	E SPEC 677271		NONE (C)
	Chemical Spray	1.14% BORIC ACID & .15% NAOH	NONE	REF 104			NONE (C)
	Radiation (10^6 rads)	.07	10mR/HR	REF 105	E SPEC 677271		NONE (C)
	Aging (years)						
FLOOD LEVEL ELEV: 614'-0" ABOVE FLOOD LEVEL: YES	Submergence	NA	NA				

*Documentation References:

Notes:

(C) INCLUDED IN FIRST SUBMITTAL OF 79-01B TO ACCOUNT FOR DEVICES WHICH ARE A CONTAINMENT PURGING ISOLATION ACTUATION DEVICE. THIS DEVICE IS ONE OF THE "DEFENSE IN DEPTH" DEVICES FOR ISOLATION WHICH INCLUDES ALL ESF ACTUATION DEVICES, THE CONTAINMENT AIR PARTICULATE & RADIOGAS DETECTOR, CONTAINMENT PRESSURE AND THIS AREA MONITOR. SINCE FOR AN INCONTAINMENT ACCIDENT EVENT THIS DEVICE SERVES A SECONDARY FUNCTION IN RELATION TO THE ESF ACTUATION AND CONTAINMENT PRESSURE DEVICES THE USE OF CONTROL GRADE EQUIPMENT IS CONSIDERED ADEQUATE. FURTHER THIS DEVICE IS TO BE UPGRADED AS REQUIRED BY OUR COMMITMENT TO NUREG 0578 ITEMS. THEREFORE THIS DOES NOT REPRESENT AN OUTSTANDING ITEM.

E SPEC: WESTINGHOUSE EQUIPMENT SPECIFICATION 677271.

REPLACEMENT IS SCHEDULED FOR THE 1982 REFUELING OUTAGE

AEP:NRC:00578

AEP:NRC:00578B

DONALD C. COOK NUCLEAR PLANT UNIT NO. 2 | DOCKET NO. 50-316 | LICENSE NO. DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: REACTOR COOLANT PLANT ID NO: (NRV-151, -152, -153) Limit sw. COMPONENT: LIMIT SWITCH MANUFACTURER: NAMCO MODEL NUMBER: EA180 FUNCTION: VALVE POSITION INDICATION ACCURACY: SPEC: NA DEMON: NA SERVICE: PZR PORV'S NRV-151, -152, -153 LOCATION: IN CONTAINMENT	Operating Time	14 DAYS	30 DAYS.	118	43	SEQUENTIAL	NONE
	Temperature (°F)	328.2	340	102	43	"	"
	Pressure (PSIA)	29.1	84.7	103	43	"	"
	Relative Humidity (%)	100	100	102 103	43	"	"
	Chemical Spray	2000 PPMB 1.14% WT. BORIC ACID PH 8.5-11	3000 PPMB 1.72% WT BORIC ACID PH 8.5-11	104	43 72	COMBINATION	NONE SEE REF #72
	Radiation (10^6 rads)	77.	204	105	43	SEQUENTIAL	NONE
	Aging (years)						
FLOOD LEVEL ELEV: 614' ABOVE FLOOD LEVEL: YES	Submergence	NA	NA	NA	NA	NA	NA

232-234 S11 LS1

*Documentation References:

Notes:

Form EGQ #97-2

from Ref. 43. Qual. of Namco Controls Limit Switch

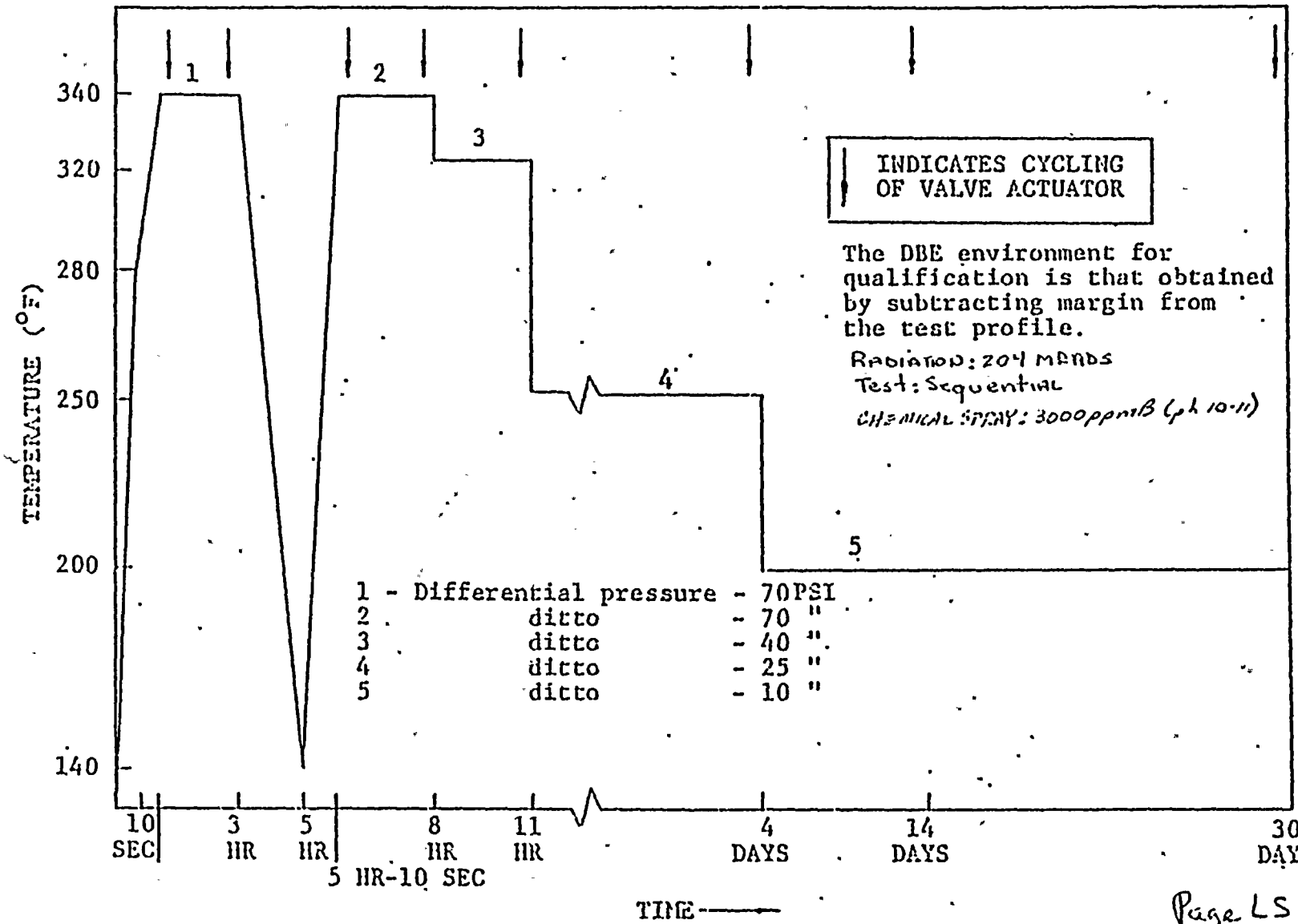


Fig 1
Test Chamber Temperature Profile for Accident Environment Simulation
(Taken from IEEE Standard 382-1972)

Page LS1-2

DONALD C. COOK NUCLEAR PLANT UNIT NO. 2 | DOCKET NO. 50-316 | LICENSE NO. DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: CVCS, SI, RHR PLANT ID NO: PP-050, 026 035 COMPONENT: PUMP MOTOR MANUFACTURER: WESTINGHOUSE MODEL NUMBER: 5808E, 5009H, 5009-P24 FUNCTION: EMERGENCY CORE COOLING ACCURACY: SPEC: NA DEMON: NA SERVICE: CENTRIFUGAL CHARGING, SAFETY INJECTION AND RESIDUAL HEAT REMOVAL PUMPS LOCATION: OUTSIDE CONTAINMENT	Operating Time	1 YEAR	>1.1 YR	118	63 21	COMBINATION	NONE SEE REF. #63
	Temperature (°F)	NA	320	NA	21	SEQUENTIAL	NA
	Pressure (PSIA)	NA	89.7	NA	21	"	"
	Relative Humidity (%)	NA	100	NA	21	"	"
	Chemical Spray	NA	2500 PPMB 1.43% WT BORIC ACID PH 8.5-11	NA	21 72	COMBINATION	"
	Radiation (10^6 rads)	6	200	106	21	SEQUENTIAL	NONE
	Aging (years)						
FLOOD LEVEL ELEV: NA ABOVE FLOOD LEVEL: NA	Submergence	NA	NA	NA	NA	NA	NA

48-51 MI
74 MI
75 MI
100 MI
101 MI

*Documentation References:

Notes:

FORM EGG #97-2

from Ref. 21.

Qualified by Westinghouse Corp. Test Reports: WCAP-7829, April, 1972.

Type of Test: Sequential: Irradiation
Steam
Chemical Spray

Test Profile (for motor without heat exchanger)

324°F, 80 psig for 4 hrs.
250°F, 16 psig for 7 days

Test Profile (for motor with heat exchanger)

320°F, 75 psig for 24 hrs.
250°F, 16 psig for 168 hrs.

Chemical Spray: 1.43 weight percent boric acid
PH=9.5 with Na OH

Irradiation: .5 Mrad/hr., 200 Mrads.

See page 33 of WCAP-7829 for Test Profile summary.

Page MF1-2

DONALD C. COOK NUCLEAR PLANT UNIT NO. 2 DOCKET NO. 50-316 LICENSE NO. DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: CONTAINMENT SPRAY PLANT ID NO: PP-009 COMPONENT: PUMP MOTOR MANUFACTURER: RELIANCE MODEL NUMBER: FRAME # 5810P FUNCTION: CONTAINMENT SPRAY ACCURACY: SPEC: NA DEMON: NA SERVICE: CONTAINMENT SPRAY PUMP LOCATION: OUTSIDE CONTAINMENT	Operating Time	1 MO.	>1 MO.	118	64	Eng. Review	NONE SEE REF. # 64
	Temperature (°F)	NA	NA	NA	NA	NA	NA
	Pressure (PSIA)	NA	NA	NA	NA	NA	NA
	Relative Humidity (%)	NA	NA	NA	NA	NA	NA
	Chemical Spray	NA	NA	NA	NA	NA	NA
	Radiation (10^6 rads)	4	7.4	106	64	ENG. REVIEW	NONE SEE REF. #64
	Aging (years)						
FLOOD LEVEL ELEV: NA ABOVE FLOOD LEVEL: NA	Submergence	NA	NA	NA	NA	NA	NA

116-117 M2

*Documentation References:

Notes:

Form EGQ #97-2

DONALD C. COOK NUCLEAR PLANT UNITS NO. 1 & 2 DOCKETS NO. 50-315 & 50 - 316 LICENSES NO. DRR-58 & DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: MAIN FEEDWATER & CONTAINMENT ISOLATION PLANT ID NO: FKV-210, 220, 230 & 240 COMPONENT: DIAPHRAM FOR AIR OPERATOR MANUFACTURER: FISHER CONTROLS CO. MODEL NUMBER: 667 FUNCTION: SHUTOFF & REGULATION ACCURACY: SPEC: FAIL CLOSED DEMON: FAIL CLOSED SERVICE: FEEDWATER FLOW REGULATION LOCATION: OUTSIDE CONTAINMENT	Operating Time						
	Temperature (°F)						
	Pressure (PSIA)			H 21			
	Relative Humidity (%)		SEE VCR-				
	Chemical Spray						
	Radiation (10^6 rads)						
	Aging (years)						
FLOOD LEVEL ELEV: ABOVE FLOOD LEVEL: N/A	Submergence						

*Documentation References:

Notes:

DONALD C. COOK NUCLEAR PLANT UNITS NO. 1 & 2 DOCKETS NO. 50-315 & 50-316 LICENSES NO. DRR-58 & DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: FRV-210, 220, 230, & 240 PLANT ID NO: EPT 210, 220, 230 & 240 COMPONENT: ELECTRO-PNEUMATIC TRANSDUCER MANUFACTURER: FISHER CONTROLS COMPANY MODEL NUMBER: 546 FUNCTION: VALVE MODULATION CONTROL ACCURACY: SPEC: FUNCTIONAL DEMON: FUNCTIONAL SERVICE: MAIN FEEDWATER FLOW CONTROL LOCATION: OUTSIDE CONTAINMENT	Operating Time	NA SEE NOTE	NA SEE NOTE	REF 101	ENGRG JDGMT	SEE NOTE	NONE
	Temperature (°F)	223	320/288	REF 107	MNFTR LIT	SEQUENTIAL	NONE
	Pressure (PSIA)	20.5	90/59	REF 107	MNFTR LIT	SEQUENTIAL	NONE
	Relative Humidity (%)	100	100	FIG 0-26	MNFTR LIT	SEQUENTIAL	NONE
	Chemical Spray	NA	NA				NONE
	Radiation (10^6 rads)	NA	NA				NONE
	Aging (years)						
FLOOD LEVEL ELEV: ABOVE FLOOD LEVEL: NA	Submergence	NA	NA				NONE

*Documentation References: FSAR APPENDIX O.

MNFTR LIT - FISHER CONTROLS COMPANY
OPERATIONAL TESTS OF FISHER
TYPE 546 ELECTRO-PNEUMATIC TRANSDUCER

Notes: The subject transducer is not required for the FRV to perform its safety function in the case of a LOCA or HELB, therefore OPERATING TIME is NOT APPLICABLE.

DONALD C. COOK NUCLEAR PLANT UNITS NO. 1 & 2 DOCKETS NO. 50-315 & 50-316 LICENSES NO. DRR-58 & DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: FRV-210, FRV-220, FRV-230, FRV-240 PLANT ID NO: XSO-291, 292, 293, 294, 295, 296, 297, 298 COMPONENT: SOLENOID VALVE MANUFACTURER: AUTOMATIC SWITCH COMPANY MODEL NUMBER: 206-381-2RVU FUNCTION: TRIP REGULATING VALVE CLOSED. ACCURACY: SPEC: FUNCTIONAL DEMON: FUNCTIONAL SERVICE: MAIN FEEDWATER REGULATING VALVES TRIP VALVES LOCATION: OUTSIDE CONTAINMENT	Operating Time	25 SEC.	30 DAYS	REF 101	REF 29	SEQUENTIAL	NONE
	Temperature (°F)	223	SEE ATTACH PROFILE	REF 107	REF 29	SEQUENTIAL	NONE
	Pressure (PSIA)	20.5	SEE ATTACH PROFILE	REF 107	REF 29	SEQUENTIAL	NONE
	Relative Humidity (%)	100	100	FIG 0-26	REF 29	SEQUENTIAL	NONE
	Chemical Spray	NR	3000 PPM BORIC ACID WITH .06 NaOH, PH 10	NA	REF 29	SEQUENTIAL	NONE
	Radiation (10^6 rads)	NA	20	NA	TEN 81-29	SEQUENTIAL	NONE
	Aging (years)	NA	4	NA	REF 29	SEQUENTIAL	NONE
FLOOD LEVEL ELEV: ABOVE FLOOD LEVEL: NA	Submergence	NA	NA	NA	NA	NA	NA

*Documentation References: UNLESS OTHERWISE NOTED REFERENCES ARE FSAR SECTIONS

REF 29 AUTOMATIC SWITCH COMPANY REPORT AQS 21678/TR

Notes: 14.2.4 14.2.5 & 14.2.8 ARE THE ADVERSE ENVIRONMENT ACCIDENT ANALYSES FOR WHICH CREDIT FOR FUNCTION IS ASSUMED.

AEP: NRC: 00578

AEP: NRC: 00578 B

DONALD C. COOK NUCLEAR PLANT UNITS NO. 1 & 2 DOCKETS NO. 50-315 & 50 - 316 LICENSES NO. DRR-58 & DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: RESIDUAL HEAT REMOVAL PLANT ID NO: IRY-310 & 320 COMPONENT: DIAPHRAM FOR AIR OPERATOR MANUFACTURER: BAILEY MODEL NUMBER: 656 FUNCTION: VALVE POSITIONING ACCURACY: SPEC: FAIL OPEN DEMON: FAIL OPEN SERVICE: RHR HEAT EXCHANGER OUTLET FLOW MODULATION LOCATION: OUTSIDE CONTAINMENT	Operating Time						
	Temperature (°F)						
	Pressure (PSIA)						
	Relative Humidity (%)						
	Chemical Spray	SEE VCR-WE21					
	Radiation (10^6 rads)						
	Aging (years)						
FLOOD LEVEL ELEV: ABOVE FLOOD LEVEL: NA	Submergence						

*Documentation References:

Notes:

AEPSNRC: 005788

DONALD C. COOK NUCLEAR PLANT UNITS NO. 1 & 2 DOCKETS NO. 50-315 & 50 - 316 LICENSES NO. DRR-58 & DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: MAIN STEAM & CONTAINMENT ISOLATION PLANT ID NO: MRV 210, 220, 230 & 240 COMPONENT: STEAM PISTON FOR SLIDE VALVE MANUFACTURER: ATWOOD-MORELL MODEL NUMBER: NONE FUNCTION: SHUTOFF ACCURACY: SPEC: FAIL CLOSED DEMON: FAIL CLOSED SERVICE: MAIN STEAM FLOW SHUTOFF LOCATION: OUTSIDE CONTAINMENT	Operating Time						
	Temperature (°F)						
	Pressure - (PSIA)						
	Relative Humidity (%)						
	Chemical Spray						
	Radiation (10^6 rads)						
	Aging (years)						
FLOOD LEVEL ELEV: ABOVE FLOOD LEVEL: N/A	Submergence						

SEE NOTE BELOW

*Documentation References:

Notes: VENTING OF THE STEAM SPACE ABOVE THE PISTON BY DUMP VALVES MRV-211, 212, 221, 222, 231, 232, 241 OR 242 FOR THEIR RESPECTIVE STEAM GENERATOR STOP VALVE WILL CAUSE MAIN STEAM SYSTEM PRESSURE TO DRIVE THE SUBJECT VALVE CLOSED. SEE FSAR SECTION 10 AND RESPONSE TO QUESTIONS 10.1 & 10.2 FOR FULL DESCRIPTION OF VALVE OPERATION.

AEP:NRC:00578B

DONALD C. COOK NUCLEAR PLANT UNITS NO. 1 & 2 DOCKETS NO. 50-315 & 50 - 316 LICENSES NO. DRR-58 & DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: MAIN STEAM PLANT ID NO: MRV 211,212, 221, 222, 231, 232, 241 & 242 COMPONENT: DIAPHRAM FOR AIR OPERATOR MANUFACTURER: FISHER CONTROLS CO. MODEL NUMBER: 657 FUNCTION: SHUTOFF INITIATION ACCURACY: SPEC: FAIL OPEN DEMON: FAIL OPEN SERVICE: STEAM GENERATOR STOP VALVE DUMP VALVE LOCATION: OUTSIDE CONTAINMENT	Operating Time						
	Temperature (°F)						
	Pressure (PSIA)						
	Relative Humidity (%)						
	Chemical Spray	SEE VCR-112-21					
	Radiation (10^6 rads)						
	Aging (years)						
FLOOD LEVEL ELEV: ABOVE FLOOD LEVEL: N/A	Submergence						

*Documentation References:

Notes:

AEP: NRC: 00578B

DONALD C. COOK NUCLEAR PLANT UNITS NO. 1 & 2 DOCKETS NO. 50-315 & 50-316 LICENSES NO. DRR-58 & DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: MRV 211, 212, 221, 222, 231, 232, 241 & 242 PLANT ID NO: XSO-211, 212, 221, 222, 231, 232, 241 & 242 COMPONENT: SOLENOID MANUFACTURER: AUTOMATIC SWITCH CO. MODEL NUMBER: HT 8316 B 17 FUNCTION: CLOSURE ACTUATION ACCURACY: SPEC: FUNCTIONAL DEMON: FUNCTIONAL SERVICE: STEAM GENERATOR STOP VALVE DUMP VALVE LOCATION: OUTSIDE CONTAINMENT	Operating Time	5 SEC	5 SEC.	REF 101	TECH SPEC 3.7.1.5	RESPONSE TIME TESTING	NONE
	Temperature (°F)	230	180	REF 107	MFTR LIT	ENGRG. ANAL. SEE NOTE (L)	NONE (L)
	Pressure (PSIA)	26.2	14.7	REF 107	MFTR LIT	ENGRG ANAL SEE NOTE (L)	NONE (L)
	Relative Humidity (%)	100	0	7.5	MFTR LIT	ENGRG ANAL SEE NOTE (L)	NONE (L)
	Chemical Spray	NA	NA				NA
	Radiation (10^6 rads)	NA	NA				NA
	Aging (years)						
FLOOD LEVEL ELEV: ABOVE FLOOD LEVEL: N A	Submergence	NA	NA				NA

*Documentation References:

MFTR LIT - AUTOMATIC SWITCH CO.
CATALOG NO 30
BULLETIN 8316

Notes: 14.2.5 & 14.2.8 ARE THE ADVERSE ENVIRONMENT ACCIDENT ANALYSIS FOR WHICH CREDIT IS ASSUMED FOR OPERATION OF THE DEVICE.

(L) ACCIDENT ANALYSIS: @ 212.25 SHOWS THAT MAIN STEAM LINE BREAK PLUS THE FAILURE OF ANOTHER STEAM LINE TO ISOLATE IS ACCEPTABLE. SINCE THE LOCATION OF THESE DEVICES IS SUCH THAT ONLY TWO STEAM GENERATOR STOP VALVES CAN BE AFFECTED BY ANY ONE BREAK. USE OF CONTROL GRADE DEVICES IS ACCEPTABLE

REP: NRC 500578 B

DONALD C. COOK NUCLEAR PLANT UNITS NO. 1 & 2 DOCKETS NO. 50-315 & 50 - 316 LICENSES NO. DRR-58 & DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: MAIN STEAM & CONTAINMENT ISOLATION PLANT ID NO: MRV 213, 223, 233 & 243 COMPONENT: DIAPHRAM FOR AIR OPERATOR MANUFACTURER: FISHER CONTROLS CO. MODEL NUMBER: 667 FUNCTION: PRESSURE RELIEF ACCURACY: SPEC: FAIL CLOSED DEMON: FAIL CLOSED SERVICE: MAIN STEAM PRESSURE RELIEF LOCATION: OUTSIDE CONTAINMENT	Operating Time						
	Temperature (°F)						
	Pressure (PSIA)						
	Relative Humidity (%)						
	Chemical Spray						
	Radiation (10^6 rads)						
	Aging (years)						
FLOOD LEVEL ELEV: N/A ABOVE FLOOD LEVEL:	Submergence						

SEE VCR-11C-21

*Documentation References:

Notes:

No credit is taken for the subject MRV's (the Steam Generator PORV's) in LOCA or HELB accident analysis.

AEP:NRC:00578B

DONALD C. COOK NUCLEAR PLANT UNITS NO. 1 & 2 DOCKETS NO. 50-315 & 50-316 LICENSES NO. DRR-58 & DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS.
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: MRV-213, 223, 233 & 243 PLANT ID NO: EPT-213, 223, 233 & 243 COMPONENT: ELECTRO-PNEUMATIC TRANSDUCER MANUFACTURER: FISHER CONTROLS CO. MODEL NUMBER: 546 FUNCTION: VALVE MODULATION CONTROL ACCURACY: SPEC: FUNCTIONAL DEMON: FUNCTIONAL SERVICE: MAIN STEAM PRESSURE RELIEF LOCATION: OUTSIDE CONTAINMENT	Operating Time	NA SEE NOTE	NA SEE NOTE	REF 101	ENGRG JDGMT	SEE NOTE	NONE
	Temperature (°F)	230	320/288	REF 107	MNFTR LIT	SEQUENTIAL	NONE
	Pressure (PSIA)	26.2	90/59	REF 107	MNFTR LIT	SEQUENTIAL	NONE
	Relative Humidity (%)	100	100	FIG 0-27	MNFTR LIT	SEQUENTIAL	NONE
	Chemical Spray	NA	NA				NONE
	Radiation (10^6 rads)	NA	NA				NONE
	Aging (years)						
FLOOD LEVEL ELEV: NA ABOVE FLOOD LEVEL:	Submergence	NA	NA				NONE

*Documentation References: FSAR APPENDIX O

MNFTR LIT. FISHER CONTROLS COMPANY OPERATIONAL TESTS OF FISHER TYPE 546 ELECTRO-PNEUMATIC TRANSDUCER

Notes: No credit is taken for the subject MRV's (the Steam Generator PORV's) for LOCA or HELB accident analysis, therefore OPERATING TIME IS NOT APPLICABLE.

REF: NRC 0057865

DONALD C. COOK NUCLEAR PLANT UNITS NO. 1 & 2 DOCKETS NO. 50-315 & 50 - 316 LICENSES NO. DRR-58 & DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: REACTOR COOLANT PLANT ID NO: NRV-151 152 & 153 COMPONENT: DIAPHRAM FOR AIR OPERATOR MANUFACTURER: MASONEILAN MODEL NUMBER: 37 AND 38 FUNCTION: PRESSURE RELIEF ACCURACY: SPEC: FAIL CLOSED DEMON: FAIL CLOSED SERVICE: PRESSURIZER POWER OPERATED RELIEF VALVE LOCATION: INSIDE CONTAINMENT	Operating Time						
	Temperature (°F)				21		
	Pressure (PSIA)						
	Relative Humidity (%)		SEE VCR-11 & 21				
	Chemical Spray						
	Radiation (10^6 rads)						
	Aging (years)						
FLOOD LEVEL ELEV: 614'-0" ABOVE FLOOD LEVEL: YES	Submergence						

*Documentation References:

Notes:

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: NRV-151 NRV-152 NRV-153 PLANT ID NO: XSO-503 XSO-505 XSO-507 COMPONENT: SOLENOID VALVE MANUFACTURER: AUTOMATIC SWITCH COMPANY MODEL NUMBER: NP-8316S1V FUNCTION: TRIP CONTROL VALVE CLOSED ACCURACY: SPEC: FUNCTIONAL DEMON: FUNCTIONAL SERVICE: PRESSURIZER PRESSURE CONTROL LOCATION: INSIDE CONTAINMENT	Operating Time	NA	30 DAYS	NA	SEE NOTE	SEQUENTIAL	NONE
	Temperature (°F)	328.2	SEE TEST PROFILE	REF 102	REF. 29	SEQUENTIAL	NONE
	Pressure (PSIA)	35.5	SEE TEST PROFILE	REF 103	"	"	"
	Relative Humidity (%)	100	100	7.5	"	"	"
	Chemical Spray	1.14% BORIC ACID & .15% NAOH PH 8	3693 PPM BORIC ACID WITH NAOH PH 10.	REF 104	"	"	"
	Radiation (10^6 rads)	18	20	REF	TEN 81-29	"	"
	Aging (years)		4		"	"	"
FLOOD LEVEL ELEV: 614'-0" ABOVE FLOOD LEVEL: YES	Submergence	NA	NA	NA	NEP DRGS	ENGINEERING DRAWING REVIEW	

*Documentation References: UNLESS OTHERWISE NOTED ALL REFERENCES ARE PEAK SECTIONS.
REF #29: AUTOMATIC SWITCH COMPANY REPORT AQS 21678/TR.

Notes: FUNCTION OF THESE DEVICES IS NOT ASSUMED BY ADVERSE ENVIRONMENT ACCIDENT ANALYSIS. SEE GENERAL NOTE 4.

CALCULATIONS NO. RD-81-07 & RD-81-10
TABLE 4 AT 200 HRS

from Ref. 29

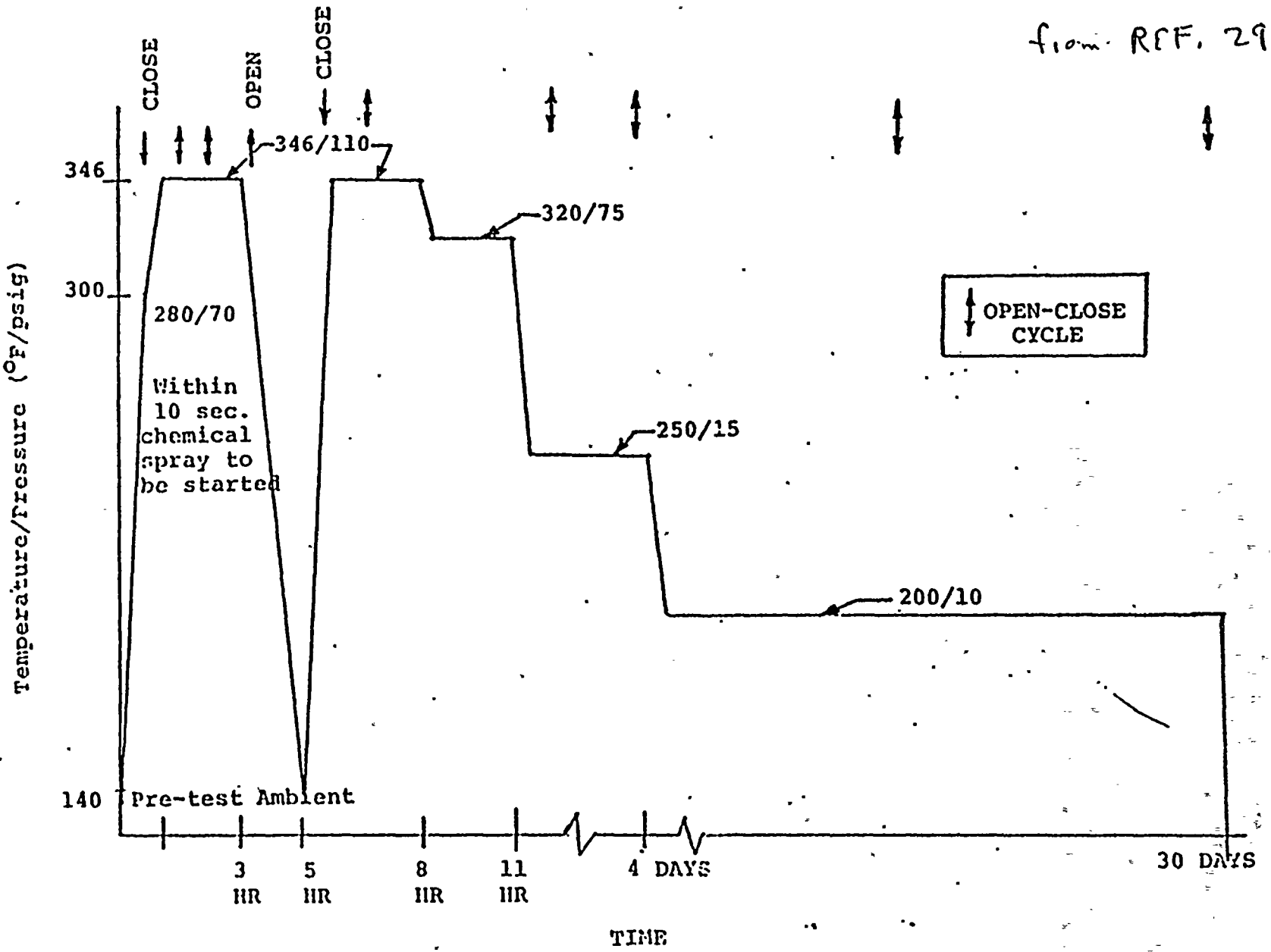


FIGURE 1
LOCA SIMULATION BY ENVIRONMENTAL EXPOSURE (STEAM/CHEMICAL)

3-3

Temperature/Pressure Profile for simulation of loss-of coolant accident (LOCA) design basis event (DBE) by steam/chemical-spray environmental exposure.

Page 511-2

AEP:NRC:00578B

DONALD C. COOK NUCLEAR PLANT UNITS NO. 1 & 2 DOCKETS NO. 50-315 & 50-316 LICENSES NO. DRR-58 & DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: CONTAINMENT ISOLATION PLANT ID NO: VCR-11 & 21 COMPONENT: DIAPHRAM FOR AIR OPERATOR MANUFACTURER: GRINNELL MODEL NUMBER: 3250 FUNCTION: ISOLATION ACCURACY: SPEC: FAIL CLOSED DEMON: FAIL CLOSED SERVICE: ICE CONDENSER REFRIGERANT SUPPLY LOCATION: INSIDE CONTAINMENT	Operating Time						
	Temperature (°F)						
	Pressure (PSIA)						
	Relative Humidity (%)						
	Chemical Spray		SEE NOTE BELOW				
	Radiation (10^6 rads)						
	Aging (years)						
FLOOD LEVEL ELEV: 614'-0" ABOVE FLOOD LEVEL: YES	Submergence						

*Documentation References:

Notes: FAILURE MECHANISM OF DIAPHRAM, DUE TO ACTUATOR SPRING LOADING, WILL CAUSE VALVE TO POSITION TO PROPER POSITION. THEREFORE NO QUALIFICATION TO ACCIDENT CONDITIONS IS NECESSARY.

AEPSNRC:00578B

DONALD C. COOK NUCLEAR PLANT UNITS NO. 1 & 2 DOCKETS NO. 50-315 & 50 - 316 LICENSES NO. DRR-58 & DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: CONTAINMENT ISOLATION PLANT ID NO: VCR-1D1 & 1D2 COMPONENT: DIAPHRAM FOR AIR OPERATOR MANUFACTURER: BAILEY MODEL NUMBER: 656 FUNCTION: ISOLATION ACCURACY: SPEC: FAIL CLOSED DEMON: FAIL CLOSED SERVICE: INSTRUMENT ROOM PURGE SUPPLY & EXHAUST RESPECTIVELY LOCATION: INSIDE CONTAINMENT	Operating Time						
	Temperature (°F)						
	Pressure (PSIA)						
	Relative Humidity (%)						
	Chemical Spray		SEE VCR-11 & 12				
	Radiation (10^6 rads)						
	Aging (years)						
FLOOD LEVEL ELEV: 614'-0" ABOVE FLOOD LEVEL: YES	Submergence						

*Documentation References: Notes:

AEP:NRC:00578B

DONALD C. COOK NUCLEAR PLANT UNITS NO. 1 & 2 DOCKETS NO. 50-315 & 50 - 316 LICENSES NO. DRR-58 & DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: CONTAINMENT ISOLATION PLANT ID NO: VCR-103 & 105 COMPONENT: DIAPHRAM FOR AIR OPERATOR MANUFACTURER: BAILEY MODEL NUMBER: 722 & 732 RESPECTIVELY FUNCTION: ISOLATION ACCURACY: SPEC: FAIL CLOSED DEMON: FAIL CLOSED SERVICE: CONTAINMENT PURGE SUPPLY LOCATION: INSIDE CONTAINMENT	Operating Time						
	Temperature (°F)						
	Pressure (PSIA)						
	Relative Humidity (%)						
	Chemical Spray	SEE VCR-112 21					
	Radiation (10^6 rads)						
	Aging (years)						
FLOOD LEVEL ELEV: 614'-0" ABOVE FLOOD LEVEL: YES	Submergence						

*Documentation References:

Notes:

DONALD C. COOK NUCLEAR PLANT UNITS NO. 1 & 2 DOCKETS NO. 50-315 & 50 - 316 LICENSES NO. DRR-58 & DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: CONTAINMENT ISOLATION PLANT ID NO: VCR- 104 & 106 COMPONENT: DIAPHRAM FOR AIR OPERATOR MANUFACTURER: BAILEY MODEL NUMBER: 732 & 722 RESPECTIVELY FUNCTION: ISOLATION ACCURACY: SPEC: FAIL CLOSED DEMON: FAIL CLOSED SERVICE: CONTAINMENT PURGE EXHAUST LOCATION: INSIDE CONTAINMENT	Operating Time						
	Temperature (°F)						
	Pressure (PSIA)						
	Relative Humidity (%)						
	Chemical Spray						
	Radiation (10^6 rads)						
	Aging (years)						
FLOOD LEVEL ELEV: 614'-0" ABOVE FLOOD LEVEL: YES	Submergence						

SEE VCR-11 & 21

*Documentation References: Notes:

DONALD C. COOK NUCLEAR PLANT UNITS NO. 1 & 2 DOCKETS NO. 50-315 & 50 - 316 LICENSES NO. DRR-58 & DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: CONTAINMENT ISOLATION PLANT ID NO: VCR-107 COMPONENT: DIAPHRAM FOR AIR OPERATOR MANUFACTURER: BAILEY MODEL NUMBER: 656 FUNCTION: ISOLATION ACCURACY: SPEC: FAIL CLOSED DEMON: FAIL CLOSED SERVICE: CONTAINMENT PRESSURE RELIEF EXHAUST LOCATION: INSIDE CONTAINMENT FLOOD LEVEL ELEV: 614'-0" ABOVE FLOOD LEVEL: YES	Operating Time						
	Temperature (°F)	SEE VCR-NEW					
	Pressure (PSIA)						
	Relative Humidity (%)						
	Chemical Spray						
	Radiation (10^6 rads)						
	Aging (years)						
	Submergence						

*Documentation References:

Notes:

AEP:NRC:00578B

DONALD C. COOK NUCLEAR PLANT UNITS NO. 1 & 2 DOCKETS NO. 50-315 & 50 - 316 LICENSES NO. DRR-58 & DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: VCR-11, 21, 101, 102, 103, 104, 105, 106 & 107 PLANT ID NO: XSO-12, 21, 121, 122, 123, 124, 125, 126 & 127 COMPONENT: SOLENOID VALVE MANUFACTURER: AUTOMATIC SWITCH COMPANY MODEL NUMBER: NP-8316511V FUNCTION: TRIP ISOLATION VALVE CLOSED ACCURACY: SPEC: FUNCTIONAL. DEMON: FUNCTIONAL SERVICE: CONTAINMENT VENTILLATION & ICE CONDENSER REFRIGERATION ISOLATION LOCATION: INSIDE CONTAINMENT	Operating Time	5 SEC.	30 DAYS	REF 101	REF 29	SEQUENTIAL	NONE
	Temperature (°F)	328.2	SEE TEST PROFILE	REF 102	REF. 29	SEQUENTIAL	NONE
	Pressure (PSIA)	35.5	SEE TEST PROFILE	REF 103	REF 29	SEQUENTIAL	NONE
	Relative Humidity (%)	100	100	7.5	REF 29	SEQUENTIAL	NONE
	Chemical Spray	1.14% BORIC ACID & .15% NAOH PH 8	5000 PPM BORIC ACID WITH SODIUM NASO PH 10	REF 104	REF 29	SEQUENTIAL	NONE
	Radiation (10^6 rads)	14	20	REF.	REF 29 & IEN 81-29	SEQUENTIAL	NONE
	Aging (years)		4		REF 29	SEQUENTIAL	NONE
FLOOD LEVEL ELEV: 614'-0" ABOVE FLOOD LEVEL: YES	Submergence	N A	N A	NA	A.E.P. DRWG.	ENGINEERING DRAWING REVIEW	NONE

*Documentation References: UNLESS OTHERWISE NOTED REFERENCES ARE FSAR SECTIONS.

REF # 29 - AUTOMATIC SWITCH COMPANY REPORT AQS 2167B/TR.

Notes:

CALCULATIONS NO RD-81-07 & RD-81-10 TABLE 2 AT 1 DAY.

AEP: NRC: 00578B

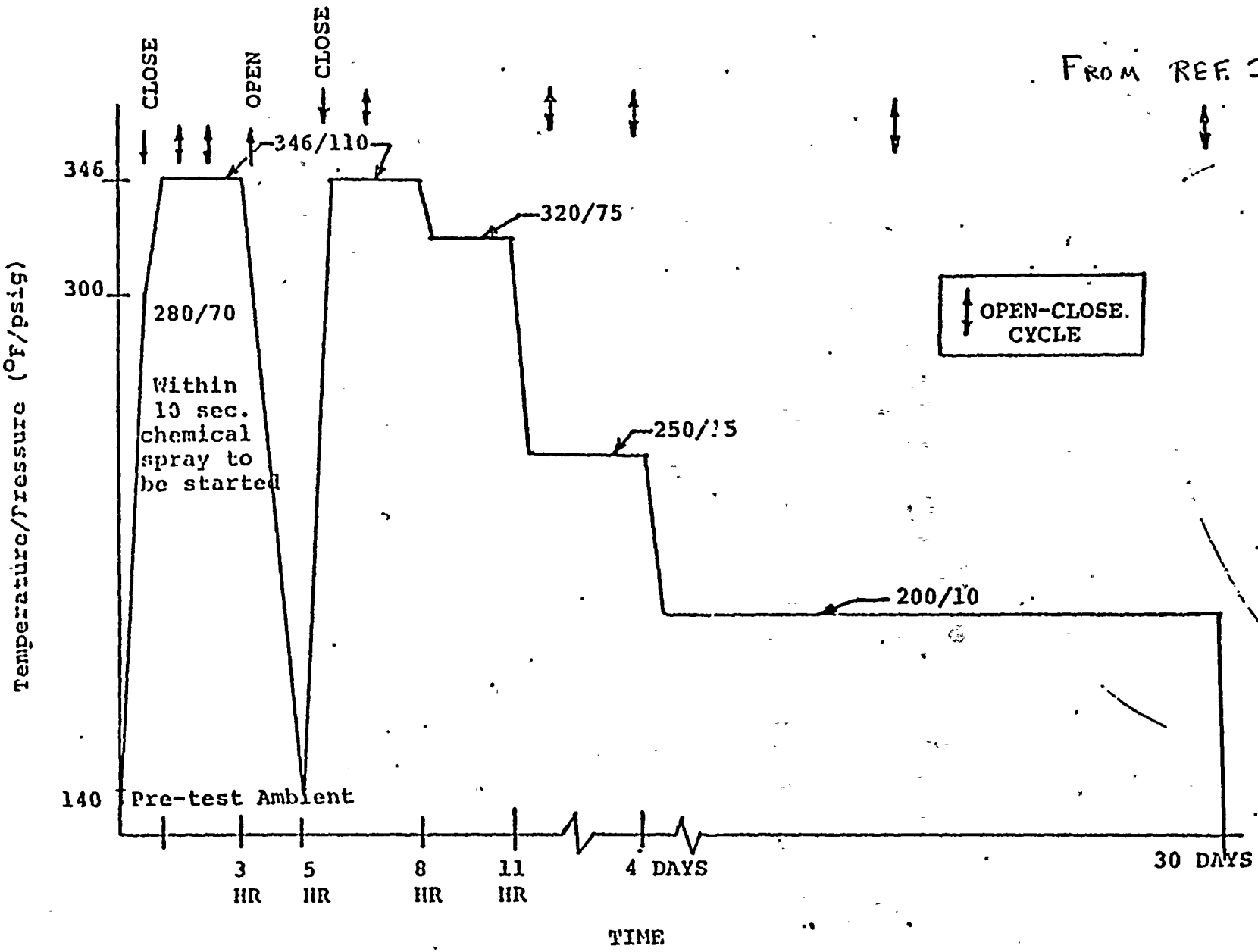


FIGURE 1
LOCA SIMULATION BY ENVIRONMENTAL EXPOSURE (STEAM/CHEMICAL)

Temperature/Pressure Profile for simulation of loss-of coolant accident (LOCA) design basis event (DBE) by steam/chemical-spray environmental exposure.

DONALD C. COOK NUCLEAR PLANT UNIT NO. 2 DOCKET NO. 50-316 LICENSE NO. DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: RCP SEAL WATER PLANT ID NO: QCM 250 COMPONENT: CONTROL CABLE TERMINATION MANUFACTURER: NA MODEL NUMBER: NA FUNCTION: CONNECT CONTROL CABLE TO VALVE LIMIT SWITCH ACCURACY: SPEC: NA DEMON: NA SERVICE: VALVE LIMIT SWITCH LOCATION: INSIDE CONTAINMENT FLOOD LEVEL ELEV: 614' ABOVE FLOOD LEVEL: NO	Operating Time	15 SECS	7 DAYS	108	22	SIMULTANEOUS	NONE
	Temperature (°F)	328·2	330	102	22	"	"
	Pressure (PSIA)	29.1	104·7	103	22	"	"
	Relative Humidity (%)	100	100	102 103	22	"	"
	Chemical Spray	2000 PPM B 1.14% WT. BORIC ACID PH 8.5-11	2600 PPM B 1.5 % WT. BORIC ACID PH 8.5-11	114	22 72	COMBINATION	NONE SEE REF. # 72
	Radiation (10^6 rads)	0·8	SEE NOTE BELOW	105	SEE NOTE BELOW	ENG. REVIEW.	NONE SEE NOTE BELOW.
	Aging (years)						
	Submergence	SUBMERGED	SEE REF#68	117	68	ENG. REVIEW	NONE SEE REF#68

217 V5

*Documentation References:

Notes: THE VALVE SERVED BY THIS TERMINATION WILL CLOSE WITHIN 15 SECS OF RECEIVING A PHASE A CONTAINMENT ISOLATION SIGNAL. THEREFORE IS NOT EXPOSED TO A RADIATION DOSE SIGNIFICANTLY BEYOND ITS NORMAL ENVIRONMENT AND DOES NOT REQUIRE RADIATION QUALIFICATION.

22. Qualified by Limitorque Corp. Test Laboratory
Project #600198. November 1968

Type of Test: simultaneous, steam
chemical spray
separate seismic test

Type Profile:

328°F, 90 psig for 1 hr
312°F, 70 psig for 2 hrs
287°F, 40 psig for 2 hrs
271°F, 20 psig for 19 hrs
250°F, 15 psig for 6 days

Chemical Spray:

1.5% boric acid buffered with Na OH to a PH of 7.67.

Seismic Test 8/20/79
Horizontal Force, 5.3 G at 35 Hz
Vertical force 5.3 G at 35 Hz
No resonance freq from 5 to 35 Hz

DONALD C. COOK NUCLEAR PLANT UNIT NO. 2 DOCKET NO. 50-316 LICENSE NO. DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: Containment air recirculation PLANT ID NO: Connection to VM0-101, VM0-102 COMPONENT: CONTROL CABLE TERMINATION MANUFACTURER: NA MODEL NUMBER: NA FUNCTION: CONNECT CONTROL CABLE TO VALVE L.S.W. ACCURACY: SPEC: NA DEMON: NA SERVICE: VARIOUS LOCATION: INSIDE CONTAINMENT	Operating Time	½ HR.	16 DAYS	108	24	SEQUENTIAL	NONE
	Temperature (°F)	244.	250	102	24	"	"
	Pressure (PSIA)	29.1	39.7	103	24	"	"
	Relative Humidity (%)	100	100	102 103	24	"	"
	Chemical Spray	See note below	NA	118	115	ENG REVIEW	NONE SEE REF. # 115 & 118
	Radiation (10^6 rads)	4.31	20.	105	24	SEQUENTIAL	NONE
	Aging (years)						
FLOOD LEVEL ELEV: 614' ABOVE FLOOD LEVEL: YES	Submergence	NA	NA	NA	NA	NA	NA

118-119 V4

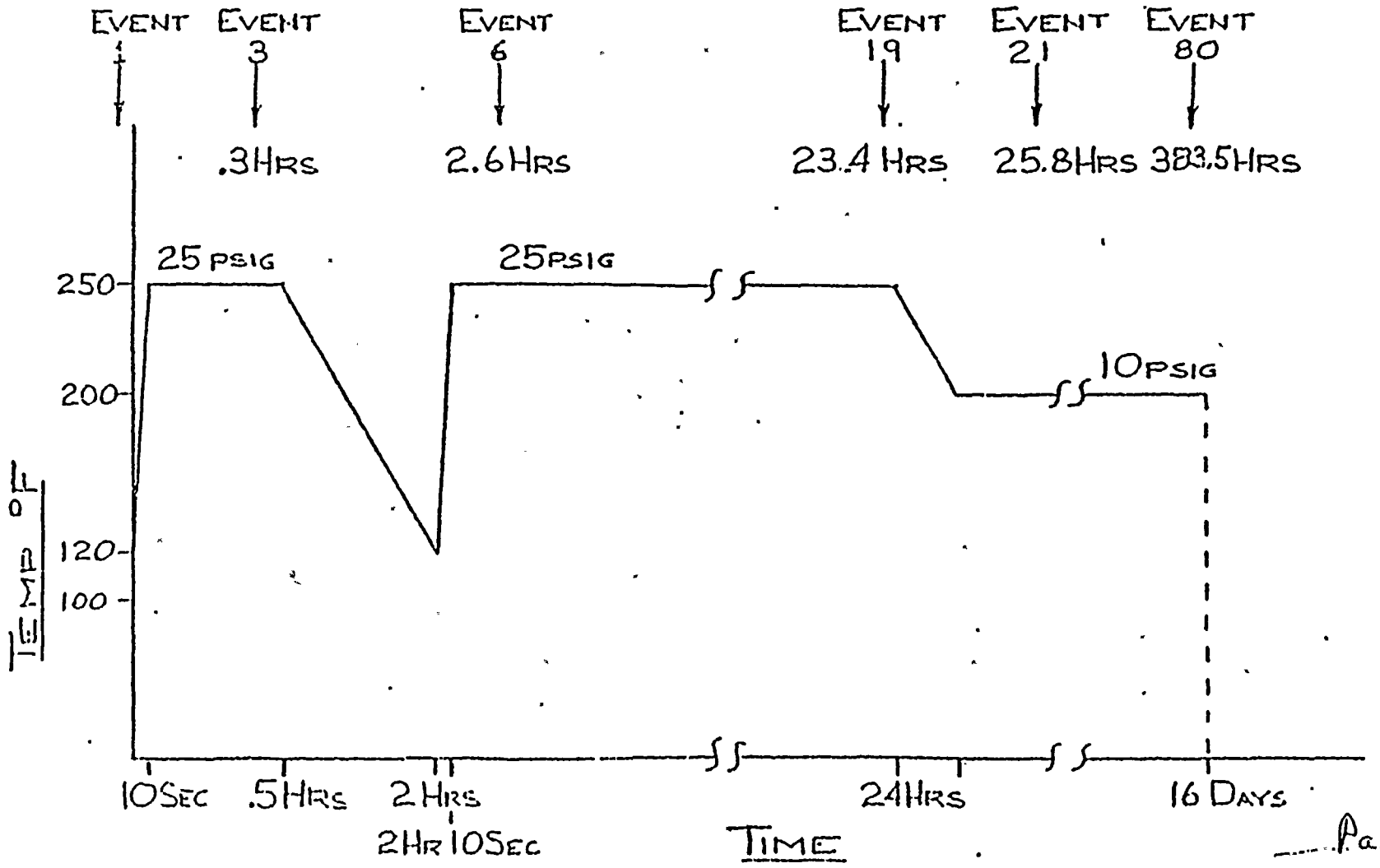
*Documentation References:

Notes:

Mechanical installation drawings shows that valve location is not subject to direct caustic spray impingement SEE REF. 118

Form EGQ #97-2

TEMPERATURE PROFILE



Page TC2-2

FIGURE 1

DONALD C. COOK NUCLEAR PLANT UNIT NO. 2 DOCKET NO. 50-316 LICENSE NO. DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS	
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.			
SYSTEM: VARIOUS	Operating Time	½ HR.	30 DAYS	109	23	SEQUENTIAL.	NONE	60-63 VI 99A VI
PLANT ID NO: NA	Temperature (°F)	328.2	340	102	23	"	"	205 VI 206 VI
COMPONENT: CONTROL CABLE TERMINATION MANUFACTURER: NA	Pressure (PSIA)	29.1	119.7	103	23	"	"	
MODEL NUMBER: NA	Relative Humidity (%)	100	100	102 103	23	"	"	
FUNCTION: CONNECT CONTROL CABLE TO VALVE LIMIT SWITCH ACCURACY: SPEC: NA DEMON: NA	Chemical Spray	2000 PPMB 1.14% WT. BORIC ACID PH 8.5-11	2600 PPMB 1.5% WT BORIC ACID PH 8.5-11	114	22 72	COMBINATION	NONE SEE REF. # 72	
SERVICE: VARIOUS	Radiation (10^6 rads)	0.8	204.	105	23	SEQUENTIAL	NONE	
LOCATION: INSIDE CONTAINMENT	Aging (years)							
FLOOD LEVEL ELEV: 614' ABOVE FLOOD LEVEL: NO	Submergence	SUBMERGED	submerged	117	23	SEQUENTIAL	NONE	

*Documentation References:

Notes:

Form EGQ #97-2

from Ref. 23

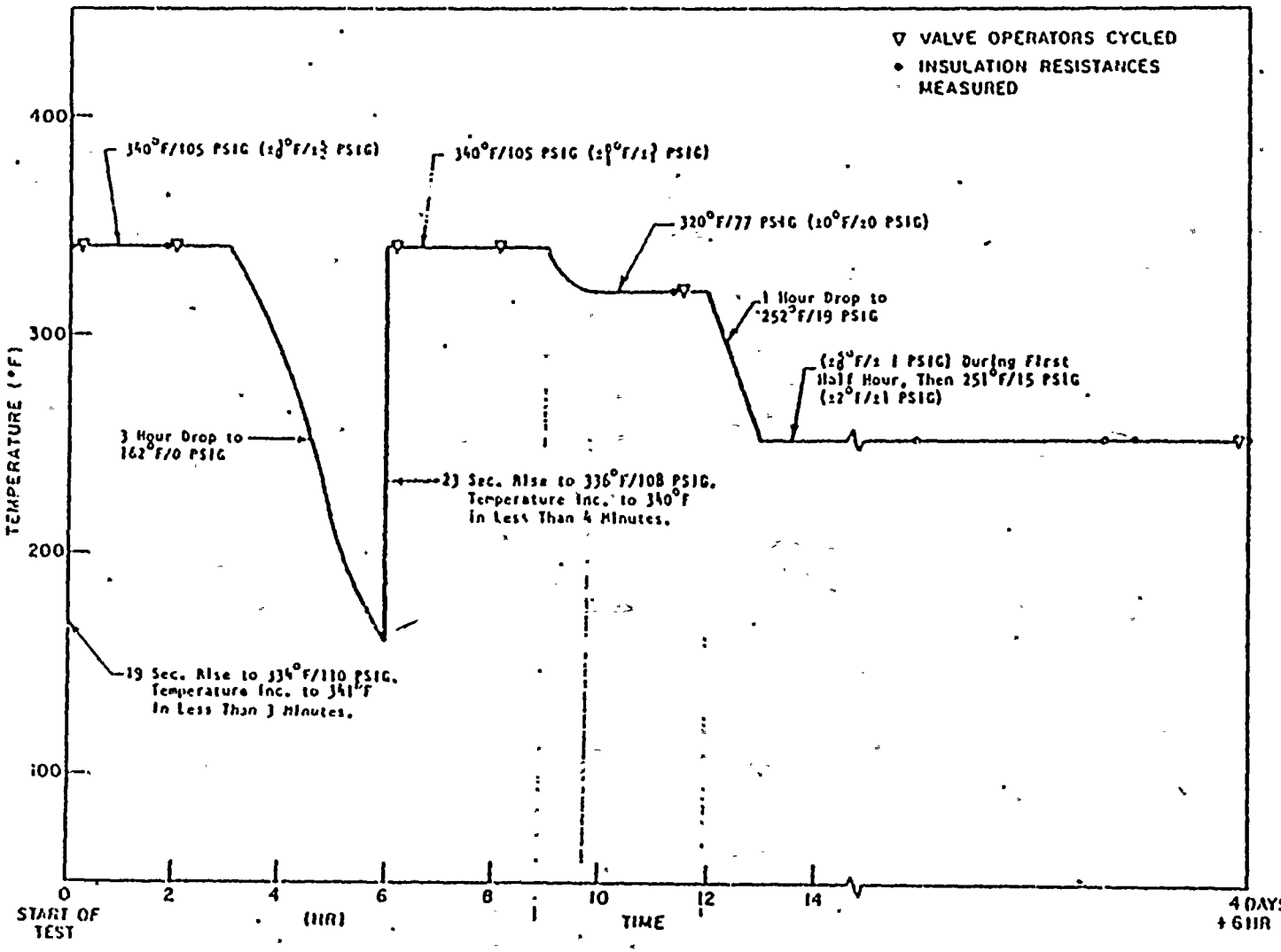


Figure 3. Actual Steam Exposure Profile

Page TC3-2

DONALD C. COOK NUCLEAR PLANT UNIT NO. 2 DOCKET NO. 50-316 LICENSE NO. DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: SAFETY INJECTION PLANT ID NO: NA COMPONENT: CONTROL CABLE TERMINATION MANUFACTURER: NA MODEL NUMBER: NA FUNCTION: CONNECT CONTROL CABLE TO VALVE LIMIT SWITCH ACCURACY: SPEC: NA DEMON: NA SERVICE: ECCS SAFETY INJECTION LOCATION: INSIDE CONTAINMENT	Operating Time	1 DAY	30 DAYS	110	16	SEQUENTIAL	NONE
	Temperature (°F)	244	315	102	16	"	"
	Pressure (PSIA)	29.1	84.7	103	16	"	"
	Relative Humidity (%)	100	100	102 103	16	"	"
	Chemical Spray	2000 PPMB 1.14% WT. BORIC ACID PH 8.5-11	3000 PPMB 1.72% WT. BORIC ACID PH 8.5-11	114	16 72	COMBINATION	NONE SEE REF. #72
	Radiation (10^6 rads)	28	204	105	16	SEQUENTIAL	NONE
	Aging (years)						
FLOOD LEVEL ELEV: 614' ABOVE FLOOD LEVEL: YES	Submergence	NA	NA	NA	NA	NA	NA

85 V2
90 V2
94-95 V2

*Documentation References:

Notes:

Form EGQ #97-2

FROM REF. #16

Specified Accident Profile

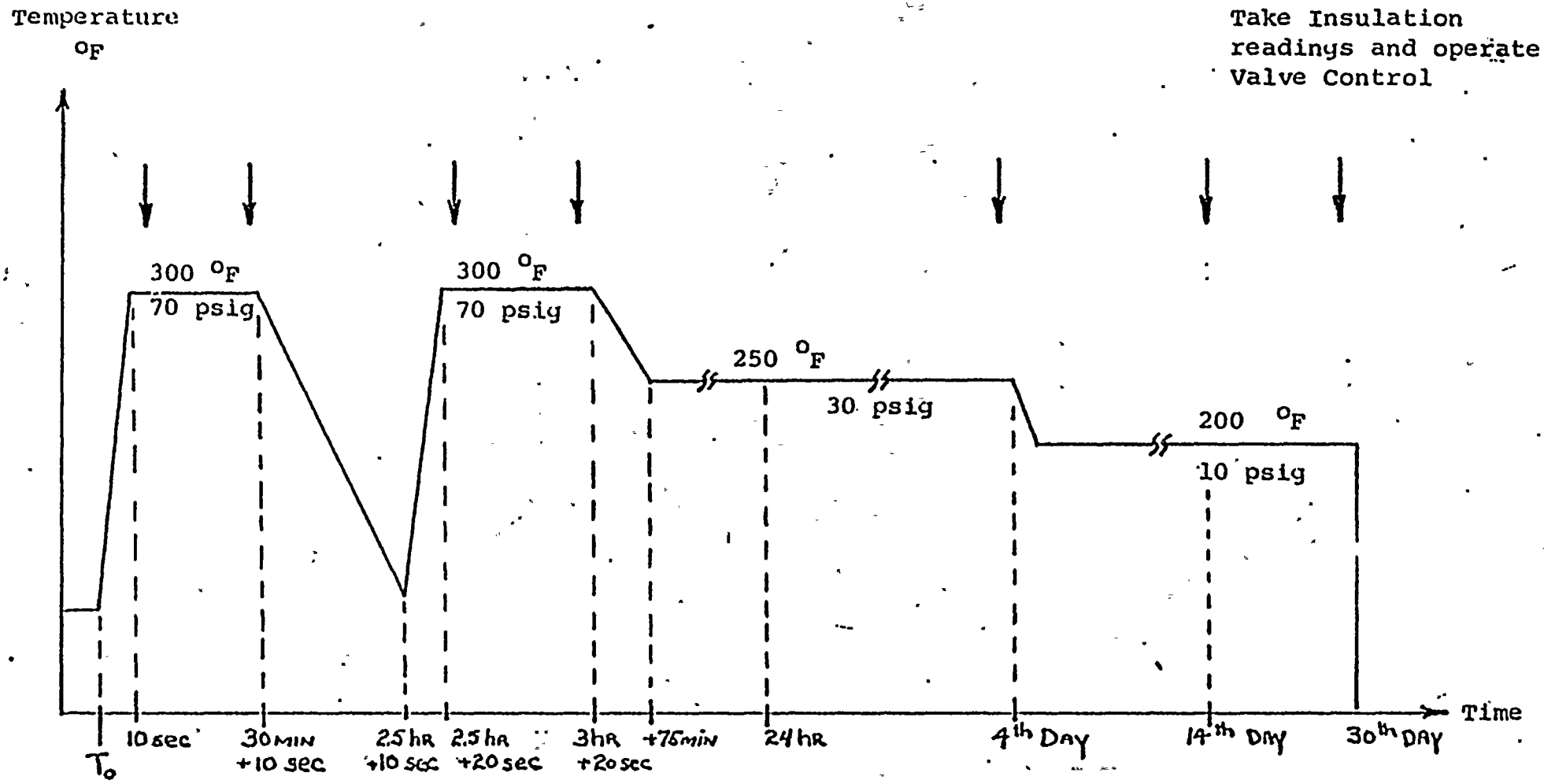


Figure 5

PAGE TC4-2

FROM REF. #16

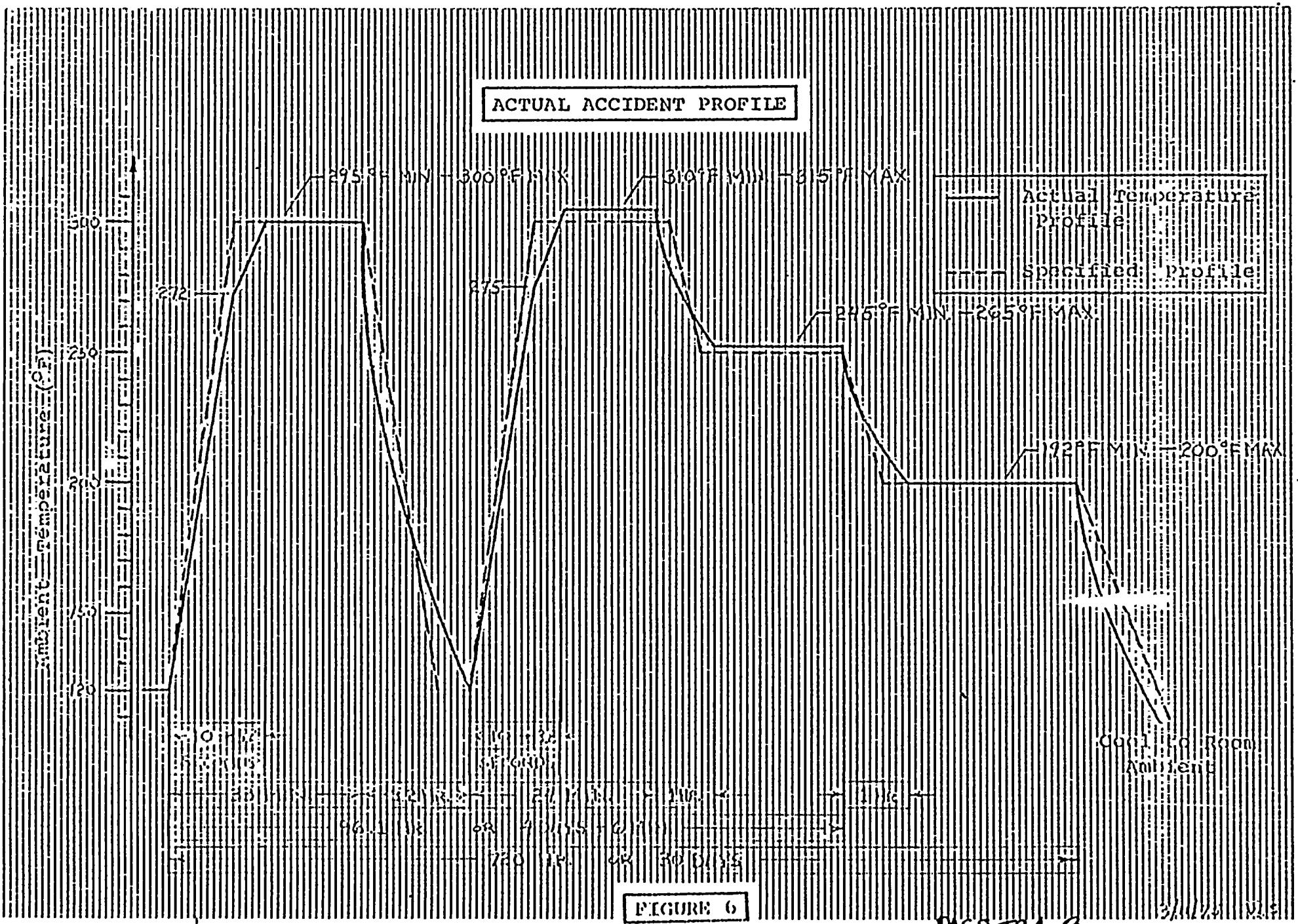


FIGURE 6

DONALD C. COOK NUCLEAR PLANT UNIT NO. 2 | DOCKET NO. 50-316 | LICENSE NO. DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: VARIOUS PLANT ID NO: NA COMPONENT: CONTROL CABLE TERMINATION MANUFACTURER: MODEL NUMBER: NA FUNCTION: SOLID KAPTON SPLICED TO STRANDED KAPTON AT PEN. INSIDE FLOOD-UP TUBE ACCURACY: SPEC: NA DEMON: NA SERVICE: VARIOUS LOCATION: INSIDE CONTAINMENT	Operating Time	14 DAYS	>14 DAYS	118	63 13	COMBINATION	NONE SEE REF. #63
	Temperature (°F)	328.2	340	102	13	SEQUENTIAL	NONE
	Pressure (PSIA)	29.1	118	103	13	"	"
	Relative Humidity (%)	100	100	102 103	13	"	"
	Chemical Spray	NA	2500 PPMB 1.43% WT. BORIC ACID PH 8.5 ± 1	114	13 72	COMBINATION	NONE SEE REF. #72
	Radiation (10^6 rads)	14.4	60	105	13	SEQUENTIAL	NONE
	Aging (years)						
FLOOD LEVEL ELEV: 614' ABOVE FLOOD LEVEL: NO	Submergence	NOT SUBMERGED	IN FLOOD-UP TUBES	NA	61	ENG. REVIEW	NONE SEE REF. #61

60-63 V1
85 V2
90 V2
94-95 V2
99A V1
118-119 V4
205-206 V1
217-226 V5, 517
229-234 511, V9

*Documentation References:

Notes:

Form EGQ #97-2

FIGURE 2 TEST PROFILE

from Ref. 13

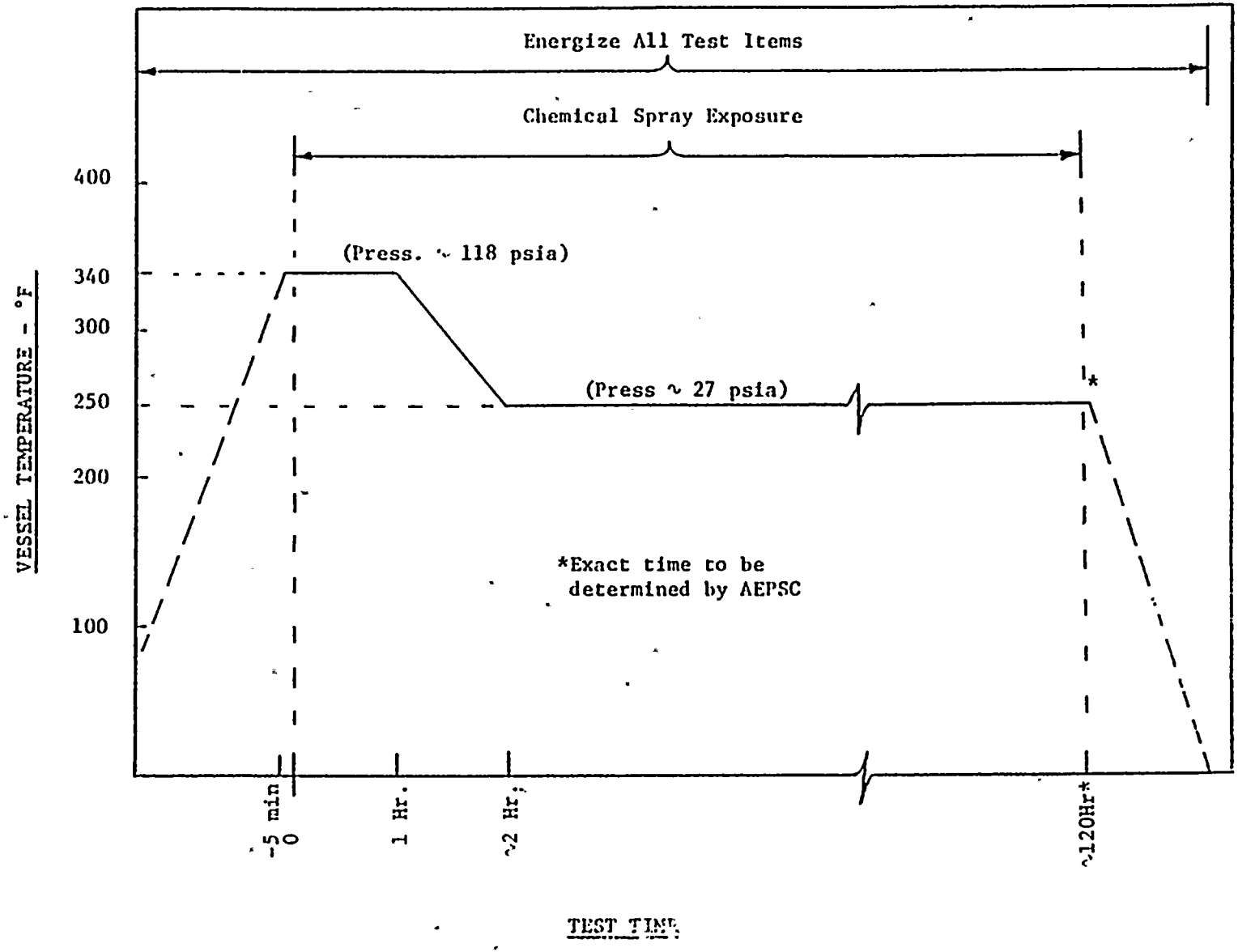
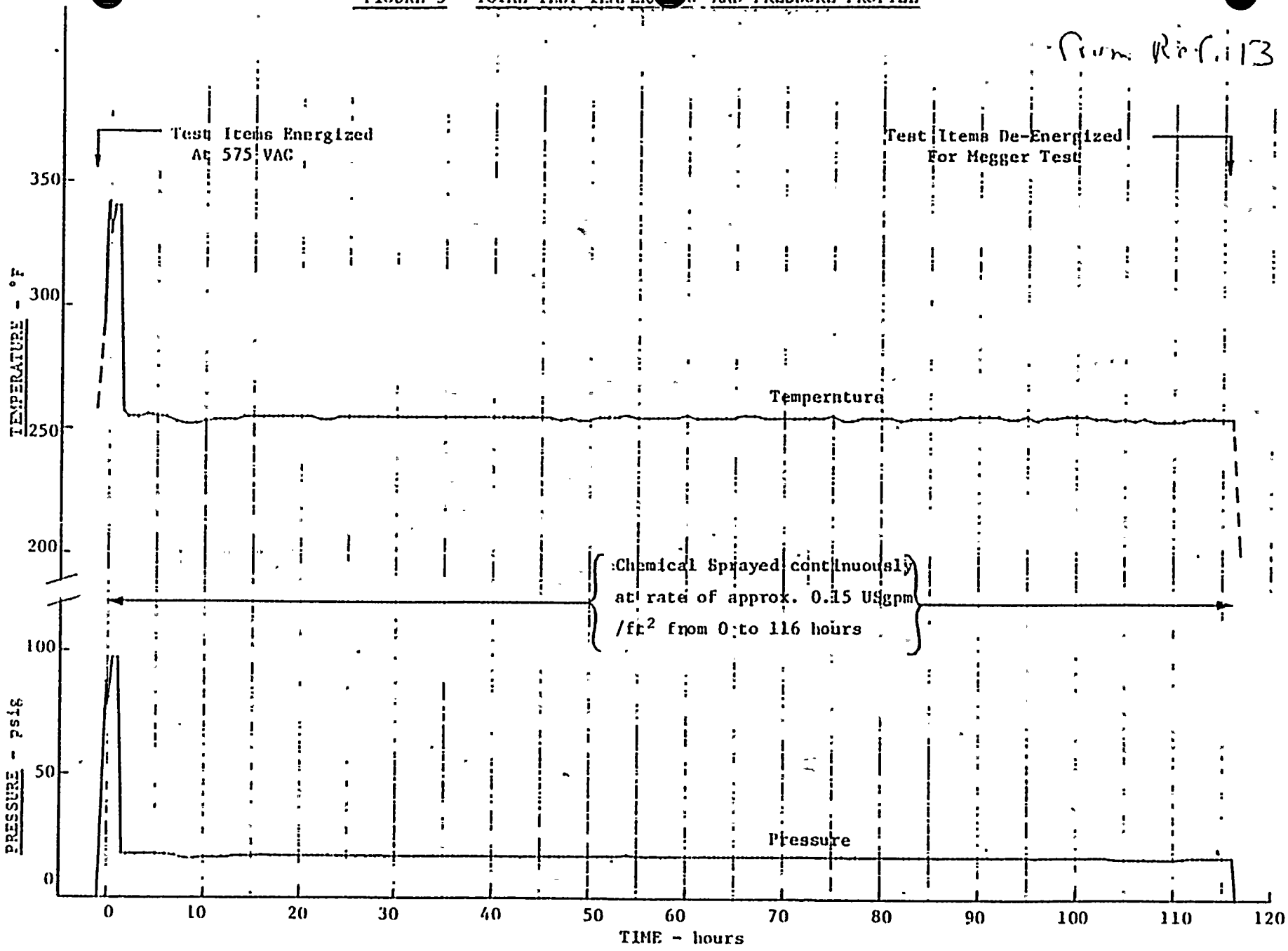


FIGURE 3 TOTAL TEST TEMPERATURE AND PRESSURE PROFILE

Run Ref. 13



DONALD C. COOK NUCLEAR PLANT UNIT NO. 2 | DOCKET NO. 50-316 | LICENSE NO. DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: VARIOUS PLANT ID NO: NA COMPONENT: CONTROL CABLE TERMINATION. MANUFACTURER: NA MODEL NUMBER: NA FUNCTION: STRANDED KAPTON SPLICED TO SOLID XL POLYETHYLENE AT FLOOD-UP TERMINAL BOX ACCURACY: SPEC: NA DEMON: NA SERVICE: VARIOUS LOCATION: INSIDE CONTAINMENT	Operating Time	14 DAY	714 DAYS	118	63 8	COMBINATION	NONE SEE REF. #63
	Temperature (°F)	328.2	345	102	8	SEQUENTIAL "	NONE
	Pressure (PSIA)	29.1	124.7	103	8	"	"
	Relative Humidity (%)	100	100	102 103	8	"	"
	Chemical Spray	2000 PPM B 1.14% WT. BORIC ACID PH 8.5-11	2500 PPM B 1.43% WT. BORIC ACID PH 8.5-11	114	8 72	COMBINATION	NONE SEE REF. #72
	Radiation (10^6 rads)	81	150	105	8	SEQUENTIAL	NONE
	Aging (years)						
FLOOD LEVEL ELEV: 614' ABOVE FLOOD LEVEL: YES	Submergence	NA	NA	NA	NA	NA	NA

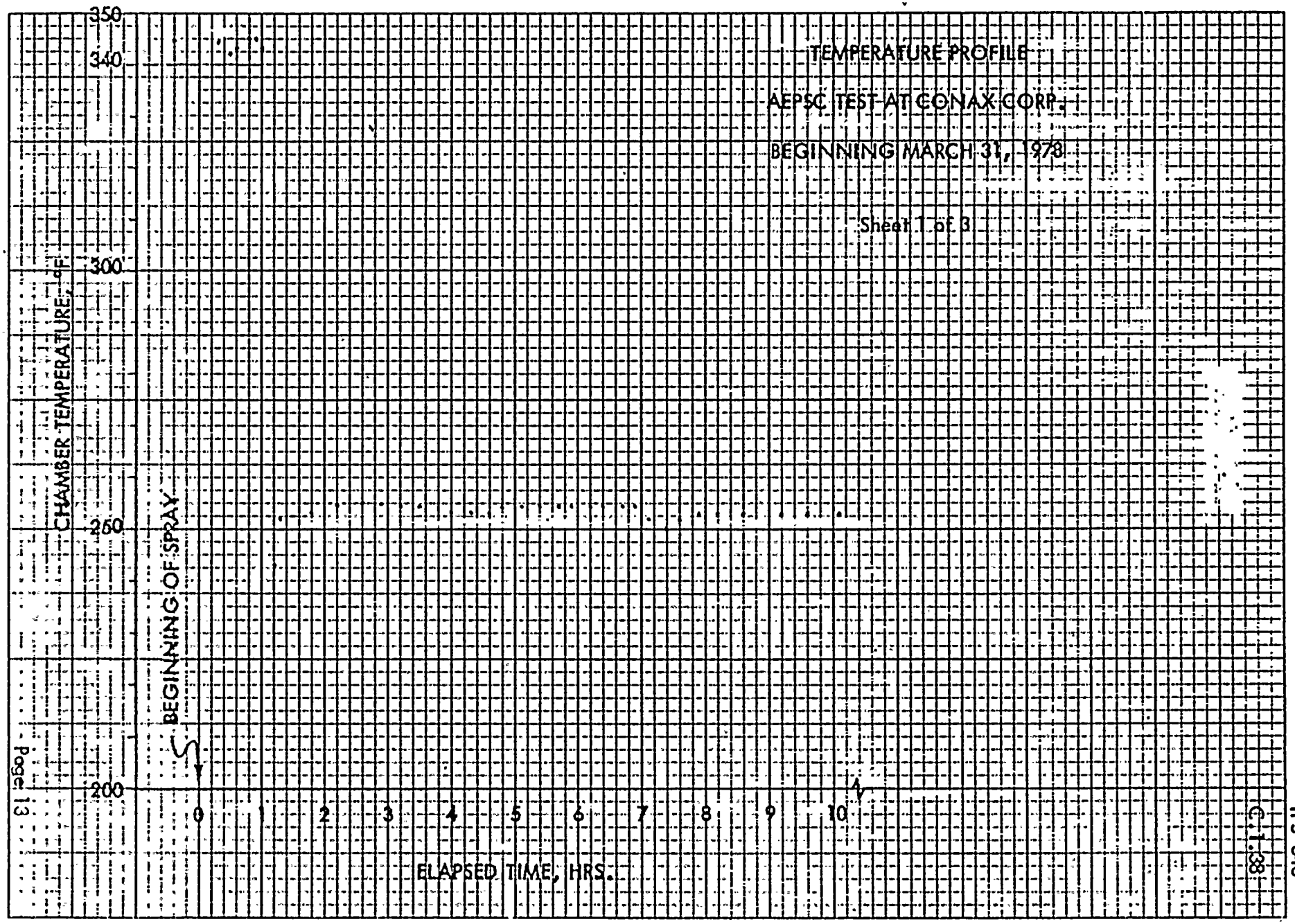
60-63 V1
85 V2
90 V2
94-95 V2
99A V1
118-119 V4
205-206 V1
217-226 V5, S17
232-234 S11

*Documentation References:

Notes:

Form EGQ #97-2

from REF. #8



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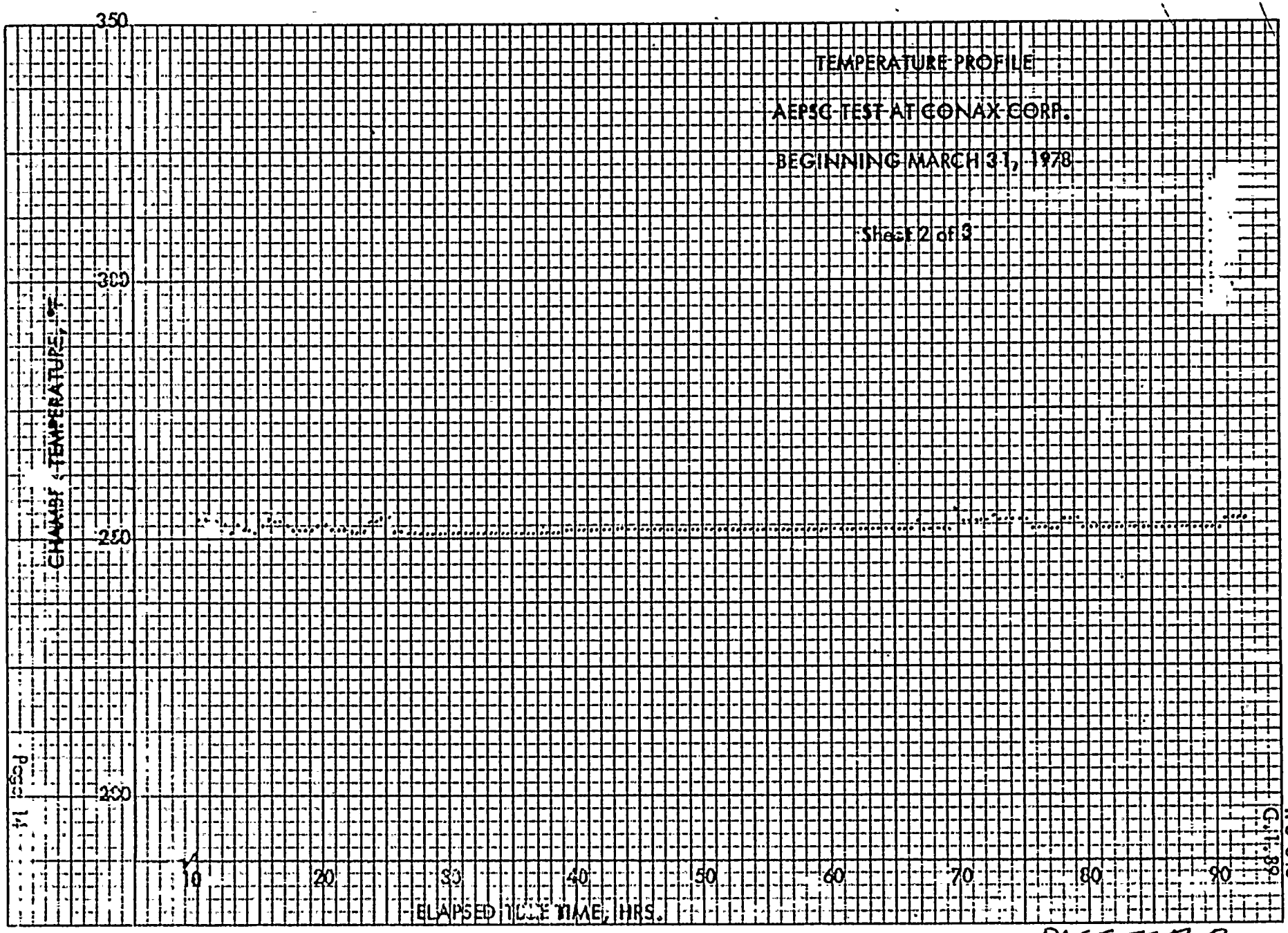
from REF. #8



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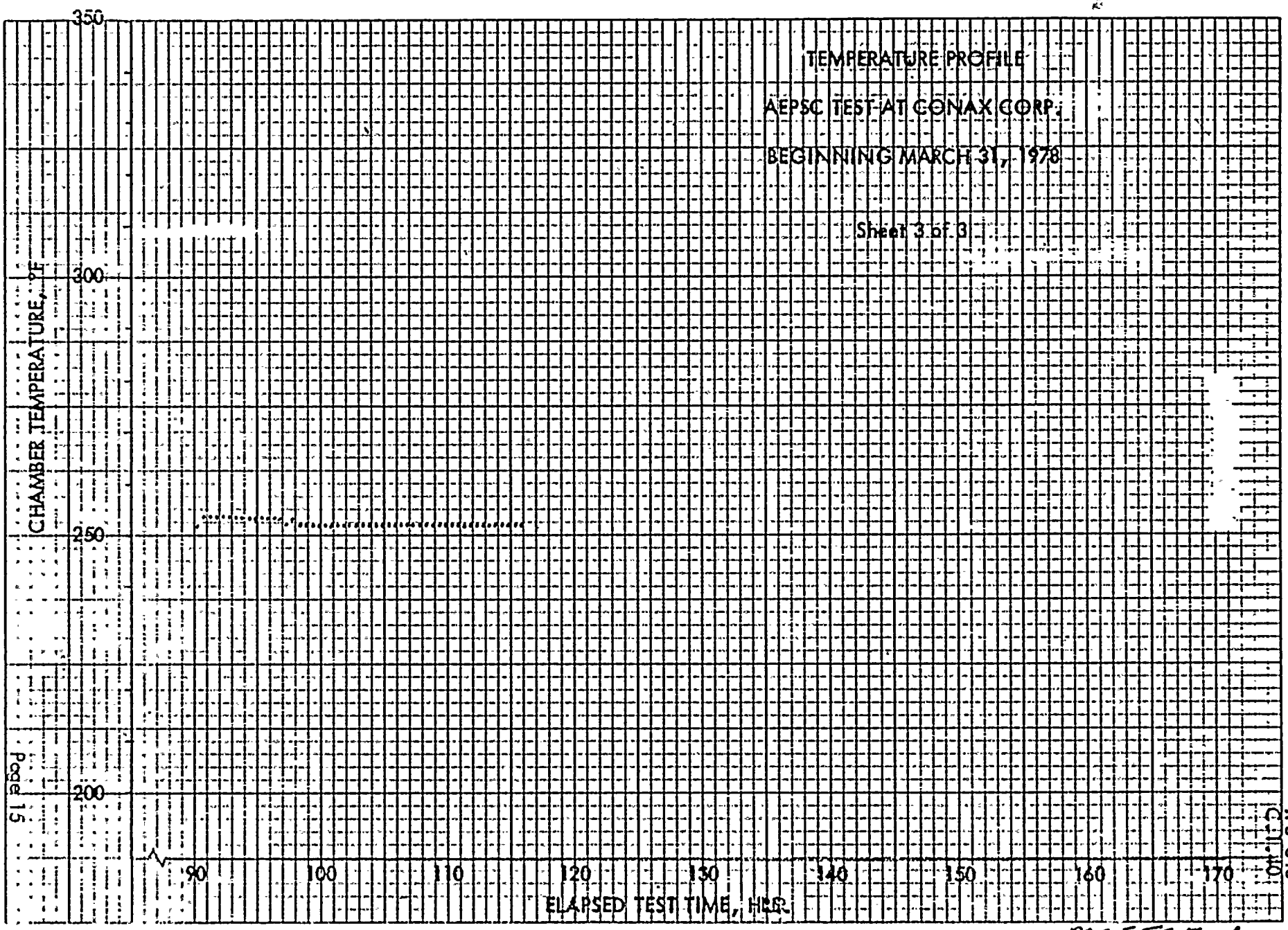
From Ref. #8



IPS-348
C-II-140

PAGE TC 7-4

DONALD C. COOK NUCLEAR PLANT UNIT NO. 2 DOCKET NO. 50-316 LICENSE NO. DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: VARIOUS PLANT ID NO: NA COMPONENT: CONTROL CABLE TERMINATION MANUFACTURER: NA MODEL NUMBER: NA FUNCTION: XL POLYETHYLENE SOLID SPLICED TO XL POLYETHYLENE SOLID AT TERM. BOX NEAR VALVE ACCURACY: SPEC: NA DEMON: NA SERVICE: VARIOUS LOCATION: INSIDE CONTAINMENT	Operating Time	14 day	>14 DAYS	118	63 8	COMBINATION	NONE SEE REF. #63
	Temperature (°F)	328.2	345	102	8	SEQUENTIAL	NONE
	Pressure (PSIA)	29.1	124.7	103	8	"	"
	Relative Humidity (%)	100	100	102 103	8	"	"
	Chemical Spray	2000 PPMB 1.14% WT. BORIC ACID PH 8.5-11	2500 PPMB 1.43% WT BORIC ACID PH 8.5-11	114	8 72	COMBINATION	NONE SEE REF. #72
	Radiation (10^6 rads)	81	150	105	8	SEQUENTIAL	NONE
	Aging (years)						
FLOOD LEVEL ELEV: 614' ABOVE FLOOD LEVEL: NO	Submergence	SUBMERGED	SEE REF. 68	117	68	ENG. REVIEW	NONE SEE REF. #68

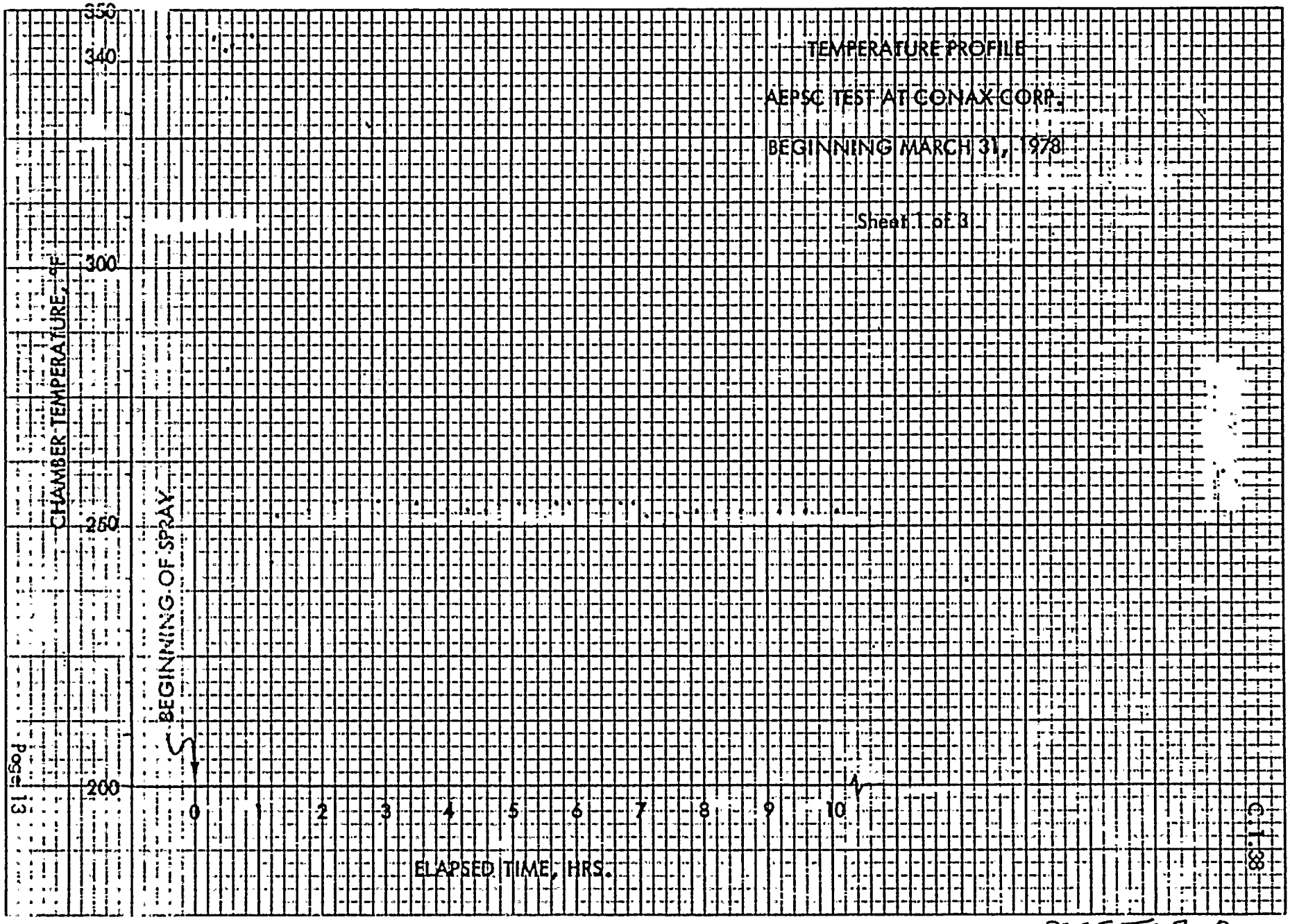
85 V2
90 V2
94-95 V2
118-119 V4
218-226 S17
229-234 S11, V9
60-61 V1
217 V5
99A V1
205-206 V1
L2, L3 V1

*Documentation References:

Notes:

Form EGQ #97-2

from REF. #8



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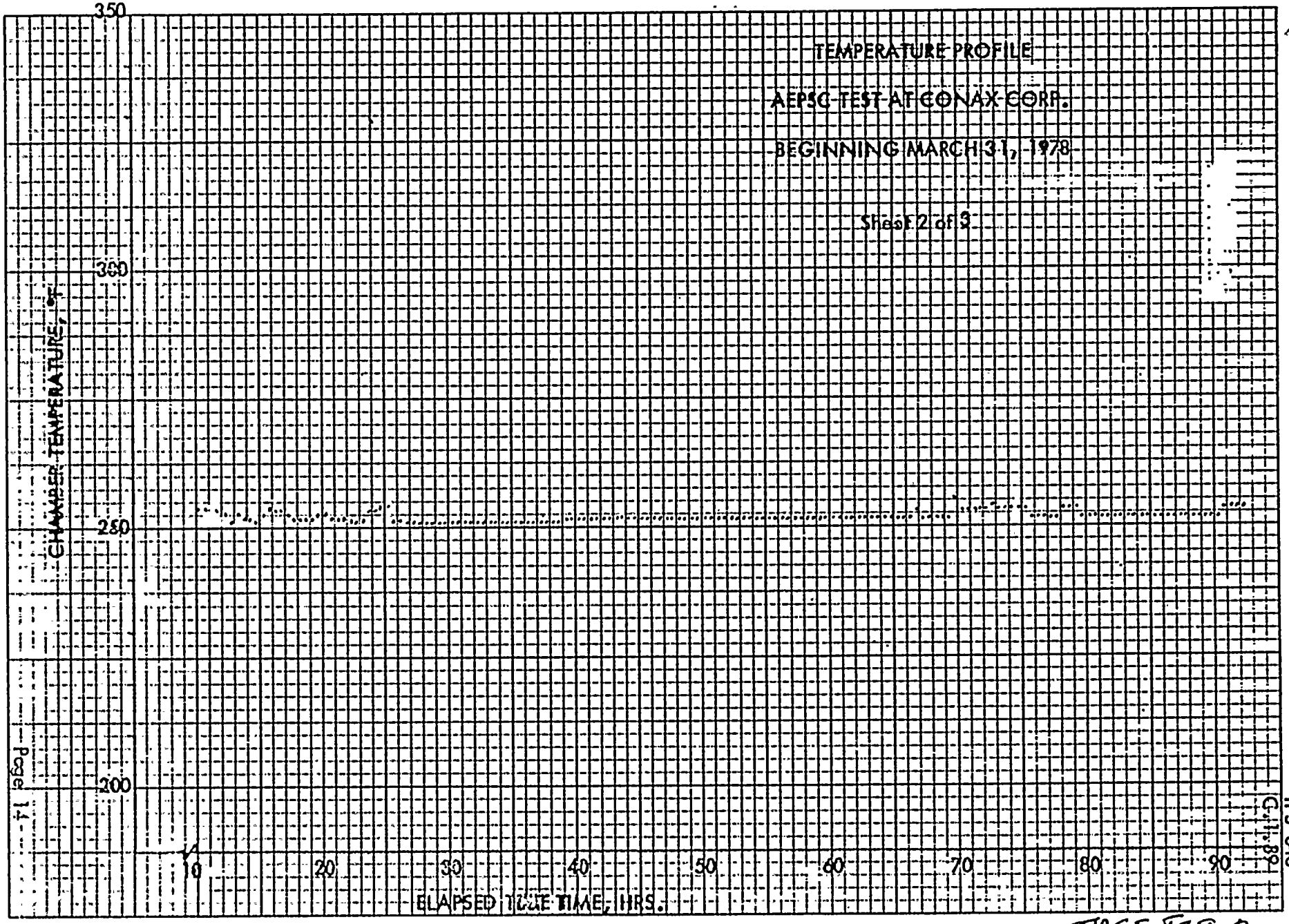
from Ref. #8



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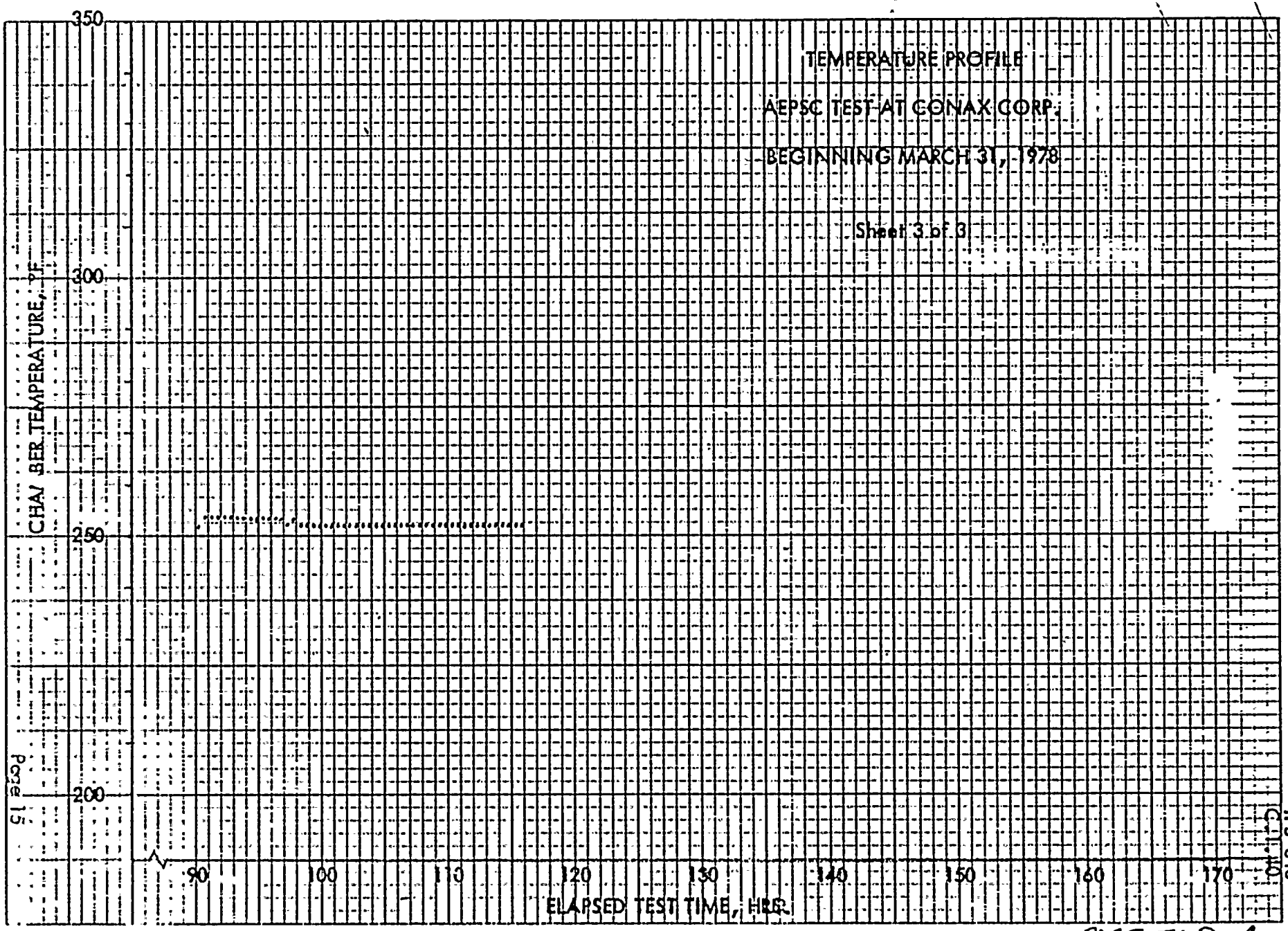
From Ref. #8



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PAGE TC 8-4

DONALD C. COOK NUCLEAR PLANT UNIT NO. 2 DOCKET NO. 50-316 LICENSE NO. DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: VARIOUS PLANT ID NO: NA COMPONENT: CONTROL CABLE TERMINATION MANUFACTURER: NA MODEL NUMBER: NA FUNCTION: CONNECT CONTROL CABLE TO VALVE MOTOR OPERATOR ACCURACY: SPEC: NA DEMON: NA SERVICE: VARIOUS LOCATION: OUTSIDE CONTAINMENT	Operating Time	1 DAY	7 DAYS	110	23	SEQUENTIAL	NONE
	Temperature (°F)	230	340	107	23	"	"
	Pressure (PSIA)	26.2	119.7	107	23	"	"
	Relative Humidity (%)	100	100	NA	23	"	"
	Chemical Spray	NA	2600 PPMB 1.5% WT. BORIC ACID PH 8.5-11	NA	22 72	COMBINATION	NA
	Radiation (10^6 rads)	4	204	1.06	23	SEQUENTIAL	NONE
	Aging (years)						
FLOOD LEVEL ELEV: NA ABOVE FLOOD LEVEL: NA	Submergence	NA	Submergence	NA	23	Sequential	N A

96-97 V7
108-115 V7

*Documentation References:

Notes:

Form EGQ #97-2

From Ref. 23

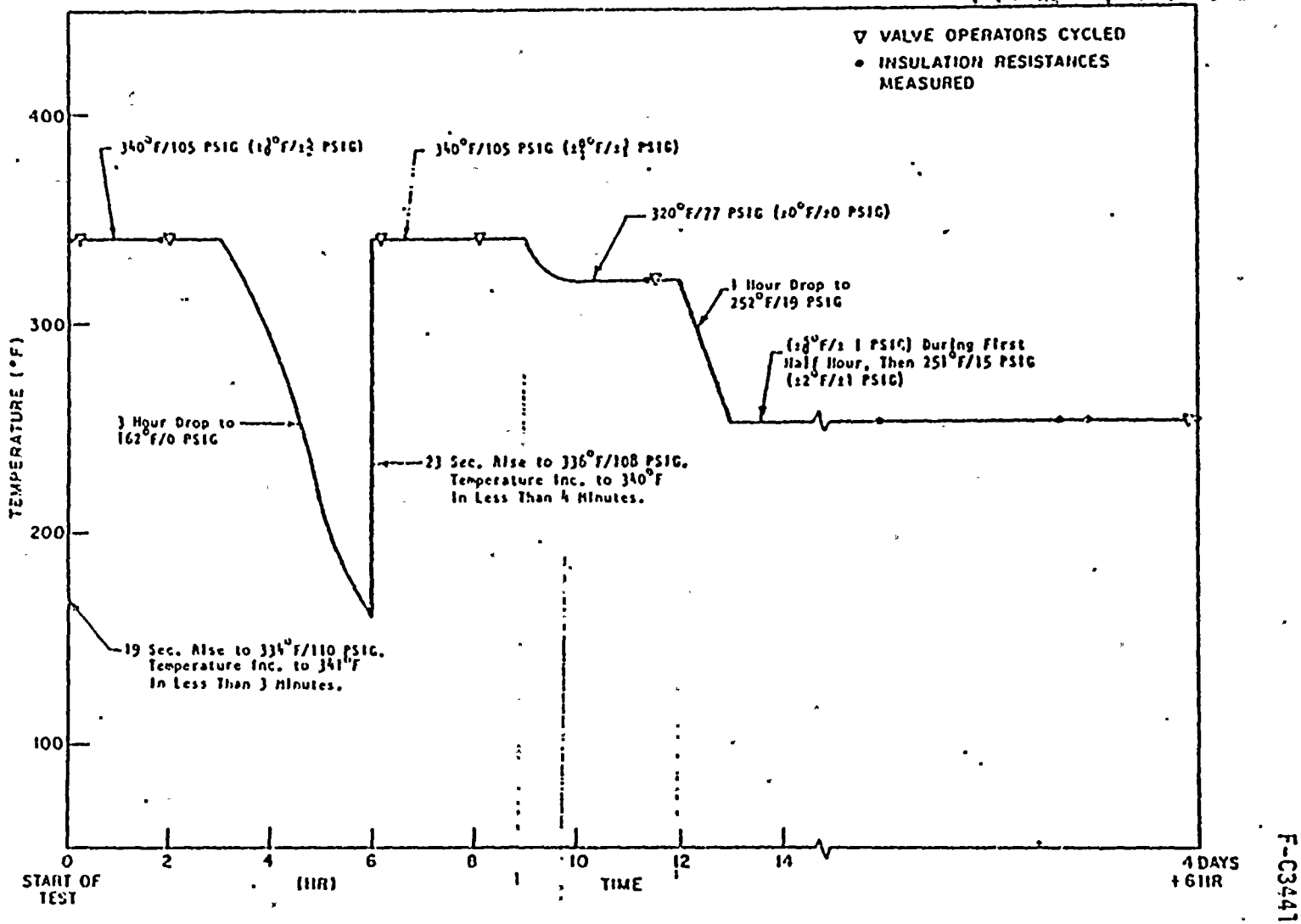


Figure 3. Actual Steam Exposure Profile

Page Tc.10-2

DONALD C. COOK NUCLEAR PLANT UNIT NO. 2 | DOCKET NO. 50-316 | LICENSE NO. DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: VARIOUS PLANT ID NO: NA COMPONENT: CONTROL CABLE TERMINATION MANUFACTURER: NA MODEL NUMBER: NA FUNCTION: CONNECT CONTROL CABLE TO VALVE MOTOR OPR. ACCURACY: SPEC: NA DEMON: NA SERVICE: VARIOUS LOCATION: OUTSIDE CONTAINMENT	Operating Time	1 DAY	16 DAYS	110	24	SEQUENTIAL	NONE
	Temperature (°F)	230	250	107	24	"	"
	Pressure (PSIA)	26.2	39.7	107	24	"	"
	Relative Humidity (%)	100	100	107	24	"	"
	Chemical Spray	NA	NA	NA	NA	NA	NA
	Radiation (10^6 rads)	4	20	106	24	SEQUENTIAL	NONE
	Aging (years)						
FLOOD LEVEL ELEV: NA ABOVE FLOOD LEVEL: NA	Submergence	NA	NA	NA	NA	NA	NA

25-32 V6
34-37 V6
39-42 V6
52-53 V6
64-65 V6
67-70 V6
82-84 V6
91-93 V6
207-210 V6
215-216 V6
44-45 VII
71-73 VII
98-99 VII
213-214 VII
46 V6
47 V6

*Documentation References:

Notes:

Form EGQ #97-2

from Ref. 24

TEMPERATURE PROFILE

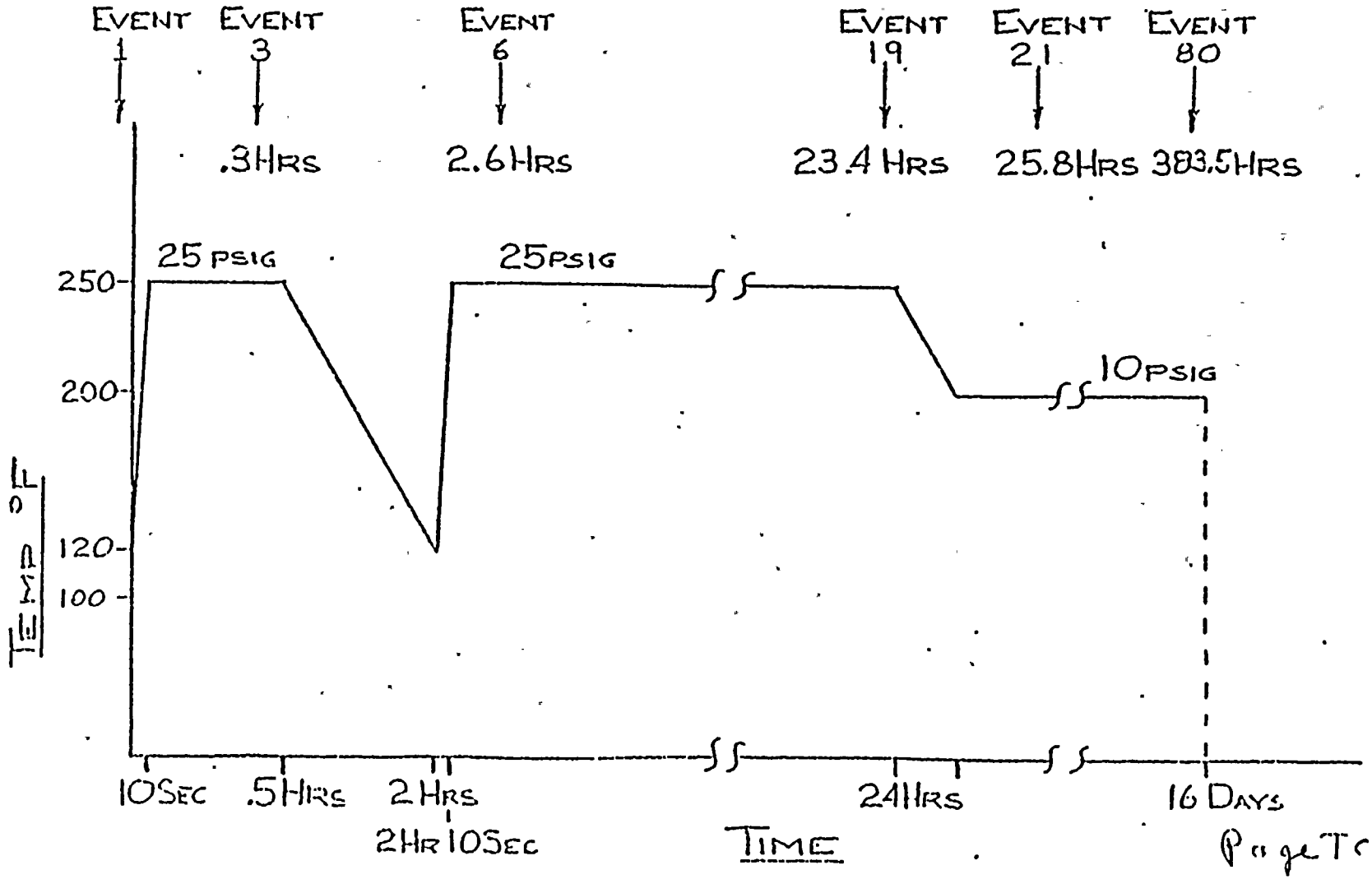


FIGURE 1

DONALD C. COOK NUCLEAR PLANT UNIT NO. 2 DOCKET NO. 50-316 LICENSE NO. DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: PRESSURIZER PLANT ID NO: NA COMPONENT: CONTROL CABLE TERMINATION MANUFACTURER: NA MODEL NUMBER: NA FUNCTION: CONNECT CONTROL CABLE TO VALVE MOTOR OPERATOR ACCURACY: SPEC: NA DEMON: NA SERVICE: NMO-151, 152, 153 LOCATION: INSIDE CONTAINMENT	Operating Time	14 DAY	16 DAYS	118	24	SEQUENTIAL	NONE
	Temperature (°F)	234	250	102	24	"	"
	Pressure (PSIA)	27!	39.7	103	24	"	"
	Relative Humidity (%)	100	100	102 103	24	"	"
	Chemical Spray	See note below	SEE REF. 116	116	116	ENG REVIEW	NONE SEE REF. 116.
	Radiation (10^6 rads)	7	20	105	24	SEQUENTIAL	NONE
	Aging (years)						
FLOOD LEVEL ELEV: 614' ABOVE FLOOD LEVEL: YES	Submergence	NA	NA	NA	NA	NA	NA

229-231 V9.

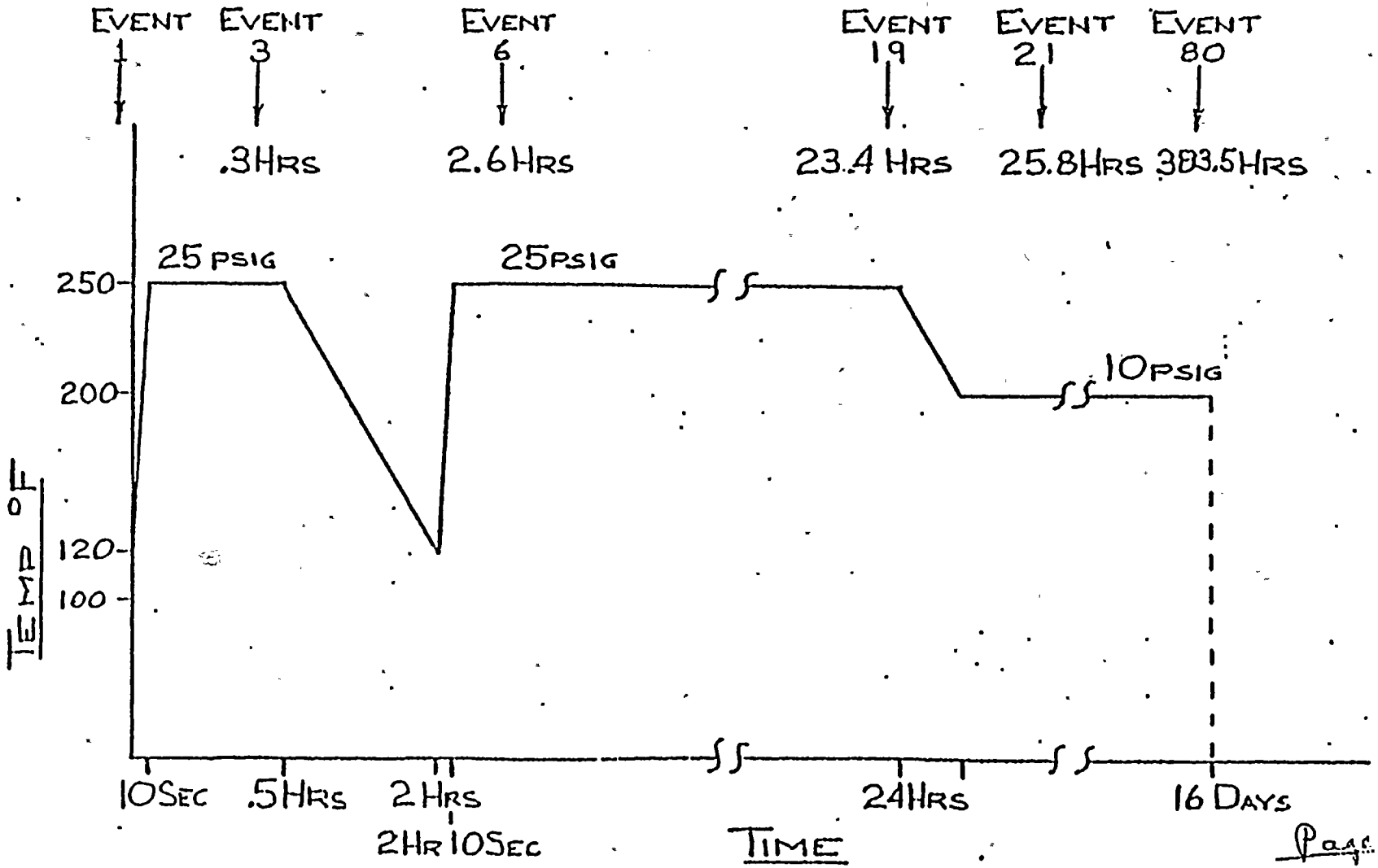
*Documentation References:

Notes:
Valve location is not subject to direct caustic spray impingement as per mech dwgs. SEE REF. 116.

Form EGQ #97-2

TEMPERATURE PROFILE

From Ref. 24



Page TC 12-2

FIGURE 1

DONALD C. COOK NUCLEAR PLANT UNIT NO. 2 DOCKET NO: 50-316 LICENSE NO. DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: VARIOUS PLANT ID NO: NA COMPONENT: CONTROL CABLE TERMINATION MANUFACTURER: NA MODEL NUMBER: NA FUNCTION: CONNECT CABLES AT TERMINAL BLOCK ACCURACY: SPEC: NA DEMON: NA SERVICE: VARIOUS LOCATION: OUTSIDE CONTAINMENT	Operating Time	1 DAY	118 HRS	110	45	SIMULTANEOUS	NONE
	Temperature (°F)	230	345	107	45	"	"
	Pressure (PSIA)	26.2	124.7	107	45	"	"
	Relative Humidity (%)	100	100	107	45	"	"
	Chemical Spray	NA	2500 PPM B 1.43% WT. BORIC ACID PH 8.5-11	NA	45 72	COMBINATION	NA
	Radiation (10^6 rads)	4	20	106	46	SEQUENTIAL	NONE
	Aging (years)						
FLOOD LEVEL ELEV: NA ABOVE FLOOD LEVEL: NA	Submergence	NA	NA	NA	NA	NA	NA

5 S7
6 S7
~~1-3 S-5, VII-8~~
34-37 V6
39-42 V6
44-47 V6, VII
52-53 V6
7-12 S7
82-84 V6
91-99 V6
96-99 V7, 11
108-115 V7
207-216 V6, 10, 11
64-65-V6
67-70-V6
71-73-11
17-20-53
25-32-V6

*Documentation References:

Notes:

Form EGQ #97-2

from Ref. 45

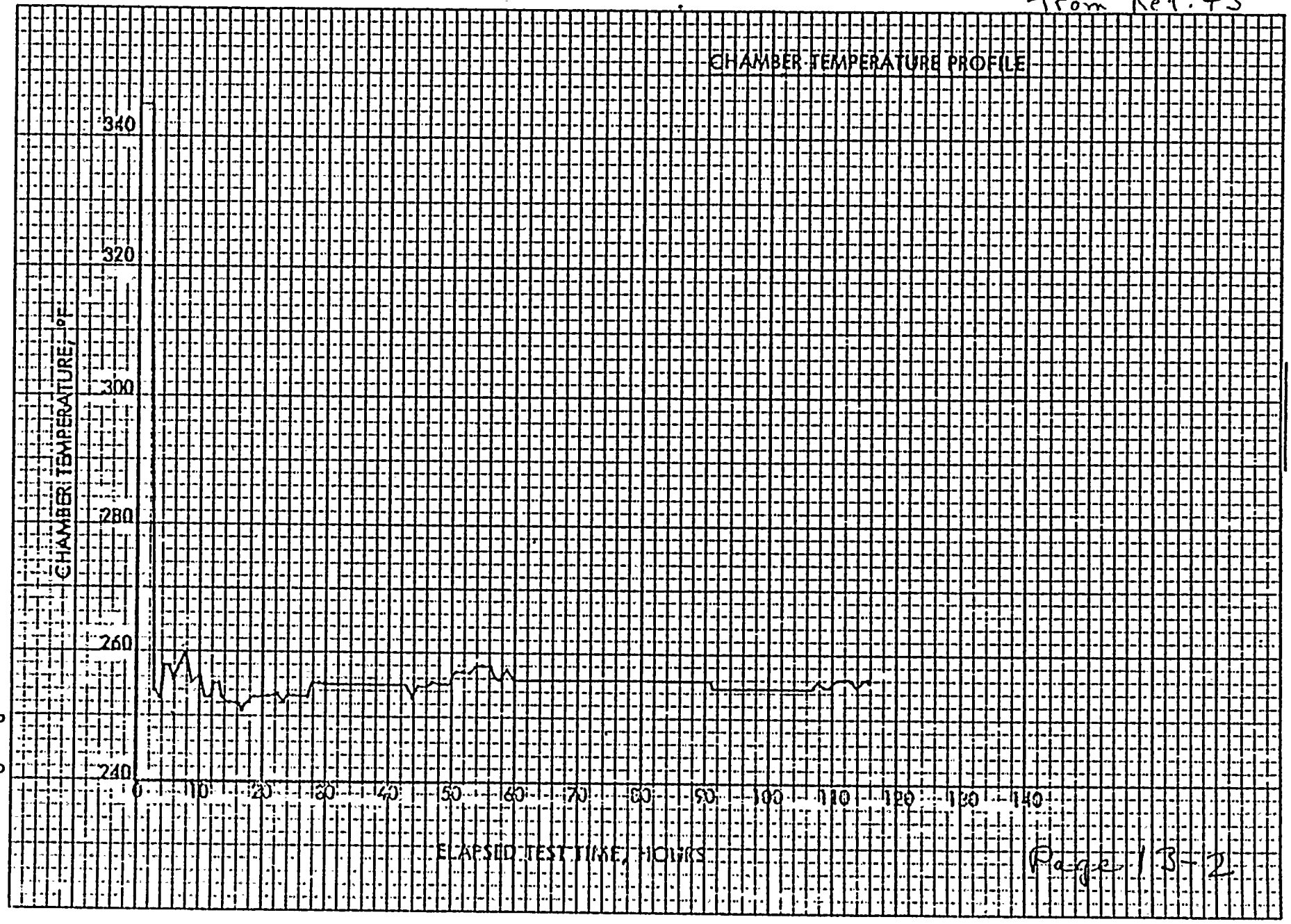


FIGURE 6.1

DONALD C. COOK NUCLEAR PLANT UNIT NO. 2 DOCKET NO. 50-316 LICENSE NO. DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: RESIDUAL HEAT REMOVAL PLANT ID NO: NA COMPONENT: CONTROL CABLE TERMINATION MANUFACTURER: NA MODEL NUMBER: NA FUNCTION: CONNECT CONTROL CABLE TO VALVE LIMIT SWITCH ACCURACY: SPEC: NA DEMON: NA SERVICE: ICM-305, 306 LOCATION: OUTSIDE CONTAINMENT	Operating Time	2 HRS.	7 DAYS	118	22	SIMULTANEOUS	NONE
	Temperature (°F)	NA	330	NA	22	"	NA
	Pressure (PSIA)	NA	104.7	NA	22	"	"
	Relative Humidity (%)	NA	100	NA	22	"	"
	Chemical Spray	NA	2600 PPM B 1.5% WT. BORIC ACID PH 8.5-11	NA	22 72	COMBINATION	"
	Radiation (10^6 rads)	0.2	100	106	1	SEQUENTIAL	NONE
	Aging (years)						
FLOOD LEVEL ELEV: NA ABOVE FLOOD LEVEL: NA	Submergence	NA	NA	NA	NA	NA	NA

211-212 V10

*Documentation References:

Notes:

Form EGQ #97-2

from Ref. 22. Qualified by Limitorque Corp. Test Laboratory
Project #600198. November 1968

Type of Test: simultaneous, steam
chemical spray
separate seismic test

Type Profile:

328°F, 90 psig for 1 hr
312°F, 70 psig for 2 hrs
287°F, 40 psig for 2 hrs
271°F, 20 psig for 19 hrs
250°F, 15 psig for 6 days

Chemical Spray:

1.5% boric acid buffered with Na OH to a PH of 7.67.

Seismic Test 8/20/79
Horizontal Force, 5.3 G at 35 Hz
Vertical force 5.3 G at 35 Hz
No resonance freq from 5 to 35 Hz

DONALD C. COOK NUCLEAR PLANT UNIT NO. 2 DOCKET NO. 50-316 LICENSE NO. DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: VARIOUS PLANT ID NO: NA COMPONENT: CONTROL CABLE TERMINATION MANUFACTURER: NA MODEL NUMBER: NA FUNCTION: CONNECT CONTROL CABLE TO SOLENOID ACCURACY: SPEC: NA DEMON: NA SERVICE: VARIOUS LOCATION: OUTSIDE CONTAINMENT	Operating Time	25 SECS	> 1 HR	101	63 65	Combination	NONE SEE REF #65 5-12 S7 17-2053
	Temperature (°F)	230	> 230	107	65	"	NONE
	Pressure (PSIA)	26.2	> 26.2	107	65	"	"
	Relative Humidity (%)	100	100	107	65	"	"
	Chemical Spray	NA	NA	NA	NA	NA	NA
	Radiation (10^6 rads)	NA SEE PG. TC-16	NA	NA	NA	NA	NA
	Aging (years)						
FLOOD LEVEL ELEV: NA ABOVE FLOOD LEVEL: NA	Submergence	NA	NA	NA	NA	NA	NA

*Documentation References:

Notes:

Form EGQ #97-2

DONALD C. COOK NUCLEAR PLANT UNIT NO. 2 DOCKET NO. 50-316 LICENSE NO. DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: VARIOUS PLANT ID NO: NA COMPONENT: CONTROL CABLE TERMINATION MANUFACTURER: NA MODEL NUMBER: NA FUNCTION: CONNECT CONTROL CABLE TO SOLENOID ACCURACY: SPEC: NA DEMON: NA SERVICE: VARIOUS LOCATION: INSIDE CONTAINMENT FLOOD LEVEL ELEV: 614' ABOVE FLOOD LEVEL: YES	Operating Time	1 DAY	30 days	101	29	SEQUENTIAL	NONE
	Temperature (°F)	328.2	346	102	29	"	"
	Pressure (PSIA)	29.1	110	103	29	"	"
	Relative Humidity (%)	100	100	102 103	29	"	"
	Chemical Spray	2000 PPM B 1.14% WT BORIC ACID PH 8.5-11	3000 PPM B BORIC ACID WITH .064M $NA_2S_2O_3$	104	72 29	COMBINATION	NONE SEE REF # 72
	Radiation (10^6 rads)	28	150	105	29	SEQ.	NONE
	Aging (years)						
	Submergence	NA	NA	NA	NA	NA	NA

218-226 S17
232-234 S11

*Documentation References:

Notes:

FORM EGQ #97-2

from REF. 29

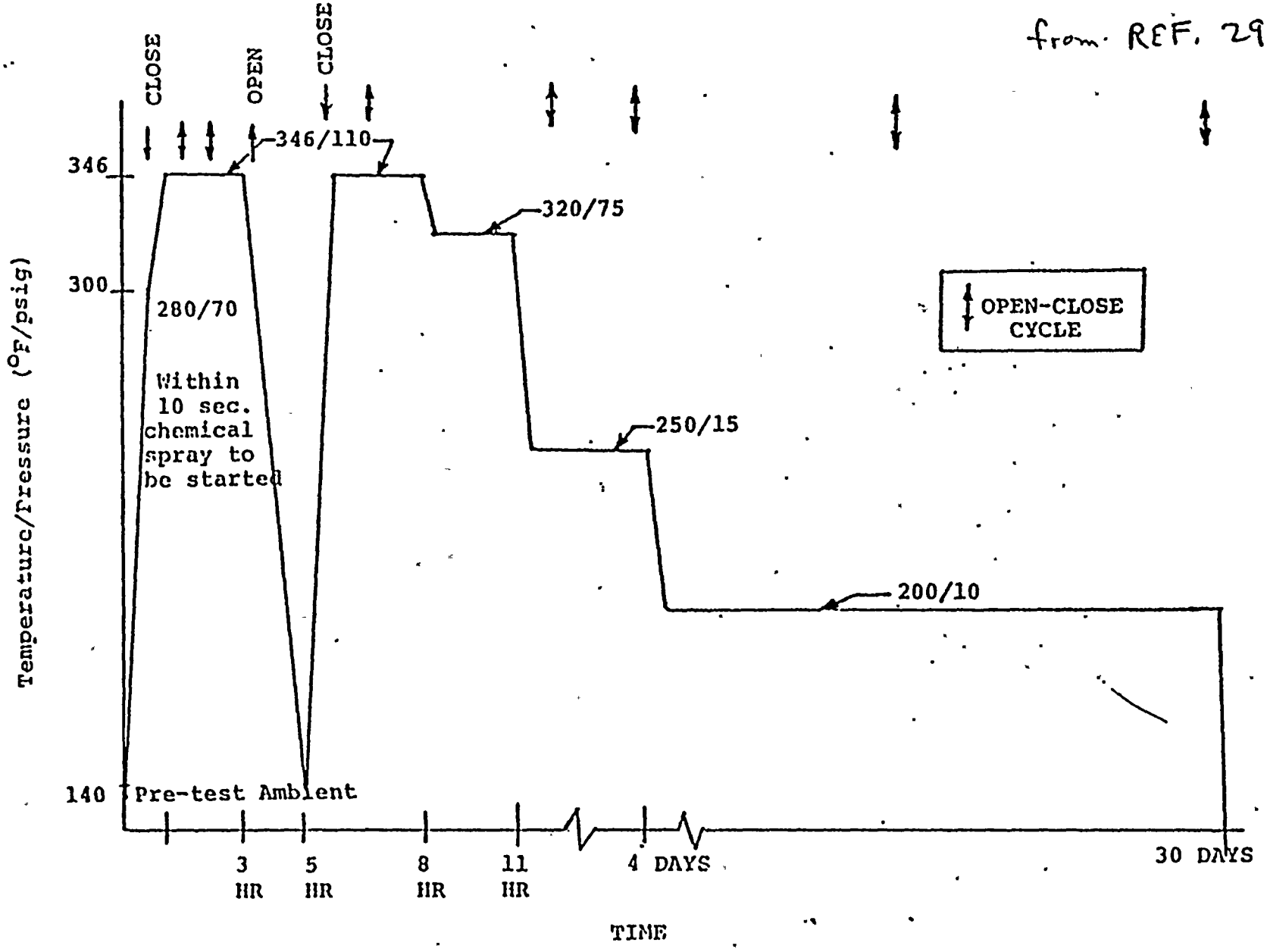


FIGURE 1
LOCA SIMULATION BY ENVIRONMENTAL EXPOSURE (STEAM/CHEMICAL)

Temperature/Pressure Profile for simulation of loss-of coolant accident (LOCA) design basis event (DBE) by steam/chemical-spray environmental exposure.

Page TC 16-2

DONALD C. COOK NUCLEAR PLANT UNIT NO. 2 | DOCKET NO. 50-316 | LICENSE NO. DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: PRESSURIZER PLANT ID NO: FT-37 COMPONENT: SEAL ASSEMBLY MANUFACTURER: CONAX Corp MODEL NUMBER: NA FUNCTION: To SEAL LIMIT SWITCH ENCLOSURE ACCURACY: SPEC: NA DEMON: NA SERVICE: PORV LIMIT SW. LOCATION: IN CONTAINMENT	Operating Time	14 DAY	30 DAYS	118	75	Manufacturer's Eng. Analysis	NONE
	Temperature (°F)	328.2	340	102	75	"	"
	Pressure (PSIA)	29.1	194	103	75	"	"
	Relative Humidity (%)	100	100	102 103	75	"	"
	Chemical Spray	2000 ppm B 1.14 wt % Boric Acid PH 8.5-11	3000 ppm B 1.72 wt % Boric Acid PH 8.5-11	114	75 72	Combination	NONE SEE REF. #72
	Radiation (10^6 rads)	87	223.8	105	75	"	NONE
	Aging (years)						
FLOOD LEVEL ELEV: 614' ABOVE FLOOD LEVEL: YES	Submergence	NA	NA	NA	NA	NA	NA

232-234

*Documentation References:

Notes:

Form EQ# 97-2

DONALD C. COOK NUCLEAR PLANT UNIT NO. 2 | DOCKET NO. 50-316 | LICENSE NO. DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: VARIOUS PLANT ID NO: NA COMPONENT: INSTRUMENT CABLE TERMINATION MANUFACTURER: NA MODEL NUMBER: NA FUNCTION: BARTON INSTRUMENT CONNECTION ACCURACY: SPEC: NA DEMON: NA SERVICE: VARIOUS LOCATION: INSIDE CONTAINMENT	Operating Time	4 MONTHS	> 4.4 MTHS	101	62 63	COMBINATION	NONE SEE REF. # 63
	Temperature (°F)	328.2	340	102	62	"	NONE SEE REF. # 62
	Pressure (PSIA)	29.1	119.7	103	62	"	"
	Relative Humidity (%)	100	100	102 103	62	"	"
	Chemical Spray	2000 PPMB 1.14 % WT. BORIC ACID PH 8.5 - 11	2000 PPMB 1.14 % WT BORIC ACID PH 8.5 - 11	104	62 72	"	NONE SEE REF # 72
	Radiation (10^6 rads)	119	150	105	62	"	NONE SEE REF. # 62
	Aging (years)						
FLOOD LEVEL ELEV: 614' ABOVE FLOOD LEVEL: NO	Submergence	SUBMERGED	SEE REF. 62, 68	117	62 68	COMBINATION	NONE SEE REF. # 62, 68

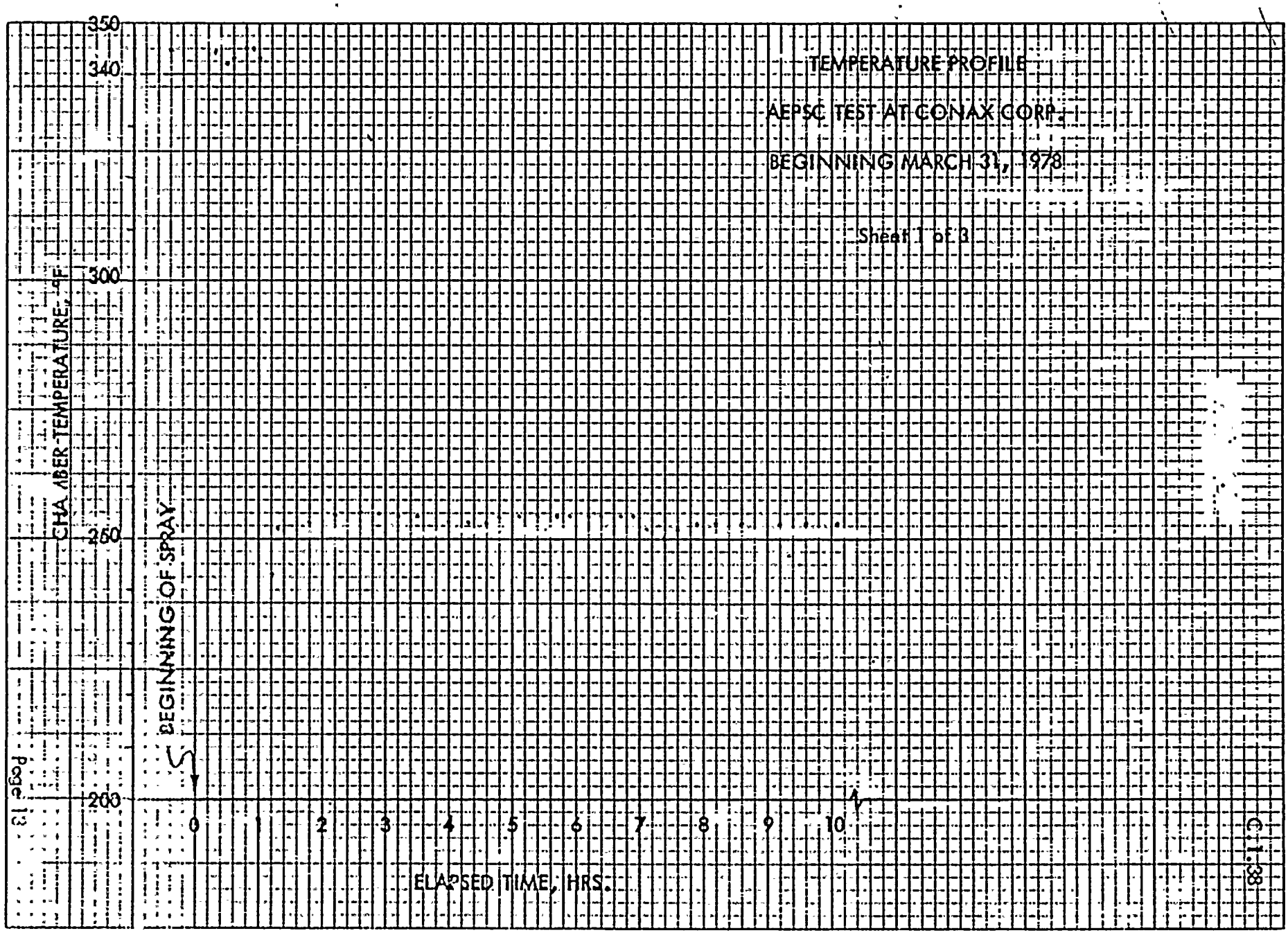
43 & 43A I 23, 24
181-188 I 13
161-172 I 1, 2
154-160 (I 19, 20, 21, 22, 25)

*Documentation References:

Notes:

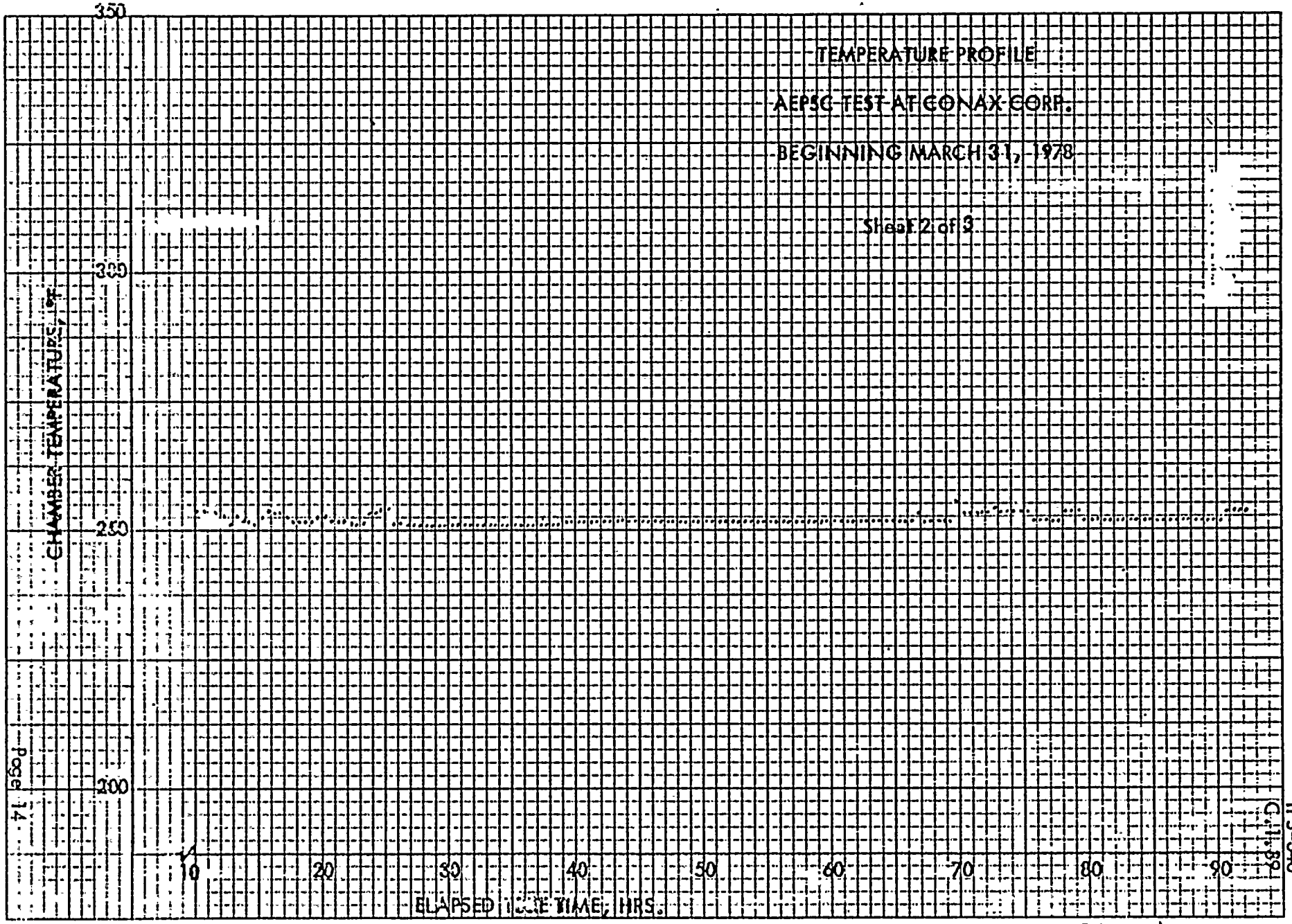
Form EGQ #97-2

from Ref. #8



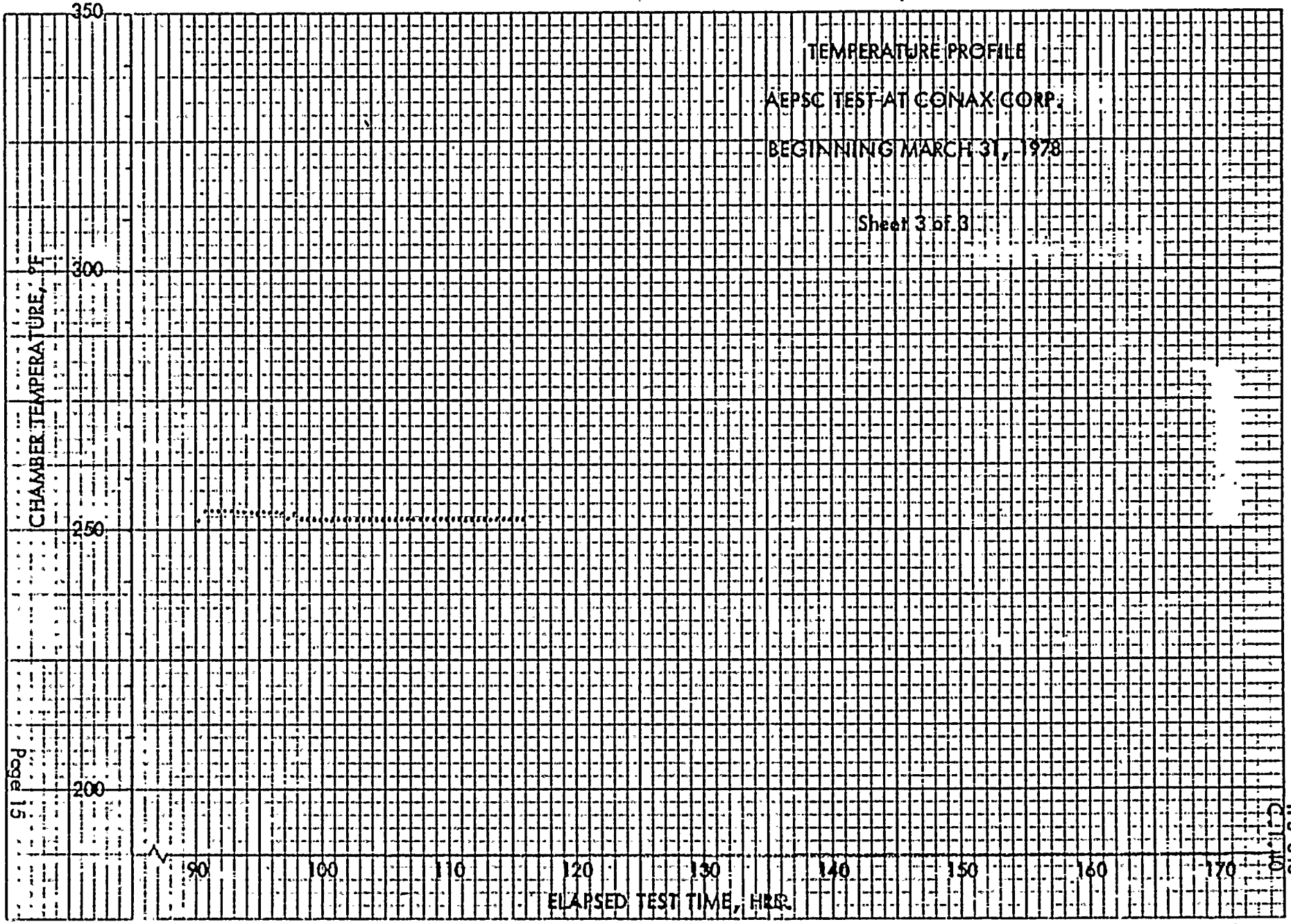
PAGE II-2

from Ref. #8



IPS-348 G.11.89

from Ref. #8



IPS-348
C-11-10

PAGE TI-4.

From Ref. 9. Qualified by FIRL Test Report F-C4033-1 of Jan. 1975 9

Type of Test: Simultaneous, gamma radiation
steam
chemical spray

Test Profile:

.2 - .3 Mrads/hr, 200 Mrads
351°F, 70 psig for 10 hrs
275°F, 31 psig for 4.5 days
212°F, 10 psig for 26 days

Chemical Spray: 3000 ppm boron as boric acid, .064 molar sodium thiosulfate and adjusted with Na OH to a PH of 10.5 at room temp.

/

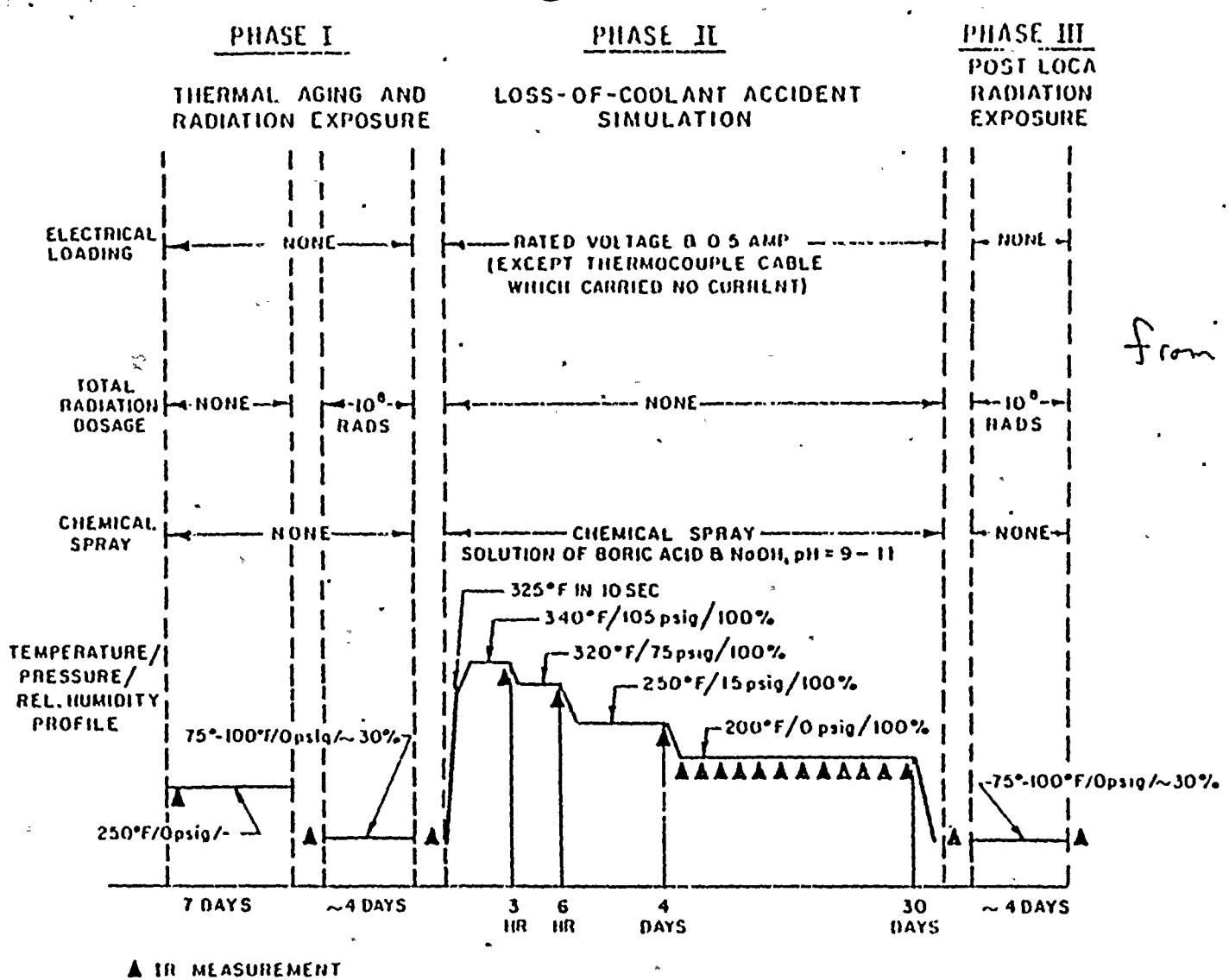


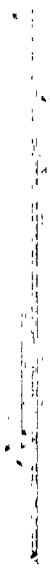
Figure 2. Profile of Test Phases

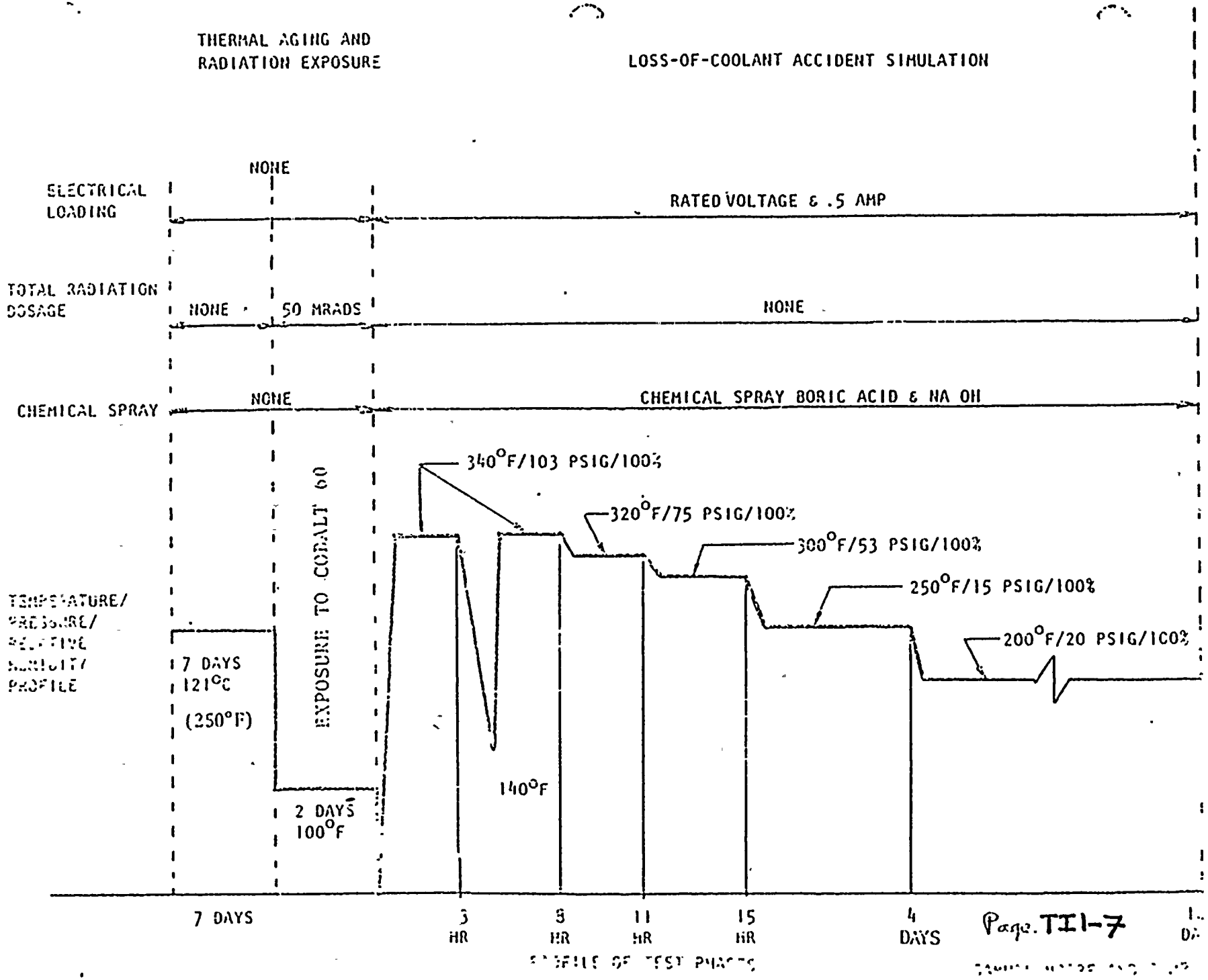
from Ref. 10

3-4

F-C3683

Page TII-6

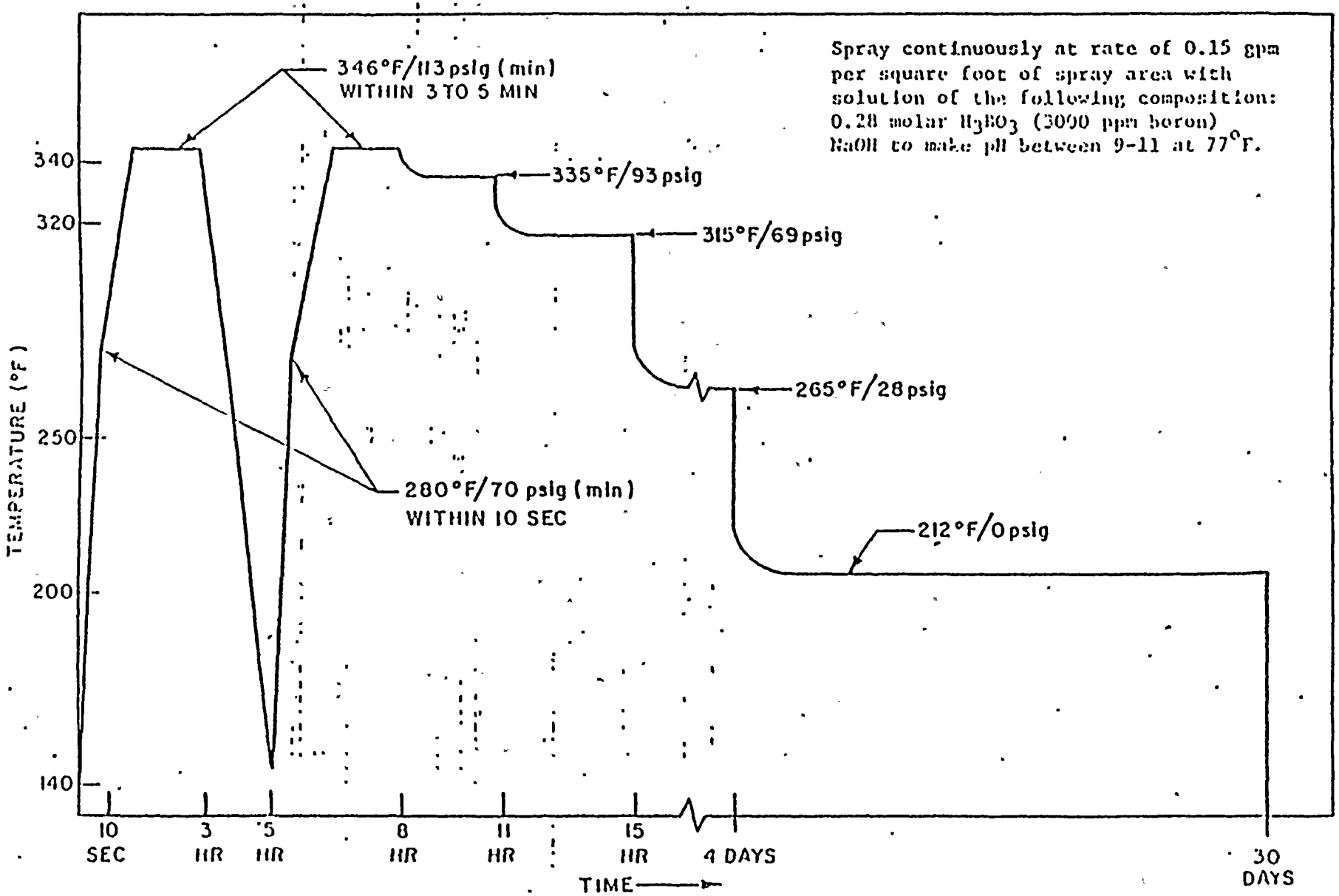



THERMAL AGING AND
RADIATION EXPOSURE
LOSS-OF-COOLANT ACCIDENT SIMULATION
NONE
ELECTRICAL LOADING
RATED VOLTAGE & .5 AMP
TOTAL RADIATION DOSAGE
NONE
50 MRADS
NONE
CHEMICAL SPRAY
NONE
CHEMICAL SPRAY BORIC ACID & NA OH
340°F/103 PSIG/100%
320°F/75 PSIG/100%
300°F/53 PSIG/100%
250°F/15 PSIG/100%
200°F/20 PSIG/100%
TEMPERATURE/ PRESSURE/ RELATIVE HUMIDITY PROFILE
7 DAYS 121°C (250°F)
EXPOSURE TO COBALT 60
2 DAYS 100°F
140°F
7 DAYS
3 HR
8 HR
11 HR
15 HR
4 DAYS

-6-

Page TII-7

LOCA Profile



LOCA PROFILE

7.

from Ref 14. Type of Test (F-C4033-3): Simultaneous Radiation/chem. spray/steam.

Test Profile:

.2-.3 Mrads/hr, 200 Mrads
351°F, 70 psig for 10 hrs
275°F, 31 psig for 4.5 days
212°F, 10 psig for 26 days

Chemical spray: 3000 ppm boron as boric acid, .004 molar sodium thiosulfate and adjusted with Na OH to a PH of 10.5.

DONALD C. COOK NUCLEAR PLANT UNIT NO. 2 DOCKET NO. 50-316 LICENSE NO. DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: VARIOUS PLANT ID NO: NA COMPONENT: INSTRUMENT CABLE TERMINATION MANUFACTURER: NA MODEL NUMBER: NA FUNCTION: CONNECT INST. CABLE TO RESISTANCE TEMPERATURE DETECTOR PIGTAILS ACCURACY: SPEC: NA DEMON: NA SERVICE: LOCATION: INSIDE CONTAINMENT	Operating Time	4 MONTHS	>4.4 MONTHS	101	62 63	COMBINATION	NONE SEE REF.# 63
	Temperature (°F)	328.2	340	102	62	"	NONE SEE REF.#62
	Pressure (PSIA)	29.1	119.7	103	62	"	"
	Relative Humidity (%)	100	100	102 103	62	"	"
	Chemical Spray	2000 PPMB 1.14% WT. BORIC ACID PH 8.5-11	2000 PPMB 1.14% WT. BORIC ACID PH 8.5-11	104	62 72	"	NONE SEE REF.# 72
	Radiation (10^6 rads)	119	150	105	62	"	NONE SEE REF.#62
	Aging (years)						
FLOOD LEVEL ELEV: 614' ABOVE FLOOD LEVEL: YES	Submergence	NA	NA	NA	NA	NA	NA

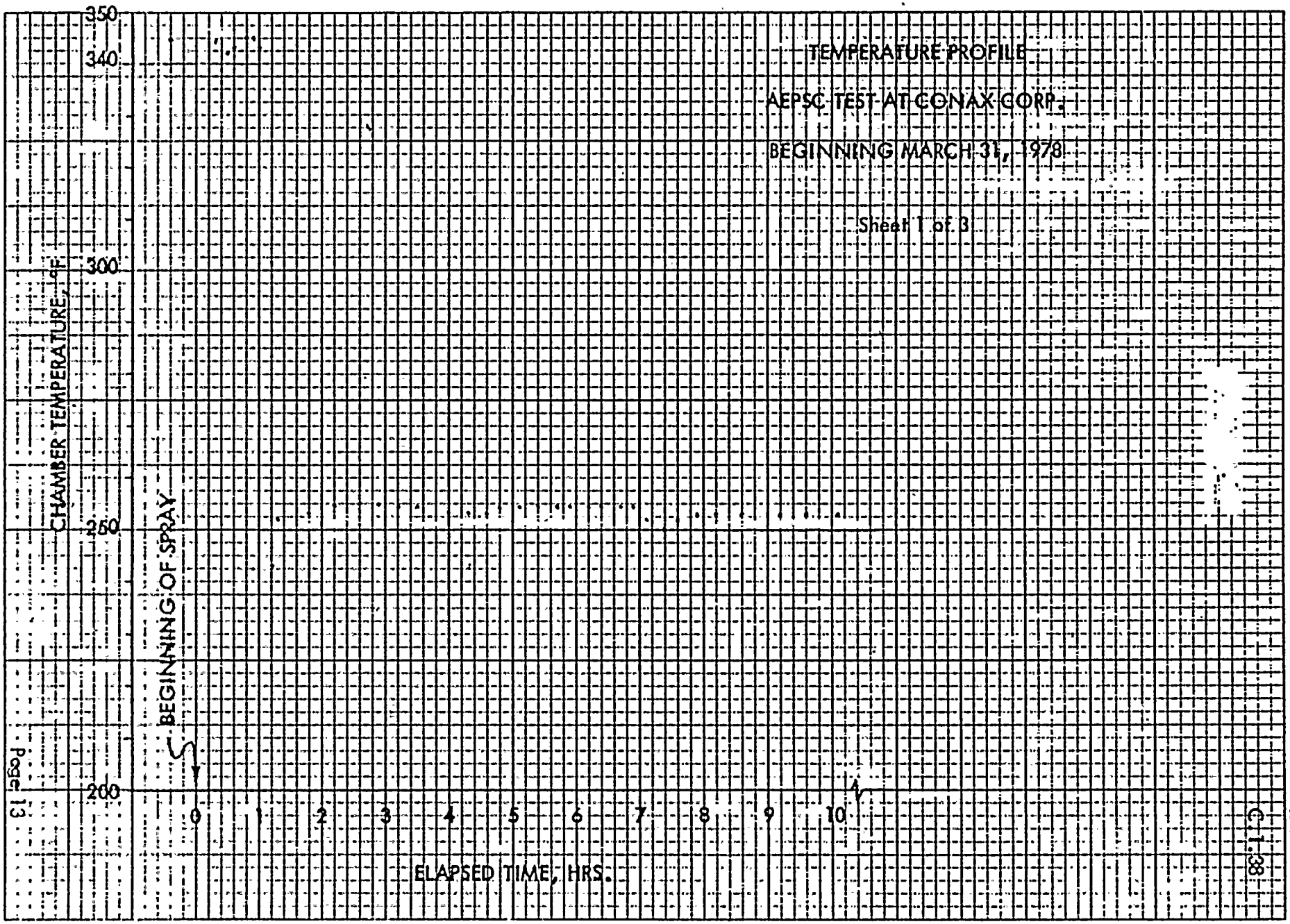
130-153
I 26,27,28

*Documentation References:

Notes:

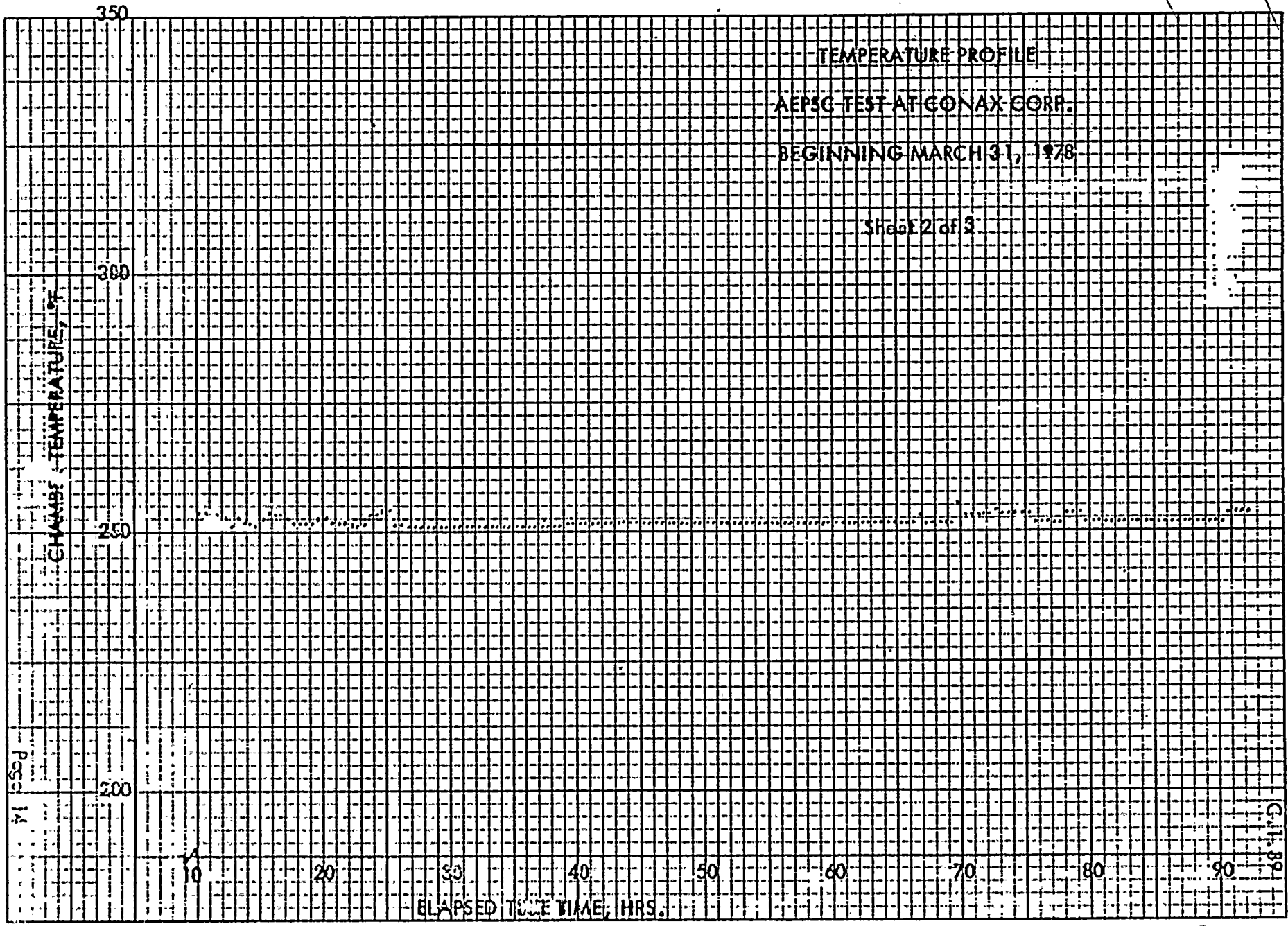
Form EGQ #97-2

from REF. #8

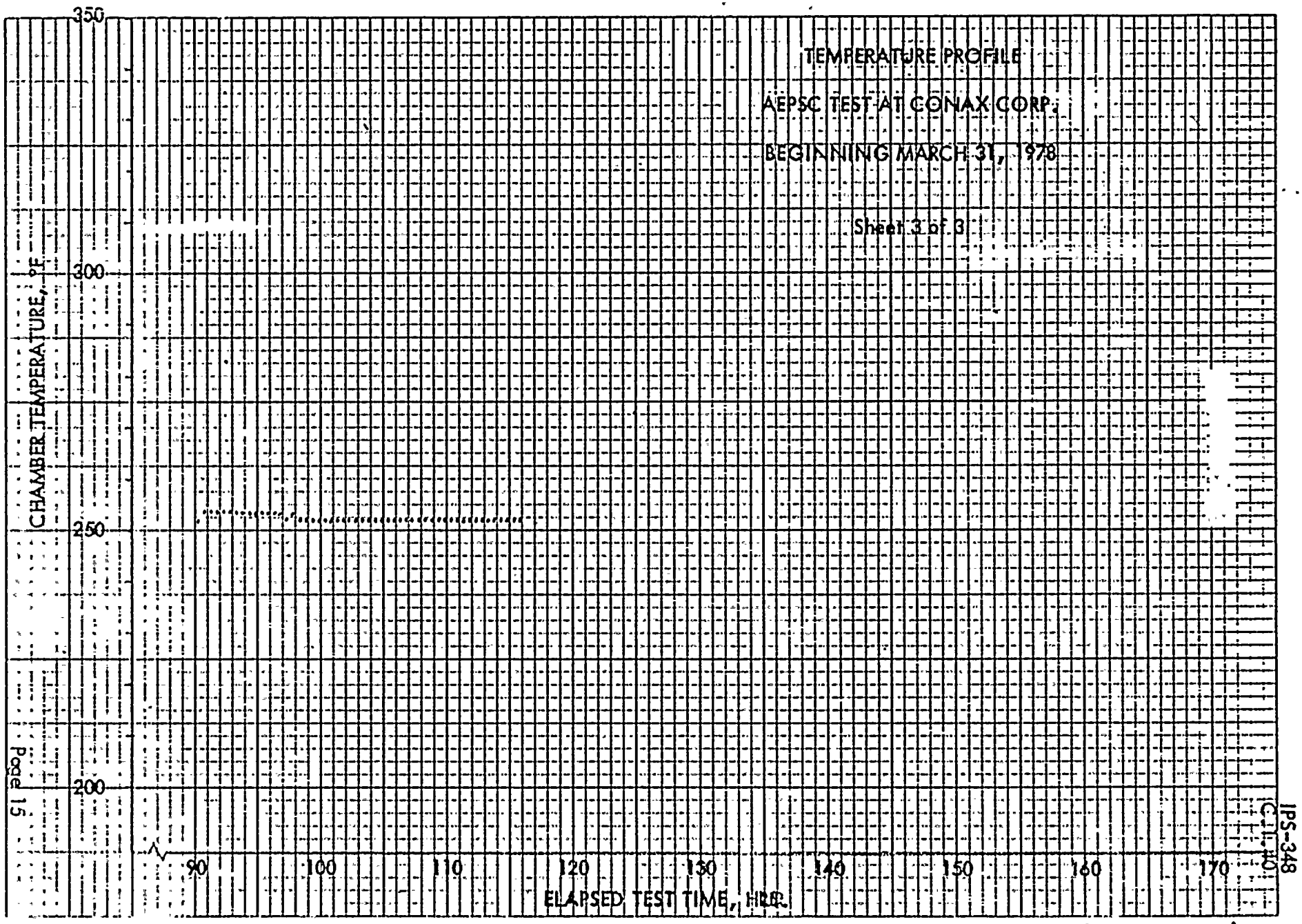


PAGE TI2-2

from REF. #8


TEMPERATURE PROFILE
AEPSC TEST AT CONAX CORP.
BEGINNING MARCH 31, 1978
Sheet 2 of 3
CHAMBER TEMPERATURE, °F.
350
300
250
200
10
20
30
40
50
60
70
80
90
ELAPSED TIME, HRS.
IPS-348
GILL 88

from Ref. #8



IPS-348
C.U. #0

PAGE II 2-4

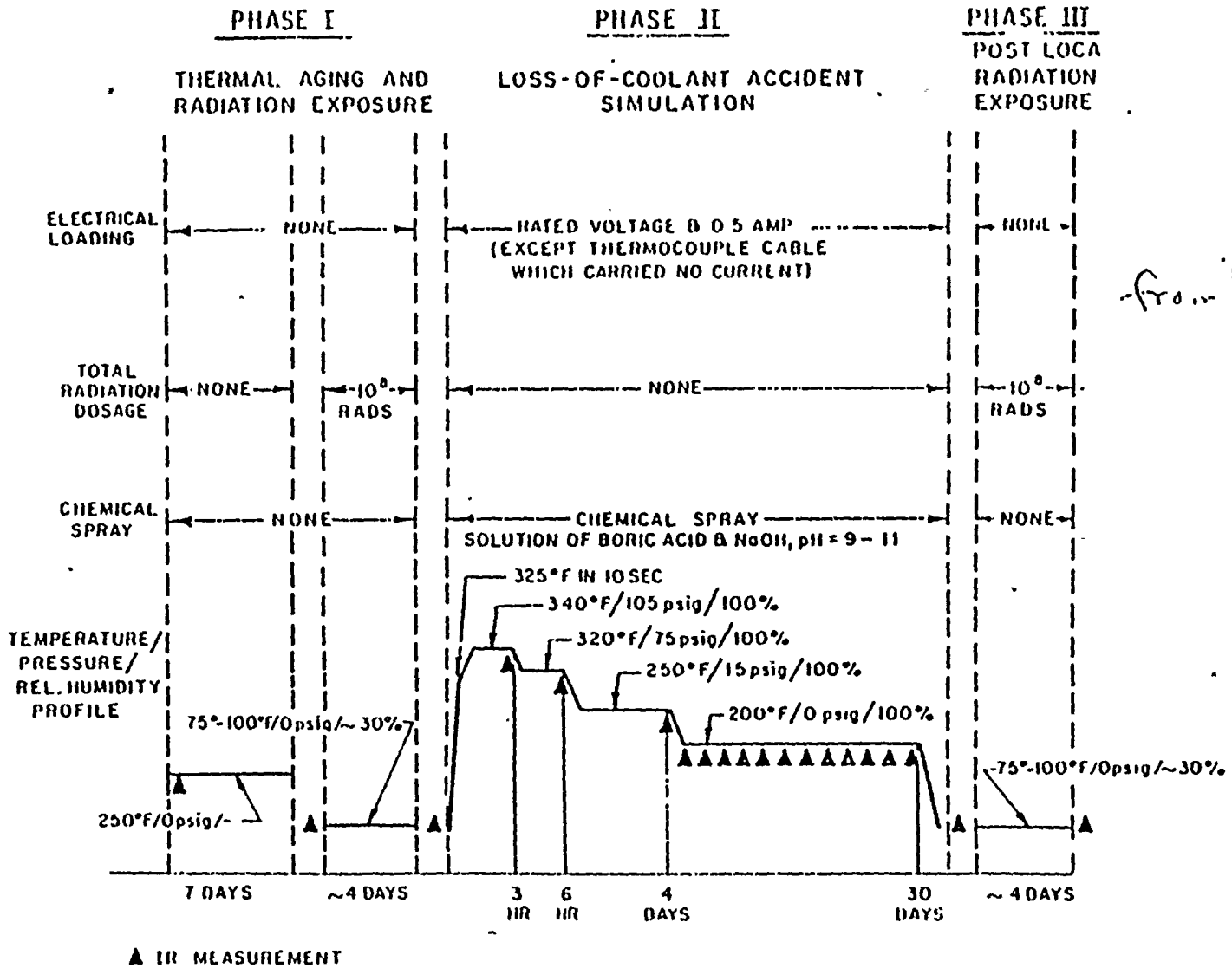
from Ref. 9. Qualified by FIRL Test Report F-C4033-1 of Jan. 1975 9

Type of Test: Simultaneous, gamma radiation
steam
chemical spray

Test Profile:

.2 - .3 Mrads/hr, 200 Mrads
351°F, 70 psig for 10 hrs
275°F, 31 psig for 4.5 days
212°F, 10 psig for 26 days

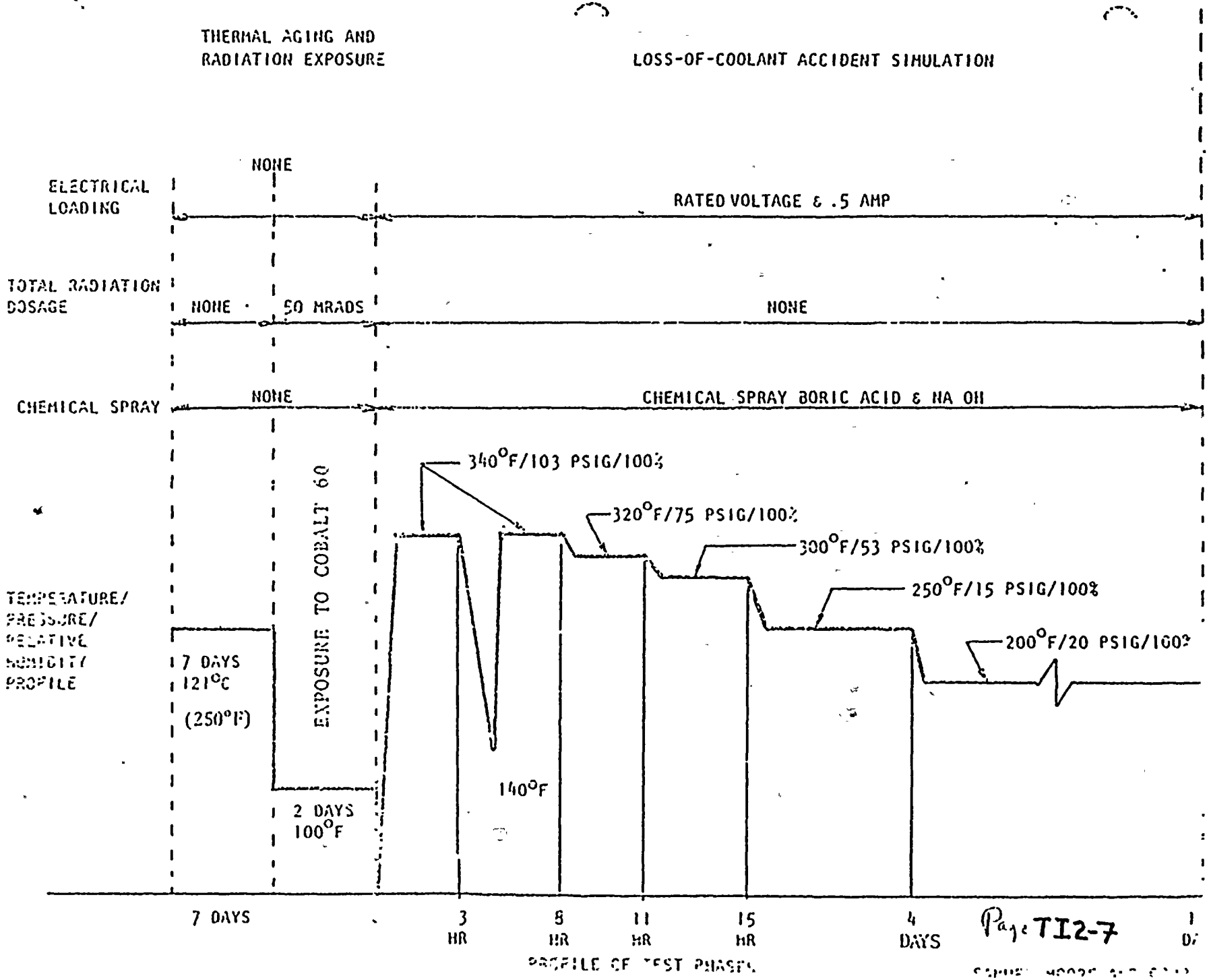
Chemical Spray: 3000 ppm boron as boric acid, .064 molar sodium thiosulfate and adjusted with Na OH to a PH of 10.5 at room temp.



From Ref. 10

F-C3683

Figure 2. Profile of Test Phases


THERMAL AGING AND
RADIATION EXPOSURE
LOSS-OF-COOLANT ACCIDENT SIMULATION
NONE
ELECTRICAL LOADING
RATED VOLTAGE & .5 AMP
TOTAL RADIATION DOSAGE
NONE
50 MRADS
NONE
CHEMICAL SPRAY
NONE
CHEMICAL SPRAY BORIC ACID & NA OH
TEMPERATURE/ PRESSURE/ RELATIVE HUMIDITY PROFILE
7 DAYS 121°C (250°F)
EXPOSURE TO COBALT 60
2 DAYS 100°F
340°F/103 PSIG/100%
320°F/75 PSIG/100%
300°F/53 PSIG/100%
250°F/15 PSIG/100%
200°F/20 PSIG/100%
140°F
7 DAYS
3 HR
8 HR
11 HR
15 HR
4 DAYS
PROFILE OF TEST PHASES

-6-

Page TI2-7

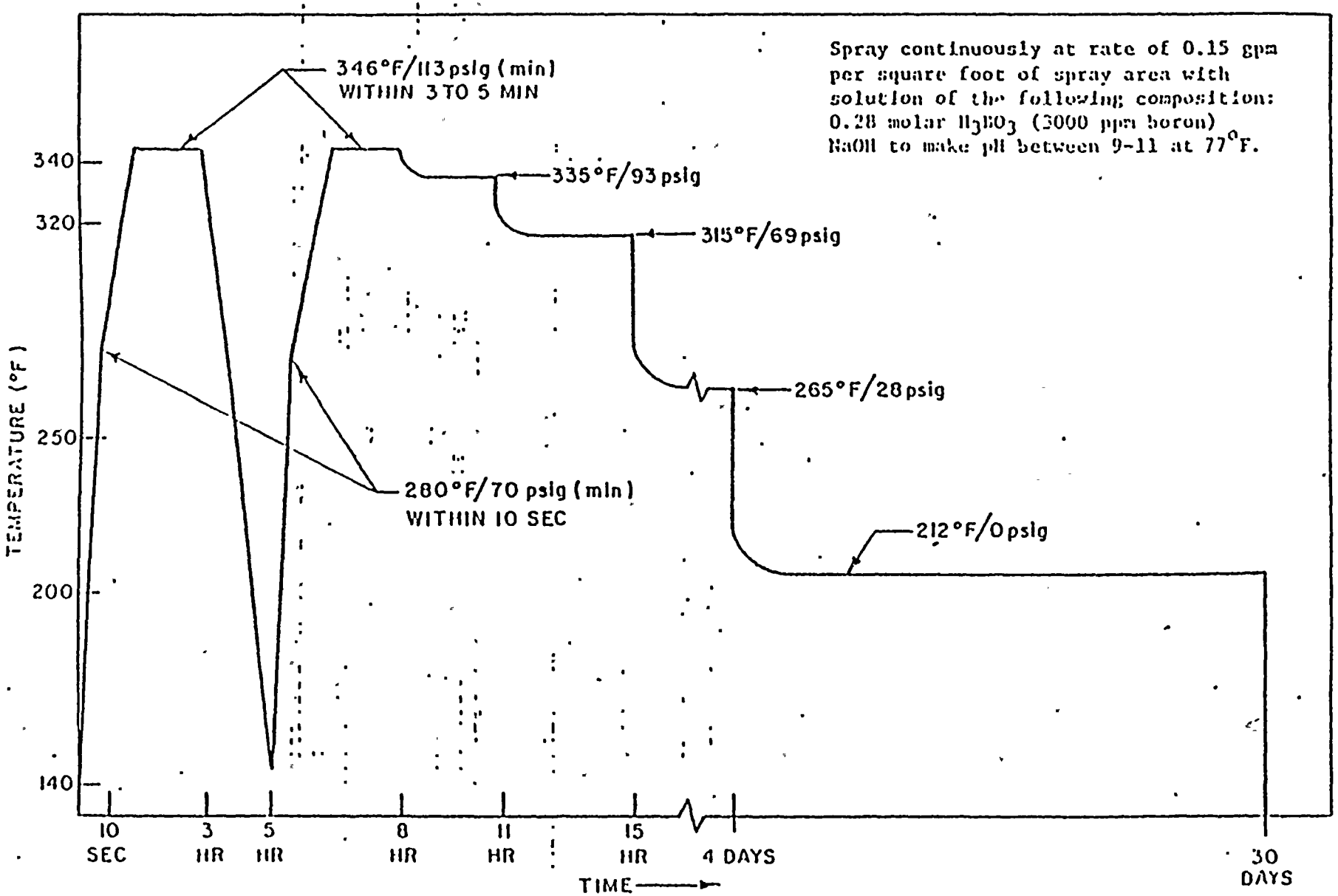

LOCA Profile
Spray continuously at rate of 0.15 gpm per square foot of spray area with solution of the following composition:
0.28 molar H_3BO_3 (3000 ppm boron)
NaOH to make pH between 9-11 at 77°F.
346°F/113psig (min) WITHIN 3TO 5 MIN
335°F/93psig
315°F/69psig
265°F/28psig
280°F/70 psig (min) WITHIN 10 SEC
212°F/0psig
TEMPERATURE (°F)
340
320
250
200
140
10 SEC
3 HR
5 HR
8 HR
11 HR
15 HR
4 DAYS
30 DAYS
TIME
LOCA PROFILE

Fig. TI2-8

from Ref. 14. Type of Test (F-C4033-3): Simultaneous Radiation/chem. spray/steam.

Test Profile:

.2-.3 Mrads/hr, 200 Mrads
351°F, 70 psig for 10 hrs
275°F, 31 psig for 4.5 days
212°F, 10 psig for 26 days

Chemical spray: 3000 ppm boron as boric acid, .064 molar sodium thiosulfate and adjusted with Na OH to a PH of 10.5.

DONALD C. COOK NUCLEAR PLANT UNIT NO. 2 | DOCKET NO. 50-316 | LICENSE NO. DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: VARIOUS PLANT ID NO: NA COMPONENT: INSTRUMENT CABLE TERMINATION MANUFACTURER: NA MODEL NUMBER: NA FUNCTION: INSTRUMENT CABLE CONNECTION AT PENETRATION INSIDE FLOOD-UP TUBES ACCURACY: SPEC: NA DEMON: NA SERVICE: VARIOUS LOCATION: INSIDE CONTAINMENT	Operating Time	4 MONTHS	>4.4 MTHS	101	62 63	COMBINATION	NONE SEE REF.# 63
	Temperature (°F)	328.2	340	102	62	"	NONE SEE REF.#62
	Pressure (PSIA)	29.1	118	103	62	"	"
	Relative Humidity (%)	100	100	102 103	62	"	"
	Chemical Spray	NA	2500 PPMB 1.43% WT. BORIC ACID PH 8.5-11	NA	62 72	"	NA
	Radiation (10^6 rads)	22.4	150	105	62	"	NONE SEE REF.#62
	Aging (years)						
FLOOD LEVEL ELEV: 614' ABOVE FLOOD LEVEL: NO	Submergence	NOT SUBMERGED	FLOODUP TUBES	NA	61	COMBINATION	NONE SEE REF. # 61

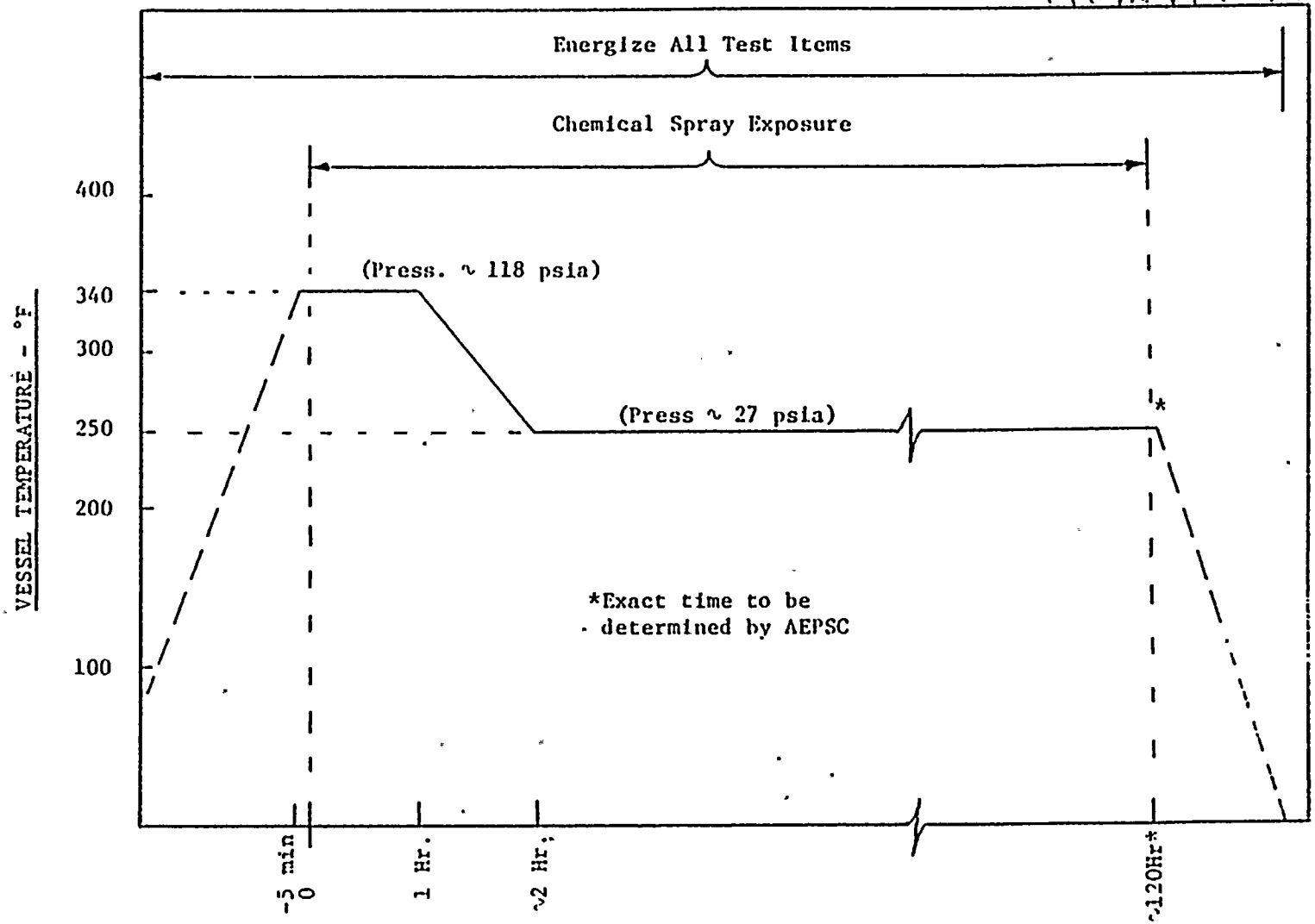
43 & 49 A I 23, 24
54-57 I 7, 8, 9
146-159 I 21, 22
I 19, 20, 28
161-172 I 1, I 2

*Documentation References:

Notes:

Form EGQ #97-2

FIGURE 2 TEST PROFILE

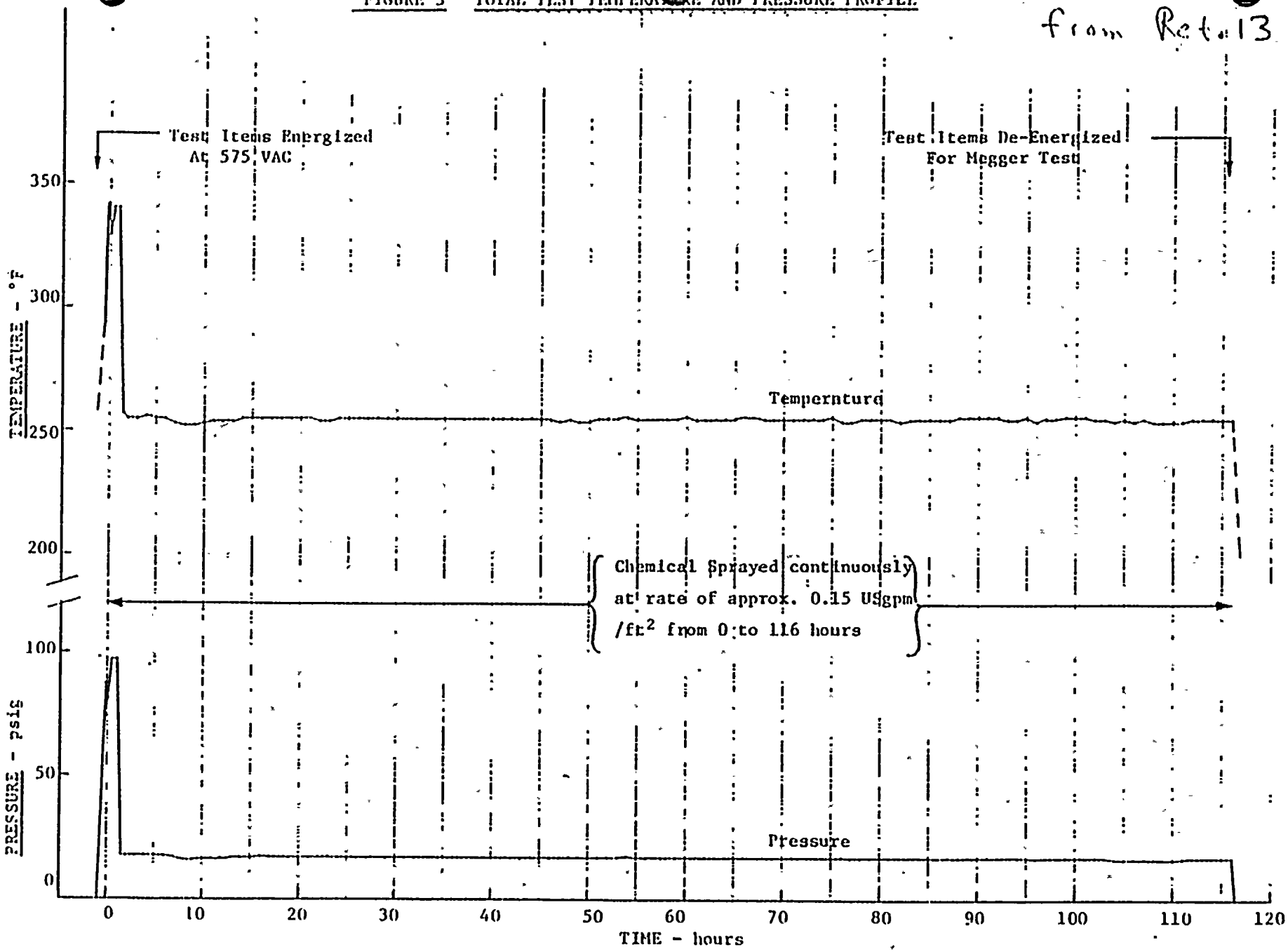


TEST TIME

Page TI3-2

FIGURE 3 TOTAL TEST TEMPERATURE AND PRESSURE PROFILE

from Ref. 13



DONALD C. COOK NUCLEAR PLANT UNIT NO. 2 | DOCKET NO. 50-316 | LICENSE NO. DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: VARIOUS PLANT ID NO: NA COMPONENT: INSTRUMENT CABLE TERMINATION MANUFACTURER: NA MODEL NUMBER: NA FUNCTION: INSTRUMENT CABLE CONNECTION AT FLOOD-UP TERM. BOX ACCURACY: SPEC: NA DEMON: NA SERVICE: VARIOUS LOCATION: INSIDE CONTAINMENT	Operating Time	4 MONTHS	> 4.4 MTHS	101	62 63	COMBINATION	NONE SEE REF. # 63.
	Temperature (°F)	328.2	340	102	62	"	NONE SEE REF. # 62.
	Pressure (PSIA)	29.1	119.7	103	62	"	"
	Relative Humidity (%)	100	100	102 103	62	"	"
	Chemical Spray	2000 PPM B 1.14% WT BORIC ACID PH 8.5-11	2000 PPM B 1.14% WT BORIC ACID PH 8.5-11	104	62 72	"	NONE SEE REF. # 72.
	Radiation (10^6 rads)	119	150	105	62	"	NONE SEE REF. # 62
	Aging (years)						
FLOOD LEVEL ELEV: 614' ABOVE FLOOD LEVEL: YES	Submergence	NA	NA	NA	NA	NA	NA

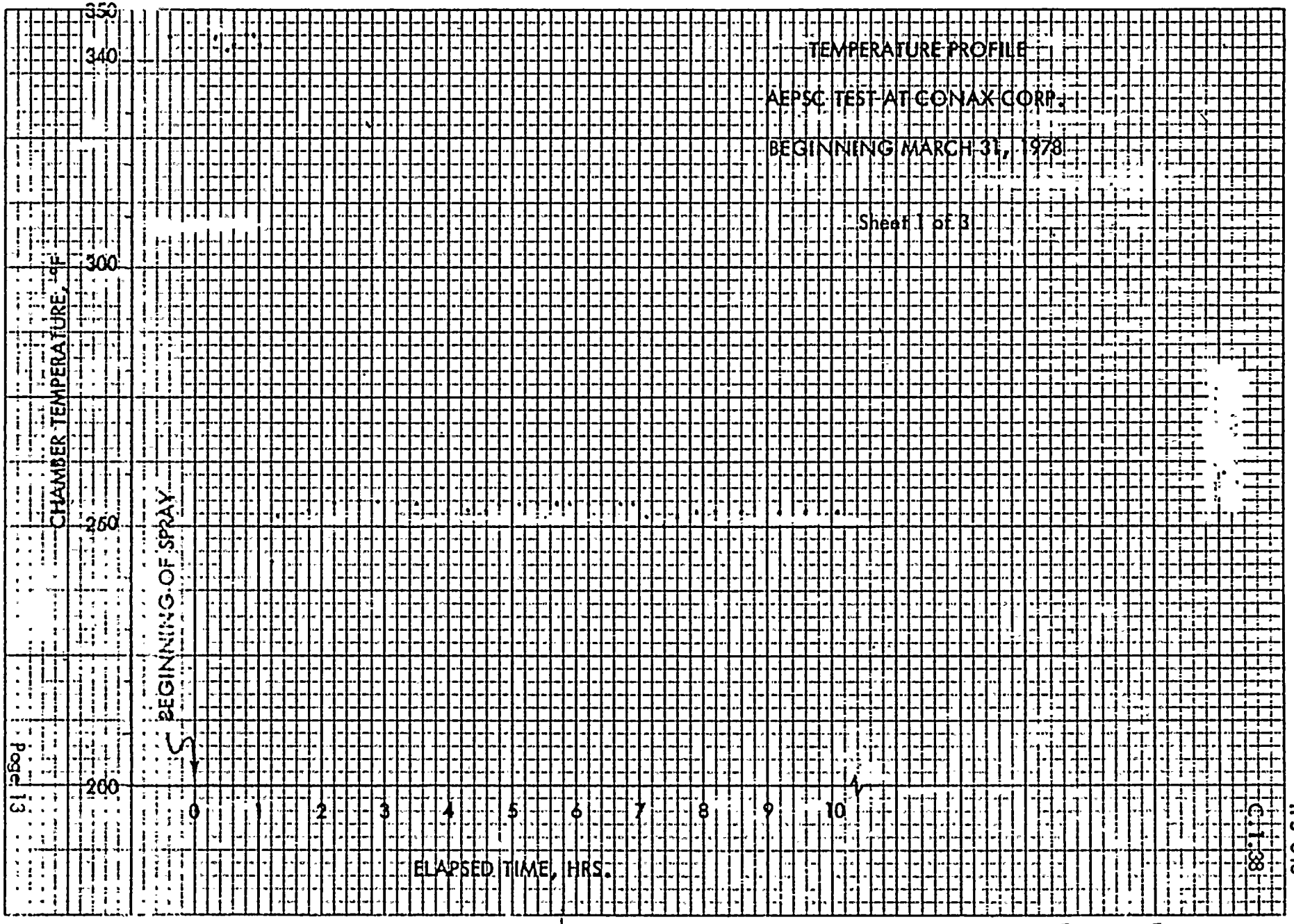
43&43AI23,24
146-159I19,20-I21,I22,I28
161-172 I1,2
54-57I7,8,9

*Documentation References:

Notes:

Form EGQ #97-2

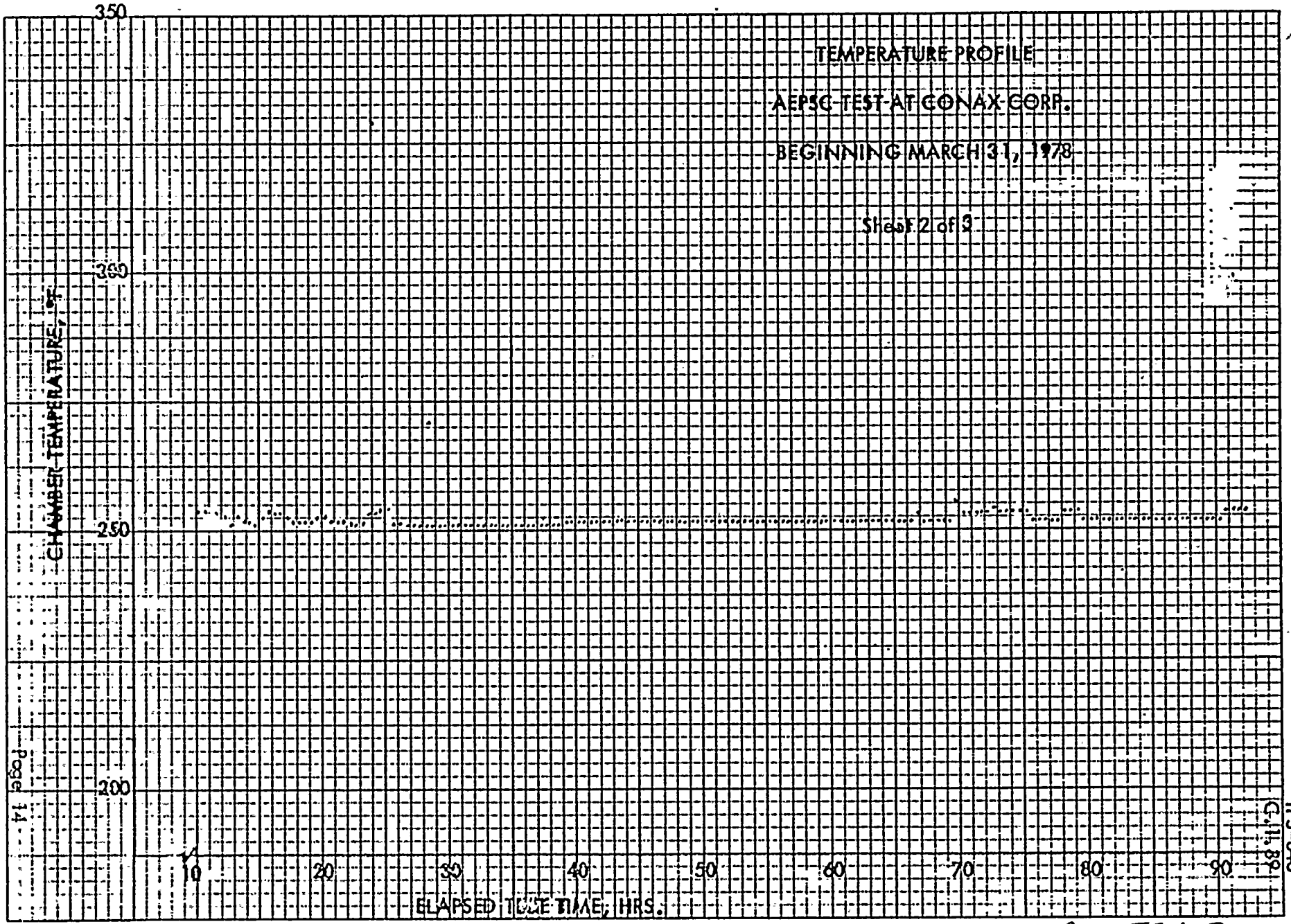
from REF. #8



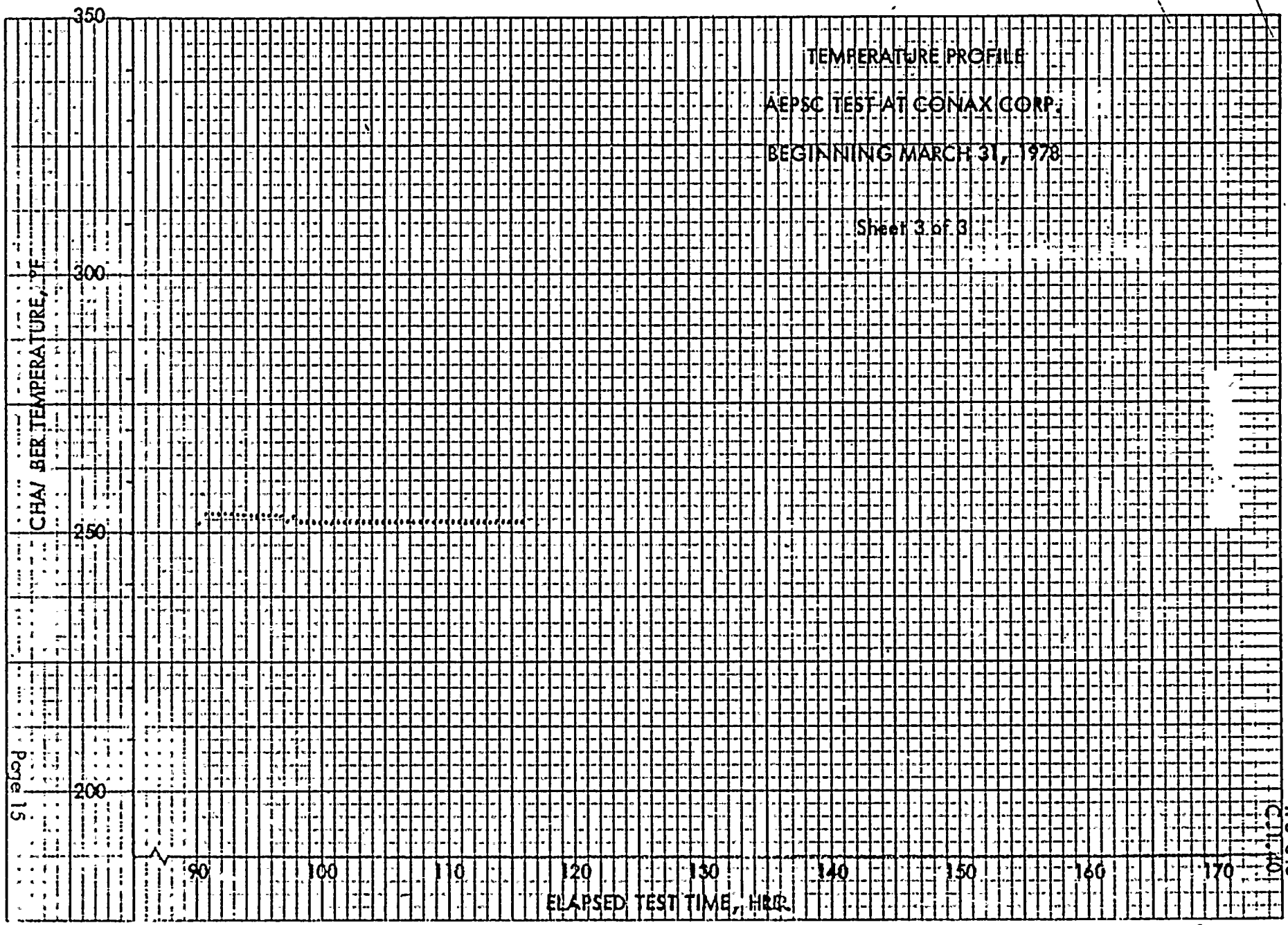
IPS-348

PAGE TI 4-2

from REF. #8


TEMPERATURE PROFILE
AEPSC TEST AT CONAX CORP.
BEGINNING MARCH 31, 1978
Sheet 2 of 3
CHAMBER TEMPERATURE, °F
350
300
250
200
10
20
30
40
50
60
70
80
90
ELAPSED TIME, HRS.
IPS-348
G-11-89
page 14

from Ref. #8



PAGE II 4-4.

from Ref. 9. Qualified by FIRL Test Report F-C4033-1 of Jan. 1975 9

Type of Test: Simultaneous, gamma radiation
steam
chemical spray

Test Profile:

.2 - .3 Mrads/hr, 200 Mrads
351°F, 70 psig for 10 hrs
275°F, 31 psig for 4.5 days
212°F, 10 psig for 26 days

Chemical Spray: 3000 ppm boron as boric acid, .064 molar sodium thiosulfate and adjusted with Na OH to a PH of 10.5 at room temp.

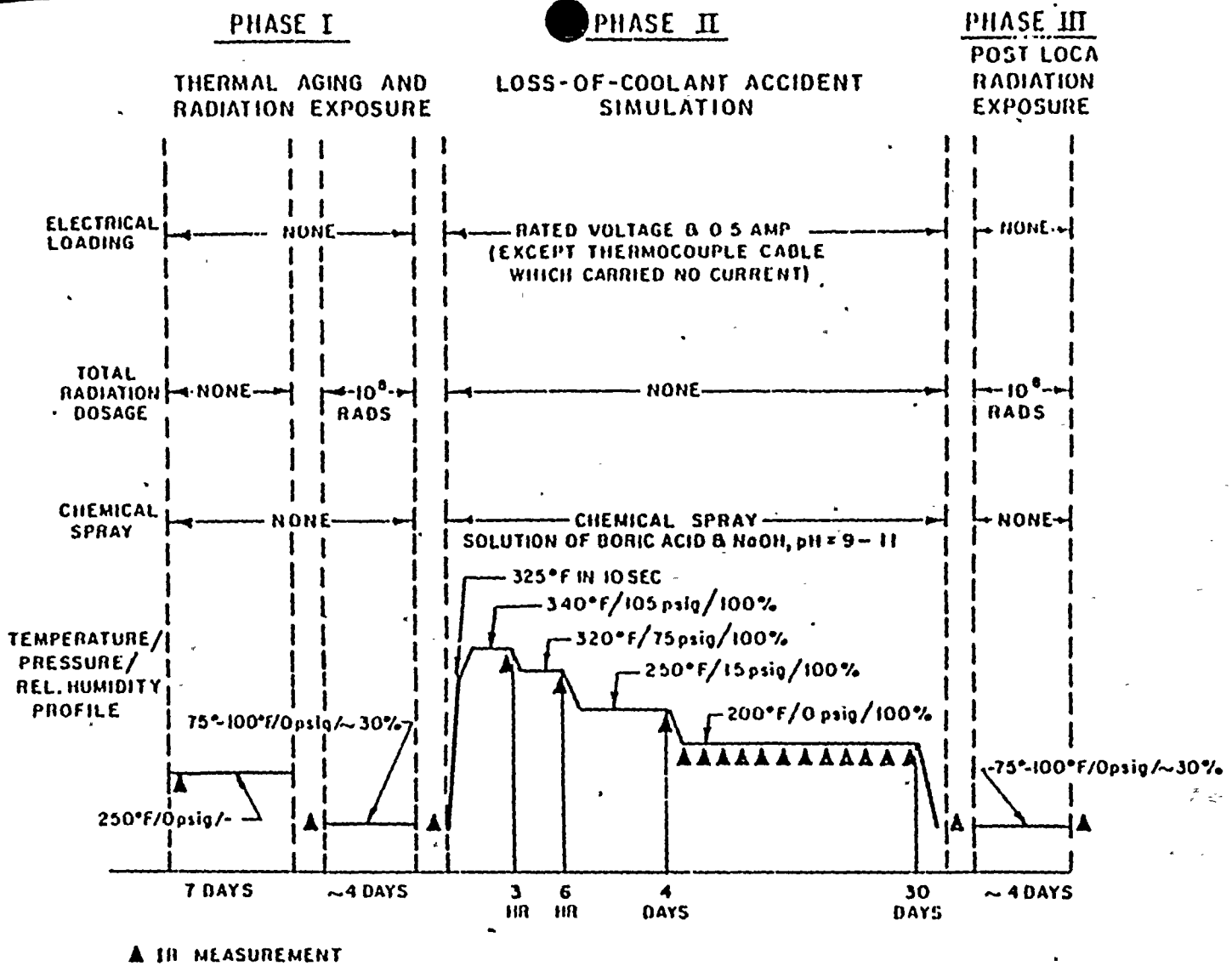
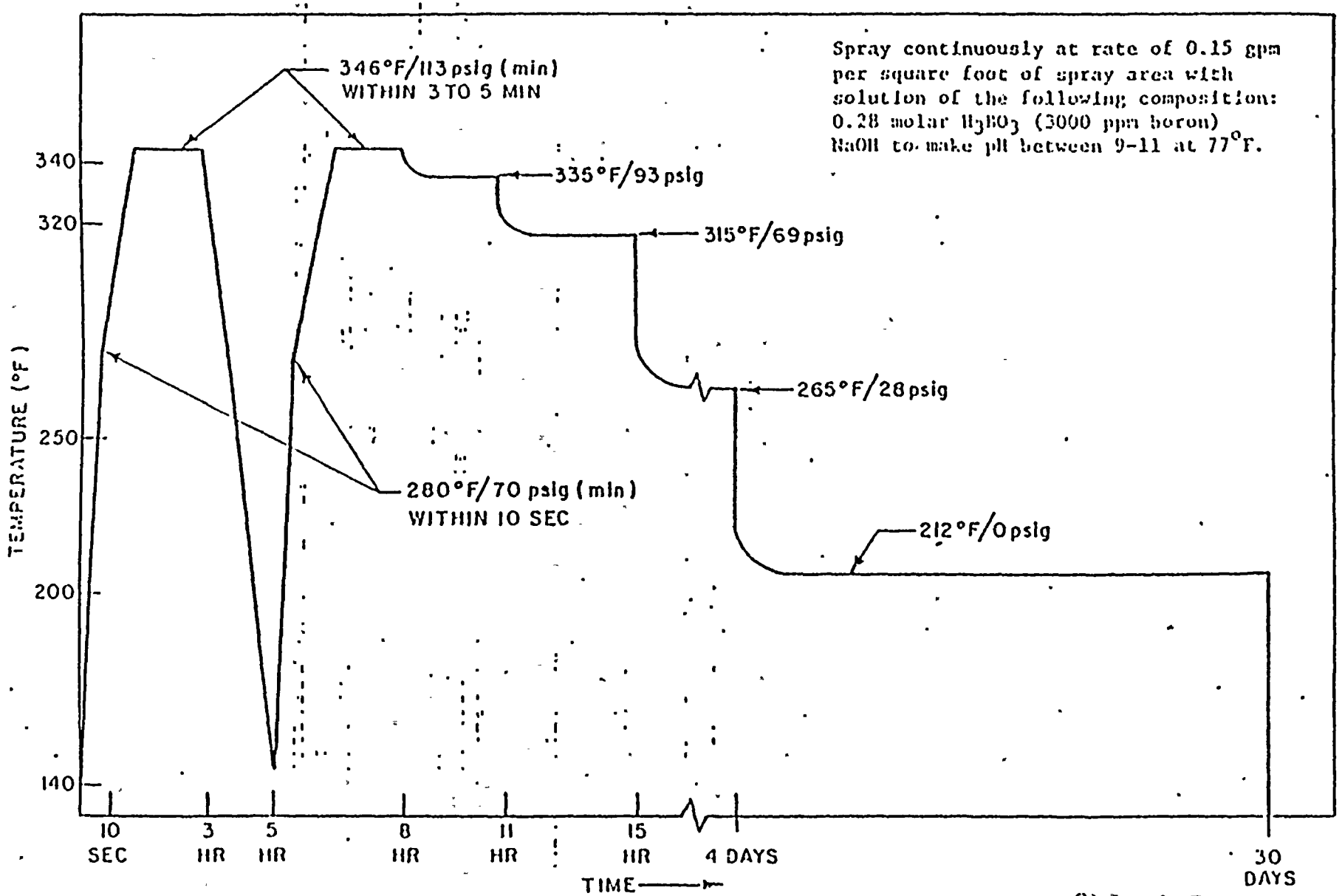


Figure 2. Profile of Test Phases

F-C3683



LOCA PROFILE

7.

Page TI4-8

from Ref. 14. Type of Test (F-C4033-3): Simultaneous Radiation/chem. spray/steam.

Test Profile:

.2-.3 Mrads/hr, 200 Mrads
351°F, 70 psig for 10 hrs
275°F, 31 psig for 4.5 days
212°F, 10 psig for 26 days

Chemical spray: 3000 ppm boron as boric acid, .05# molar sodium thiosulfate and adjusted with Na OH to a PH of 10.5.

From Ref. 18.

Qualified by Conax Corp. Test Report IPS-327 of Jan. 1978.

Type of Test: Sequential, steam floodup with borated water.

Test Profile:

340°F, 12 psig for 1 hr
250°F, 12 psig for 6 hrs
190°F, 12 psig for 24 hrs

Floodup borated water

from Ref. 19.

Qualified by Conax Corp. Test Report IPS-329 of Jan. 1978.

Type of Test: Sequential, steam floodup with borated water.

Test Profile:

340°F, 12 psig for 2 hr
250°F, 12 psig for 6 hrs
190°F, 12 psig for 24 hrs

Floodup borated water.

DONALD C. COOK NUCLEAR PLANT UNIT NO. 2 DOCKET NO. 50-316 LICENSE NO. DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: VARIOUS PLANT ID NO: NA COMPONENT: INSTRUMENT CABLE TERMINATION MANUFACTURER: NA MODEL NUMBER: NA FUNCTION: FOXBORO INSTRUMENT CONNECTION ACCURACY: SPEC: NA DEMON: NA SERVICE: VARIOUS LOCATION: INSIDE CONTAINMENT	Operating Time	.5 min	> 1 HR	101	62	COMBINATION	NONE SEE REF. #62
	Temperature (°F)	244	320	102	62	"	"
	Pressure (PSIA)	29.1	89.7	103	62	"	"
	Relative Humidity (%)	100	100	102 103	62	"	"
	Chemical Spray	2000 PPMB 1.14% WT. BORIC ACID PH 8.5-11	2000 PPMB 1.14% WT. BORIC ACID. PH 8.25-11	104	62 7.2	"	NONE SEE REF. #72
	Radiation (10^6 rads)	0.8.	18	105	62	"	NONE SEE REF. #62.
	Aging (years)						
FLOOD LEVEL ELEV: 614' ABOVE FLOOD LEVEL: NO	Submergence	SUBMERGED	SEE REF. 68	117	68	COMBINATION:	NONE SEE REF. #68

54-5717,8,9

*Documentation References:

Notes:

Form EGQ #97-2

from Ref. 27.

Qualified by Westinghouse Electric Corp. letter of 4/26/78 (NS-PLC-5023).

From: T. M. Anderson - Westinghouse
To: E. G. Case - NRC

Test Type: Sequential

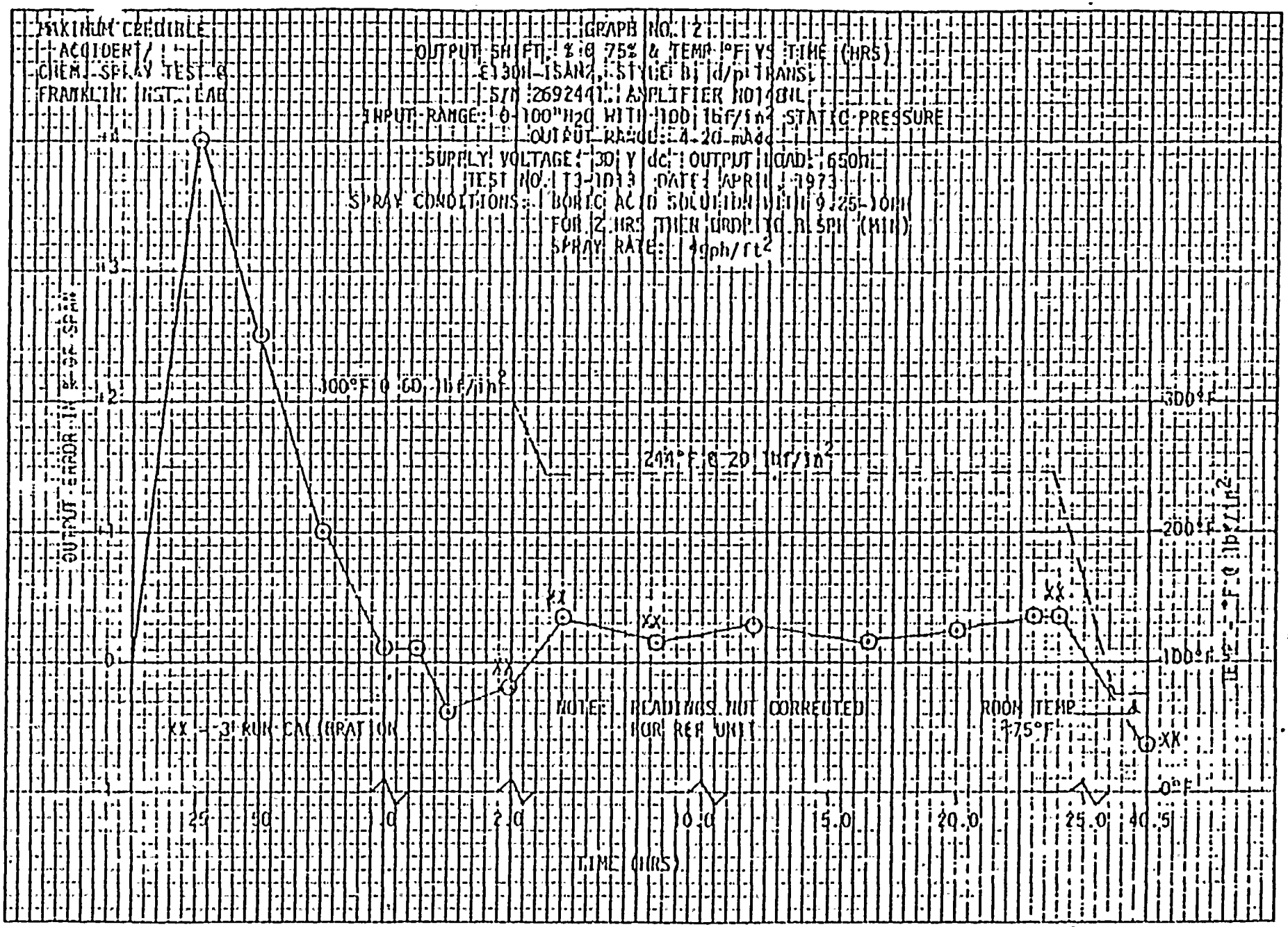
Steam/chemical spray/radiation

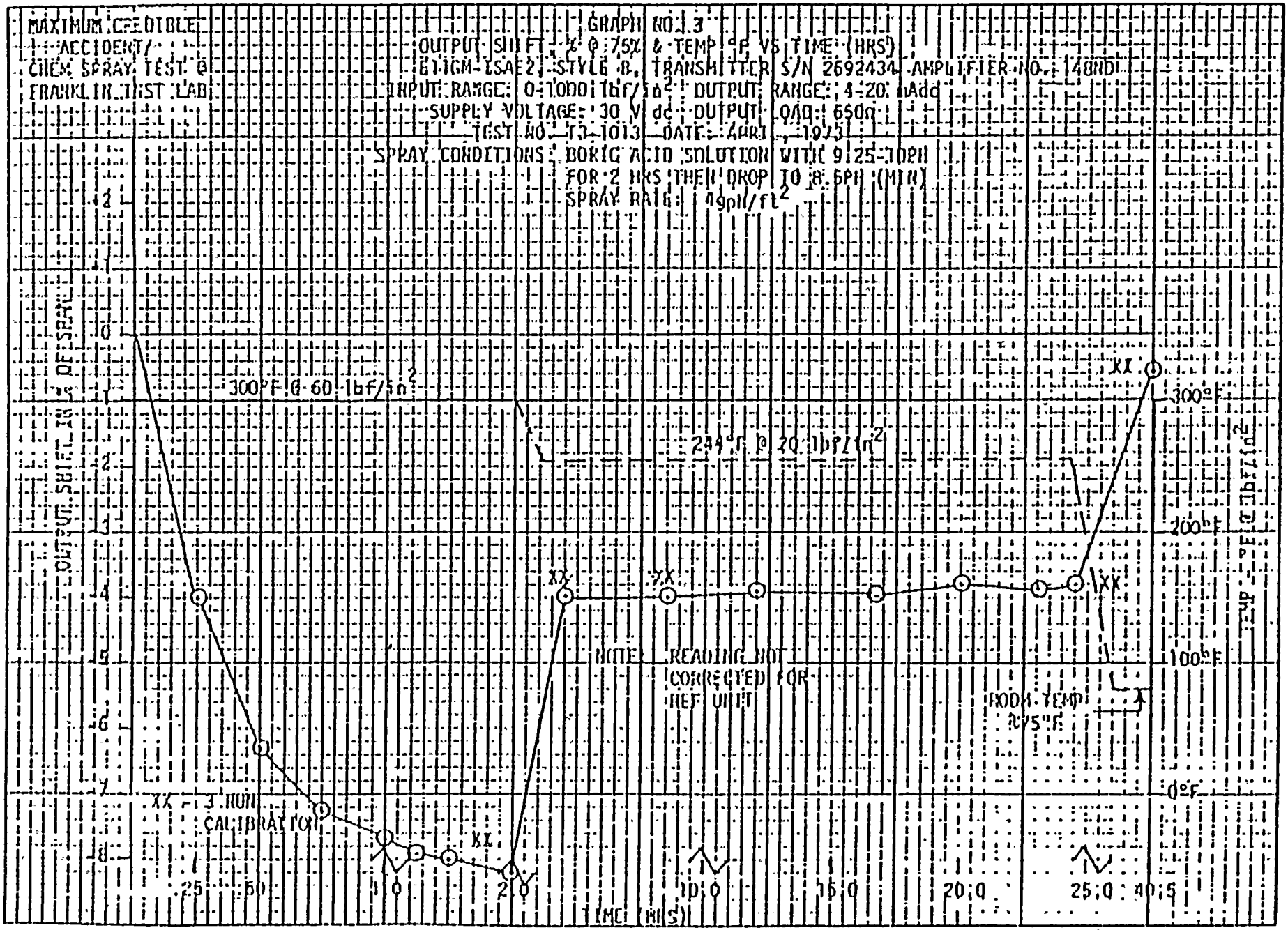
Test Profile:

18 Mrads, 1.94 Mrads/hr.
320°F, 75 psig for 20 minutes
From 320°F to 220°F in 24 hrs. (saturated conditions)
220°F, 15 psia for 5.5 days.

Chemical Spray: 1.14% boric acid
.17% Na OH


MAXIMUM CREDIBLE ACCIDENT
CHEM. SPRAY TEST @ FRANKLIN TEST LAB
GRAPH NO. 1
@ 75% & TEMP °F VS TIME (HRS)
OUTPUT SHIFT @ 75%
E13DM-ISAM2, STYLE B, D/P TRANSD.
S/N 2692438, AMPLIFIER NO. AND
INPUT RANGE = 0-100"H2O WITH 100-lbf/in2 STATIC PRESSURE
OUTPUT RANGE = 4-20 mAdc
SUPPLY VOLTAGE = 30 V dc
OUTPUT LOAD = 650Ω
TEST NO. T3-1013
DATE = APRIL 1978
SPRAY CONDITIONS
FOR BORIC ACID SOLUTION WITH 9.25-10PH
FOR 2 HRS THEN DROP TO 8.5PH (MIN.)
SPRAY RATE = 4gph/ft2
300°F @ 60 lbf/in2
240°F @ 20 lbf/in2
ROOM TEMP ~75°F
XX = 3 RUN CALIBRATION
NOTE: READINGS NOT CORRECTED FOR REF UNIT
OUTPUT SHIFT IN INCHES OF SEAWATER
TEMP °F @ lbf/in2
TIME (HRS)
300°F
200°F
100°F
0°F
0
2
4
.25
.50
1.0
2.0
10.0
15.0
20.0
25.0
40.0


MAXIMUM CREDIBLE
ACCIDENT
CHEM-SPRAY TEST-8
FRANKLIN INST. LAB
GRAPH NO. 12
OUTPUT SHIFT: 1% @ 75° & TEMP °F VS TIME (HRS)
E130H-15AN2, STYLE B, d/p TRANS.
S/N 269241, AMPLIFIER NO. 4 BIL
INPUT RANGE: 0-100"H2O WITH 100 lbf/in² STATIC PRESSURE
OUTPUT RANGE: 4-20 mAdc
SUPPLY VOLTAGE: 30 V dc, OUTPUT LOAD: 650Ω
TEST NO. T3-1013, DATE: APRIL 1973
SPRAY CONDITIONS: BORIC ACID SOLUTION WITH 9.25 pH
FOR 2 HRS THEN DROP TO 8.5 pH (MIN)
SPRAY RATE: 1 gph/ft²
300°F @ 60 lbf/in²
240°F @ 20 lbf/in²
XX - 3 PUNCTURE CALIBRATION
NOTE: READINGS NOT CORRECTED FOR REF UNIT
ROOM TEMP 75°F
OUTPUT ERROR IN % OF SPAN
TEMP °F @ lbf/in²
TIME (HRS)
300°F
200°F
100°F
0°F
0
1
2
3
25
50
10.0
15.0
20.0
25.0
40.5


MAXIMUM CREDIBLE ACCIDENT/ CHEM SPRAY TEST @ FRANKLIN TEST LAB
GRAPH NO. 3
OUTPUT SHIFT - % @ 75% & TEMP °F VS TIME (HRS)
GT&M-ISAE 21 STYLE B, TRANSMITTER S/N 2692434 AMPLIFIER NO. 148ND
INPUT RANGE: 0-1000 lbf/in² OUTPUT RANGE: 4-20 mAdc
SUPPLY VOLTAGE: 30 V dc OUTPUT LOAD: 650Ω
TEST NO. T5-1013 DATE: APRIL 1975
SPRAY CONDITIONS: BORIC ACID SOLUTION WITH 9.25-10PH FOR 2 HRS THEN DROP TO 8.5PH (MIN) SPRAY RATE: 49pH/ft²
300°F @ 60 lbf/in²
234°F @ 20 lbf/in²
XX = 3 RUN CALIBRATION
NOTE: READING NOT CORRECTED FOR REF UNIT
ROOM TEMP 75°F
OUTPUT SHIFT IN % OF SPAN
PRESSURE lbf/in²
TEMP °F
TIME (HRS)
0°F
100°F
200°F
300°F
25
50
10.0
20.0
25.0
40.5


MAXIMUM CREDIBLE
ACCIDENT
CHEM-SPRAY-TEST-8
FRANKLIN INST. LAB
GRAPH NO. h
OUTPUT SHIFT - % @ 75%
& TEMP. VS TIME (HRS)
HIGH LNH2, STYLE-B, TRANSMITTER S/N-2692435, AMPLIFIER NO. 14BND
INPUT RANGE 0-2000 lbf/in2 OUTPUT LOAD 6500
TEST NO. T3-1013 DATE APRIL, 1973
SPRAY CONDITIONS—BORIC ACID SOLUTION WITH 9.26 10PH
FOR 2 HRS THEN DROP TO 8.5PH (MIN)
SPRAY RATE gph/ft2
300°F @ 60 lbf/in2
244°F @ 20 lbf/in2
OUTPUT SHIFT IN % OF SPAN
TEMP. - °F & lbf/in2
TIME (HRS)
XX 3 RUN CALIBRATION
RODH TEST
175°F
NOTE: READINGS CORRECTED FOR REF UNIT
0
28"
300°F
200°F
100°F
0°F
.25
.50
1.0
2.0
10.0
15.0
20.0
25.0
40.5

DONALD C. COOK NUCLEAR PLANT UNIT NO. 2 DOCKET NO. 50-316 LICENSE NO. DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM:	Operating. Time						
PLANT ID NO:	Temperature (^{0}F)						
COMPONENT:	Pressure (PSIA)						
MANUFACTURER:							
MODEL NUMBER:	Relative Humidity (%)						
FUNCTION:	Chemical Spray						
ACCURACY: SPEC: DEMON:							
SERVICE:	Radiation (10^6 rads)						
LOCATION:	Aging (years)						
FLOOD LEVEL ELEV: ABOVE FLOOD LEVEL:	Submergence						

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*Documentation References:

Notes:

Form EGQ #97-2

DONALD C. COOK NUCLEAR PLANT UNIT NO. 2 | DOCKET NO. 50-316 | LICENSE NO. DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: VARIOUS PLANT ID NO: NA COMPONENT: INSTRUMENT CABLE TERMINATION MANUFACTURER: NA MODEL NUMBER: NA FUNCTION: INSTRUMENT CABLE CONNECTION AT PENETRATION ACCURACY: SPEC: NA DEMON: NA SERVICE: VARIOUS LOCATION: INSIDE CONTAINMENT	Operating Time	32 SECS	> 1 hr	101	62	COMBINATION	NONE SEE REF. #62
	Temperature (°F)	328.2	340	102	62	"	"
	Pressure (PSIA)	29.1	119.7	103	62	"	"
	Relative Humidity (%)	100	100	102 103	62	"	"
	Chemical Spray	2000 PPM B 1.14% WT BORIC ACID PH 8.5 - 11	2000 PPM B 1.14% WT. BORIC ACID PH 8.5 - 11	104	62 72	"	NONE SEE REF. #72
	Radiation (10^6 rads)	0.8	150	105	62	"	NONE SEE REF. #62
	Aging (years)						
FLOOD LEVEL ELEV: 614' ABOVE FLOOD LEVEL: NO	Submergence	SUBMERGED	SEE REF 68	117	68	ENG. REVIEW	NONE SEE REF. #68

130-137 I26,27
138-145 I26,27
160 I 25
181-188 I13

*Documentation References:

Notes: See Sheet I25 FOR Justification on NPS-153 operation.

Form EGQ #97-2

DONALD C. COOK NUCLEAR PLANT UNIT NO. 2 DOCKET NO. 50-316 LICENSE NO. DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: VARIOUS PLANT ID NO: NA COMPONENT: INSTRUMENT CABLE TERMINATION MANUFACTURER: NA MODEL NUMBER: NA FUNCTION: BARTON INSTRUMENT CONNECTION ACCURACY: SPEC: NA DEMON: NA SERVICE: VARIOUS LOCATION: OUTSIDE CONTAINMENT	Operating Time	4 MONTHS	> 4.4 MTHS	101	62 63	COMBINATION	NONE SEE REF #63
	Temperature (°F)	230	340	107	62	"	NONE SEE REF #62
	Pressure (PSIA)	26.2	119.7	107	62	"	"
	Relative Humidity (%)	100	100	107	62	"	"
	Chemical Spray	NA	2000 PPMB 1.14% WT BORIC ACID PH 8.5-11	NA	62 72	"	NA
	Radiation (10^6 rads)	NA	150	NA	62	"	NA
	Aging (years)						
FLOOD LEVEL ELEV: NA ABOVE FLOOD LEVEL: NA	Submergence	NA	NA	NA	NA	NA	NA

58-59 I10
76-77 I6

*Documentation References:

Notes:

Form EGQ #97-2

DONALD C. COOK NUCLEAR PLANT UNIT NO. 2 | DOCKET NO. 50-316 | LICENSE NO. DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: VARIOUS PLANT ID NO: NA COMPONENT: INSTRUMENT CABLE TERMINATION MANUFACTURER: NA MODEL NUMBER: NA FUNCTION: FOXBORO INSTRUMENT TERMINATION ACCURACY: SPEC: NA DEMON: NA SERVICE: VARIOUS LOCATION: OUTSIDE CONTAINMENT	Operating Time	4 MONTHS	> 4.4 MTHS	101	62 63	COMBINATION	NONE SEE REF#63
	Temperature (°F)	244	320	102	62	"	NONE SEE REF. # 62
	Pressure (PSIA)	29.1	89.7	103	62	"	"
	Relative Humidity (%)	100	100	102 103	62	"	"
	Chemical Spray	NA	2000 PPMB 1.14 % WT. BORIC ACID PH 8.5-11^	104	62 7.2	"	NA
	Radiation (10^6 rads)	NA	18	NA	62	"	NA
	Aging (years)						
FLOOD LEVEL ELEV: NA ABOVE FLOOD LEVEL: NA	Submergence	NA	NA	NA	NA	NA	NA

13-16 I5
78-81 I11, 12
102-105 I29, 30
173-180 I4
189-200 I15, 16

*Documentation References:

Notes:

Form EGQ #97-2

DONALD C. COOK NUCLEAR PLANT UNIT NO. 2 DOCKET NO. 50-316 LICENSE NO. DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: VARIOUS PLANT ID NO: NA COMPONENT: POWER CABLE TERMINATION MANUFACTURER: NA MODEL NUMBER: NA FUNCTION: SOLID KAPTON TO STRANDED KAPTON CONNECTION INSIDE FLOOD-UP TUBE AT PEN. ACCURACY: SPEC: NA DEMON: NA SERVICE: VARIOUS LOCATION: INSIDE CONTAINMENT	Operating Time	1 YEAR	>1.1 YR	109	13 63	COMBINATION	NONE SEE REF # 63
	Temperature (°F)	328.2	340	102	13	SEQUENTIAL	NONE
	Pressure (PSIA)	29.1	118	103	13	"	"
	Relative Humidity (%)	100	100	102 103	13	"	"
	Chemical Spray	NA	2500 PPMB 1.43% WT BORIC ACID PH 8.5-11	NA	13 72	COMBINATION	NA
	Radiation (10^6 rads)	26.1	150	105	13	SEQUENTIAL	NONE
	Aging (years)						
FLOOD LEVEL ELEV: 614' ABOVE FLOOD LEVEL: NO	Submergence	NOT SUBMERGED	FLOOD-UP TUBES	NA	61	ENG. REVIEW	NONE SEE REF. # 61

60-63 V1
85 V2
90 V2
94-95 V2
99A V1
118-123 V4, F1, H1
205-206 V1
217 V5
229-231 V9

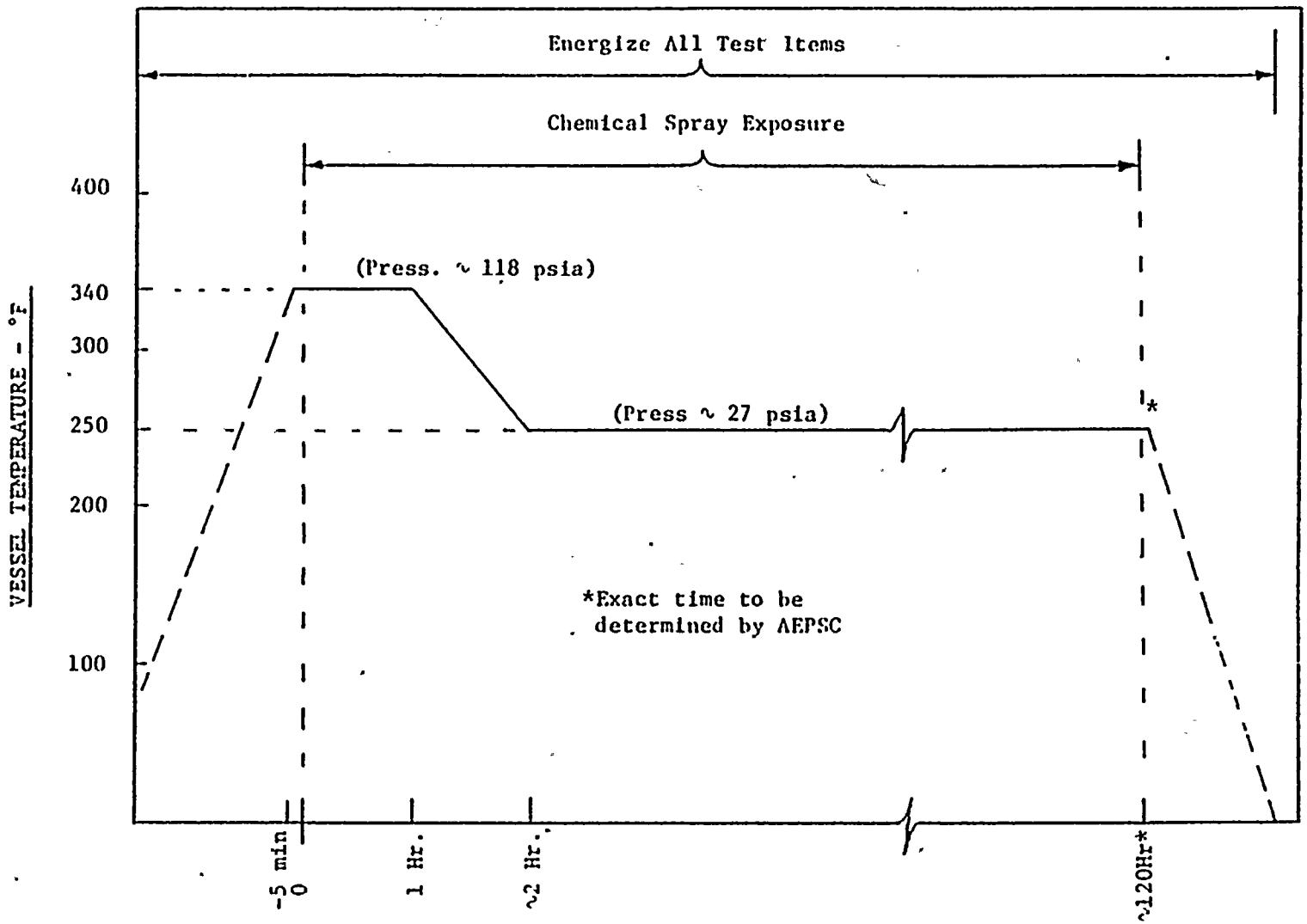
*Documentation References:

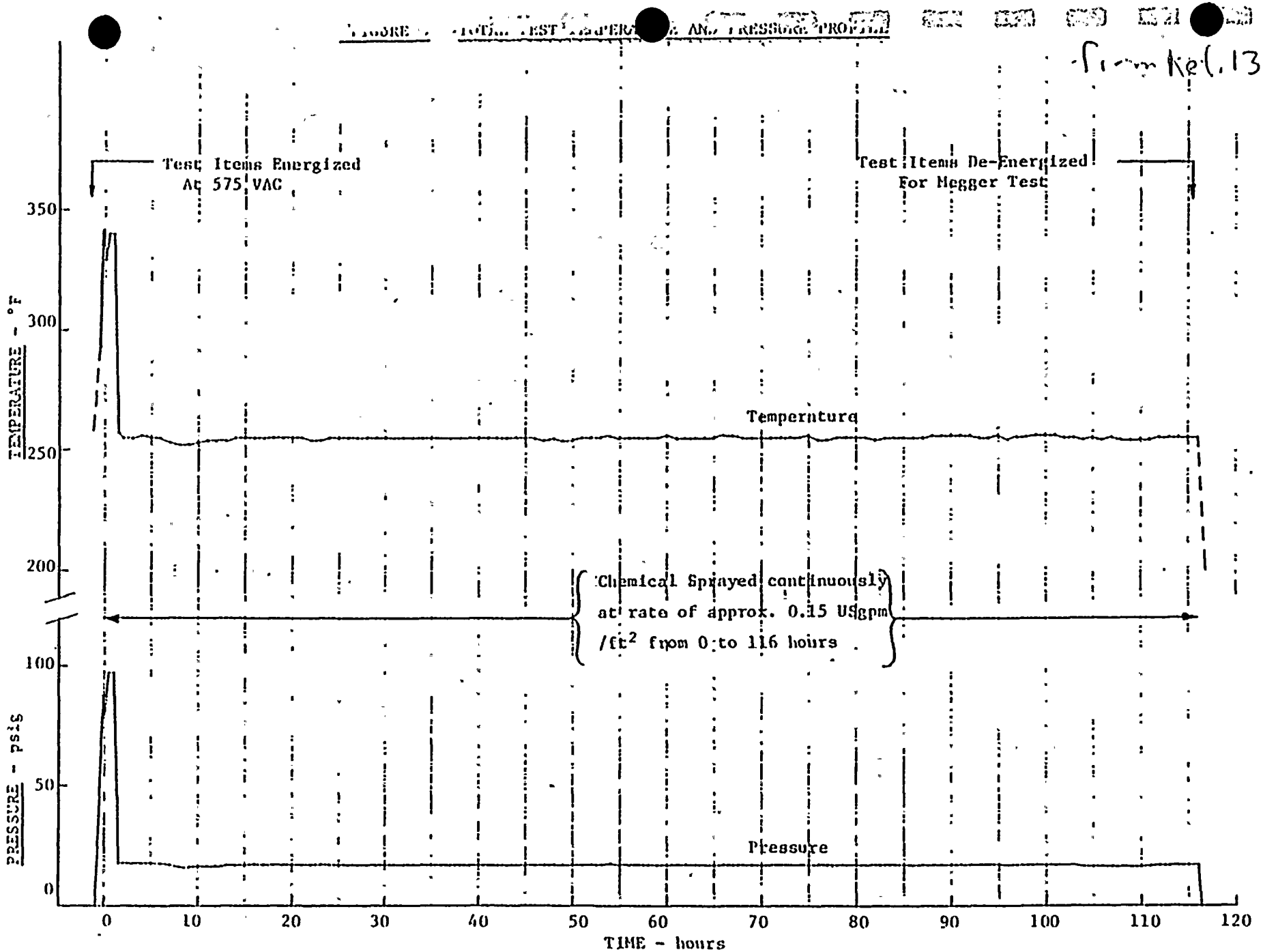
Notes:

Form EGQ #97-2

FIGURE 2 TEST PROFILE

From Rev. 13




Test Items Energized
At 575 VAC
Test Items De-Energized
For Megger Test
Temperature
Chemical Sprayed continuously
at rate of approx. 0.15 USgpm
/ft² from 0 to 116 hours
Pressure
TEMPERATURE - °F
PRESSURE - psig
TIME - hours
350
300
250
200
100
50
0
0
10
20
30
40
50
60
70
80
90
100
110
120

Page TP1-3

DONALD C. COOK NUCLEAR PLANT UNIT NO. 2 DOCKET NO. 50-316 LICENSE NO. DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: VARIOUS PLANT ID NO: NA COMPONENT: POWER CABLE TERMINATION MANUFACTURER: NA MODEL NUMBER: NA FUNCTION: STRANDED KAPTON CONNECTION TO XL Polyethylene AT FLOOD-UP BOX ACCURACY: SPEC: NA DEMON: NA SERVICE: VARIOUS LOCATION: INSIDE CONTAINMENT	Operating Time	1 YEAR	>1.1YR.	109	13 63	COMBINATION	NONE SEE REF. #63
	Temperature (°F)	328.2	340	102	13	SEQUENTIAL	NONE
	Pressure (PSIA)	29.1	118	103	13	"	"
	Relative Humidity (%)	100	100	102 103	13	"	"
	Chemical Spray	NA	2500PPMB 1.43% WT BORIC ACID PH 8.5-11	NA	13 72	COMBINATION	NA
	Radiation (10^6 rads)	135	150	105	13	SEQUENTIAL	NONE
	Aging (years)						
FLOOD LEVEL ELEV: 614' ABOVE FLOOD LEVEL: YES	Submergence	NA	NA	NA	NA	NA	NA

60-63 V1
85 V2
90 V2
94-95 V2
99A V1
118-123 V4, F1, H1
205-206 V1
217 V5
229-231 V9

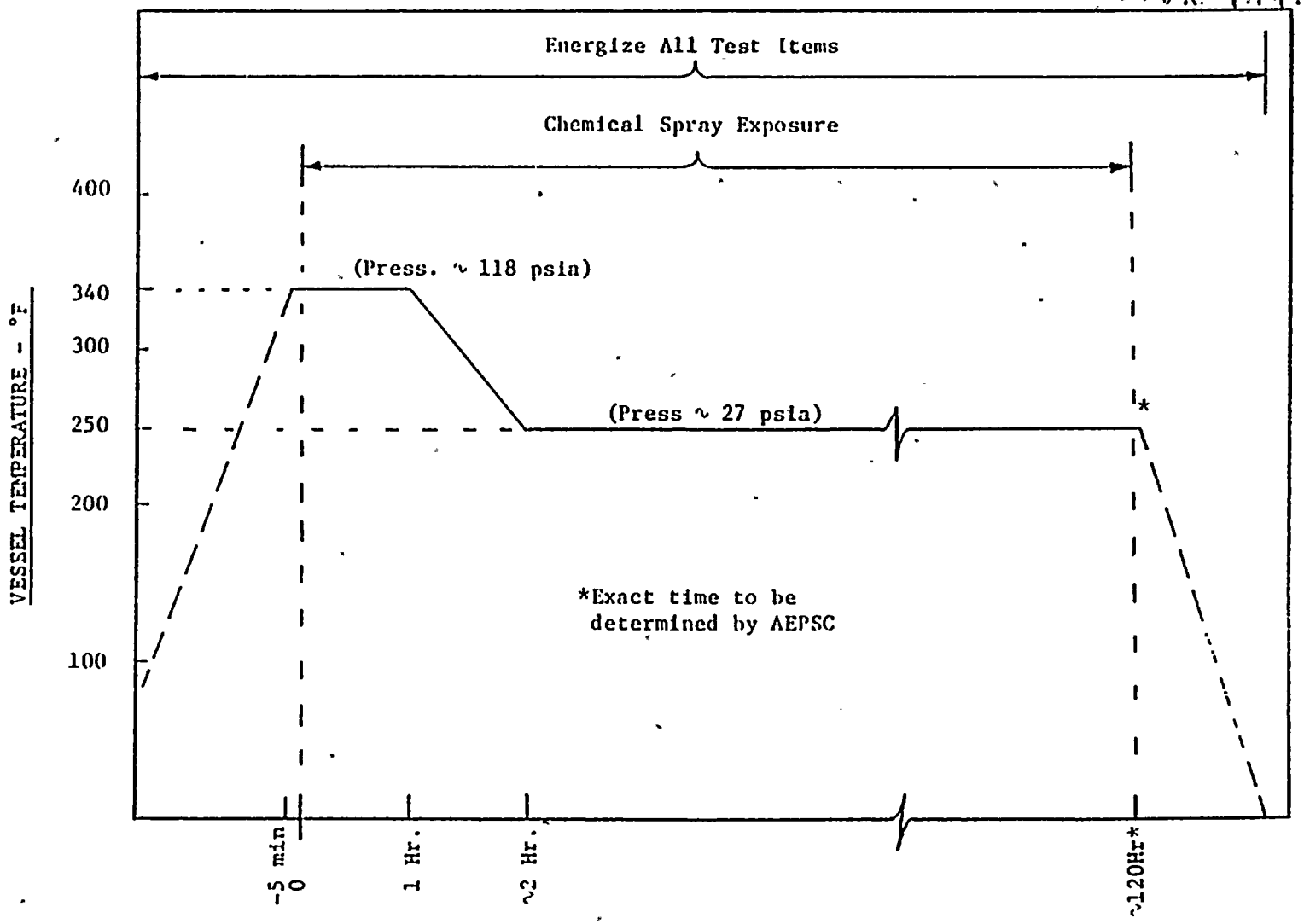
*Documentation References:

Notes:

Form EGQ #97-2

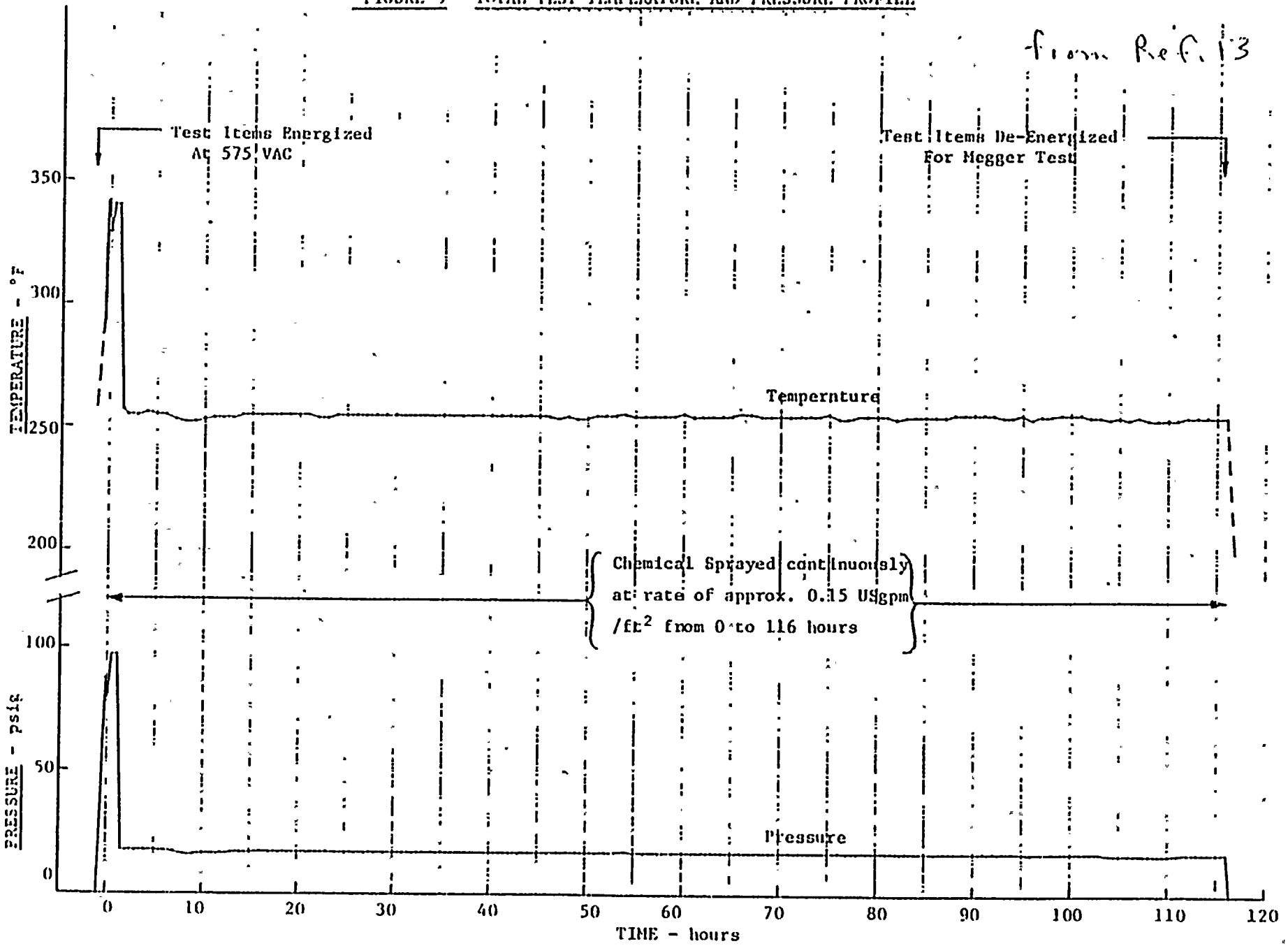
FIGURE 2 TEST PROFILE

From Ref. 13



Pg. TP2-2

FIGURE 3 TOTAL TEST TEMPERATURE AND PRESSURE PROFILE



DONALD C. COOK NUCLEAR PLANT UNIT NO. 2 DOCKET NO. 50-316 LICENSE NO. DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: VARIOUS PLANT ID NO: NA COMPONENT: POWER CABLE TERMINATION MANUFACTURER: NA MODEL NUMBER: NA FUNCTION: POWER CABLE CONNECTION TO VALVE MOTOR OPERATOR, HYDROGEN RECOMBINER AND ACCURACY: SPEC: NA FAN MOTOR DEMON: NA. SERVICE: VARIOUS LOCATION: INSIDE CONTAINMENT	Operating Time	1 YEAR	>1.1 YR	109	13 63	COMBINATION	NONE SEE REF. #63
	Temperature (°F)	328.2	340	102	13	SEQUENTIAL	NONE
	Pressure (PSIA)	29.1	118	103	13	"	"
	Relative Humidity (%)	100	100	102 103	13	"	"
	Chemical Spray	2000 PPMB 1.14% WT. BORIC ACID PH 8.5-11	2500 PPMB 1.43% WT. BORIC ACID PH 8.5-11	114	15 72	COMBINATION	NONE SEE REF. #72
	Radiation (10^6 rads)	126	150	105	13	SEQUENTIAL	NONE
	Aging (years)						
FLOOD LEVEL ELEV: 614' ABOVE FLOOD LEVEL: YES	Submergence	NA	NA	NA	NA	NA	NA

85 V2
90 V2
94-95 V2
118-123 V4, F1, H1
211-212 V10
229-231 V9

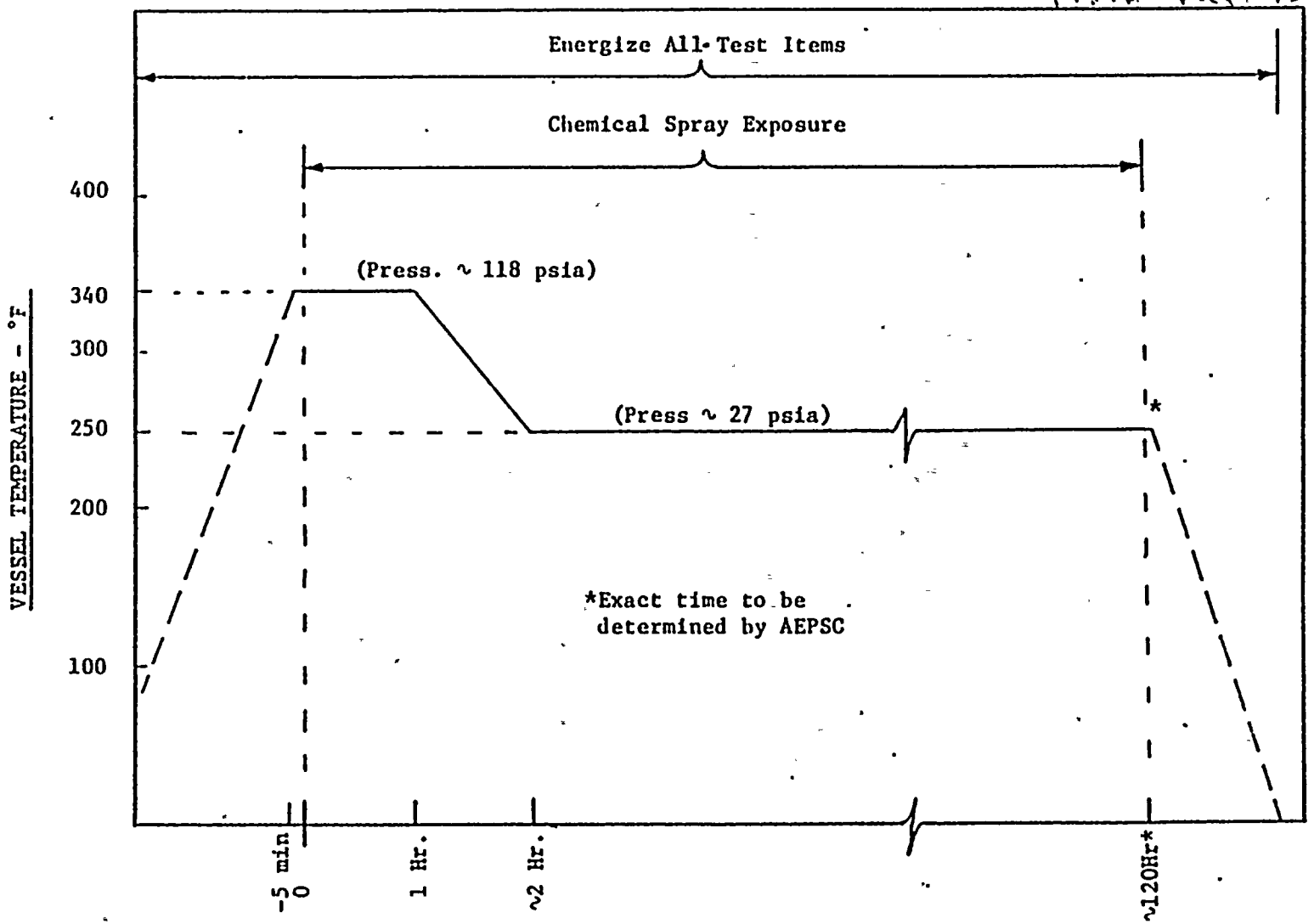
*Documentation References:

Notes:

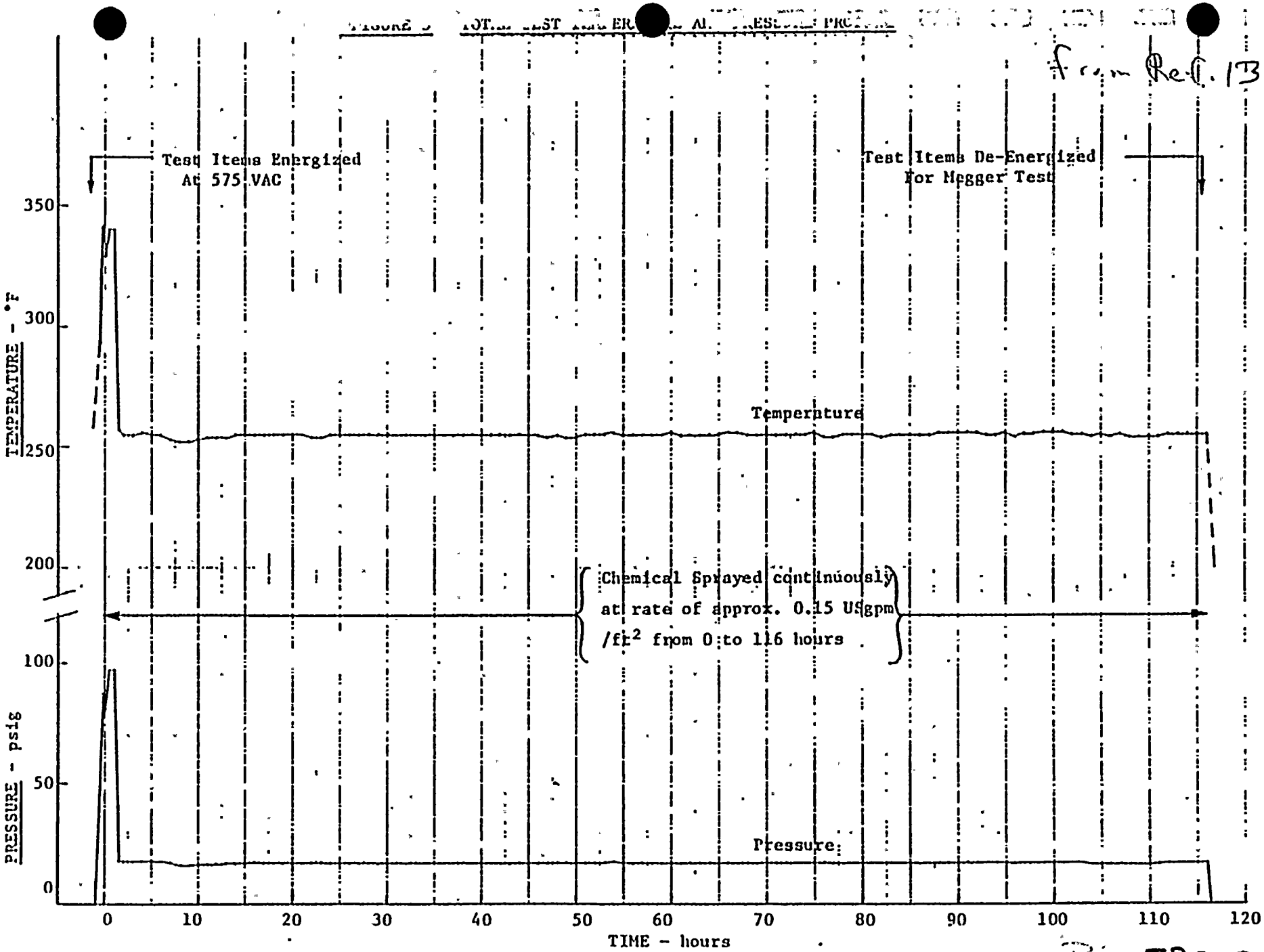
Form EGQ #97-2

FIGURE 2 TEST PROFILE

from Ref 13



Pg. 9 - TP3-2


Test Items Energized
At 575 VAC
Test Items De-Energized
For Megger Test
Temperature
Chemical Sprayed continuously
at rate of approx. 0.15 USgpm
/ft² from 0 to 116 hours
Pressure
TEMPERATURE - °F
PRESSURE - psig
TIME - hours
350
300
250
200
100
50
0
0
10
20
30
40
50
60
70
80
90
100
110
120

From Ref. 13

DONALD C. COOK NUCLEAR PLANT UNIT NO. 2 | DOCKET NO. 50-316 | LICENSE NO. DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: VARIOUS PLANT ID NO: NA COMPONENT: POWER CABLE TERMINATION MANUFACTURER: NA MODEL NUMBER: NA FUNCTION: POWER CABLE CONNECTION TO PUMP MOTOR ACCURACY: SPEC: NA DEMON: NA SERVICE: VARIOUS LOCATION: OUTSIDE CONTAINMENT	Operating Time	1 YEAR	>1.1 YR.	118	13 63	COMBINATION	NONE SEE REF. #63.
	Temperature (°F)	NA	NA	NA	NA	NA	NA
	Pressure (PSIA)	NA	NA	NA	NA	NA	NA
	Relative Humidity (%)	NA	NA	NA	NA	NA	NA
	Chemical Spray	NA	NA	NA	NA	NA	NA
	Radiation (10^6 rads)	6	150	106	13	SEQUENTIAL	NONE
	Aging (years)						
FLOOD LEVEL ELEV: NA ABOVE FLOOD LEVEL: NA	Submergence	NA	NA	NA	NA	NA	NA

48-51 M1
74-75 M1
100-101 M1
116-117 M2

*Documentation References:

Notes:

Form EGQ #97-2

DONALD C. COOK NUCLEAR PLANT UNIT NO. 2 | DOCKET NO. 50-316 | LICENSE NO. DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: VARIOUS PLANT ID NO: NA COMPONENT: POWER CABLE TERMINATION MANUFACTURER: NA MODEL NUMBER: NA FUNCTION: POWER CABLE CONNECTION TO VALVE MOTOR ACCURACY: SPEC: NA DEMON: NA SERVICE: VARIOUS LOCATION: INSIDE CONTAINMENT	Operating Time	1/2 hr	116 HRS	109	13	SEQUENTIAL	NONE
	Temperature (°F)	328.2	340	102	13	SEQUENTIAL	"
	Pressure (PSIA)	29.1	118	103	13	"	"
	Relative Humidity (%)	100	100	102 103	13	"	"
	Chemical Spray	2000 PPMB 1.14% WT. BORIC ACID PH 8.5-11	2500 PPMB 1.43% WT. BORIC ACID PH 8.5-11	114	13 72	COMBINATION	NONE SEE REF. # 72.
	Radiation (10^6 rads)	0.8	150	105	13	SEQUENTIAL	NONE
	Aging (years)						
FLOOD LEVEL ELEV: 614' ABOVE FLOOD LEVEL: NO	Submergence	SUBMERGED	SEE REF#68	117	68	ENG. REVIEW	NONE SEE REF. #68

60-63VI
99A VI
205-206VI
217 V5

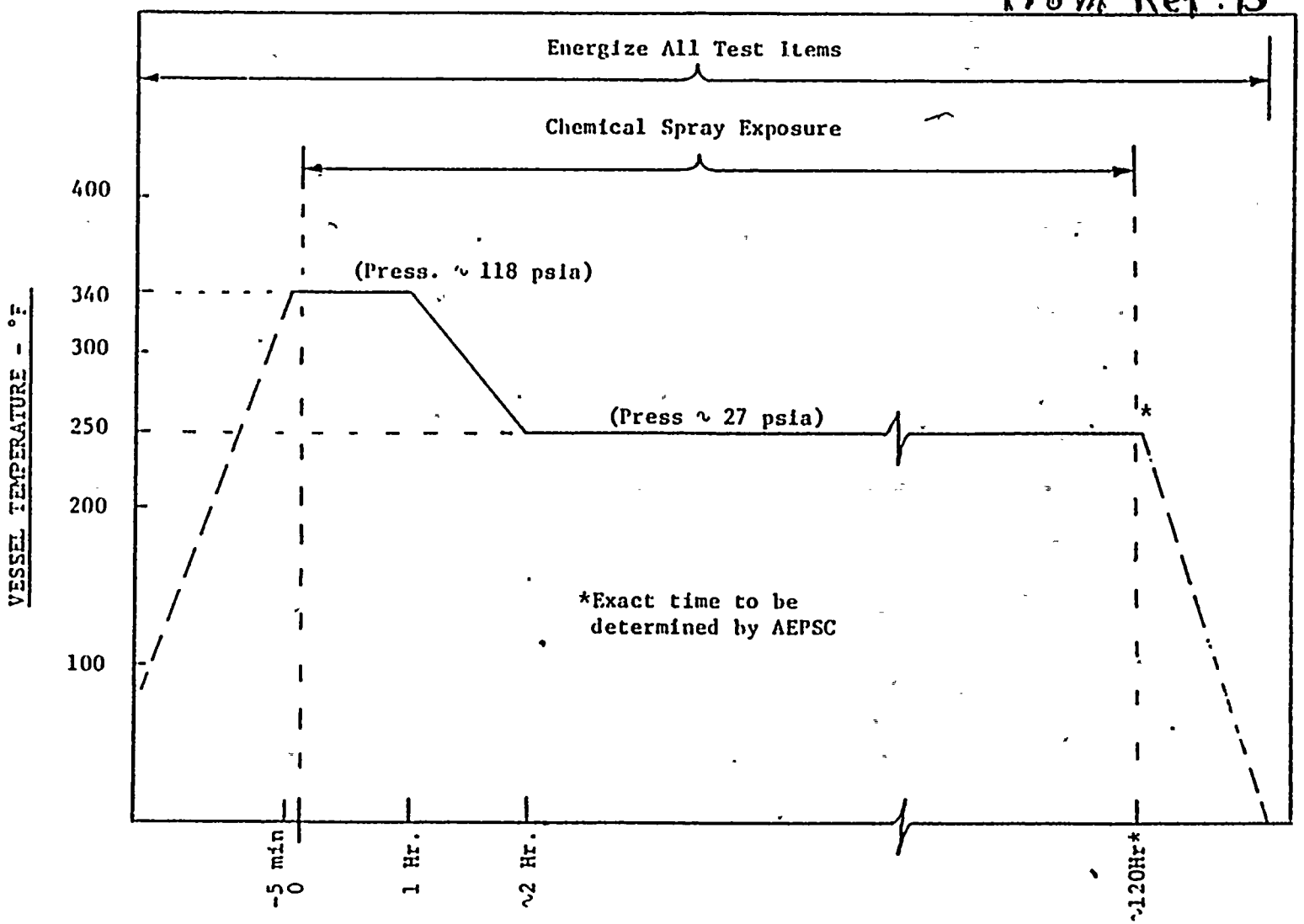
*Documentation References:

Notes:

Form EGQ #97-2

FIGURE 2 TEST PROFILE

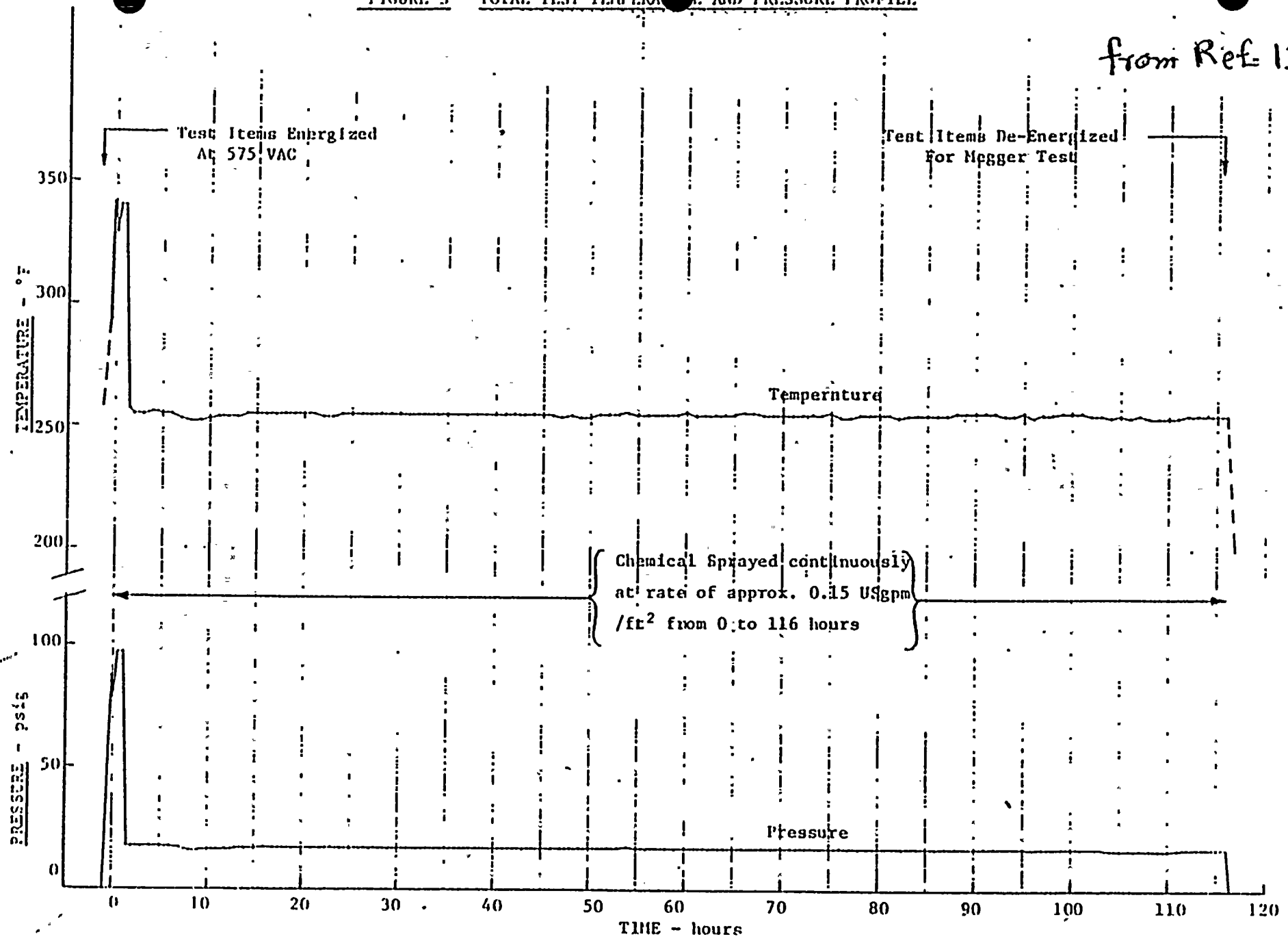
from Ref. 13



PAGE TP5-2

FIGURE 1 TOTAL TEST TEMPERATURE AND PRESSURE PROFILE

from Ref 13:-



DONALD C. COOK NUCLEAR PLANT UNIT NO. 2 DOCKET NO. 50-316 LICENSE NO. DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: VARIOUS PLANT ID NO: NA COMPONENT: POWER CABLE TERMINATION MANUFACTURER: NA MODEL NUMBER: NA FUNCTION: POWER CABLE CONNECTION AT VALVE MOTOR OPERATOR ACCURACY: SPEC: NA DEMON: NA SERVICE: VARIOUS LOCATION: OUTSIDE CONTAINMENT	Operating Time	1 DAY	116 HRS	110	13	SEQUENTIAL	NONE
	Temperature (°F)	230	340	107	13	"	"
	Pressure (PSIA)	26.2	118	107	13	"	"
	Relative Humidity (%)	100	100	107	13	"	"
	Chemical Spray	NA	2500PPMB 1.43% WT. BORIC ACID PH 8.5-11	NA	13 72	COMBINATION	NA
	Radiation (10^6 rads)	4	150	106	13	SEQUENTIAL	NONE
	Aging (years)						
FLOOD LEVEL ELEV: NA ABOVE FLOOD LEVEL: NA	Submergence	NA	NA	NA	NA	NA	NA

25-32 V6
34-37 V6
39-42 V6
44-47 V6, II
52-53 V6
82-84 V6
91-93 V6
96-99 V7, II
108-115 V7
207-210 V6
213-216 V6, II
64-65-V6
67-70-V6
71-73-V11

*Documentation References:

Notes:

Form EGQ #97-2

FIGURE 2 TEST PROFILE

from Ref. 13

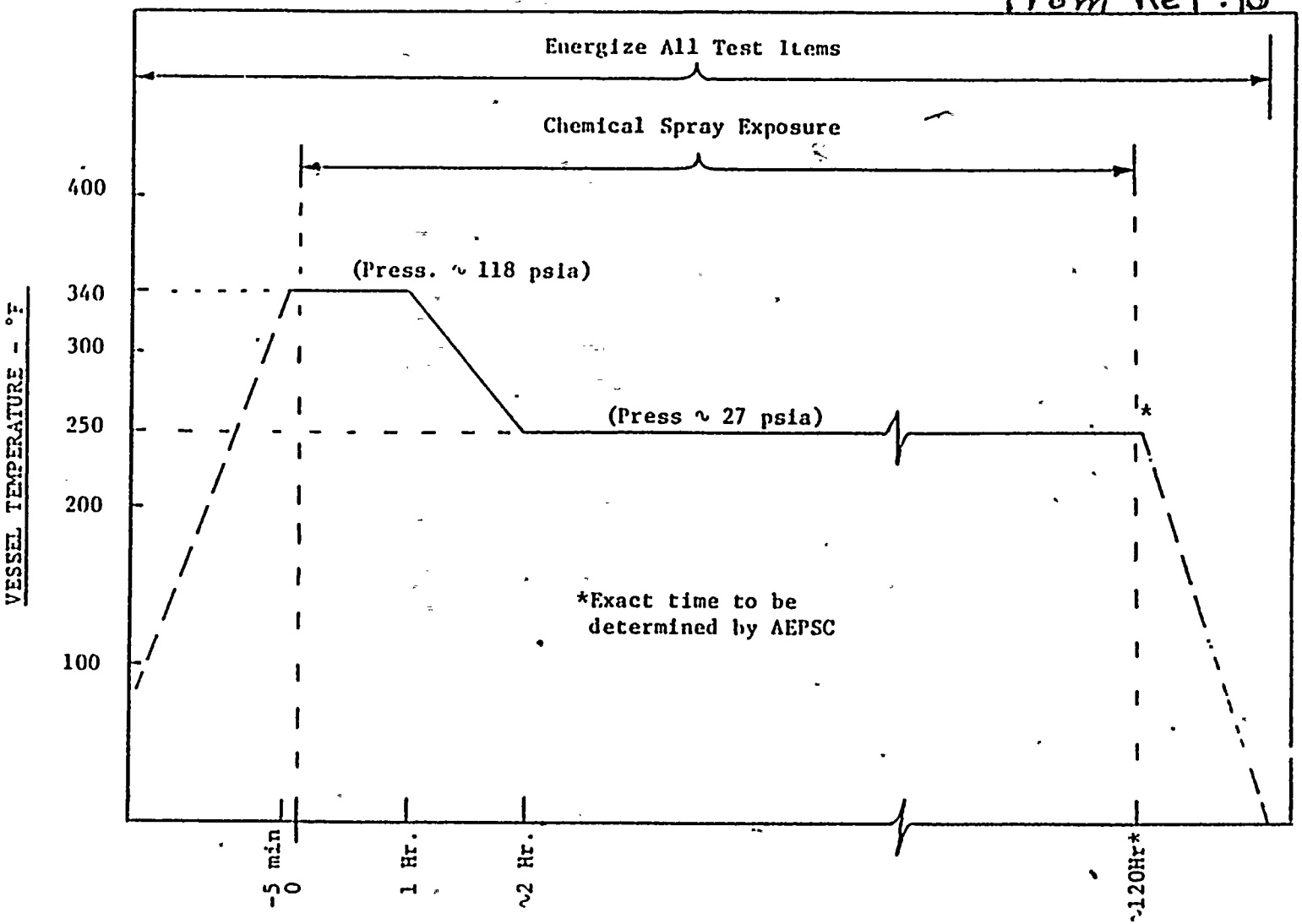
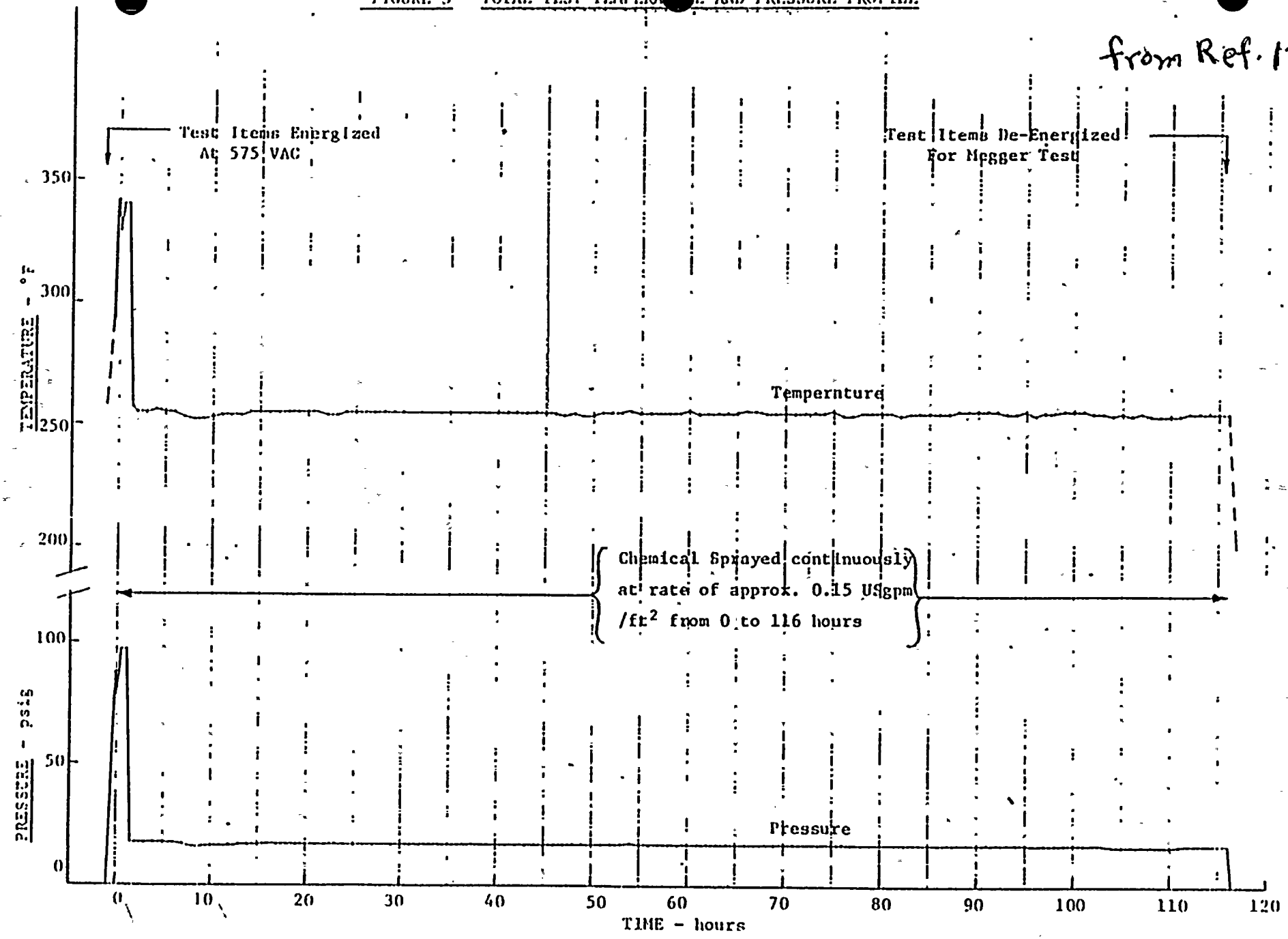


FIGURE 3 TOTAL TEST TEMPERATURE AND PRESSURE PROFILE

from Ref. 13



PAGE TP6-3

DONALD C. COOK NUCLEAR PLANT UNIT NO. 2 DOCKET NO. 50-316 LICENSE NO. DPR-74

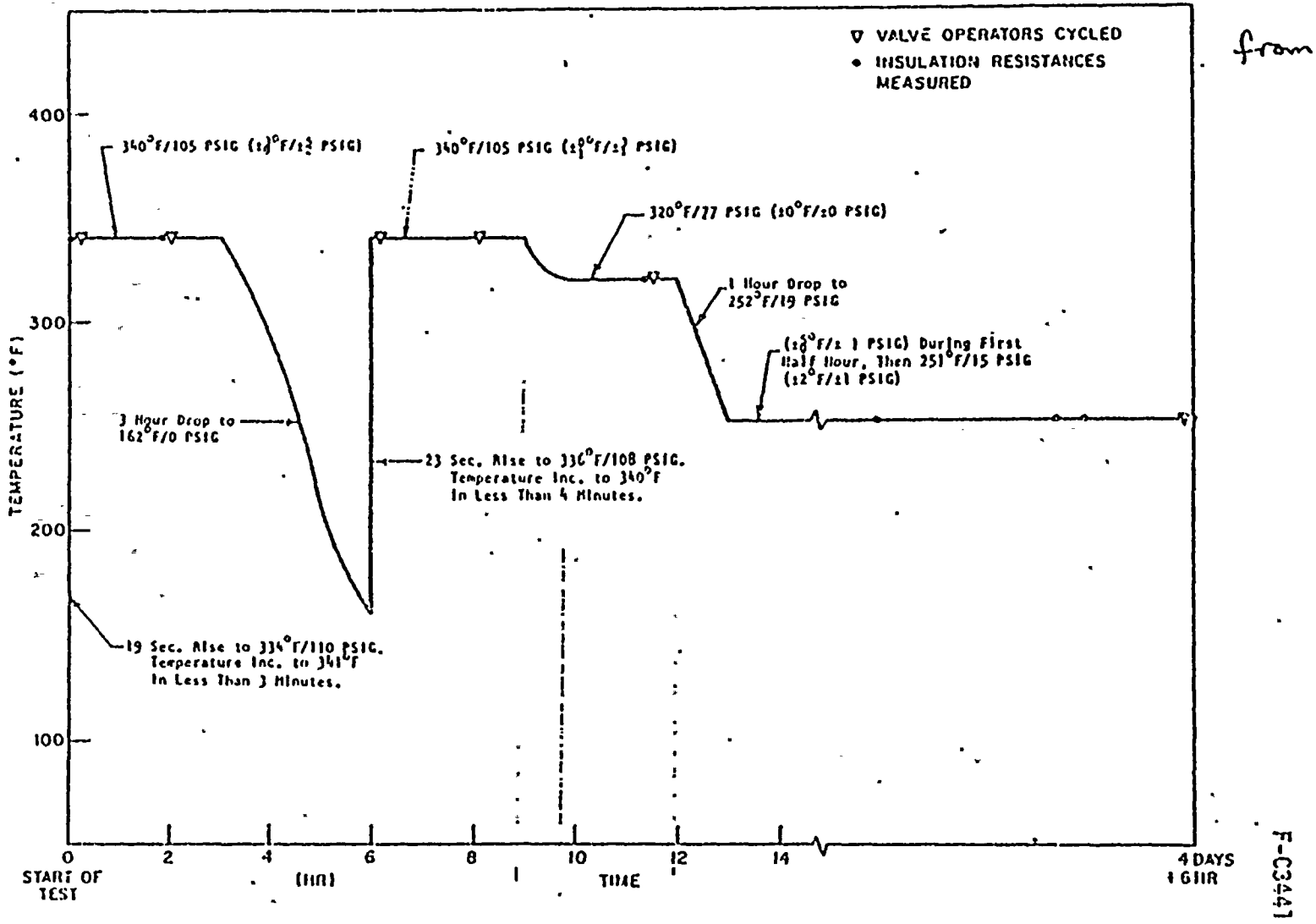
EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: CVCS AND RHR PLANT ID NO: IMO-51,52,53 IMO-54,128; ICM-111,129 COMPONENT: VALVE MOTOR OPERATOR MANUFACTURER: LIMITORQUE MODEL NUMBER: SMB-1; SMB-00 AND SMB-2 FUNCTION: CORE COOLING AND CONTAINMENT ISOLATION ACCURACY: SPEC: NA DEMON: NA SERVICE: ECC SAFETY INJECTION AND NORMAL RHR COOLING LOCATION: INSIDE CONTAINMENT	Operating Time	½ hr	30 DAYS	109	23	SEQUENTIAL	NONE
	Temperature (°F)	328.2	340	102	23	"	"
	Pressure (PSIA)	29.1	119.7	103	23	"	"
	Relative Humidity (%)	100	100	102 103	23	"	"
	Chemical Spray	2000 PPMB 1.14% WT. BORIC ACID PH 8.5-11	2600 PPMB 1.5% WT. BORIC ACID PH 8.5-11	114	22 72	COMBINATION	NONE SEE REF. # 72
	Radiation (10^6 rads)	0.8	204	105	23	SEQUENTIAL	NONE
	Aging (years)						
FLOOD LEVEL ELEV: 614' ABOVE FLOOD LEVEL: NO	Submergence	SUBMERGED	SUBMERGED	117	23	SEQUENTIAL	NONE

60-63 VI
99A VI
205-206 VI

*Documentation References:

Notes:

Form EGQ #97-2



from Ref. 23

Figure 3. Actual Steam Exposure Profile

Page VI-2

DONALD C. COOK NUCLEAR PLANT UNIT NO. 2 | DOCKET NO. 50-316 | LICENSE NO. DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: SAFETY INJECTION PLANT ID NO: IMO-315,316 IMO-325,326 COMPONENT: VALVE MOTOR OPERATOR MANUFACTURER: LIMITORQUE MODEL NUMBER: SMB-1 FUNCTION: SWITCHOVER TO HOT LEG INJECTION ACCURACY: SPEC: NA DEMON: NA SERVICE: ECCS SAFETY INJECTION LOCATION: INSIDE CONTAINMENT	Operating Time	1 DAY	30 DAYS	110	16	SEQUENTIAL	NONE
	Temperature (°F)	244	315	102	16	"	"
	Pressure (PSIA)	29.1	84.7	103	16	"	"
	Relative Humidity (%)	100	100	102 103	16	"	"
	Chemical Spray	2000 PPM B 1.14% WT BORIC ACID PH 8.5-11	3000 PPM B 1.72% WT. BORIC ACID PH 8.5-11	114	16 72	COMBINATION	NONE SEE REF. # 72
	Radiation (10^6 rads)	28	204	105	16	SEQUENTIAL	NONE
	Aging (years)						
FLOOD LEVEL ELEV: 614' ABOVE FLOOD LEVEL: YES	Submergence	NA	NA	NA	NA	NA	NA

85 V2
90 V2
94-95 V2

*Documentation References:

Notes:

Form EGQ #97-2

FROM REF. #16

Specified Accident Profile

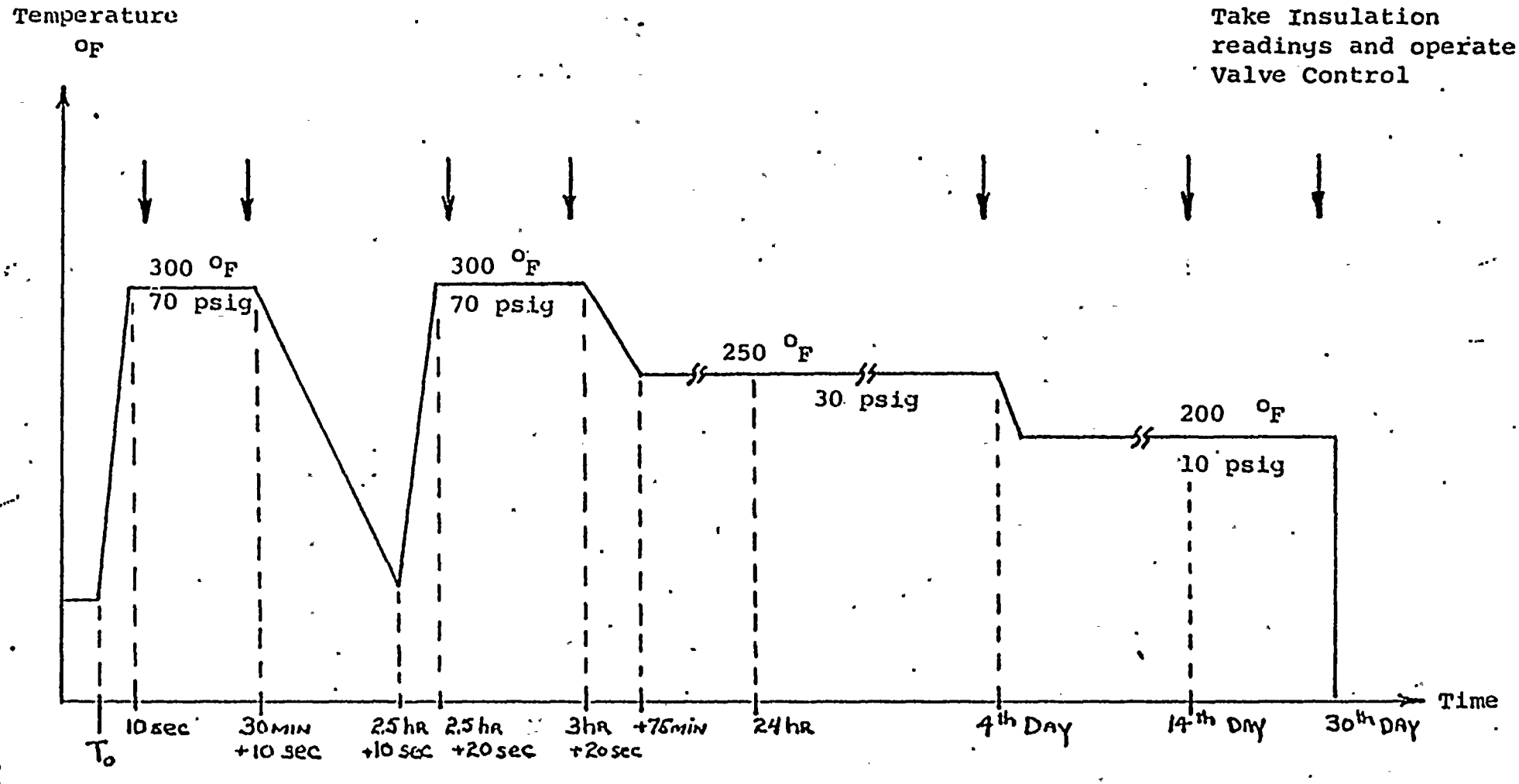


Figure 5

PAGE V2-2

FROM REF. #16

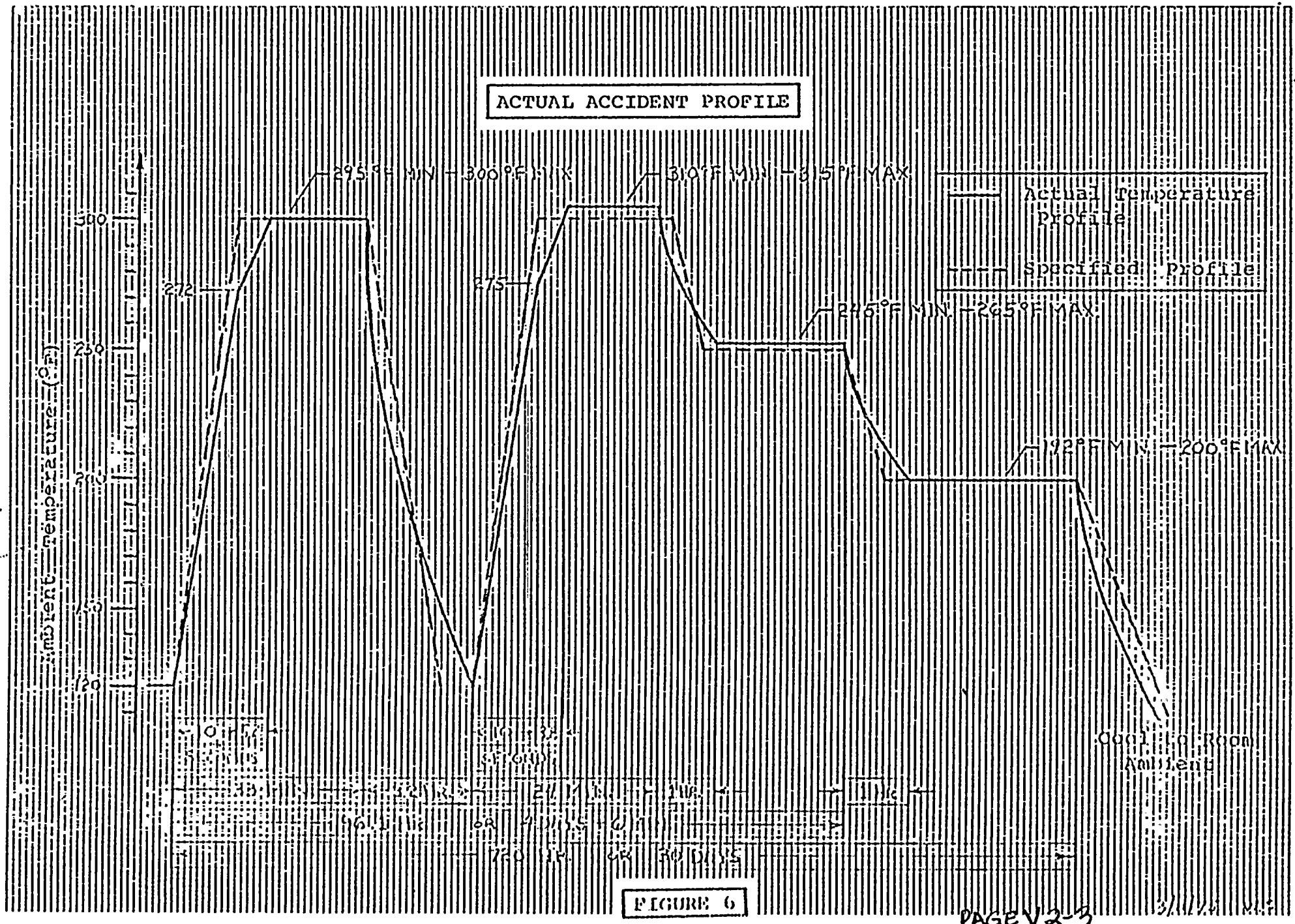


FIGURE 6

DONALD C. COOK NUCLEAR PLANT UNIT NO. 2 DOCKET NO. 50-316 LICENSE NO. DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: CONTAINMENT AIR RECIRCULATION PLANT ID NO: VM0-101,102 COMPONENT: VALVE MOTOR OPERATOR MANUFACTURER: LIMITORQUE MODEL NUMBER: SMB-000 FUNCTION: CONTAINMENT AIR RECIRCULATION BACKDRAFT DAMPERS ACCURACY: SPEC: NA DEMON: NA SERVICE: CONTAINMENT AIR RECIRCULATION BACKDRAFT DAMPERS LOCATION: INSIDE CONTAINMENT	Operating Time	1/2 hr	16 DAYS	108	24	SEQUENTIAL	NONE
	Temperature (°F)	244	250	102	24	"	"
	Pressure (PSIA)	29.1	39.7	103	24	"	"
	Relative Humidity (%)	100	100	102 103	24	"	"
	Chemical Spray	See note below	NA	115	NA	"	"
	Radiation (10^6 rads)	4.31	20	105	24	"	"
	Aging (years)						
FLOOD LEVEL ELEV: 614' ABOVE FLOOD LEVEL: YES	Submergence	NA	NA	NA	NA	NA	NA

118-119 V4

*Documentation References:

Notes:

Valve location is not subject to direct caustic spray impingement as per mech. installation dwg. SEE REF. #115

Form EGQ #97-2

TEMPERATURE PROFILE

from Ref. 24.

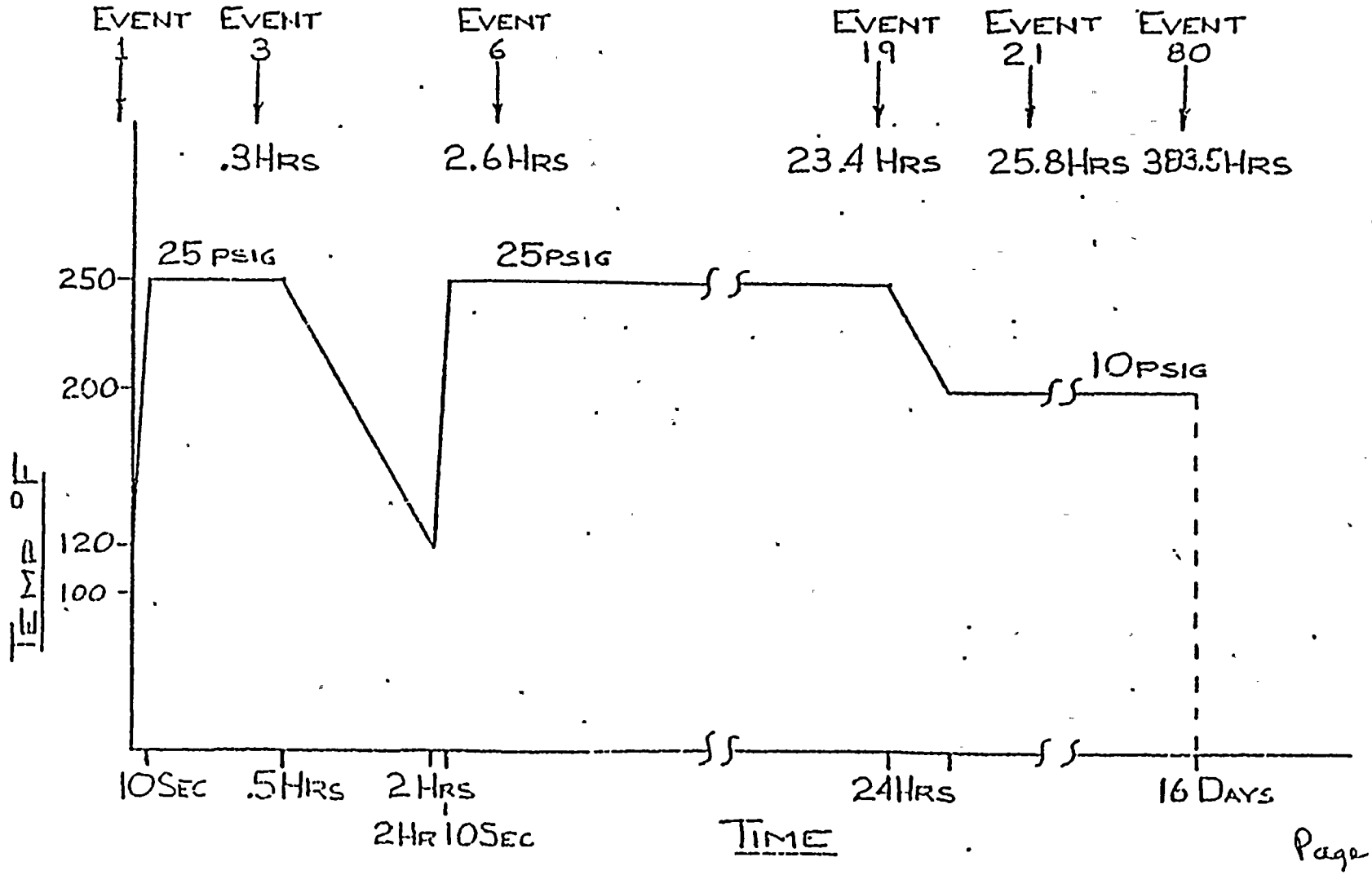


FIGURE 1

DONALD C. COOK NUCLEAR PLANT UNIT NO. 2 DOCKET NO. 50-316 LICENSE NO. DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: CVCS PLANT ID NO: QCM-250 COMPONENT: VALVE MOTOR OPERATOR MANUFACTURER: LIMITORQUE MODEL NUMBER: SMB-00 FUNCTION: RCP SEAL WATER CT ISOLATION VALVE ACCURACY: SPEC: NA DEMON: NA SERVICE: RCP SEAL WATER DISCHARGE LOCATION: INSIDE CONTAINMENT	Operating Time	60 SECS.	7 DAYS	108	22	SIMULTANEOUS	NONE
	Temperature (°F)	328.2	330	102	22	"	"
	Pressure (PSIA)	29.1	104.7	103	22	"	"
	Relative Humidity (%)	100	100	102 103	22	"	"
	Chemical Spray	2000 PPMB 1.14% WT. BORIC ACID PH 8.5-11	2600 PPMB 1.5% WT. BORIC ACID PH 8.5-11	114	22 72	COMBINATION	NONE SEE REF # 72
	Radiation (10^6 rads)	0.8	SEE NOTE BELOW	105	See note below	ENG. Review	NONE SEE NOTE BELOW
	Aging (years)						
FLOOD LEVEL ELEV: 614' ABOVE FLOOD LEVEL: NO	Submergence	SUBMERGED	SEE REF 68	117	68	ENG. REVIEW	NONE SEE REF. # 68

217 V5

*Documentation References:

Notes: THIS VALVE CLOSES WITHIN 15SECS (TECH SPECS TABLE 3.6-1). OF RECEIVING A PHASE A CONTAINMENT ISOLATION SIGNAL THEREFORE IS NOT EXPOSED TO A RADIATION DOSE SIGNIFICANTLY BEYOND ITS NORMAL ENVIRONMENT AND DOES NOT REQUIRE RADIATION QUALIFICATION.

FORM EGQ #97-2

from Ref. 22. Qualified by Limitorque Corp. Test Laboratory
Project #600198. November 1968

Type of Test: simultaneous, steam
chemical spray
separate seismic test

Type Profile:

328°F, 90 psig for 1 hr
312°F, 70 psig for 2 hrs
287°F, 40 psig for 2 hrs
271°F, 20 psig for 19 hrs
250°F, 15 psig for 6 days

Chemical Spray:

1.5% boric acid buffered with Na OH to a PH of 7.67.

Seismic Test 8/20/79
Horizontal Force, 5.3 G at 35 Hz
Vertical force 5.3 G at 35 Hz
No resonance freq from 5 to 35 Hz

DONALD C. COOK NUCLEAR PLANT UNIT NO. 2 | DOCKET NO. 50-316 | LICENSE NO. DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: Various PLANT ID NO: Various COMPONENT: VALVE MOTOR OPERATOR MANUFACTURER: LIMITORQUE MODEL NUMBER: Various FUNCTION: Valve motor operators ACCURACY: SPEC: NA DEMON: NA SERVICE: Various LOCATION: OUTSIDE CONTAINMENT	Operating Time	1 DAY	16 DAYS	110	24	SEQUENTIAL	NONE
	Temperature (°F)	230	250	107	24	"	"
	Pressure (PSIA)	26.2	39.7	107	24	"	"
	Relative Humidity (%)	10.0	100	107	24	"	"
	Chemical Spray	NA	NA	NA	NA	NA	NA
	Radiation (10^6 rads)	4	20	106	24	SEQUENTIAL	NONE
	Aging (years)						
FLOOD LEVEL ELEV: NA ABOVE FLOOD LEVEL: NA	Submergence	NA	NA	NA	NA	NA	NA

25-32 V6
34-37 V6
39-42 V6
46-47 V6
52-53 V6
64-65 V6
67-70 V6
82-84 V6
91-93 V6
207-210 V6
215-216 V6

*Documentation References:

Notes:

Form EGQ #97-2

TEMPERATURE PROFILE

from Ref. 24

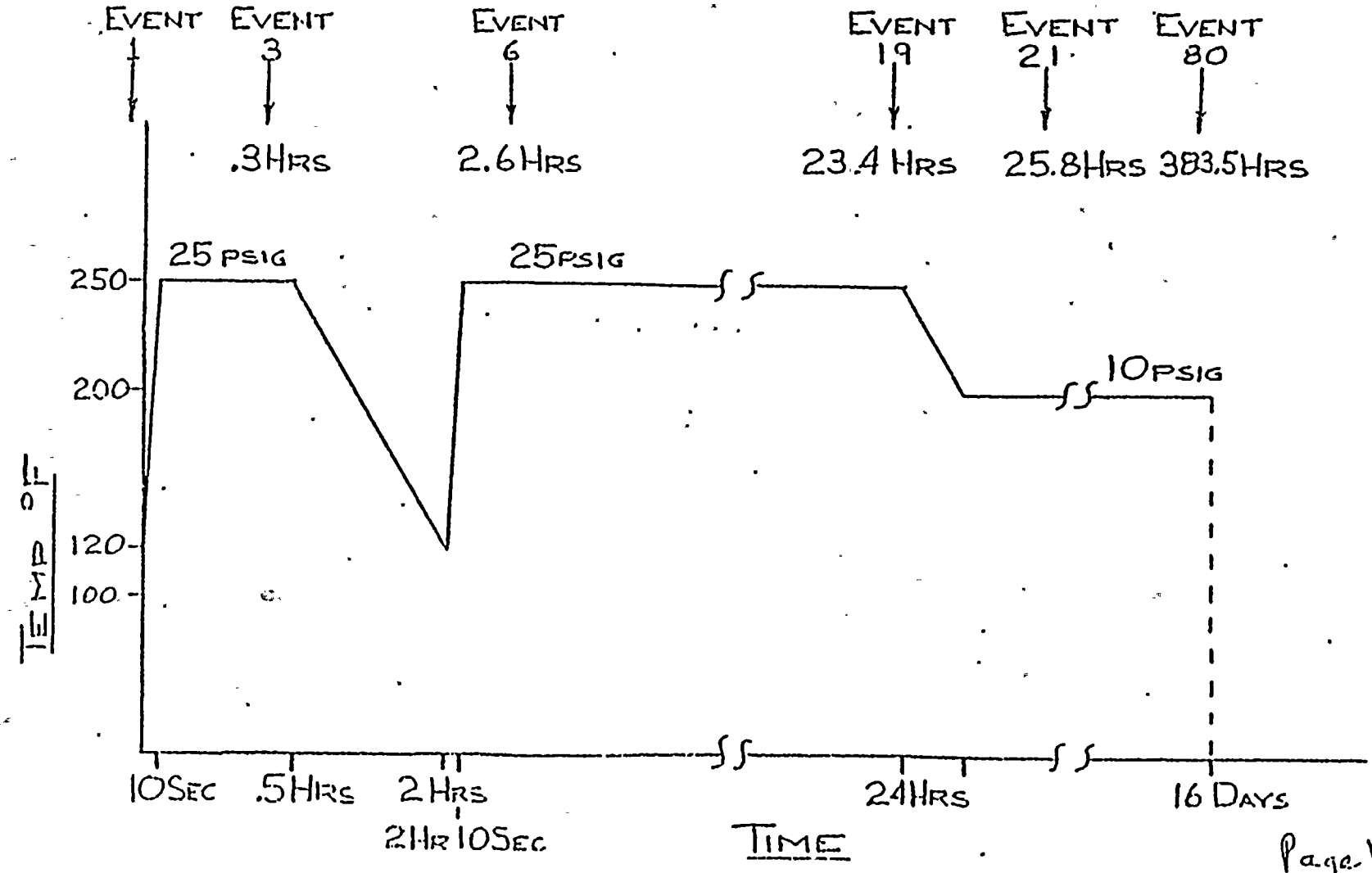


FIGURE 1

DONALD C. COOK NUCLEAR PLANT UNIT NO. 2 | DOCKET NO. 50-316 | LICENSE NO. DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: Various PLANT ID NO: Various COMPONENT: VALVE MOTOR OPERATOR MANUFACTURER: LIMITORQUE MODEL NUMBER: Various FUNCTION: Valve motor operators ACCURACY: SPEC: NA DEMON: NA SERVICE: Various LOCATION: OUTSIDE CONTAINMENT	Operating Time	1 DAY	30 DAYS	110	23	SEQUENTIAL	NONE
	Temperature (°F)	230	340	107	23	"	"
	Pressure (PSIA)	26.2	119.7	107	23	"	"
	Relative Humidity (%)	100	100	107	23	"	"
	Chemical Spray	NA	2600 PPMB 1.5% WT BORIC ACID PH 8.5-11	NA	23 72	COMBINATION	NA
	Radiation (10^6 rads)	4	204	106	23	SEQUENTIAL	NONE
	Aging (years)						
FLOOD LEVEL ELEV: NA ABOVE FLOOD LEVEL: NA	Submergence	NA	SUBMERGED	NA	23	SEQUENTIAL	NA

96-97V7
108-115V7

*Documentation References:

Notes:

Form EGQ #97-2

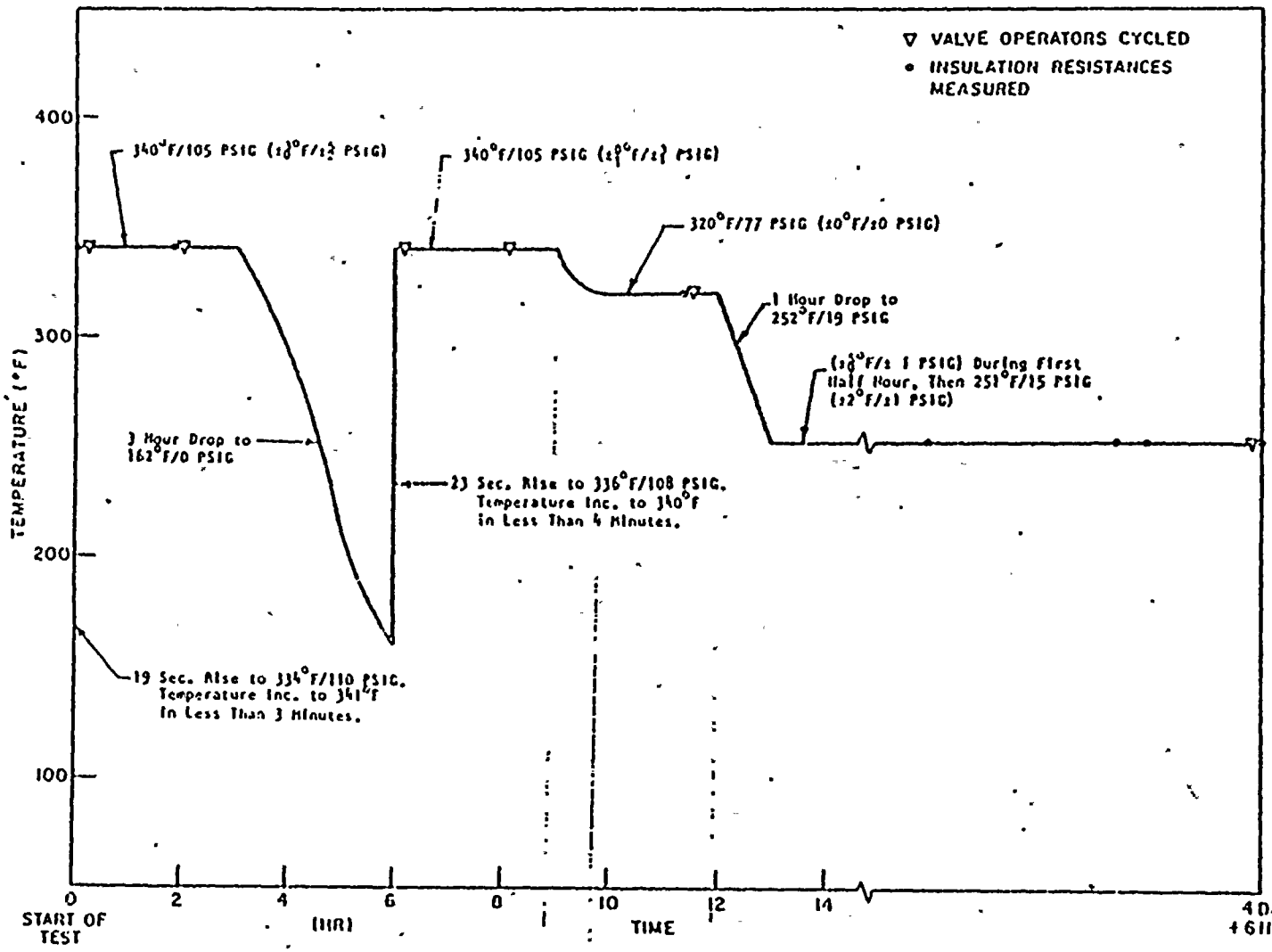


Figure 3. Actual Steam Exposure Profile

from Ref. 23

Page V7-2

DONALD C. COOK NUCLEAR PLANT UNIT NO. 2 DOCKET NO. 50-316 LICENSE NO. DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: PRESSURIZER PLANT ID NO: NMO-151, 152 AND 153 COMPONENT: VALVE MOTOR OPERATOR MANUFACTURER: LIMITORQUE MODEL NUMBER: SMB-000 FUNCTION: PRESSURIZER PORV BLOCK VALVE ACCURACY: SPEC: NA DEMON: NA SERVICE: PRESSURIZER RELIEF LINE LOCATION: INSIDE CONTAINMENT	Operating Time	14 DAY	16 DAYS	118	24	SEQUENTIAL	NONE
	Temperature (°F)	234	250	102	24	"	"
	Pressure (PSIA)	27.	39.7	103	24	"	"
	Relative Humidity (%)	100	100	102 103	24	"	"
	Chemical Spray	SEE NOTE BELOW	NA	116	NA	NA	NONE
	Radiation (10^6 rads)	7	20.	105	24	SEQUENTIAL	NONE
	Aging (years)						
FLOOD LEVEL ELEV: 614' ABOVE FLOOD LEVEL: YES	Submergence	NA	NA	NA	NA	NA	NA

229-231 V9.

*Documentation References:

Notes: VALVE LOCATION IS NOT SUBJECT TO DIRECT CAUSTIC SPRAY IMPINGEMENT AS PER MECH. INSTALLATION DRAWINGS. SEE REF. #116.

Form EGQ #97-2

TEMPERATURE PROFILE

from Ref. 24

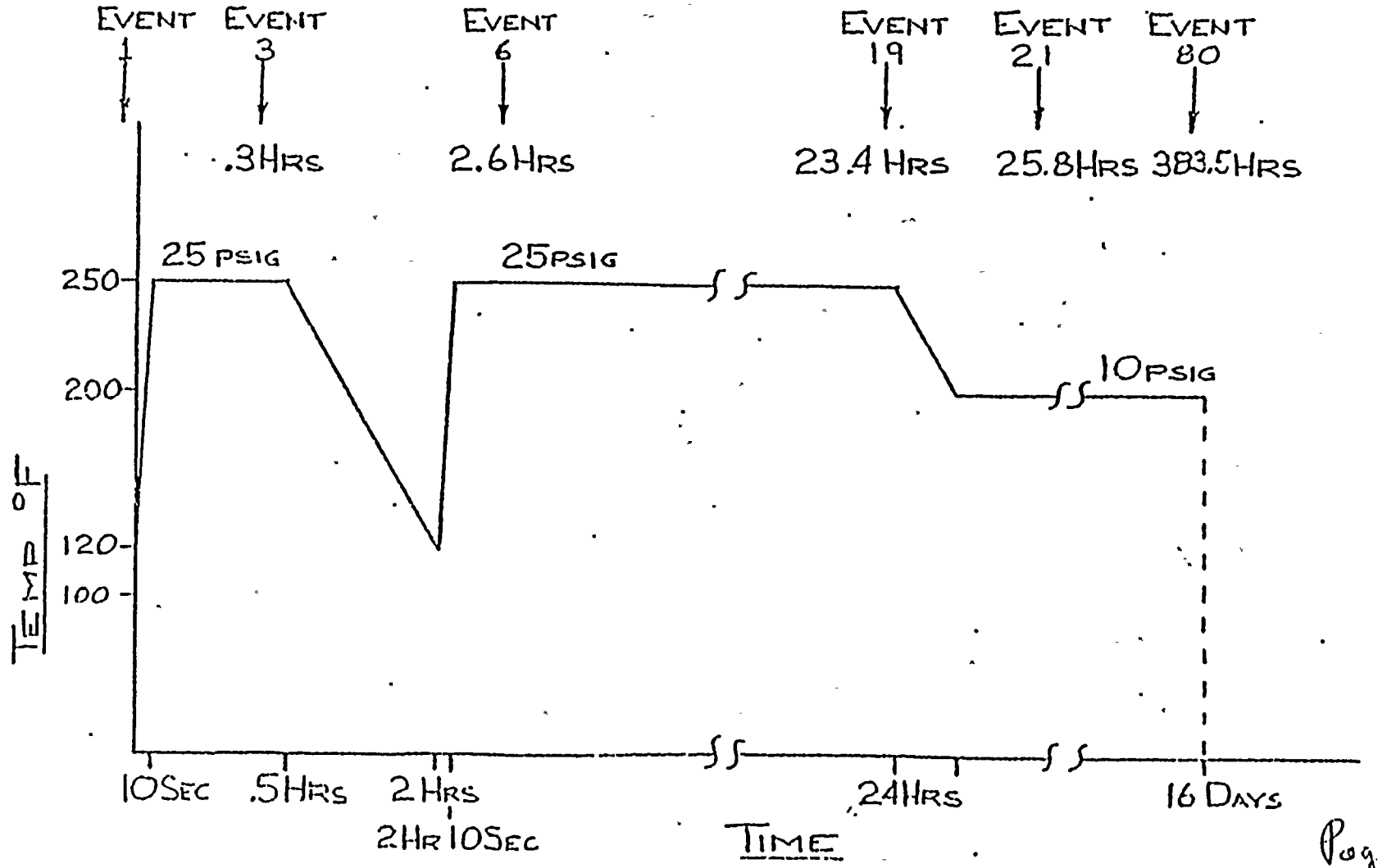


FIGURE 1

DONALD C. COOK NUCLEAR PLANT UNIT NO. 2 | DOCKET NO. 50-316 | LICENSE NO. DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: RESIDUAL HEAT REMOVAL PLANT ID NO: ICM-305, 306 COMPONENT: VALVE MOTOR OPERATOR MANUFACTURER: LIMITORQUE MODEL NUMBER: SMB-2 FUNCTION: LONG TERM POST ACCIDENT COOLING ACCURACY: SPEC: NA DEMON: NA SERVICE: RHR SUCTION FROM CONTAINMENT SUMP LOCATION: OUTSIDE CONTAINMENT	Operating Time	2HRS.	7 DAYS	118	22	SIMULTANEOUS	NONE
	Temperature (°F)	NA	330	NA	22	"	NA
	Pressure (PSIA)	NA	104.7	NA	22	"	NA
	Relative Humidity (%)	NA	100	NA	22	"	NA
	Chemical Spray	NA	2600 PPMB 1.5% WT. BORIC ACID PH 8.5-11	NA	22 72	COMBINATION	NA
	Radiation (10^6 rads)	0.2	SEE NOTE	106	SEE NOTE	SEE NOTE	NONE SEE NOTE BELOW
	Aging (years)						
FLOOD LEVEL ELEV: NA ABOVE FLOOD LEVEL: NA	Submergence	NA	NA	NA	NA	NA	NA

211-212 V10

*Documentation References:

Notes:

THESE ARE WESTING HOUSE SUPPLIED VALVE, INSULATION CLASS H, SPECIFIED FOR NUCLEAR SERVICE INSIDE CONTAINMENT. LIMIT SWITCH MATERIAL FOR THESE VALVES IS WHITE MELAMINE (RADIATION RESISTANT MATERIAL). VALVE OPERATOR IS LOCATED 5FT. FROM RADIATION SOURCE. 0.2×10^6 rads WAS DETERMINED FOR A DEVICE 2FT FROM RADIATION SOURCE

FORM EQ #97-2

Ref. 22. Qualified by Limitorque Corp. Test Laboratory
Project #600198. November 1968

Type of Test: simultaneous, steam
chemical spray
separate seismic test

Type Profile:

328°F, 90 psig for 1 hr
312°F, 70 psig for 2 hrs
287°F, 40 psig for 2 hrs
271°F, 20 psig for 19 hrs
250°F, 15 psig for 6 days

Chemical Spray:

1.5% boric acid buffered with Na OH to a PH of 7.67.

Seismic Test 8/20/79
Horizontal Force, 5.3 G at 35 Hz
Vertical force 5.3. G at 35 Hz
No resonance freq from 5 to 35 Hz

DONALD C. COOK NUCLEAR PLANT UNIT NO. 2 DOCKET NO. 50-316 LICENSE NO. DPR-74

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.*		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPEC.	QUAL.	SPEC.	QUAL.		
SYSTEM: RHR PLANT ID NO: VARIOUS COMPONENT: VALVE MOTOR OPERATOR MANUFACTURER: LIMITORQUE MODEL NUMBER: VARIOUS FUNCTION: LONG TERM RECIRCULATION ACCURACY: SPEC: NA DEMON: NA SERVICE: RESIDUAL HEAT REMOVAL LOCATION: OUTSIDE CONTAINMENT	Operating Time	1 DAY	16 DAYS	110	24	SEQUENTIAL	NONE
	Temperature (°F)	NA	250	NA	24	"	NA
	Pressure (PSIA)	NA	39.7	NA	24	"	NA
	Relative Humidity (%)	NA	100	NA	24	"	NA
	Chemical Spray	NA	NA	NA	NA	NA	NA
	Radiation (10^6 rads)	4	20	106	24 72	COMBINATION	NONE SEE REF#72
	Aging (years)						
FLOOD LEVEL ELEV: NA ABOVE FLOOD LEVEL: NA	Submergence	NA	NA	NA	NA	NA	NA

44-45
71-73
98-99
213-214

*Documentation References:

Notes:

Form EQ #97-2

TEMPERATURE PROFILE

from Ref. 24

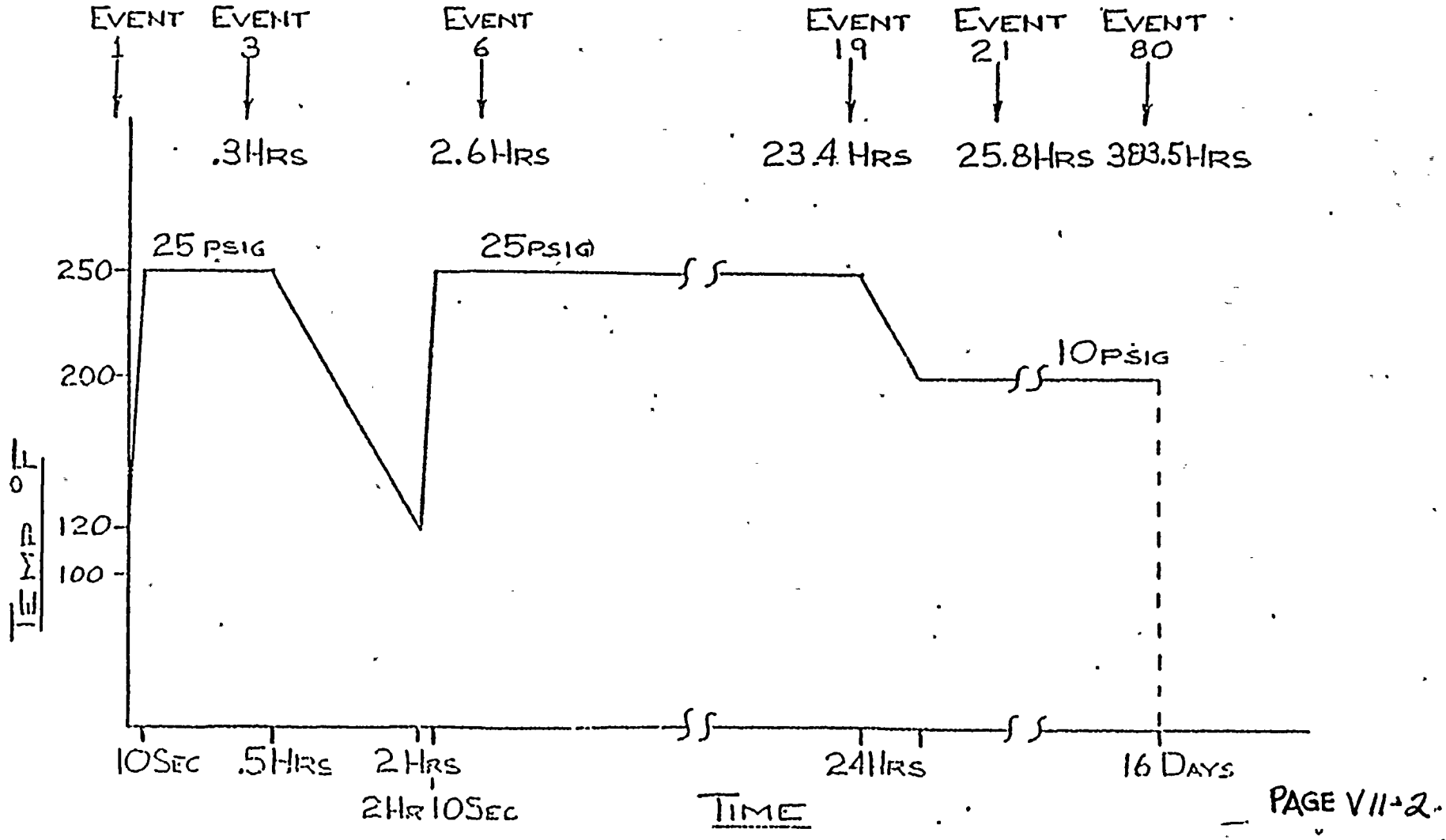
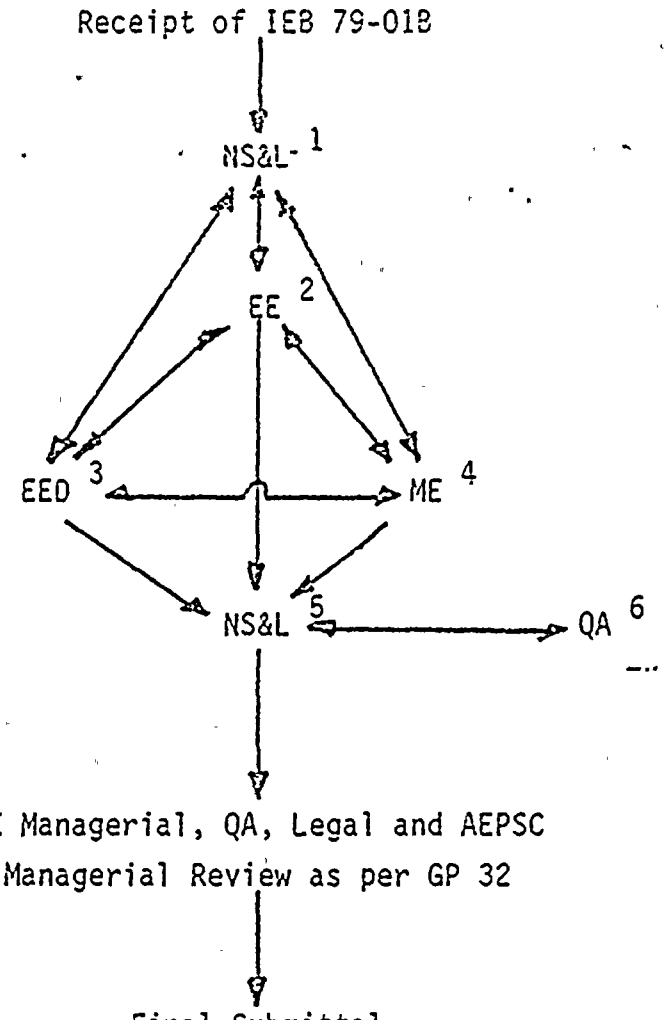


FIGURE 1

Attachment No. 6 to AEP:NRC:0578B
Donald C. Cook Nuclear Plant Unit Nos. 1 and 2
Response to NRC SER on IE Bulletin 79-01B
QA Procedures

It was indicated in the July, 1981 Washington meeting with the NRC that any quality Assurance Procedure used in the preparation of the IEB 79-01B response should be submitted to the staff for review. This attachment summarizes the process and the QA procedures employed.

AEP's response to IEB 79-01B was prepared in accordance with AEPSC General Procedure No. 32 and QA Procedure QAP 27I. Copies of these procedures are available for inspection at D. C. Cook Plant as well as in our central file. Information which was developed to be used as input to the submittal was assembled and reviewed according to the approach depicted in Figure 6.1. A brief outline of the coordination and review function performed in preparation of our response to presented in Table 6.1.



1. Nuclear Safety & Licensing involvement and interaction.
2. Electrical Engineering involvement and interaction.
3. Electrical Engineering Design involvement and interaction.
4. Mechanical Engineering involvement and interaction.
5. After receipt of final submittal section from cognizant groups, NS&L prepared the draft submittal package with the review and guidance of NE Management and QA.
6. QA involvement.

FIGURE 6.1

TABLE 6.1

ACTIONS IN PREPARATION OF RESPONSE TO IEB 79-01B

1. Upon receipt, NS&L Section Manager and cognizant engineers reviewed Bulletin for overall safety and licensing implications.

2. Preliminary assignment and copies of the Bulletin were issued.

3. The FSAR, IEB 79-01 and IEB 79-01B submittals, IEC 78-08 response and other relevant documents were reviewed for pertinent information.

4. A list of potentially affected equipment was compiled and distributed to the other engineering groups for their review, comments and use. The primary sources of information in this list preparation were Chapter 14, Appendices O (HELB Study) and Q of the FSAR, Cook Plant Emergency Operating Procedures and past licensing submittals.

5. Additional guidance was developed to define potentially affected areas at the Cook Plant and the postulated post accident environment at various locations including pressure, temperature, and radiation levels.

6. Specific radiation dose calculations were performed for particular equipment exposures.

7. Attendance of NRC Region III meetings on the topic of IEB 79-01B.

Attachment No. 7 to AEP: NRC:0578B
Donald C. Cook Nuclear Plant Unit Nos. 1 and 2
Response to NRC SER on IE Bulletin 79-01B
Aging

Section 7 of the DOR Guidelines states that, "the incremental improvement in safety from arbitrarily requiring that a specific qualified life be demonstrated for all Class IE equipment is not sufficient to justify the expense for plants already constructed and operating. This position does not, however, exclude equipment using materials that have been identified as being susceptible to significant degradation due to thermal and radiation aging. Component maintenance or replacement schedules should include considerations of the specific aging characteristics of the component materials. Ongoing programs should exist at the plant to review surveillance and maintenance records to assure that equipment which is exhibiting age related degradation will be identified and replaced as necessary".

Section 3.7 of the D. C. Cook Bulletin 79-01B Safety Evaluation Report (SER) of May, 1981 requires that we:

1. Make a detailed comparison of existing equipment and the materials identified in Appendix C of the DOR Guidelines. Identify any additional materials installed at the plant and evaluate it for aging degradation susceptibility.

2. Establish an ongoing program to review surveillance and maintenance records to identify potential age-related degradations.

3. Establish component maintenance and replacement schedules which include considerations of aging characteristics of the installed components.

We will be establishing a program to address the aging requirements for Cook Plant as follows:

1. Review applicable equipment qualification test reports for aging qualification test data. Where the test reports pre-aging information is inadequate, contact the equipment manufacturer for additional information on component materials, activation energies, etc.

2. For those devices for which no pre-aging conditioning was made before testing, identify the materials involved and compare them with the materials listed in Appendix C of the DOR Guidelines. Extrapolation of conservatism contained in the DBE testing can be translated into aging analysis by way of the Arrhenius techniques.

3. The existing plant surveillance and maintenance program will be modified to aid us in identifying potential equipment aging failures.

4. Based on the results obtained in paragraphs (1) and (2) above, and the experience gained through the program discussed in (3), establish an equipment replacement and/or maintenance schedule as needed.

Attachment No. 8 to AEP:NRC:0578B
Donald C. Cook Nuclear Plant Unit Nos. 1 and 2
Response to NRC SER on IE Bulletin 79-01B
Disabling Single-Component Failure of CSS

A malfunction analysis and other information which demonstrate independence of the redundant spray trains has previously been provided to the NRC Staff as stated in the Safety Evaluation Report (SER) for the Donald C. Cook Nuclear Plant, Unit Nos. 1 and 2 issued on September 10, 1973. This malfunction analysis and other information previously supplied to the NRC Staff is a verification that the Containment Spray System is not subject to a disabling single-component failure. In addition, the LOTIC code was used to demonstrate the ability of one spray train to maintain the containment pressure below design pressure for the design basis accident. After reviewing the containment pressure and temperature response calculated by the LOTIC code, it was concluded by the NRC Staff in the SER that the design of the containment heat removal systems is acceptable in providing adequate cooling to the containment following the postulated LOCA.

Attachment No. 9 to AEP:NRC:0578B
Donald C. Cook Nuclear Plant Unit Nos. 1 and 2
Response to NRC SER on IE Bulletin 79-01B
Upper Compartment Temperature

Contrary to what is stated in Section 3.3 of the NRC Equipment Qualification Safety Evaluation Report, the maximum upper compartment temperature is not 130°F.

The worst-case temperature transients for a MSLB are given in our response to question 022.9 in FSAR Appendix Q. The peak upper compartment temperature is approximately 150°F.

The worst-case temperature transients for a LOCA are given in Figures 13.13-1 and 13.13-2 of FSAR Appendix N. The peak upper compartment temperature from Figure 13.13.2 is approximately 150°F. This value is higher than the 130°F given in the NRC SER as the maximum temperature.

In response to an NRC question during a telephone conversation on this topic, the analyses of the containment response to LOCAs and MSLBs did account for operation of the air return fans.

Attachment No. 10 to AEP:NRC:0578B
Donald C. Cook Nuclear Plant Unit Nos. 1 and 2
Response to NRC SER on IE Bulletin 79-01B
Submergence

Flooding of Equipment Outside Containment

The potential for flooding of vital safety equipment located outside containment is addressed in our response to Question 13.1 in the PSAR and our responses to Questions 2.2, 2.23 and 2.24 of the Plant's FSAR. The above responses considered sources of flooding both internal and external to the auxiliary building. The conclusions of our responses are: the worst-case external source (a 23 foot wave) or the worst-case internal source (large rupture of an ESW pipe) would not threaten vital safety equipment. Credit is taken for operator action to isolate the ruptured ESW pipe approximately twenty minutes after the break.

Attachment No. 11 to AEP:NRC:0578B
Donald C. Cook Nuclear Plant Unit Nos. 1 and 2
Response to NRC SER on IE Bulletin 79-01B
Master List of Major Equipment

MASTER LIST NOTES

1. Same equipment or sub-set of equipment noted under ESS actuation.

2. Same equipment noted under Containment isolation Phase B actuation.

3. Abbreviated as ESS Actuation.

4. Coincident with Reactor Trip.

5. Same equipment or sub-set of equipment noted under Main Feedwater isolation actuation.

6. Generates signal equivalent to Turbine load for permissive actuation of Reactor Trip logic.

7. Abbreviated as SGSV.

8. Same equipment or sub-set of equipment noted under Reactor Trip for LOCA/HELB cases.

9. Equipment located inside containment is only items required or affected by LOCA/HELB except for SGSV, Main Feedwater Regulating Valves and Main Steam Relief Valves as noted.

10. Same equipment or sub-set of equipment noted under ECCS.

11. No credit allowed by FSAR Chapter 14 accident analysis; however NUREG 0578 required equipment to retain capability to function.

12. Same equipment or sub-set of equipment noted under Post Accident Monitoring.

13. Turbine Driven Auxiliary Feedwater pump abbreviated as TDAFP.

14. Motor Driven Auxiliary Feedwater Pump abbreviated as MDAFP.

15. The auxiliary feedwater system has undergone modifications, as described in our submittals dated August 9, 1979 (AEP:NRC:00176), December 7, 1979 (AEP:NRC:00307), December 11, 1979 (AEP:NRC:00300) and December 20, 1979 (AEP:NRC:00300A). The attachments to this letter are based on the post modification design of this system.

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58

(3) SYSTEM ENGINEERED SAFEGUARDS (ESS) AND CONTAINMENT PHASE-A ISOLATION; ACTUATION

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
MFC-110, 120, 130, 140 MFC-111, 121, 131, 141	MAIN STEAM FLOW	X		I12	
MPP-210, 211, 212 MPP-220, 221, 222	MAIN STEAM PRESSURE		X	I14 I15	
MPP-230, 231, 232 MPP-240, 241, 242			X	I14 I15	
NTP-111, 121, 131, 141 NTP-211, 221, 231, 241	NARROW RANGE RCS TEMPERATURE	X		I25 I26	
NPP-151, 152, 153	PRESSURIZER PRESSURE	X		I19 I20 I21	
PPP-300, 301, 302	CONTAINMENT PRESSURE		X	I29	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM ESSENTIAL SERVICE WATER (ESW)

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
PP-007E & PP-007W (CONTROL & POWER ONLY)	EAST & WEST ESW PUMPS' MOTORS (CABLES ONLY)		X	NA	cable not in adverse environ.
WMO-711, 713 WMO-715, 717	ESW VALVES TO AND FROM CTS' HEAT EXCH'S.		X	V6	
WMO-721, 723 WMO-725, 727	ESW VALVES TO DIESEL ENGINES' AIR AFTER COOLERS		X	V6	
~~WPS 705, 701~~	~~ESW PUMPS' DISCHARGE HEADER PRESSURE (SIG. & SUPPLY ONLY).~~		X	~~E-32~~	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

(3) SYSTEM ENGINEERED SAFEGUARDS (ESS) AND CONTAINMENT PHASE "A" ISOLATION: ACTUATION

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
MPP-210, 211, 212 MPP-220, 221, 222	MAIN STEAM		X	I 15 I 16	
MPP-230, 231, 232 MPP-240, 241, 242	PRESSURE		X	I 15 I 16	
NPP 151, 152, 153	PRESSURIZER PRESSURE	X		I 20 I 21 I 22	
PPP-300, 301, 302	CONTAINMENT PRESSURE		X	I 29	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74
SYSTEM POST ACCIDENT MONITORING

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
PPP-300, 301 PPP-302, 303	CONTAINMENT PRESSURE		X	I 29 I 30	
NTR-110, 120, 130, 140 NTR-210, 220, 230, 240	WIDE RANGE RCS TEMPERATURE	X		I 28	
NPS-121, NPS-122	WIDE RANGE RCS PRESSURE	X		I 23 I 24	
NLP-151, 152, 153	PRESSURIZER LEVEL	X		I 19	
MPP-210, 211, 212 MPP-220, 221, 222	MAIN STEAM		X	I 15 I 16	
MPP-230, 231, 232 MPP-240, 241, 242	PRESSURE		X	I 15 I 16	
BLP-110, 111, 112 BLP-120, 121, 122	NARROW RANGE STEAM	X		I 1 I 2	
BLP-130, 131, 132 BLP-140, 141, 142	GENERATOR LEVEL	X		I 1 I —	
ILS-950, 951	RWST LEVEL (SIGNAL & SUPPLY LINES ONLY)		X	C = I C = 6 C = 2	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM ESSENTIAL SERVICE WATER (ESW)

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
PP-007E; PP-007W (CONTROL POWER ONLY)	EAST & WEST ESW PUMPS' MOTORS (CABLES ONLY)		X	NA	Cable not in adverse environ.
WMO-712, 714 WMO-716, 718	ESW VALVES TO AND FROM CTS HEAT EXCH'S		X	V6	
WMO-722, 724 WMO-726, 728	ESW VALVES TO DIESEL ENGINES' AIR AFTER-COOLERS		X	V6	
~~WPS-706, WPS-702~~	~~ESW PUMPS DISCHARGE HEADER PRESSURE GAS. SUPPLY VALVE~~		X	~~V6~~	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1 & 2
DOCKETS No. 50-315 & 50-316, LICENSES No. DRR-58 & DPR-74

SYSTEM CONTAINMENT PHASE - "B" ISOLATION AND CONTAINMENT SPRAY ACTUATION

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
PPP-300, 301 PPP-302, 303	CONTAINMENT PRESSURE		X	I 29 I 30	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1 & 2
DOCKETS No. 50-315 & 50-316, LICENSES No. DRR-58 & DPR-74

SYSTEM CONTAINMENT VENTILATION ISOLATION: ACTUATION

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
SEE PAGES 2 & 4	ESS ACTUATION	SEE	PAGES	2 & 4	
VRC-302 (R-2)	CONTAINMENT AREA RADIATION		X	I 31	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1 & 2
DOCKETS No. 50-315 & 50-316, LICENSES No. DRR-58 & DPR-74

SYSTEM MAIN STEAM ISOLATION ACTUATION

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
MFC-110, 120, 130, 140 MFC-111, 121, 131, 141	MAIN STEAM FLOW (1)	X		I12 I13	
MPP-212, 222, 232, 242	MAIN STEAM PRESSURE (1)		X	I15 I16	
NTP-111, 121, 131, 141 NTP-211, 221, 231, 241	NARROW RANGE RCS TEMPERATE (1)	X		I25 I26	
PPP-300, 301 PPP-302, 303	CONTAINMENT PRESSURE (2)		X	I29 I30	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1 & 2
DOCKETS No. 50-315 & 50-316, LICENSES No. DRR-58 & DPR-74
SYSTEM CONTROL ROOM HABITABILITY: ACTUATION

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
SEE PAGES 2 & 4	ESS ACTUATION	SEE PAGES 2 & 4			

DONALD C. COOK NUCLEAR PLANT UNIT No. 1 & 2
DOCKETS No. 50-315 & 50-316, LICENSES No. DRR-58 & DPR-74

SYSTEM MAIN FEEDWATER ISOLATION: ACTUATION

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
SEE PAGES 2 & 4	ESS ACTUATION	SEE PAGES 2 & 4			
BLP-110, 111, 112 BLP-120, 121, 122	NARROW RANGE STEAM GENERATOR LEVEL (8)	X		I1 I2	
BLP-130, 131, 132 BLP-140, 141, 142		X		I1 I2	
NTP-111, 121, 131, 141 NTP-211, 221, 231, 241	NARROW RANGE RCS TEMPERATURE (5)(1)	X		I25 I26	
SEE PAGE 12	REACTOR TRIP	SEE PAGE 12			

DONALD C. COOK NUCLEAR PLANT UNIT No. 1 & 2
DOCKETS No. 50-315 & 50-316, LICENSES No. DRR-58 & DPR-74

SYSTEM REACTOR TRIP: ACTUATION (LOCA/HELB)

PLANT ID No.	GENERIC NAME	LOCATION INSIDE CONT.	LOCATION OUTSIDE CONT.	EQUIP QUAL. CHART REF.	
SEE PAGES 2 & 4	ESS ACTUATION	SEE PAGES 2 & 4			
NLP-151, 152, 153	PRESSURIZER LEVEL	X		I 18 I 19	
BLP-110, 111, 112 BLP-120, 121, 122	NARROW RANGE STEAM GENERATOR LEVEL	X		I 1 I 2	
BLP-130, 131, 132 BLP-140, 141, 142		X		I 1 I 2	
MFC-110, 120, 130, 140 MFC-111, 121, 131, 141	MAIN STEAM FLOW (1)	X		I 12 I 13	
MPP-210, 220, 230, 240 MPP-211, 221, 231, 241	MAIN STEAM PRESSURE (1)		X	I 14 I 15	
FFC-210, 220, 230, 240 FFC-211, 221, 231, 241	MAIN FEED WATER FLOW		X	I 3 I 4	
NTP-111, 121, 131, 141 NTP-211, 221, 231, 241	NARROW RANGE RCS TEMPERATURE (1)	X		I 25 I 26	
N-41A/41B, 42A/42B N-43A/43B, 44A/44B	POWER RANGE NEUTRON FLUX	X		I 17 I 18	
N-35, N-36	INTERMEDIATE RANGE NETRON FLUX	X		I 16 I 17	
MPC-253, MPC-254	FIRST STAGE (6) TURBINE PRESSURE		X	I 13 I 14	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1 & 2
DOCKETS No. 50-315 & 50-316, LICENSES No. DRR-58 & DPR-74

SYSTEM MAIN STEAM

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
MRV-210, 220 MRV-230, 240	STEAM GENERATOR STOP VALVES (5)		X	S5	
MRV-211, 221, 231, 241 MRV-212, 222, 232, 242	S.G. S.V. DUMP VALVES		X	S6 S7	
MRV-213, 223 MRV-233, 243	MAIN STEAM RELIEF VALVES		X	S8 S9	
MCM-221 MCM-231	STEAM SUPPLY TO AUX. F.W. TURBINE		X	V6	
MFC-110, 120, 130, 140 MFC-111, 121, 131, 141	MAIN STEAM FLOW (1)	X		I12 I13	
MPP-210, 211, 212 MPP-220, 221, 222	MAIN STEAM PRESSURE (1)		X	I14 I15 I16	
MPP-230, 231, 232 MPP-240, 241, 242			X	I14 I15 I16	
MPC-253, MPC-254	FIRST STAGE (5) TURBINE PRESSURE		X	I13 I14	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1 & 2
DOCKETS No. 50-315 & 50-316, LICENSES No. DRR-58 & DPR-74

SYSTEM MAIN FEEDWATER

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
~~FMO-201, 202~~ ~~FMO-203, 204~~	~~MAIN FEEDWATER STOP VALVE~~		X	~~V3~~	
FRV-210, 220 FRV-230, 240	MAIN FEEDWATER REGULATING VALVE		X	S1 S2 S3	
BLP-110, 111, 112 BLP-120, 121, 122	NARROW RANGE (5) STEAM GENERATOR LEVEL	X		I1 I2	
BLP-130, 131, 132 BLP-140, 141, 142		X		I1 I2	
FFC-210, 220, 230, 240 FFC-211, 221, 231, 241	MAIN FEEDWATER (3) FLOW		X	I3 I4	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1 & 2
DOCKETS No. 50-315 & 50-316, LICENSES No. DRR-58 & DPR-74

SYSTEM REMOTE SHUT-DOWN MONITORING

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
NPP-151, 152, 153 ①	PRESSURIZER PRESSURE	X		I 19 I 20 I 21 I 22	
NPS-153 ⑧		X		I 24 I 25	
NLP-151, 152, 153	PRESSURIZER LEVEL ⑧	X		I 18 I 19	
MPP-210, 211, 212 MPP-220, 221, 222	MAIN STEAM PRESSURE ①		X	I 14 I 15 I 16	
MPP-230, 231, 232 MPP-240, 241, 242			X	I 14 I 15 I 16	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1 & 2
DOCKETS No. 50-315 & 50-316, LICENSES No. DRR-58 & DPR-74

(9) SYSTEM CONTAINMENT ISOLATION (LOCA/HELB)

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
QCM-250	RCP SEAL WATER RETURN VALVE	X		V5	
ICM-111 ICM-129	RHR NORMAL COOL-DOWN VALVES	X		V1	
ICM-305 ICM-306	RECIRCULATION PHASE SUCTION VA's	(10) (AN EXT.)	X	V10	
VCR-011 VCR-021	ICE CONDENSER REFRIGERANT SUPPLY VA's	X		S17 S12	
VCR-101	INSTRUMENT ROOM PURGE SUPPLY VA.	X		S13 S17	
VCR-102	INSTRUMENT ROOM PURGE EXHAUST VA.	X		S13 S17	
VCR-103 VCR-105	CONTAINMENT PURGE SUPPLY VA's	X		S14 S17	
VCR-104 VCR-106	CONTAINMENT PURGE EXHAUST VA.'s	X		S15 S17	
VCR-107	CONTAINMENT PRESSURE RELIEF EXHAUST VA.	X		S16 S17	
MRV-210, 220 MRV-230, 240	STEAM GENERATOR STOP VALVES		X	S5	
MRV-213 223 MRV-233 243	MAIN STEAM RELIEF VALVES		X	S8 S?	
FRV-210, 220 FRV-230, 240	MAIN FEEDWATER REGULATING VA's		X	S11 S12	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1 & 2
DOCKETS No. 50-315 & 50-316, LICENSES No. DRR-58 & DPR-74

SYSTEM REACTOR COOLANT (RCS)

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
NTP-111, 121, 131, 141 NTP-211, 221, 231, 241	NARROW RANGE (1) RCS TEMPERATURE	X		I 25 I 26	
NTP-110, 120, 130, 140 NTP-210, 220, 230, 240	IN-PLACE SPARES FOR NARROW RANGE RCS TEMPERATURE	X		I 27	
NTR-110, 120, 130, 140 NTR-210, 220, 230, 240	WIDE RANGE (12) RCS TEMPERATURE	X		I 28	
NPS-121, NPS-122	WIDE RANGE (12) RCS PRESSURE	X		I 22 I 23	
NPP-151, 152, 153 (1)	PRESSURIZER PRESSURE	X		I 19 I 20 I 21 I 22	
NPS-153		X		I 24 I 25	
NLP-151, 152, 153	PRESSURIZER LEVEL (8)	X		I 18 I 19	
NRV-151, 152, 153	PRESSURIZER RELIEF VALVES (11)	X		S 10 S 11	
NMO-151, 152, 153	PRESSURIZER RELIEF VALVES' BLOCK VALVES (11)	X		V 9	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1 & 2
DOCKETS No. 50-315 & 50-316, LICENSES No. DRR-58 & DPR-74

SYSTEM CONTAINMENT SPRAY (CTS)

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
PP-009 EAST PP-009 WEST	CONTAINMENT SPRAY PUMPS' MOTORS		X	M2	
IMO-215 IMO-225 (VALVES)	CTS PUMP SUCTION FROM R.W.S.T.		X	V7	
IMO-210, 211 IMO-220, 221	CTS PUMP DISCHARGE VALVES		X	V7	
IMO-212 IMO-222	MOTIVE WATER SUPPLY VALVES FOR EDUCTOR	-	X	V7	
ILS-950 ILS-951	REFUELING WATER STORAGE TANK LEVEL (SEE ECCS)		X	[illegible]	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1 & 2
DOCKETS No. 50-315 & 50-316, LICENSES No. DRR-58 & DPR-74
SYSTEM AUXILIARY FEEDWATER (AFW) (15)

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
FMO-211, 221 FMO-231, 241	T.D.A.F.P. DISCHARGE TO STM. GEN'S (13)		X	V6	
FMO-212, 222 FMO-232, 242	M.D.A.F.P. DISCHARGE TO STM. GEN'S. (14)		X	V6	
FFI-210, 220 FFI-230, 240	AUX FEEDWATER FLOW TO STM. GEN'S.		X	I4 I5	
CLR-110 CLR-111	CONDENSATE STORAGE TANK LEVEL. (SENSING LINE ONLY)		X	I2 I3	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1 & 2
DOCKETS No. 50-315 & 50-316, LICENSES No. DRR-58 & DPR-74

SYSTEM COMPONENT COOLING WATER (CCW)

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
CMO- 419 CMO- 429	RHR HEAT EXCHANGERS' CCW DISCHARGE VALVES		X	V6	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1 & 2
DOCKETS No. 50-315 & 50-316, LICENSES No. DRR-58 & DPR-74

SYSTEM EMERGENCY CORE COOLING

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
PP-035E PP-035W	EAST & WEST R.H.R. PUMPS' MOTORS. (LOW PRESS. INJ.)		X	M1	
PP-026N PP-026S	NORTH & SOUTH SAFETY INJECTION PUMPS' MOTORS (INTERMED. PRESS. INJ.)		X	M1	
PP-050E PP-050W	EAST & WEST CENTRIFUGAL CHARGING PUMPS' MOTORS (HIGH PRESS. INJECTION)		X	M1	
PART OF PP-050E & PP-050W	CENT. CHGING PUMPS' LUBE OIL PUMPS		X	See Master List No. 2	
IMO-310 IMO-320	RHR PUMPS SUCTION VALVES FROM RWST.	-	X	V6	
IMO-314 IMO-324	RHR PUMPS DISCHARGE CROSS-TIE VALVES		X	V6	
IMO-316 IMO-326	RHR INJECTION TO RCS COLD LEGS VALVES	X		V2	
IMO-315 IMO-325	RHR INJECTION TO RCS HOT LEGS VALVES	X		V2	
ICM-305 ICM-306	RECIRCULATION PHASE SUCTION VALVES	(10) (IN EXT.)		V10	
IMO-312 IMO-322	RHR PUMP MINI-FLOW LINE VALVES		X	V6	
ICM-311 ICM-321	RHR HEAT EXCHANGERS TO RCS HOT LEGS VALVES			V8	
IMO-261	S.I. PUMPS SUCTION FROM R.W.S.T. VALVE		X	V8	
IMO-270 IMO-275	S.I. PUMPS DISCHARGE CROSS-TIE VALVES		X	V6	
ICM-260 ICM-265	S.I. INJECTION VALVES TO RCS COLD LEGS		X	16	
IMO-262 IMO-263	S.I. PUMP MINI-FLOW TO RWST VALVES		X	V6	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1 & 2
DOCKETS No. 50-315 & 50-316, LICENSES No. DRR-58 & DPR-74

SYSTEM EMERGENCY CORE COOLING

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
IMO-910 IMO-911	CHARGING PUMP SUCTION FROM RWST		X	V8	Not in HELB environ. and not rq'd to function after CT recirc. starts
QMO-451 QMO-452	CHARGING PUMP SUCTION FROM VOLUME CONTROL TANK VALVES		X	NA	
QMO-225 QMO-226	CHARGING PUMP MINI-FLOW TO RWST VALVES		X	V6	
IMO-255 IMO-256	BORON INJECTION TANK (BIT) INLET VALVES		X	V6	
ICM-250 ICM-251	BIT DISCHARGE VALVES		X	V6	
IMO-051, 052 IMO-053, 054.	HI PRESS. BORON INJ. TO RCS COLD LEGS VALVES	X		V1	
ILS-950, ILS-951	RWST LEVEL (SIG & SUPPLY ONLY)		X	[illegible]	
IFI-310, 311 IFI-320, 321	RHR PUMP FLOW (AFTER HEAT EXCH'S)		X	I10 I11 I12	
IFC-315 IFC-325	RHR PUMP MINI-FLOW: FLOW CONTROLLER		X	I5 I6	
IFI-260 IFI-266	S.I. PUMP DISCH. FLOW INDICATOR		X	I9 I10	
IFI-051, 052 IFI-053, 054.	B.I.T. FLOW TO RCS COLD LEGS	X		[illegible]	
IMO-340	CENTRIFIGUAL CHARGING PUMP SUCTION FROM RHR VALVE		X	V3	
IMO-360, 361, 362	CROSSTIE VALVES BETWEEN CENTRIFIGUAL CHARGING & SI PUMPS SUCTION		X	V3	
IMO-350	SI PUMPS SUCTION VALVE FROM RHR		X	V3	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1 & 2
DOCKETS No. 50-315 & 50-316, LICENSES No. DRR-58 & DPR-74

SYSTEM HYDROGEN CONTROL

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
HV-CEQ-1 HV-CEQ-2	AIR RECIRCULATION / HYDROGEN SKIMMER FANS	X		F1	
VMO-101 VMO-102	SUCTION VALVES FOR HV-CEQ-1, -2	X		V4	
HR-1 HR-2	HYDROGEN RECOMBINERS	X		H1	

Attachment No. 14 to AEP:NRC:0578B
Donald C. Cook Nuclear Plant Unit Nos. 1 and 2
Response to NRC SER on IE Bulletin 79-01B
Reference Lists

Document References Cited in IE Bulletin 79-01B

1. Conax Corp. Test Report IPS-234
2. Conax Corp. Test Report IPS-62
3. Conax Corp. Test Report IPS-137
4. Conax Corp. Analysis Report IPS-324
5. FIRL Test Report F-C3341
6. FIRL Test Report F-C3694
7. Kerite Co. Report on the effects of Gamma Rad. and Autoclaving on Kerite power and control cables
8. Conax Corp. Test Report IPS-348
9. FIRL Test Report F-C4033-1
10. FIRL Test Report F-C3683
11. Isomedix Corp. Test Report of May, 1976
12. Cerro Wire and Cable Test Report of May, 1976
13. Westinghouse-Canada Test Report CWAPD-332
14. FIRL Test Report F-C4033-3
15. Westinghouse-Canada Test Report CWAPD-326
16. Limitorque Corp. Test Lab. Project #600456
17. Conax Corp. Test Report IPS-326
18. Conax Corp. Test Report IPS-327
19. Conax Corp. Test Report IPS-329
20. Westinghouse Corp. Test Report WCAP-7709-L, Suppl. 2
21. Westinghouse Corp. Test Report WCAP-7829
22. Limitorque Corp. Test Report #600198
23. Limitorque Corp. Test Report #600376A
24. Limitorque Corp. Test Report #600461
25. Isomedix Corp. Test Report of November, 1975

26. Foxboro Test Report TE-1013

27. Westinghouse Electric Corp. Communication NS-PLC 5023 dated 4/26/78 from T. M. Anderson - Westinghouse to E. G. Case - NRC

28. Westinghouse Electric Corp. Test Report WCAP-9157

29. Automatic Switch Co. Report AOS 21678/TR

30. Westinghouse Electric Corp. Communication NS-TMA-1959

31. Boston Insulated Wire Test No. 730212

32. Boston Insulated Wire Test No. 75C008

33. FIRL Test Report F-C-2935, Excerpt from

34. Rockbestos Products: Qual. of Firewall III Class IE Electric Cables

35. FIRL Test Report F-C 3016

36. FIRL Test Report F-C 4350-3

37. Okonite Co. Qual. of Okoguard Ethylene-Propylene Rubber Insulation for Nuclear Plant Service (5-2-77)

38. Cyprus Statement of 6-16-76

39. Cyprus Statement of 9-14-76

40. Cyprus Report No. 3525

41. Cyprus Report No. 3658

42. Cyprus Statement of 6-16-76

43. Qual. of Namco Controls Limit Switch

44. FIRL Test Report F-C 3271

45. Conax Test Report IPS-339

46. Conax Test Report IPS-349

47. Letter of 6-21-71 from W. P. Hergrueter, Customer Service Lab. Bklyn., N. Y. to A. H. Statton, Boston Edison Co.

48. Letter of 4-17-80 from J. M. Allen (Mobil Oil Corp.) to Allen Feibleman (MEP)

49. Okonite Co. Qual. of Okonite Ethylene-Propylene Rubber Insulation for Nuclear Plant Service 7-3-78

50. Westinghouse Corp.WCAP 8541 Topical Report, Environmental Testing of Foxboro Transmitters

51. ITT/Barton Product Bulletin 288A/289-2 and Technical Manual 505-4 (A)

52. ITT/Barton Product/Bulletin GI-23-3

53. ITT/Barton Product/Bulletin GS-2A-ICIE

54. Foxboro Product Spec. PSS-2A-1B3A

55. Westinghouse Corp. Spec. 677271

56. Fisher Control Co. Oper. Test of Fisher Type 546 Electro Pneumatic Transducer

57. Auto Switch Co. Catalog No. 30 Bulletin 8300, 8302, 8315

58. Auto Switch Co. Catalog No. 30 Bulletin 8316

59. AEPSC NS&L Calculation DC-N-6420-2

60. Elect. Penetration Analysis

61. Flood-up Tube Qualification Packet

62. Instr. Cable Term Qual.

63. Required Time Qual. Analysis

64. Containment Spray Pump Motor

65. Environmental Qual. Class IE cable for outside containment service.

66. Westinghouse Electric Corp. Communications NS-TMA-2120

67. Westinghouse Electric Corp. Communications NS_TMA-2441 WCAP 9885.

68. Electrical Cable Submergence Qualification

69. Acton Test Report 16013-2 of July 6, 1981

70. Letter of 4/18/80 From Robert Henry of Kerite to L. F. Caso-AEP

71. Conax Corp. IPS-325

72. Chemical Spray pH Qualification

73. EC P1-2-00-04 Arrhenius Calc. on Barton Transmitters

74. Outside containment valves with brakes qualified for Radiation

75. IPS-409

Specified Environment Document References

EE Division

Ref. No.	Parameter	Documentation Reference	Device Designation
102	Temperature	FSAR App. N Fig. N13.13-1 N13.13-2	Elect. penetrations Hydrogen Recomb. IMO-315 316,325,326 VMO-101,102 QCM-250
102	Temperature	FSAR App. Q Figs. 022.9-1,-2	Air Recirc. Fan NRV valve L. Sw's. IMO-51, 52,53,54 IMO-128 ICM-111,129 NMO-151,152,153
103	Pressure	Westinghouse Letter AEW 6504, Fig. 1&2	Elec. Pen. Hydr. Recomb. Air Recirc. fan. IMO-51,52,53,54 IMO-128 ICM-111,129
103	Pressure	W Letter AEW 6504 Figs 1&2	IMO-315,316,325 326 VMO-101,102 QCM-250 NMO-151,152,153
103	Pressure	FSAR App. N Fig. 13.8	NRV L. SW's.
104	Chemical Spray	FSAR Fig. N-5.3.6	NRV L. SW's
105	Radiation	NS&L Revised calculation SF Merger AEP-NRC-0578 Dated 10/6/81	All inside containment equipment
106	Radiation	Letter of 12/16/81 from: C. Ramjohn to: S. M. Toth	All outside containment equipment

Ref. No.	Parameter	Documentation Reference	Device Designation
107	Temperature Pressure	FSAR App. "O" Fig. 0-27	All outside containment equipment
108	Required Operating Time	Letter of 1/20/82 From: K. Vehstedt To: L. F. Caso	VMO-101,102 QCM-250
109	Required Operating Time	FSAR Table 7.5-2	Electrical Penetrations Hydrogen Recombiner Air Recirc. Fan motors IMO-51,52,53,54 IMO-128 ICM-111,129
110	Required Operating Time	Letters of 4/14/75. 9/29/75 From: J. Tillinghast- AEP To: K. Kniel - NRC	IMO-315,316,325,326 Outside containment MOV valves
111			
112			
113			
114	Chemical Spray	Tech. Spec. 3/4-5,3/4-5.6	Elec. Penetration Hydr. Recombiners Inside cont. valv (except VMO's & NMO's)
115 (118)	Chemical Spray	Letter of 1/10/78 From: S. J. Milioti To: J. Feinstein	Air Recirculation fan motor VMO-101,102
116	Chemical Spray	Letter of 4/23/82 From: T. Durando To: L. F. Caso	NMO-151,152,153
117			
118	Required Operating Time	Letter of 4/14/82 From: K. Vehstedt To: L. F. Caso	Outside containme Pump motors NRV Lim. Sw's NMO-151,152,153 ICM-305,306

Attachment No. 15 to AEP:NRC:0578B
Donald C. Cook Nuclear Plant Unit Nos. 1 and 2
Response to NRC SER on IE Bulletin 79-01B
General Notes

ATTACHMENT 15 TO AEP:NRC:0578B

GENERAL NOTES

1. Any one piece of equipment may be qualified by more than one test report. For instance, it may be qualified for steam environment by one report, for chemical spray environment by another, and for radiation environment by still another report. In a case like this, the qualification chart will list the different test reports and will specify, for each report, the qualification method used for that test (simultaneous, or sequential testing).

   For the case where a parameter has been qualified by test but the range attained during testing fell short of the required levels in the specified D. C. Cook plant environment, engineering analysis may have been used to explain why the environmental quantities achieved during testing are adequate for the application at hand. In these instances we call the equipment qualified by "Combination Method". This device has been used mainly to explain "Operating Time" and "Chemical Spray" qualifications.

   In some instances our devices have not been tested at all, however because they are required to operate in a relatively mild post-accident environment (e.g. outside containment) and because we know of devices qualified for a much harsher environment using similar or some generic type material; we have called these devices qualified by "Engineering Review Methods".

   According to this logic, electrical devices that will be submerged following an accident inside containment, have been qualified as follows:

   a. Equipment is protected against submergence by floodup tubes: cable and cable terminations at the containment penetrations (Engineering Review Method).

   b. Equipment has been qualified for submergence but the submergence test did not include a radiation test (Combination Method).

   c. Equipment has been qualified for LOCA and MSLB and has been immersed after these tests as required by IEEE 383-1974 (Engineering Review Method).

2. The limit switches, along with their cable and their cable terminations, for the valves listed below have been deleted from Attachments 2 and 3 to our submittal AEP:NRC:00356 ("Master List No. 2"). These limit switches are used for valve position indication only; that is, they are not used in the valve control circuit and are, therefore, not needed for the operation of the valve.

Valve	Location Inside Containment	Location Outside Containment
MRV-211		X
212		X
221		X
222		X
231		X
232		X
241		X
242		X
213		X
223		X
233		X
FRV-210		X
220		X
230		X
240		X
VCR-11	X	
21	X	
101	X	
102	X	
103	X	
104	X	
105	X	
106	X	
107	X	

For the valves outside containment, valve position can be readily verified. Those inside containment (VCR's) are containment isolation valves; a redundant containment isolation valve located outside the containment, in series with the one inside the containment, will serve as a backup device. The position of the valve outside containment can be verified.

3. Inside the containment, the LOCA pressure profile consists of an initial peak and a long-term peak after the ice melts out. The maximum calculated initial peak is 14.4 psig across the operating deck, as stated in Unit 2 FSAR Section 14.3.4. The long-term peak is shown in Figures 1 and 2 of Westinghouse letter AEW-6504 to AEPSC (Ref. 103). For the Cook Plant, the calculated minimum ice mass is 2.13×10^6 lbs. or 1098 lbs/basket. The value is intermediate to the cases pictured and gives a long term peak of 12 psig.

4. In the equipment qualification charts, the symbol "NA" means "not applicable."

5. The bounding values given in the specified environment column give a very conservative description of the adverse environment for two reasons. First, each bounding value may come from a different analyzed accident case, so that typically all the worst values are not calculated to occur during the same postulated scenario. Also, some of the equipment referenced to a specific chart may be subject

to only some of the adverse environment parameters or to much less severe calculated values of some parameters.

6. Equipment required due to changes in emergency operating procedures after January 14, 1980 (the issue date of IE Bulletin 79-01B) is not always included in this submittal. The cut-off date was agreed to by members of your staff at the February 7, 1980 clarification meeting in Glen Ellyn, Illinois.

NOTE ON VALVE MOTOR OPERATORS

The valve operators previously listed below were qualified for operation in a radiation environment. See letter of 7/17/80 from J. J. Oliver - Limitorque, to L. F. Caso - AEP (Ref. 74). These valves however, are equipped with brakes and the brakes were not part of the assembly when the valves were qualified for radiation. However, postulated failure of the brakes due to high radiation levels will not prevent the valves from opening. See letter of 11/2/81 from T. Durando of the Piping and Valves Section to L. F. Caso of the Electrical Generation Section (Ref. 74).

VALVE	COMMENT
ICM-311 321	These valves would only be operated if the RHR spray system was employed. The RHR spray system is back up containment pressure suppression system and the Cook safety analysis as reported in the FSAR demonstrates that is not needed for LOCA or HELB mitigation.
IMO-340 350 360 361 362	These valves are used during the switchover from the ECC injection phase to EEC recirculation. However, the sequence of their operation as defined in emergency operating procedures limits the time of their exposure prior to their operation to only a very short time.
IMO-910 911	These valves are used to terminate the suction of the charging pumps from the RWST once ECC switchover to to recirculation has been accomplished. They are protected against exposure to post-LOCA recirculation flow by a check valve.

NOTES ON CABLE TERMINATIONS

1. Calculated containment temperature 2.78 hours after a LOCA is 185°F and decreasing (Figure 3 in response to Question 03.1 in Appendix N, FSAR). This long term environment does not pose a challenge to the mechanical or electrical quality of the termination.

2. 230°F for ten seconds and 11.5 psig for 0.1 seconds will not challenge the mechanical or electrical quality of the termination.

3. Environmental qualification for the control cable termination at the solenoid operated valves which serve the air-operated containment isolation valves (the VCRs) is not needed for the following reason. Energization of the solenoid is necessary to keep the containment isolation valves open. If the valves were open at the time of the accident, a containment isolation signal would de-energize the solenoid, closing the valves. If the valves were closed, they would remain closed. No matter what the initial valves' position is at the time of accident, no failure of the cable termination will succeed in energizing the solenoid, and opening the valves, when the containment isolation signal and/or the control switch in the control room has been actuated to close the valves.

4. Note 1 on valve motor operators pertains also to the termination at the motors serving the valves listed.

NOTES ON CABLES

1. Instrument cable for the following instruments inside containment is not in floodup tubes in either Unit 1 or Unit 2.

   a. Main steam flow transmitters:

      MFC-110, 111, 120, 121, 130, 132, 140, 141 & 142

   b. Pressurizer pressure transmitter:

      NPS-153

   c. Reactor Coolant System narrow range temperature transmitters:

      NTP-110, 111, 120, 121, 130, 131, 140, 141, 210, 211, 220, 230, 231, 240 & 241.

   Placing these instrument cables in floodup tubes is not necessary for the following reasons. The MFC's and the NTP's will only be used for actuation of protective systems immediately after the accident, long before their cable becomes submerged. NPS-153 provides an additional monitoring function to that already provided by NPP-151, 152 and 153 which have their cables protected by floodup tubes.

2. Control cables for the following equipment inside containment is not in floodup tubes in Unit 1 only.

   Containment isolation valves (VCR's) listed in General Note 2. Operation of these valves (closing them) will take place immediately after the accident, long before the cable will be submerged. Postulated cable damage (because of submergence or otherwise) is not capable of re-opening these valves.

3. Calculated containment temperature 2.78 hours (10,000 seconds) after a LOCA is 185°F and decreasing (Figure 3 in response to Question 03.1 in Appendix N, FSAR). The electrical cable is rated for continuous operation at 194°F (90°C). Therefore the containment environmental temperature after 2.78 hours does not represent a challenge to the mechanical or electrical quality of the cable.

NOTE ON INSTRUMENTS

Lists A-J, which are referenced on the equipment qualification charts, are attached.

(ATTACHMENT TO "NOTES ON INSTRUMENTS")

LIST A

Engineered Safeguards Actuation	Unit 1 Only
Containment Phase A isolation Actuation	Unit 1 Only
Main Steam Isolation Actuation	Both Unit 1 & 2
Reactor Trip Actuation	Both Unit 1 & 2
Main Steam - Normal System Monitoring	Both Unit 1 & 2

LIST B

Engineered Safeguards Actuation	Both Unit 1 & 2
Containment Phase A Isolation	Both Unit 1 & 2
Post Accident Monitoring	Unit 2 Only
Reactor Trip Actuation	Both Unit 1 & 2
Main Steam Normal System Monitoring	Both Unit 1 & 2
Remote Shut-down Monitoring	Both Unit 1 & 2

LIST C

Engineered Safeguards Actuation	Both Unit 1 & 2
Containment Phase A Isolation Actuation	Both Unit 1 & 2
Post Accident Monitoring	Unit 2 Only
Main Steam Isolation Actuation	Both Unit 1 & 2
Main Steam Normal System Monitoring	Both Unit 1 & 2
Remote Shut-down Monitoring	Both Unit 1 & 2

LIST D

Engineered Safeguards Actuation	Unit 1 Only
Containment Phase A Isolation Actuation	Unit 1 Only
Main Steam Isolation Actuation	Both Unit 1 & 2
Main Feedwater Isolation Actuation	Both Unit 1 & 2
Reactor Trip Actuation	Both Unit 1 & 2
Reactor Coolant Normal System Monitoring	Both Unit 1 & 2

LIST E

Engineered Safeguards Actuation	Both Unit 1 & 2
Containment Phase A Isolation Actuation	Both Unit 1 & 2
Remote Shut-down Monitoring	Both Unit 1 & 2
Reactor Coolant Normal System Monitoring	Both Unit 1 & 2

LIST F

Engineered Safeguards Actuation	Both Units 1 & 2
Containment Phase A Isolation Actuation	Both Units 1 & 2
Post Acccident Monitoring	Unit 2 Only
Containment Phase B Isolation Actuation	Both Units 1 & 2
Containment Spray Actuation	Both Units 1 & 2
Main Steam Isolation Actuation	Both Units 1 & 2

LIST G

Post Accident Monitoring	Unit 2 Only
Containment Phase B Isolation Actuation	Both Unit 1 & 2
Containment Spray Actuation	Both Unit 1 & 2
Main Steam Isolation Actuation	Both Unit 1 & 2

LIST H

Post Accident Monitoring	Unit 2.Only
Main Feedwater Isolation Actuation	Both Unit 1 & 2
Reactor Trip Actuation	Both Unit 1 & 2
Main Feedwater Normal System Monitoring	Both Unit 1 & 2

LIST J

Reactor Trip Actuation	Both Unit 1 & 2
Post Accident Monitoring	Unit 2 Only
Remote Shut-down Monitoring	Both Unit 1 & 2
Reactor Coolant Normal System Monitoring	Both Unit 1 & 2

Attachment No. 12 to AEP: NRC: 0578B
Donald C. Cook Nuclear Plant Unit 1
Response to NRC SER on IE Bulletin 79-01B
Master Sheets of Equipment and Auxiliaries

RESPONSE TO NRC SER ON IE BULLETIN 79-01B
LIST OF DEVICES

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM Electrical Penetrations

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
1P6	4KV CONTAINMENT PENETRATIONS	X		EP-01	
1P7		X		EP-01	
2P5		X		EP-01	
2P6		X		EP-01	
3P7		X		EP-01	
3P8		X		EP-01	
4P7		X		EP-01	
4P8	↓	X		EP-01	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM _____ ELECTRICAL PENETRATIONS

PLANT ID No.	GENERIC NAME		LOCATION		EQUIP QUAL. CHART REF.	
			INSIDE CONT.	OUTSIDE CONT.		
1P1	600 V CONTAINMENT PENETRATIONS		X		EP-02	
1P2			X		EP-02	
1P3			X		EP-02	
1P4			X		EP-02	
2P2			X		EP-02	
2P3			X		EP-02	
4P2			X		EP-02	
2P4			X		EP-02	
2P7			X		EP-02	
2P8			X		EP-02	
3P1			X		EP-02	
3P2			X		EP-02	
3P3			X		EP-02	
3P6			X		EP-02	
4P3			X		EP-02	
4P4			X		EP-02	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM _____ ELECTRICAL PENETRATIONS

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
4P5	600V CONTAINMENT PENETRATIONS	X		EP-02	
4P6		X		EP-02	
4I5		X		EP-02	
4I7		X		EP-02	
4I8		X		EP-02	
4C2		X		EP-02	
4C3		X		EP-02	
4C1		X		EP-02	
4I6		X		EP-02	
1C4		X		EP-02	
1C1		X		EP-02	
1C3		X		EP-02	
1I5		X		EP-02	
1I8		X		EP-02	
1I7		X		EP-02	
1I6		X		EP-02	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM ELECTRICAL PENETRATIONS

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
2I8	600V CONTAINMENT PENETRATIONS	X		EP-02	
2I5		X		EP-02	
2I6		X		EP-02	
2C4		X		EP-02	
2C3		X		EP-02	
2C1		X		EP-02	
2I7		X		EP-02	
3I8		X		EP-02	
3I6		X		EP-02	
3I7		X		EP-02	
3C1		X		EP-02	
3C2		X		EP-02	
3C4		X		EP-02	
3I5		X		EP-02	
EP-14		X		EP-02	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM _____ Valve M21-211

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
M2V-211	SOLENOID		X	S7	
9000 G1	CONTROL CABLE		X	CC7 CC8	
900261	CONTROL CABLE		X	CC1.7	
	control cable term at term box		X	TC13	

DONALD C. COOK NUCLEAR PLANT UNIT No.1
DOCKET No: 50-315, LICENSE No. DPR-58

SYSTEM VALVE MRV-212

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
MRV-212	SOLENOID		X	S7	
9000R1	CONTROL CABLE		X	CC7 CC8	
900221	CONTROL CABLE		X	CC1	
	control cable term at term box		X	TC13	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58

01

SYSTEM _____ VALVE MRV-221

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
MRV-221	SOLENOID		X	S7	
9001 G1	CONTROL CABLE		X	CC7 CC8	Rev
9006 G1	CONTROL CABLE		X	CC1	
	control cable term at term box		X	TC13	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM VALVE MRV-222

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
MRV-222	SOLENOID		X	E7	
9001-R1	CONTROL CABLE		X	CC7 CC8	Rev
900621	CONTROL CABLE		X	CC1	
	control cable term at term. box		X	TC13	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58

FORM EGQ #96-1

SYSTEM VALVE MRV-231

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
MRV-231	SOLENOID		X	S7	
9018G1	CONTROL CABLE		X	CC1 CC7 CC8	
	CONTROL CABLE TERM AT TERM BOX		X	TC13	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1 FORM EGQ #96-1
DOCKET No. 50-315, LICENSE No. DPR-58
SYSTEM VALVE MRV-232

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
MRV-232	SOLENOID		X	S7	
9018-R1	CONTROL CABLE		X	CC1 CC7 CC8	
	CONTROL CABLE TERM. AT TERM. BOX		X	TC 13	

DONALD C. COOK NUCLEAR PLANT UNIT No.1
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM _____ VALVE MRV-241

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
MRV-241	SOLENOID		X	S7	
901761	CONTROL CABLE		X	CC7 CC8	
				-	
902261	CONTROL CABLE		X	CC1	
	control cable term at term box		X	TC13	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM _____ VALVE MRV-242

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
MRV-242	SOLENOID		X	S7	
9017R1	CONTROL CABLE		X	CC7 CC8	
9022R1	CONTROL CABLE		X	CC1	
	Control cable term at term box		X	TC13	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM _____ INSTRUMENT FFI-210

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
FFI-210	FLOW INDICATOR		X	I 4.	
5152 R-1	INSTRAMENT CABLE		X	CI 3 CI 4 CI 5.	
	CABLE TERM. AT INSTRAMENT		X	TI 10	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM _____ INSTRUMENT FFI-220

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
FFI-220	FLOW INDICATOR		X	I4	
5150 R-1	INSTRAMENT CABLE		X	CI 3 CI 4. CI 5	
	CABLE TERM. AT INSTRAMENT		X	TI 10	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM _____ INSTRUMENT FFI-230

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
FFI-230	FLOW INDICATOR		X	I4	
5151 R-1	INSTRAMENT CABLE		X	CI 3 CI 4 CI 5	
	CABLE TERM. AT INSTRAMENT		X	TI 10	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM _____ INSTRUMENT FFI-240

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
FFI-240	FLOW INDICATOR		X	I4	
5153 R-1	INSTRAMENT CABLE		X	CI3 CI4 CI5.	
	CABLE TERM. AT INSTRAMENT		X	TI10	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM _____ VALVE FMO-201

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
FMO-201	Valve Motor Operator		X	V-8	
9753 G-1	Power Cable		X	CP1 CP3	
9754 G-1	Control Cable		X	CC9 CC10	
9755 G-1	Control Cable		X	CC9 CC10	
	~~Power Cable Term. at~~ Valve Motor		X	TP6 ~~TP3~~	
	Control Cable Term. at Term. Box		X	TC13	
	Control Cable Term. at Valve Motor Operator		X	TC9	
All Deletions As per Ref. 109					

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM _____ VALVE FMO-202

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
~~FMO-202~~	~~VALVE-MOTOR-OPERATOR~~		~~X~~	~~V8~~	
~~9753-R-1~~ 324	~~POWER CABLE~~		~~X~~	CP1-CP3	
~~9754-R-1~~	~~CONTROL CABLE~~		~~X~~	CC9 CC10	
~~9755 R-1~~	~~CONTROL CABLE~~		~~X~~	~~CC9~~ CC10	
	~~POWER CABLE TERM. AT~~ VALVE MOTOR		~~X~~	~~IP6~~ ~~TP3~~	
	CONTROL CABLE TERM. AT VALVE MOTOR OPERATOR	-	X	TC9	
	CONTROL CABLE TERM. AT TERM. BOX		X	TC13	
ALL DELETIONS AS PER REF 108					

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM _____ VALVE FMO-203

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
FMO-203	Valve Motor Operator		X	V-8	
~~9759-R-1~~	Power Cable		X	CP-1 CP-3	
9760-R-1	Control Cable		X	CC-9 CC-10	
9761-R-1	Control Cable		X	CC-9 CC-10	
	Power Cable Term. at Valve Motor		X	~~TP-1~~ TP-3	
	Control Cable Term. at Valve Motor Operator		X	TC-9	
	Control Cable Term at Term Box		X	TC-13	
All Deletions As per Ref. 108					

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM _____, VALVE FMO-204

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
FMO-204	VALVE MOTOR OPERATOR		X	V8	
9759-G-2	POWER CABLE		X	~~CP1~~ CP3	
9760 G-2	CONTROL CABLE		X	~~CC9~~ CC10	
9761 G-2	CONTROL CABLE		X	~~CC9~~ CC10	
	POWER CABLE TERM. AT VALVE MOTOR		X	~~FP3~~ FP3	
	CONTROL CABLE TERM. AT VALVE MOTOR OPERATOR		X	IC9	
	CONTROL CABLE TERM. AT TERM. BOX		X	TC13	
ALL DELETIONS	PER REF. 108				

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM _____ VALVE FMO-211

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
FMO 211	VALVE MOTOR OPERATOR		X	V6	
9091 BR-1	POWER CABLE		X	CC2 CC3 CC4	
9090 BR-1	CONTROL CABLE		X	CC7 CC8	
9280 BR-1	CONTROL CABLE		X	CC7 CC8	
	PWR. CABLE TERM. AT VLV. MTR.:		X	TP6 TP3	
	CONTROL CABLE TERM. AT TERMINAL BOX		X	TC13	
	CONTROL CABLE TERM. AT VLV. MTR. OPERATOR		X	TC11	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM _____ VALVE FMO-212

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
FMO-212	VALVE MOTOR OPERATOR		X	V6	
909221	POWER CABLE		X	CP1 CP3	
909321	CONTROL CABLE		X	CC7 CC8	
	PWR. CABLE TERM. AT VLV. MTR.		X	TP6 ~~TP3~~	
	CONTROL CABLE TERM. AT TERMINAL BOX		X	TC13	
	CONTROL CABLE TERM. AT VLV. MTR. OPERATOR		X	TC11	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM _____ VALVE FMO-221

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
FMO-221	VALVE MOTOR OPERATOR		x	V6	
8303 BR-1	POWER CABLE		x	CC2 CC3 CC4	
8302 BR-1	CONTROL CABLE		x	CC7 CC8	
92R1-BR-1	CONTROL CABLE		x	CC7 CC8	
	PWR. CABLE TERM. AT VLV. MTR.		x	TP6 ~~TP3~~	
	CONTROL CABLE TERM. AT TERMINAL BOX		x	TC13	
	CONTROL CABLE TERM. AT VLV. MTR. OPERATOR		x	TC11	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM _____, VALVE EMO-222

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
EMO-222	VALVE MOTOR OPERATOR		X	V6	
853361	POWER CABLE		X	CP1 CP3	
853261	CONTROL CABLE		X	CC7 CC8	
	PWR. CABLE TERM. AT VLV. MTR.		X	TP6 ~~FP3~~	
	CONTROL CABLE TERM. AT TERMINAL BOX		X	TC13	
	CONTROL CABLE TERM. AT VLV. MTR. OPERATOR		X	TC11	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM _____ VALVE FMO-231

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
FMO-.231	VALVE MOTOR OPERATOR		X	V6	
8308 BR-1	POWER CABLE		X	CC2 CC3 CC4	
8307 BR-1	CONTROL CABLE		X	CC7 CC8	
9282 BR-1	CONTROL CABLE		X	CC7 CC8	
	PWR. CABLE TERM. AT VLV. MTR.		X	TP6 ~~TP3~~	
	CONTROL CABLE TERM. AT TERMINAL BOX		X	TC13	
	CONTROL CABLE TERM. AT VLV. MTR. OPERATOR		X	TC11	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM _____ VALVE EMO-232

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
EMO-232	VALVE MOTOR OPERATU		X	V6	
853561	POWER CABLE		X	CP1 ~~CP2~~ CP3	
853461	CONTROL CABLE		X	CC7 CC8	
	PWR. CABLE TERM. AT VLV. MTR.		X	TP6 ~~FP3~~	
	CONTROL CABLE TERM. AT TERMINAL BOX		X	TC13	
	CONTROL CABLE TERM. AT VLV. MTR. OPERATOR		X	TC11	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM _____ VALVES FMO-241

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
FMO-241	VALVE MOTOR OPERATOR		X	V6	
9086 BR-1	POWER CABLE		X	CC2 CC3 CC4	
9085 BR-1	CONTROL CABLE		X	CC7 CC8	
9283 BR-1	CONTROL CABLE		X	CC7 CC8	
	PWR. CABLE TERM. AT VLV. MTR.		X	TP6 ~~TP3~~	
	CONTROL CABLE TERM. AT TERMINAL BOX		X	TC13	
	CONTROL CABLE TERM. AT VLV. MTR. OPERATOR		X	TC11	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM _____ VALVE EMO-242

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
EMO-242	VALVE MOTOR OPERATOR		X	V6	
9086R1	POWER CABLE		X	CP1 ~~CP2~~ CP3	
9087R1	CONTROL CABLE		X	CC7 CC8	
	AUX. CABLE TERM. AT VLV. MTR.		X	TP6 ~~TP3~~	
	CONTROL CABLE TERM. AT TERMINAL BOX		X	TC13	
	CONTROL CABLE TERM. AT VLV. MTR. OPERATOR		X	TC11	

DONALD C. COOK NUCLEAR PLANT UNIT No.1
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM _____ VALVE CRV-210

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
9330 G-1	CONTROL CABLE		X	CI 8 CI 9 CI 10	
XSO-291	SOLENOID		X	S3	
9328 G-1	CONTROL CABLE		X	CC1	
9502 R-1	CONTROL CABLE		X	CC7 CC8	
XSO-292	SOLENOID		X	S3	
9327 R-1	CONTROL CABLE		X	CC1	
	CONTROL CABLE TERM. AT SOLENOIDS		X	TC16	
	CONTROL CABLE TERM. AT TERMINAL BOXES		X	TC13	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM _____ VALVE ERV-220

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
9329 R-1	CONTROL CABLE		X	CI 8 CI 9 CI 10	
XSO-294	SOLENOID		X	S3	
9330 R-1	CONTROL CABLE		X	CC1	
9334 G-1	CONTROL CABLE		X	CC7 CC8	
XSO-293	SOLENOID		X	S3	
9335 G-1	CONTROL CABLE		X	CC1	
	CONTROL CABLE TERM. AT SOLENOIDS		X	TC16	
	CONTROL CABLE TERM. AT TERMINAL BOXES		X	TC13	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM _____ VALVE FRV-230

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
9332 R-1	CONTROL CABLE		X	CI 8 CI 9 CI 10	
XSO-296	SOLENOID		X	S3	
9333 R-1	CONTROL CABLE		X	CC1	
9341 G-1	CONTROL CABLE		X	CC7 CC8	
XSO-295	SOLENOID		X	S3	
9342 G-1	CONTROL CABLE		X	CC1	
	CONTROL CABLE TERM. AT SOLENOIDS		X	TC16	
	CONTROL CABLE TERM. AT TERMINAL BOXES		X	TC13	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM _____ VALVE ERV-240

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
94016-1	CONTROL CABLE		X	CI 8 CI 9 CI 10	
XSO-297	SOLENOID		X	S 3	
95062-1	CONTROL CABLE		X	CC 7 CC 8	
93496-1	CONTROL CABLE		X	CC 1	
XSO-298	SOLENOID		X	S 3	
93362-1	CONTROL CABLE		X	CC 1	
	CONTROL CABLE TERM. AT SOLENOIDS		X	TC 16	
	CONTROL CABLE TERM. AT TERMINAL BOXES		X	TC 13	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM INSTRUMENT WPS-701

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
WPS-701	PRESSURE SWITCH		X	I32	SEE REF. 107
8447 G-2	CONTROL CABLE		X	CC2 CC3 CC4	
	CABLE TERMINATION AT PRESSURE SWITCH		X	TI6	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM VALVE WMO-711

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
IWMO-711	VALVE MOTOR OPERATN		X	V6	
8294G1	POWER CABLE		X	C,P,1 ~~CP2~~ CP3	
8295G1	CONTROL CABLE		X	CC7 CC8	
8296G1	CONTROL CABLE		X	CC7 CC8	
	PWR. CABLE TERM. AT VLV. MTR.		X	TP6 ~~TP3~~	
	CONTROL CABLE TERM. AT TERMINAL BOX		X	TC13	
—	CONTROL CABLE TERM. AT VLV. MTR. OPERATOR		X	TC11	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM _____ VALVE WMO-713

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
WMO-713	VALVE MOTOR OPERATOR		X	V6	
819761	POWER CABLE		X	CP1 ~~CP2~~ CP3	
819861	CONTROL CABLE		X	CC7 CC8	
819961	CONTROL CABLE		X	CC7 CC8	
	PWR. CABLE TERM. AT VLV. MTR.		X	TP6 ~~TP3~~	
	CONTROL CABLE TERM. AT TERMINAL BOX		X	TC13	
	CONTROL CABLE TERM. AT VLV. MTR. OPERATOR		X	TC11	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM _____ VALVE WMO-723

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
WMO-723	VALVE MOTOR OPERATOR		X	V6	
20576-1	POWER CABLE		X	CP1 ~~CP2~~ CP3	
20596-1	CONTROL CABLE		X	CC7 CC8	
8058 G-2	CONTROL CABLE		X	CC7 CC8	
	PWR. CABLE TERM. AT VLV. MTR.		X	TP1 TP3	
	CONTROL CABLE TERM. AT TERMINAL BOX		X	TC13	
	CONTROL CABLE TERM. AT VLV. MTR. OPERATOR		X	TC11	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM _____ VALVE WMO-725

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
WMO-725	VALVE MOTOR OPERATOR		X	V6	
80606-1	POWER CABLE		X	CP1 ~~CP2~~ CP3	
80626-1	CONTROL CABLE		X	CC7 CC8	
8061G-2	CONTROL CABLE		X	CC7 CC8	
	PWR. CABLE TERM. AT VLV. MTR.		X	TP6 TP3	
	CONTROL CABLE TERM. AT TERMINAL BOX		X	TC13	
	CONTROL CABLE TERM. AT VLV. MTR. OPERATOR		X	TC11	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM INSTRUMENT WPS-705

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
					SEE REF. 13
WPS-705	Pressure S.w.i.t.h		X	I3Z	
2447 R-1	Control Cable		X	CC2 CC3 CC4	
	Cable termination at pressure switch		X	TI6	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM _____ VALVE WMO-715

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
WMO-715	VALVE MOTOR OPERATOR		X	V6	
829421	POWER CABLE		X	CP1 ~~CP2~~ CP3	
829521	CONTROL CABLE		X	CC7 CC8	
829621	CONTROL CABLE		X	CC7 CC8	
	PWR. CABLE TERM. AT VLV. MTR.		X	TP6 ~~TP5~~ TP3	
	CONTROL CABLE TERM. AT TERMINAL BOX		X	TC13	
	CONTROL CABLE TERM. AT VLV. MTR. OPERATOR		X	TC11	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM _____ VALVE WMO-717

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
WMO-717	VALVE MOTOR OPERATOR		x	V6	
✓ 8255R1	POWER CABLE		x	CP1 ~~CP2~~ CP3	
✓ 8256R1	CONTROL CABLE		x	CC7 CC8	
✓ 8257R1	CONTROL CABLE		x	CC7 CC8	
✓ 8968R1	CONTROL CABLE		x	CC7 CC8	
	PWR CABLE TERM. AT VLV. MTR.		x	TP6 TP3	
	CONTROL CABLE TERM.S AT TERMINAL BOX		x	TC13	
	CONTROL CABLE TERM. AT VLV. MTR. OPERATOR		x	TC11	

DONALD C. COOK NUCLEAR PLANT UNIT No.1
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM VALVE WMO-721

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
WMO-721	VALVE Motor Operator		X	V6	
8057 R-1	Power Cable		X	CP1 ~~CP2~~ CP3	
8058 R-1	Control Cable		X	CC7 CC8	
8059 R-1	Control Cable		X	CC7 CC8	
	PWR. CABLE TERM. AT VLV. MTR.		X	TP6 ~~TP3~~	
	CONTROL CABLE TERM. AT TERMINAL BOX		X	TC13	
	CONTROL CABLE TERM. AT VLV. MTR. OPERATOR		X	TC11	

DONALD C. COOK NUCLEAR PLANT UNIT No.1
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM VALVE WMO-727

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
WMO-727	VALVE Motor Operator		X	V6	
8060 R-1	Power Cable		X	cp1 ~~cp2~~ cp3	
8062 R-1	Control Cable		X	cc7 cc8	
8061 R-1	Control Cable		X	cc7 cc8	
	POR. CABLE TERM. AT VLV. MTR.		X	~~TP6~~ TP3	
	CONTROL CABLE TERM. AT TERMINAL BOX		X	TC13	
	CONTROL CABLE TERM. AT VLV. MTR. OPERATOR		X	TC11	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM INSTRUMENT NPS-121

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
NPS-121	INSTRUMENT	X		I23 I22	
9765 CB-1	INSTRUMENT CABLE	X		CI3 CI5	
	CABLE TERMINATION AT INSTRUMENT	X		TI1	
	CABLE TERMINATION AT PENETRATION INSIDE FLOOD UP TURNS	X		TI3	
	CABLE TERMINATION AT FLOOD UP TERMINAL BOX	X		TI4	
[illegible]		X		CI-11	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM _____, INSTRUMENT NPS-122

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
NPS-122	INSTRUMENT	X		I23 I22	
9766 CY-1	INSTRUMENT CABLE	X		CI3 CI5	
	CABLE TERMINATION AT INSTRUMENT	X		TI1	
	CABLE TERMINATION AT PENETRATION INSIDE FLOOD UP TUBING	X		TI3	
	CABLE TERMINATION AT FLOOD UP TERMINAL BOX	X		TI4	
KAPTON INSUL. CABLE		X		[illegible]	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM _____ VALVE IMO-910

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
IMO-910	VALVE MOTOR OPERATOR		X	11 V8	
8026G1	POWER CABLE		X	CP1- ~~CP2~~ CP3	
8031G1	CONTROL CABLE		X	cc9- cc10.	
8032G1	CONTROL CABLE		X	cc9 cc10	
	PWR. CABLE TERM. AT VLV. MTR.		X	TP3 ~~IP3~~	
	CONTROL CABLE TERM. AT TERMINAL BOX		X	TC13	
	CONTROL CABLE TERM. AT VLV. MTR. OPERATOR		X	11 TC8	

DONALD C. COOK NUCLEAR PLANT UNIT. No. 1
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM _____ VALVE IMO-911

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
IMO-911	VALVE MOTOR OPERATOR		X	11 V8	
8026R1	POWER CABLE		X	CP1, ~~CP2~~ CP3	
8031R1	CONTROL CABLE		X	CC9, CC10	
8032R1	CONTROL CABLE		X	CC9, CC10	
	PWR. CABLE TERM. AT VLV. MTR.		X	TP6 ~~TP3~~	
	CONTROL CABLE TERM. AT TERMINAL BOX		X	TC13	
	CONTROL CABLE TERM. AT VLV. MTR. OPERATOR		X	11 TC4	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM _____ VALVE QMO-225

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
QMO-225	VALVE MOTOR OPERATOR		X	V6	
803961	POWER CABLE		X	CP1 ~~CP2~~ CP3	
803761	CONTROL CABLE		X	CC7 CC8	
803861	CONTROL CABLE		X	CC7 CC8	
	PWR. CABLE TERM. AT VLV. MTR.		X	TP6 ~~TP3~~	
	CONTROL CABLE TERM. AT TERMINAL BOX		X	TC13	
	CONTROL CABLE TERM. AT VLV. MTR. OPERATOR		X	TC11	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM _____ VALVE QMO-226

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
QMO-226	VALVE MOTOR OPERATOR		X	V6	
803921	POWER CABLE		X	CP1 ~~CP2~~ CP3	
803821	CONTROL CABLE		X	CC7 CC8	
803721	CONTROL CABLE		X	CC7 CC8	
	PWR. CABLE TERM. AT VLV. MTR.		X	TP6 ~~TP3~~	
	CONTROL CABLE TERM. AT TERMINAL BOX		X	TC13	
	CONTROL CABLE TERM. AT VLV. MTR. OPERATOR		X	TC11	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM EAST CENTRIFUGAL CHARGING PUMP

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
PP-050E	EAST CENTRIFUGAL CHARGING PUMP MOTOR		X	M1	
8007G1	POWER CABLE		X	CP10	
	POWER CABLE TERM. AT MOTOR		X	TP4	
	Motor Oil		X	G10	
	Coupling Grease		X	G11	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM WEST CENTRIFUGAL CHARGING PUMP

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
PP-050W	WEST CENTRIFUGAL CHARGING PUMP MOTOR		X	M1	
8007R1	POWER CABLE		X	CP10	
	POWER CABLE TERM. AT PUMP MOTOR		X	TP4	
	Motor O.i		X	G10	
	Coupling Grease		X	G11	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM CVCS EAST CHARG & L.O. PUMP

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
Part of PP-050E	EAST CHARG. & L.O. PUMP MOTOR		x	M1	
827641	POWER CABLE		x	CP1 ~~CP2~~ C03	
	POWER CABLE TERM. AT PUMP MOTOR		x	TP4	
	Motor Oil		x	G10	
	Coupling Grease		x	G11	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM CVCS WEST CHARG. & L.D. PUMP

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
Part of PP-050W	CVCS WEST CHARG. & L.D. PUMP MOTOR		x	M1	
8276R1	POWER CABLE		x	CP1 ~~CP2~~ CP3	
	POWER CABLE TERM. AT PUMP MOTOR		x	TP4	
	Motor O.i		x	G10	
	Coupling Grease		x	G11	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM _____ VALVE CMO-419

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
CMO-419	VALVE MOTOR OPERATOR		X	V6	
8250G1	POWER CABLE		X	CP1 ~~CP2~~ CP3	
8251G1	CONTROL CABLE		X	CC7 CC8	
8252G1	CONTROL CABLE		X	CC5 CC6	
8253G1	CONTROL CABLE		X	CC7 CC8	
8254G1	CONTROL CABLE		X	CC2 CC3 CC4	
8909G1	CONTROL CABLE		X	CC2 CC3 CC4	
8908G1	CONTROL CABLE		X	CC7 CC8	
	PWR. CABLE TERM. AT VLV. MTR.		X	TP6 ~~TP3~~	
	CONTROL CABLE TERM.S AT TERMINAL BOX		X	TC13	
	CONTROL CABLE TERM.S AT VLV. MTR. OPERATOR		X	TC11	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM VALVE CMO-429

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
CMO-429	VALVE MOTOR OPERATOR		X	V6	
890221	POWER CABLE		X	CP1 ~~CP2~~ CP3	
890321	CONTROL CABLE		X	CC7 CC8	
890421	CONTROL CABLE		X	CC7 CC8	
890521	CONTROL CABLE		X	CC5 CC6	
890621	CONTROL CABLE		X	CC2 CC3 CC4	
890721	CONTROL CABLE		X	CC7 CC8	
890821	CONTROL CABLE		X	CC2 CC3 CC4	
	PWR. CABLE TERM. AT VLV. MTR.		X	TP1 ~~TP3~~	
	CONTROL CABLE TERM. S AT TERMINAL BOX		X	TC13	
	CONTROL CABLE TERM. AT VLV. MTR. OPERATOR		X	TC11	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM INSTRUMENT IFI-51

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
IFI-51	FLOW INDICATOR	X		I7 I6 =8	
4410 C01	INSTRUMENT CABLE	X		CI3 CI5	
	CABLE TERMINATION AT INSTRUMENT	X		TI5	
	CABLE TERMINATION AT PENETRATION INSIDE FLOOD UP TUBING	X		TI3	
	CABLE TERMINATION AT FLOODUP TERMINAL BOX	X		TI4	REV
KAPTON INSUL CABLE		X		CI11	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM INSTRUMENT IFI-52

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
IFI-52	FLOW INDICATOR	X		I7 I8 I6	
6211 CB-1	INSTRUMENT CABLE	X		CI3 CI5	
	CABLE TERMINATION AT INSTRUMENT	X		TI5	
	CABLE TERMINATION AT PENETRATION INSIDE FLOOD UP TUBING	X		TI3	
	CABLE TERMINATION AT FLOODUP - TERMINAL BOX	X		TI4	
[illegible] INSUL CABLE		X		JI11	

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DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM INSTRUMENT IFI-53

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
IFI-53	FLOW INDICATOR	X		I2 I8 I6	
6210 CY-1	INSTRUMENT CABLE	X		CI3 CI5	
	CABLE TERMINATION AT INSTRUMENT	X		TI5	
	CABLE TERMINATION AT PENETRATION INSIDE FLOOD UP TUBING	X		TI3	
	CABLE TERMINATION AT FLOODUP TERMINAL BOX	X		TI4	1 Rev
KAPTON INSUL. CABLE		X		CI1	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM INSTRUMENT IFI-54

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
IFI-54	FLOW INDICATOR	X		I7 & I6	
6212 CW-1	INSTRUMENT CABLE	X		CI3 CI5	
	CABLE TERMINATION AT INSTRUMENT	X		TI5	
	CABLE TERMINATION AT PENETRATION INSIDE FLOOD UP TUBING	X		TI3	
	CABLE TERMINATION AT FLOODUP TERMINAL BOX	X		TI4	
Kapton INSUL. CAB.		X		I=11	

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DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM _____ INSTRUMENT IFI-260

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
IFI-260	FLOW INDICATOR		X	I9	
4610 E-2	INSTRUMENT + CABLE		X	CI3 CI4 CI5	
	CABLE TERM. AT INSTRUMENT		X	TI9 TIT	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM _____ INSTRUMENT IFI-266

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
IFI-266	FLOW INDICATOR		X	I9	
1889861	INSTRUMENT CABLE		X	CI3 CI4 CI5	
	CABLE TERM. AT INSTRUMENT		X	TI9 TH1	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM VALVE IMO-51

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
IMO-51	VALVE MOTOR OPERATOR	X		VI	
8315CG1	POWER CABLE	X		CP7 CP8 CP9	
8316CG1	CONTROL CABLE	X		CC7 CC8	
8317G1	CONTROL CABLE	X		CC7 CC8	
	PWR. CABLE TERM. AT VLV. MTR.	X		TP5 ~~TP3~~	
	POWER CABLE TERM. AT FLOOD UP TERMINAL BOX	X		TP2	
	POWER CABLE TERM. INSIDE FLOOD UP TUBES AT PEN.	X		TP1	
	CONTROL CABLE TERM. AT VLV. MTR. OPERATOR	X		TC3	
	CONTROL CABLE TERM. AT TERMINAL BOX	X		TC8	
	CONTROL CABLE TERM. AT FLOOD UP TERMINAL BOX	X		TC7	
	CONTROL CABLE TERM. INSIDE FLOOD UP TUBE AT PENETRATION	X		TC6	
KIRBY INC. CAB. F		X		[illegible]	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM VALVE IMO-52

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
IMO-52	VALVE MOTOR OPERATOR	X		VI	
8080CR1	POWER CABLE	X		CP7 CP8 CP9	
8081CR1	CONTROL CABLE	X		CC7 CC8	
8082R1	CONTROL CABLE	X		CC7 CC8	
	PWR. CABLE TERM. AT VLV. MTR.	X		TP5 ~~TP3~~	
	POWER CABLE TERM. AT FLOOD UP TERMINAL BOX	X		TP2	
	POWER CABLE TERM. INSIDE FLOOD UP TUBES AT PEN.	X		TP1	
	CONTROL CABLE TERM. AT VLV. MTR. OPERATOR	X		TC3	
	CONTROL CABLE TERM. AT TERMINAL BOX	X		TC8	
	CONTROL CABLE TERM. AT FLOOD UP TERMINAL BOX	X		TC7	
	CONTROL CABLE TERM. INSIDE FLOOD UP TUBE AT PENETRATION	X		TC6	
[illegible]		X		CI 11	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM VALVE IMO-53

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
IMO-53	VALVE MOTOR OPERATOR	X		VI	
8444CG1	POWER CABLE	X		CP7 CP8 CP9	
8445CG1	CONTROL CABLE	X		CC7 CC8	
	PWR. CABLE TERM. AT VLV. MTR.	X		TP5 ~~TP3~~	
	PWR. CABLE TERM. AT FLOOD UP TERMINAL BOX	X		TP2	
	PWR. CABLE TERM. INSIDE FLOOD UP TUBES AT PEN.	X		TP1	
	CONTROL CABLE TERM. AT VLV. MTR. OPERATOR	X		TC3	
	CONTROL CABLE TERM. AT FLOOD UP TERMINAL BOX	X		TC7	
	CONTROL CABLE TERM. INSIDE FLOOD UP TUBE AT PENETRATION	X		TC6	
KAPTON INSUL. CABLE		X		[illegible]	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM VALVE IMO-54

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
IMO-54	VALVE MOTOR OPERATOR	X		VI	
8472CR1	POWER CABLE	X		CP7 CP8 CP9	
8473CR1	CONTROL CABLE	X		CC7 CC8	
	PWR. CABLE TERM. AT VLV. MTR.	X		TP5 ~~TP3~~	
	PWR. CABLE TERM. AT FLOOD UP TERMINAL BOX	X		TP2	
	PWR. CABLE TERM. INSIDE FLOOD UP TUBES AT PEN.	X		TP1	
	CONTROL CABLE TERM. AT VLV. MTR. OPERATOR	X		TC3	
	CONTROL CABLE TERM. AT FLOOD UP TERMINAL BOX	X		TC7	
	CONTROL CABLE TERM. INSIDE FLOOD UP TUBE AT PENETRATION	X		TC6	
[illegible]		[illegible]		[illegible]	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM _____ VALVE IMO-255

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
IMO-255	VALVE MOTOR OPERATOR		X	V6	
817761	POWER CABLE		X	CP1 ~~CP2~~ CP3	
817661	CONTROL CABLE		X	CC7 CC8	
817861	CONTROL CABLE		X	CC7 CC8	
	PWR. CABLE TERM. AT VLV. MTR.		X	TP6 TP3	
	CONTROL CABLE TERM. AT TERMINAL BOX		X	TC13	
—	CONTROL CABLE TERM. AT VLV. MTR. OPERATOR		X	TC11	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM _____ VALVE IMO-256

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
IMO-256	VALVE MOTOR OPERATOR		X	V6	
8177R1	POWER CABLE		X	CP1 ~~CP2~~ CP3	
8176R1	CONTROL CABLE		X	CC7 CC8	
8178R1	CONTROL CABLE		X	CC7 CC8	
	PWR. CABLE TERM. AT VLV. MTR.		X	TP6 TP3	
	CONTROL CABLE TERM. AT TERMINAL BOX		X	TC13	
	CONTROL CABLE TERM. AT VLV. MTR. OPERATOR		X	TC11	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM _____ VALVE IMO-241

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
IMO-241	VALVE MOTOR OPERATOR		X	V-8	
-8030R1	POWER CABLE		X	CP1 ~~CP2~~ CP3	
-8250R1	CONTROL CABLE		X	CC7 CC8	
-8231R1	CONTROL CABLE		X	CC7 CC8	
	PWR CABLE TERM. AT VLV. MTR.		X	TP10 FP3	
	CONTROL CABLE TERM. AT TERMINAL BOX		X	TC13	
	CONTROL CABLE TERM. AT VLV. MTR. OPERATOR		X	TC9	
ALL DELETIONS AS PER REF. 108					

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM _____ VALVE IMO-262

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
IMO-262	VALVE MOTOR OPERATOR		X	V 6	
8258G1	POWER CABLE		X	CP1 ~~CP2~~ CP3	
8259G1	CONTROL CABLE		X	CC7 CC8	
8260G1	CONTROL CABLE		X	CC9, CC10	
	PWR. CABLE TERM. AT VLV. MTR.		X	TP6 FP3	
	CONTROL CABLE TERM. AT TERMINAL BOX		X	TC13	
	CONTROL CABLE TERM. AT VLV. MTR. OPERATOR		X	TC11	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM _____ VALVE IMO-263

PLANT ID, No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
IMO-263	VALVE MOTOR OPERATOR		X	V6	
8252R1	POWER CABLE		X	CP1 ~~CP2~~ CP3	
8253R1	CONTROL CABLE		X	CC7 CC8	
8254R1	CONTROL CABLE		X	CC7 CC8	
	PWR. CABLE TERM. AT VLV. MTR.		X	IP3 ~~IP2~~	
	CONTROL CABLE TERM. AT TERMINAL BOX		X	TC13	
	CONTROL CABLE TERM. AT VLV. MTR. OPERATOR		X	TC11	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM _____ VALVE IMO-270

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
IMO-270	VALVE MOTOR OPERATOR		X	V6	
9651G1	POWER CABLE		X	CP1 ~~CP2~~ CP3	
9652G1	CONTROL CABLE		X	CC7 CC8	
9653G1	CONTROL CABLE		X	CC7 CC8	
	PWR. CABLE TERM. AT VLV. MTR.		X	TP6 TP3	
	CONTROL CABLE TERM. AT TERMINAL BOX		X	TC13	
	CONTROL CABLE TERM. AT VLV. MTR. OPERATOR	—	X	TC11	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM _____ VALVE IMO-275

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
IMO-275	VALVE MOTOR OPERATOR		X	V6	
965121	POWER CABLE		X	CP1 ~~CP2~~ CP3	
965221	CONTROL CABLE		X	CC7 CC8	
965321	CONTROL CABLE		X	CC7 CC8	
	PWR. CABLE TERM. AT VLV. MTR.		X	TP6 IP3	
	CONTROL CABLE TERM. AT TERMINAL BOX		X	TC13	
	CONTROL CABLE TERM. AT VLV. MTR. OPERATOR		X	TC11	

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DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM _____ VALVE IMO-360

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
IMO-360	VALVE MOTOR OPERATOR		X	11 V8	
825561	POWER CABLE		X	CP1 ~~CP2~~ CP3	
825661	CONTROL CABLE		X	CC7 / CC8	
825761	CONTROL CABLE		X	CC7 / CC8	
	PWR. CABLE TERM. AT VLV. MTR.		X	TP0 TP3	
	CONTROL CABLE TERM. AT TERMINAL BOX		X	TC13	
	CONTROL CABLE TERM. AT VLV. MTR. OPERATOR		X	11 TC8	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM _____ VALVE IMO-361

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
IMO-361	VALVE MOTOR OPERATOR		X	11 U8	
826161	POWER CABLE		X	CP1 ~~CP2~~ CP3	
826261	CONTROL CABLE		X	CC7, CC8	
826561	CONTROL CABLE		X	CC7 CC8	
	PWR. CABLE TERM. AT VLV. MTR.		X	TP1 ~~TP2~~ TP3	
	CONTROL CABLE TERM. AT TERMINAL BOX		X	TC13,	
	CONTROL CABLE TERM. AT VLV. MTR. OPERATOR		X	11 TC9	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM _____ VALVE IMO-362

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
IMO-362	VALVE MOTOR OPERATOR		X	II V8	
8261R1	POWER CABLE		X	CP1 ~~CP2~~ CP3	
8262R1	CONTROL CABLE		X	CC7 CC8	
8263R1	CONTROL CABLE		X	CC7 CC8	
	PWR. CABLE TERM. AT VLV. MTR.		X	TP's ~~TP3~~	
	CONTROL CABLE TERM. AT TERMINAL BOX		X	TC13	
	CONTROL CABLE TERM. AT VLV. MTR. OPERATOR		X	II TC8	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM SAFETY INJECTION PUMP "IN"

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
PP-026N	SAFETY INJECTION PUMP "IN" MOTOR		X	M1	
8000G1	POWER CABLE		X	CP6	
	POWER CABLE TERM. AT PUMP MOTOR		X	TP4	
	Pump Oil		X	G7	
	Motor Oil		X	G8	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM SAFETY INJECTION PUMP "1S"

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
PP-02 4S	SAFETY INJECTION PUMP "1S" MOTOR		X	M1	
8000R1	POWER CABLE		X	CP. 5	
	POWER CABLE TERM. AT PUMP MOTOR		X	TP4	
	Pump Oil		X	G7	
	Motor Oil		X	G8	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM INSTRUMENT IFC-315

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
IFC-315	INSTRUMENT		X	I5	
887261	INSTR. CABLE		X	CI8 CI9 CI10	
	CABLE TERM. AT INSTRUMENT		X	TI9 TI1	

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DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM INSTRUMENT IFC-325

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
IFC-325	INSTRUMENT		X	I5	
886721	INSTR. CABLE		X	CI8 CI9 CI10	
					Rev 1
	CABLE TERM. AT INSTRUMENT		X	TI9 II4	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
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SYSTEM INSTRUMENT IFI-310

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
IFI-310	FLOW INDICATOR		X	I/Φ	
6296 R-1	INSTRUMENT CABLE		X	CI3 CI4 CI5	
	CABLE TERM. AT INSTRUMENT		X	TI10 FI5	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM INSTRUMENT IFI-311

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
IFI-311	FLOW INDICATOR		X	I 11	
5104 2-1	INSTRUMENT CABLE		X	CI 3 CI 4 CI 5	
	CABLE TERM. AT INSTRUMENT		X	TI 10 FI 5	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM INSTRUMENT IFI-320

PLANT ID. No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
IFI-320	FLOW INDICATOR		X	I/Φ	
6297 R-1	INSTRUMENT CABLE		X	CI3 CI4 CI5	
	CABLE TERM. AT INSTRUMENT		X	TI0 TI5	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
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SYSTEM INSTRUMENT IFI-321

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
IFI-321	FLOW INDICATOR		X	I 11	
5103 R-2	INSTRUMENT CABLE		X	CI3 CI4 CI5	
	CABLE TERM. AT INSTRUMENT		X	TI10 FI5	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM _____ VALVE IMO-310

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
IMO-310	VALVE MOTOR OPERATOR		X	V6	
807661	POWER CABLE		X	CP1 ~~CP2~~ CP3	
807761	CONTROL CABLE		X	CC7 CC8	
807861	CONTROL CABLE		X	CC7 CC8	
	PWR. CABLE TERM. AT VLV. MTR.		X	~~TP3~~ TP6	
	CONTROL CABLE TERM. AT TERMINAL BOX		X	TC13	
	CONTROL CABLE TERM. AT VLV. MTR. OPERATOR		X	TC11	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM VALVE IMO-312

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
IMO-312	VALVE MOTOR OPERATOR		X	V6	
8191G1	POWER CABLE		X	CP1 ~~CP2~~ CP3	
8192G1	CONTROL CABLE		X	CC7 CC8	
8193G1	CONTROL CABLE		X	CC7 CC8	
	PWR. CABLE TERM. AT VLV. MTR.		X	FP3 TP3	
	CONTROL CABLE TERM. AT TERMINAL BOX		X	TC13	
	CONTROL CABLE TERM. AT VLV. MTR. OPERATOR		X	TC11	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM VALVE IMO-314

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
IMO-314	VALVE MOTOR OPERATOR		X	V6	
9645G1	POWER CABLE		X	CP1 ~~CP2~~ CP3	
9647G1	CONTROL CABLE		X	CC7 CC8	
9648G1	CONTROL CABLE		X	CC7 CC8	
	PWR. CABLE TERM. AT VLV. MTR.		X	TP6 FP3	
	CONTROL CABLE TERM. AT TERMINAL BOX		X	TC13	
	CONTROL CABLE TERM. AT VLV. MTR. OPERATOR		X	TC11	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM VALVE IMO-315

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
IMO-315	VALVE MOTOR OPERATOR	X		V2	
9628CG1	POWER CABLE	X		CP7 CP8 CP9	
9627CG1	CONTROL CABLE	X		CC7 CC8	
9643G1	CONTROL CABLE	X		CC7 CC8	
	PWR. CABLE TERM. AT VLV. MTR.	X		TP3	
	POWER CABLE TERM. AT FLOOD UP TERMINAL BOX	X		TP2	
	POWER CABLE TERM. INSIDE FLOOD UP TUBES AT PEN.	X		TP1	
	CONTROL CABLE TERM. AT VLV. MTR. OPERATOR	X		TC4	
	CONTROL CABLE TERM. AT TERMINAL BOX	X		TC8	
	CONTROL CABLE TERM. AT FLOOD UP TERMINAL BOX	X		TC7	
	CONTROL CABLE TERM. INSIDE FLOOD UP TUBE AT PENETRATION	X		TC6	
[illegible]		X		[illegible]	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM _____ VALVE IMO-316

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
IMO-316	VALVE MOTOR OPERATOR	X		V2	
9631CG1	POWER CABLE	X		CP7 CP8 CP9	
9630CG1	CONTROL CABLE	X		CC7 CC8	
9644G1	CONTROL CABLE	X		CC7 CC8	
	PWR. CABLE TERM. AT VLV. MTR.	X		TP3	
	POWER CABLE TERM. AT FLOOD UP TERMINAL BOX	X		TP2	
	POWER CABLE TERM. INSIDE FLOOD UP TUBE AT PEN.	X		TP1	
	CONTROL CABLE TERM. AT VLV. MTR. OPERATOR	X		TC4	
	CONTROL CABLE TERM. AT TERMINAL BOX	X		TC8	
	CONTROL CABLE TERM. AT FLOOD UP TERMINAL BOX	X		TC7	
	CONTROL CABLE TERM. INSIDE FLOOD UP TUBE AT PENETRATION	X		TC6	
[illegible]		X		[illegible]	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM _____ VALVE IMO-320

PLANT ID. No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
IMO-320	VALVE MOTOR OPERATOR		X	V6	
8076R1	POWER CABLE		X	CP1 ~~TP3~~ CP3	
8077R1	CONTROL CABLE		X	CC7 CC8	
8078R1	CONTROL CABLE		X	CC7 CC8	
	PWR. CABLE TERM. AT VLV. MTR.:		X	~~TP3~~ TP2	
	CONTROL CABLE TERM. AT TERMINAL BOX		X	TC13	
	CONTROL CABLE TERM. AT VLV. MTR. OPERATOR		X	TC11	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM _____ VALVE IMO-322

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
IMO-322	VALVE MOTOR OPERATOR		X	V6	
819121	POWER CABLE		X	CP1 ~~CP2~~ CP3	
819221	CONTROL CABLE		X	CC7 CC8	
819321	CONTROL CABLE		X	CC7 CC8	
	PWR. CABLE TERM. AT VLV. MTR.		X	~~FP3~~ TP6	
	CONTROL CABLE TERM. AT TERMINAL BOX		X	TC13	
	CONTROL CABLE TERM. AT VLV. MTR. OPERATOR		X	TC11	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM VALVE IMO-324

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
IMO-324	VALVE MOTOR OPERATOR		X	V6	
9645R1	POWER CABLE		X	CP1 ~~CP2~~ CP3	
9647R1	CONTROL CABLE		X	CC7 CC8	
9648R1	CONTROL CABLE		X	CC7 CC8	
	PWR. CABLE TERM. AT VLV. MTR.		X	TP2 TP3	
	CONTROL CABLE TERM. AT TERMINAL BOX		X	TC13	
	CONTROL CABLE TERM. AT VLV. MTR. OPERATOR		X	TC11	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM VALVE IMO-325

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
IMO-325	VALVE MOTOR OPERATOR	X		V2	
9628 CR1	POWER CABLE	X		CP7 CP3 CP9	Rev 1
9627 CR1	CONTROL CABLE	X		CC7 CC8	
9643R1	CONTROL CABLE	X		CC7 CC8	
	PWR. CABLE TERM. AT VLV. MTR.	X		TP3	
	POWER CABLE TERM. AT FLOOD UP TERMINAL BOX	X		TP2	
	POWER CABLE TERM. INSIDE FLOOD UP TUBES AT PEN.	X		TP1	
	CONTROL CABLE TERM. AT VLV. MTR. OPERATOR	X		TC4	
	CONTROL CABLE TERM. AT TERMINAL BOX	X		TC8	
	CONTROL CABLE TERM. AT FLOOD UP TERMINAL BOX	X		TC7	
	CONTROL CABLE TERM. INSIDE FLOOD UP TUBE AT PENETRATION	X		TC6	
Kapton Tape Cable		X		CT 11	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM VALVE IMO-326

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
IMO-326	VALVE MOTOR OPERATOR	X		V2	
9631C21	POWER CABLE	X		CP7 CP9 CP7	Rev 1
9630C21	CONTROL CABLE	X		CC7 CC8	
9644R1	CONTROL CABLE	X		CC7 CC8	
	PWR. CABLE TERM. AT VLV. MTR.	X		TP3	
	POWER CABLE TERM. AT FLOOD UP TERMINAL BOX	X		TP2	
	POWER CABLE TERM. INSIDE FLOOD UP TUBE AT PEN.	X		TP1	
	CONTROL CABLE TERM. AT VLV. MTR. OPERATOR	X		TC4	
	CONTROL CABLE TERM. AT TERMINAL BOX	X		TC8	
	CONTROL CABLE TERM. AT FLOOD UP TERMINAL BOX	X		TC7	
	CONTROL CABLE TERM. INSIDE FLOOD UP TUBE AT PENETRATION	X		TC6	
KAPTON THERMOCOUPLE CABLE		X		[illegible]	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM _____ VALVE IMO-330

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
IMO-330	VALVE MOTOR OPERATOR		X	V7	
8185G1	POWER CABLE		X	CP1 ~~CP2~~ CP3	
8186G1	CONTROL CABLE		X	CC7 CC8	
8188G1	CONTROL CABLE		X	CC7 CC8	
	PWR. CABLE TERM. AT VLV. MTR.		X	TP6 TP3	
	CONTROL CABLE TERM. AT TERMINAL BOX		X	TC13	
	CONTROL CABLE TERM. AT VLV. MTR. OPERATOR		X	TC10	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM: _____ VALVE IMO-331

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
IMO-331	VALVE MOTOR OPERATOR		X	V7	
8185R1	POWER CABLE		X	CP1 ~~CP2~~ CP3	
8186R1	CONTROL CABLE		X	CC7 CC8	
8188R1	CONTROL CABLE		X	CC7 CC8	
	PWR. CABLE TERM. AT VLV. MTR.		X	TP6 ~~TP2~~ TP3	
	CONTROL CABLE TERM. AT TERMINAL BOX		X	TC13	
—	CONTROL CABLE TERM. AT VLV. MTR. OPERATOR		X	TC10	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM _____ VALVE IMO-340

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
IMO-340	VALVE MOTOR OPERATOR		X	II V8	
819461	POWER CABLE		X	CP1 ~~CP2~~ CP3.	
819561	CONTROL CABLE		X	CC7 CC8	
819661	CONTROL CABLE		X	CC7 CC8	
	PWR. CABLE TERM. AT VLV. MTR.		X	TP1 ~~TP3~~	
	CONTROL CABLE TERM. AT TERMINAL BOX		X	TC13	
	CONTROL CABLE TERM. AT VLV. MTR. OPERATOR		X	II TC9	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM _____ VALVE IMO-350

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
IMO-350	VALVE MOTOR OPERATOR		X	11 V8	
8182R1	POWER CABLE		X	CP1 ~~CP2~~ CP3	
8183R1	CONTROL CABLE		X	CC7 CC8	
8184R1	CONTROL CABLE		X	CC7 CC8	
	PWR. CABLE TERM. AT VLV. MTR.		X	TP5 TP3	
	CONTROL CABLE TERM. AT TERMINAL BOX		X	TC13	
	CONTROL CABLE TERM. AT VLV. MTR. OPERATOR		X	11 TC8	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM _____ VALVE IMO-128

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
IMO-128	VALVE Motor Operator	X		V1	
8086 CR-1	Power Cable	X		CP7 CP8 CP9	
8094 R-1	Control Cable	X		CC7 CC8	
8087 CR-1	Control Cable	X		CC7 CC8	
	Power Cable Term at Valve Motor.	X		TP5	
	Power Cable Term at Floodup Term Box	X		TP2	
	Power Cable Term at Pen inside Floodup Tubes	X		TP1	
	Control Cable Term at Valve Motor Operator	X		TC3	
	Control Cable Term at Floodup Term Box	X		TC7	
	Control Cable Term at Pen inside Floodup Tubes	X		TC6	
	Control Cable Term. at Term. Box	X		TC8	
[illegible]		X		[illegible]	

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DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM EAST RHR PUMP

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
PP-035E	EAST RHR PUMP MOTOR		X	M1	
800361	POWER CABLE		X	CP 5	
	POWER CABLE TERM. AT PUMP MOTOR		X	TP4	
	Pump and Motor Grease		X	G9	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM WEST RHR PUMP

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
PP035W	WEST RHR PUMP MOTOR		X	M1	
800321	POWER CABLE		X	CP 5	
	POWER CABLE TERM. AT PUMP MOTOR		X	TP4	
	Pump and Motor Grease		X	G9	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM INSTRUMENT TLS-950

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
9738 G-1	INSTRUMENT CABLE		X	CI3 CI4 CI5	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM INSTRUMENT ILS-95/

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
9738 R-1	Instrument Cable		X	CI3 CI4 CI5	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58
SYSTEM INSTRUMENT PPP-301

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
PPP-301	CONTAINMENT PRESSURE INSTRUMENT		X	I29,	
9304-4-2	INSTRUMENT CABLE		X	CI3 CI4 CI5.	
	CABLE TERM AT INSTRAMENT		X	TF10 TF15	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM INSTRUMENT PPP-300

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
PPP-300	CONTAINMENT PRESSURE INSTRUMENT		X	I29	
9305 W-1	INSTRUMENT + CABLE		X	CI3 CI4 CI5	
	CABLE TRAM. AT INSTRUMENT		X	TI3 TI5	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM INSTRUMENT PPP-302

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
PPP-302	CONTAINMENT PRESSURE INSTRUMENT		X	F29.	
9305 B-2	INSTRUMENT CABLE		X	CI3 CI4 CI5.	
	CABLE TERM. AT INSTRUMENT		X	TI9 TI5	

DONALD C. COOK NUCLEAR PLANT UNIT No.1
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM INSTRUMENT PPP-303

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
PPP-303	CONTAINMENT PRESSURE INSTRUMENT		X	I30	
9304 0.1	INSTRUMENT CABLE		X	CI3 CI4 CI5	
	INSTRUMENT CABLE TERM. AT INSTRUMENT		X	TI0 TI5	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM _____ VALVE IMO-210

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
IMO-210	VALVE MOTOR OPERATOR		X	V7	
8064G1	POWER CABLE		X	CP1 ~~CP2~~ CP3	
8065G1	CONTROL CABLE		X	CC7 CC8	
8066G1	CONTROL CABLE		X	CC7 CC8	
	PWR. CABLE TERM. AT VLV. MTR.		X	TP6 ~~TP3~~	
	CONTROL CABLE TERM. AT TERMINAL BOX		X	TC13	
	CONTROL CABLE TERM. AT VLV. MTR. OPERATOR		X	TC10	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM _____ VALVE IMO-211

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
IMO-211	VALVE MOTOR OPERATOR		X	V7	
8067G1	POWER CABLE		X	CP1 ~~CP2~~ CP3	
8068G1	CONTROL CABLE		X	CC7 CC8	
8069G1	CONTROL CABLE		X	CC7 CC8	
	PWR. CABLE TERM. AT VLV. MTR.		X	~~TP1~~ TP3	
	CONTROL CABLE TERM. AT TERMINAL BOX		X	TC13	
	CONTROL CABLE TERM. AT VLV. MTR. OPERATOR		X	TC10	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM _____ VALVE IMO-220

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
IMO-220	VALVE MOTOR OPERATOR		X	V7	
8064R1	POWER CABLE		X	CP1 ~~CP2~~ CP3	
8065R1	CONTROL CABLE		X	CC7 CC8	
8066R1	CONTROL CABLE		X	CC7 CC8	
	PWR. CABLE TERM. AT VLV. MTR.		X	T16 IR3	
	CONTROL CABLE TERM. AT TERMINAL BOX		X	TC13	
	CONTROL CABLE TERM. AT VLV. MTR. OPERATOR		X	TC10	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM _____ VALVE IMO-221

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
IMO-221	VALVE MOTOR OPERATOR		X	V7	
8067R1	POWER CABLE		X	CP1 ~~CP2~~ CP3	
8068R1	CONTROL CABLE		X	CC7 CC8	
8069R1	CONTROL CABLE		X	CC7 CC8	
	PWR. CABLE TERM. AT VLV. MTR.		X	T16 TP3	
	CONTROL CABLE TERM. AT TERMINAL BOX		X	TC13	
	CONTROL CABLE TERM. AT VLV. MTR. OPERATOR		X	TC10	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM _____ VALVE IMO-212

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
IMO-212	VALVE MOTOR OPERATOR		X	V7	
807061	POWER CABLE		X	CP1, ~~CP2~~ CP3	
807161	CONTROL CABLE		X	CC7 CC8	
807261	CONTROL CABLE		X	CC7 CC8	
	PWR. CABLE TERM. AT VLV. MTR.		X	TP6 TP3	
	CONTROL CABLE TERM. AT TERMINAL BOX		X	TC13	
	CONTROL CABLE TERM. AT VLV. MTR. OPERATOR		X	TC10	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM _____ VALVE IMO-222

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
IMO-222	VALVE MOTOR OPERATOR		X	V7	
807021	POWER CABLE		X	CP1 ~~CP2~~ CP3	
807121	CONTROL CABLE		X	CC7 CC8	
807221	CONTROL CABLE		X	CC7 CC8	
	PWR. CABLE TERM. AT VLV. MTR.		X	TP6 TP3	
	CONTROL CABLE TERM. AT TERMINAL BOX		X	TC13	
	CONTROL CABLE TERM. AT VLV. MTR. OPERATOR		X	TC10	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
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SYSTEM _____ VALVE IMO-215

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
IMO-215	VALVE MOTOR OPERATOR		x	V7	
807361	POWER CABLE		x	C.P1 ~~C.P2~~ CP3	
807461	CONTROL CABLE		x	CC7 CC8	
807561	CONTROL CABLE		x	CC7 CC8	
	PWR. CABLE TERM. AT VLV. MTR.		x	TP3 ~~TP3~~	
	CONTROL CABLE TERM. AT TERMINAL BOX		x	TC13	
	CONTROL CABLE TERM. AT VLV. MTR. OPERATOR		x	TC10	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM _____ VALVE IMO-225

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
IMO-225	VALVE MOTOR OPERATOR		X	V7	
8073R1	POWER CABLE		X	CR1 ~~CP2~~ CP3	
8074R1	CONTROL CABLE		X	CC7 CC8	
8075R1	CONTROL CABLE		X	CC7 CC8	
	PWR. CABLE TERM. AT VLV. MTR.		X	TP6 FP3	
	CONTROL CABLE TERM. AT TERMINAL BOX		X	TC13	
	CONTROL CABLE TERM. AT VLV. MTR. OPERATOR		X	TC10	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM EAST CONT. SPRAY PUMP

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
PP-009 EAST	EAST CONT. SPRAY PUMP MOTOR		X	M2	
8002G1	POWER CABLE		X	CP10	
	POWER CABLE TERM. AT PUMP MOTOR		X	TP4	
	Motor Oil		X	G3	
	Motor Grease		X	G4	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
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SYSTEM WEST CONT. SPRAY PUMP

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
PP-009 WEST	WEST CONT. SPRAY PUMP MOTOR		X	M2	
8002R1	POWER CABLE		X	CP1D	
	POWER CABLE TERM. AT PUMP MOTOR		X	TP4	
	Motor Oil		X	G3	
	Motor Grease		X	G4	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
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SYSTEM Control Air Recirc. Sys. VALVE VMO-101

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
VMO-101	Valve Motor Operator	X		V4	
9539 CR-1	Power Cable	X		CP7 CP8 CP9	
9541 R-1	Control Cable	X		CC7 CC8	
3540 CR-1	Control Cable	X		CC7 CC8	
	Power Cable Termination at valve motor	X		TP3	
	Power Cable Termination at Flood up Term. Box	X		TP2	
	Power Cable Termination at Penetration	X		TP1	
	Control Cable Term. at Valve Motor Operator	X		TC2	
	Control Cable Term. at Term. Box	X		TC8	
	Control Cable Term. at Floodup Term Box	X		TC7	
	Control Cable Term. inside Floodup Tube at Penetration.	X		TC6	
Kapton [illegible] Cable		X		[illegible]	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
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SYSTEM Control Air Recirc Sys VALVE VMO-102

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
VMO-102	Valve Motor Operator	X		V4	
9608 CG-1	Power Cable	X		CP7 CP8 CP9	
9610 G-1	Control Cable	X		CC7 CC8	
9609 CG-1	Control Cable	X		CC7 CC8	
	Power Cable Termination at Valve Motor	X		TP3	
	Power Cable Termination at Flood up Term. Box	X		TP2	
	Power Cable Termination at Penetration	X		TP1	
	Control Cable Term. at Valve Motor Operator	X		TC2	
	Control Cable Term. at Term. Box	X		TC8	
	Control Cable Term. at Floodup Term. Box	X		TC7	
	Control Cable Term. Inside Floodup Tube at Penetration	X		TC6	
[illegible] Cable		X		[illegible]	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58
SYSTEM Control Air Recirc Sys FAN 1-HV-CEQ1

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
0.532 AR-1	Power Cable	X		C-P11 OBE	
HV-CEQ1	FAN Motor	X		F1	
	Power Cable Term. AT FAN Motor	X		TP3	
	Power Cable Term. AT Floodup Term Box	X		TP2	
	Power Cable Term. Inside Floodup Tube AT Penetration.	X		TP1	
KAPTON INSUL. 2 M		X		C-P11	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58
SYSTEM Containment Air Recirc. System FAN 1-HV-CEQ2

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
9604 CG-1	Power Cable	X		TP11	
HV-CEQ2	Fan Motor	X		F1	
	Power Cable Term. at Fan Motor	X		TP3	
	Power Cable Term. at Floodup Term Box	X		TP2	
	Power Cable Term. Inside Floodup Tube at Penetration	✓		TP1	
Kapton Insul. Wire		X		TP11	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM Hydrogen Recombiner #1

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
5978 CR-1	Power Cable	X		CP 12 CP 13 CP4	
HR-1	Hydrogen Recombiner	X		H1	
	Power Cable Team at Recombiner	X		TP3	
	Power Cable Team at Floodup Team Box	X		TP2	
	Power Cable Team Inside Floodup Tube at Penetration	X		TP1	
Kapton Insul. Cable		X		CI 11	

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DONALD C. COOK NUCLEAR PLANT UNIT No. 1
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SYSTEM Hydrogen Recombiner #2

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
8978 CG-1	Power Cable	X		CP12 CP13 CP4	
HR-2	Hydrogen Recombiner Heater Assembly	X		H1	
	Power Cable Term at Recombiner	X		TP3	
	Power Cable Term at Flooded Term. Box	X		TP2	
	Power Cable Term Inside Flooded Tubes at Penetration	X		TP1	
Kapton Insul. Cable		X		C-11	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM _____ INSTRUMENT N35

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
N35 CV	INSTRUMENT	X		I16	
N35 SIG	INSTRUMENT	X		I16	
N35 HV	INSTRUMENT	X		I16	
9258 CO-2	INSTR. CABLE	X		I16	
9259 CO-2	INSTR. CABLE	X		I16	
9260 CO2	INSTR. CABLE	X		I16	
	CABLE TERM. AT JUNC. BOX	X		I16	
	CABLE TERM. AT INSTR. N35.	X		I16	
	CABLE TERM AT PENETRATION	X		I16	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
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SYSTEM _____ INSTRUMENT N36

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
N36CV	INSTRUMENT	X		I16	
N36 SIG	INSTRUMENT	X		I16	
N36 HV	INSTRUMENT	X		I16	
9258 CB-1	INSTR. CABLE	X		I16	
9259 CB-1	INSTR. CABLE	X		I16	
9260 CB-1	INSTR. CABLE	X		I16	
	CABLE TERM. AT. JUNCTION BOX	X		I16	
	CABLE TERM AT INSTR.	X		I16	
	Cable Term AT Penetration	X		I16	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
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SYSTEM _____ INSTRUMENT N41A

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
N41A	INSTRUMENT	X		I17	
9264 CO-I	INSTRUMENT CABLE	X		I17	
	CABLE TERM. AT JUNCTION BOX	X		I17	
	CABLE TERM AT PENETRATION	X		I17	
	CABLE TERM AT INSTRAMENT	X		I17	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
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SYSTEM _____ INSTRUMENT N41B

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
N41B	INSTRUMENT	X		I17	
9266 CO-2	INSTRUMENT CABLE	X		I17	
	CABLE TERM. AT JUNCTION BOX	X		I17	
	CABLE TERM AT PENETRATION	X		I17	
	CABLE TERM AT INSTRAMENT	X		I17	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
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SYSTEM _____ INSTRUMENT N42A

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
N42A	INSTRUMENT	X		I17	
9264 CB-1	INSTRUMENT CABLE	X		I17	
	CABLE TERM. AT JUNCTION BOX	X		I17	
	CABLE TERM AT. PENETRATION	X		I17	
	CABLE TERM AT INSTRAMENT	X		I17	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
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SYSTEM _____ INSTRUMENT N42B

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
N 42B	INSTRUMENT	X		I17	
9266 CB-2	INSTRUMENT CABLE	X		I17	
	CABLE TERM. AT JUNCTION BOX	X		I17	
	CABLE TERM AT PENETRATION	X		I17	
	CABLE TERM AT INSTRAMENT	X		I17	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
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SYSTEM INSTRUMENT N43A

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
N43A	INSTRUMENT	X		I17	
P468 CY-1	INSTRUMENT CABLE	X		I17	
	CABLE TERM. AT JUNCTION BOX	X		I17	
	CABLE TERM. AT PENETRATION	X		I17	
	CABLE TERM. AT INSTRUMENT	X		I17	

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SYSTEM _____ INSTRUMENT N43B

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
N43B	INSTRUMENT	X		I17	
8470 CY-2	INSTRUMENT CABLE	X		I17	
	CABLE TERM. AT JUNCTION BOX	X		I17	
	CABLE TERM AT PENETRATION	X		I17	
	CABLE TERM AT INSTRAMENT	X		I17	

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SYSTEM _____ INSTRUMENT N44A.

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
N44A	INSTRUMENT	X		I17	
8466 CW-1	INSTRUMENT CABLE	X		I17	
	CABLE TERM. AT JUNCTION BOX	X		I17	
	CABLE TERM AT PENETRATION	X		I17	
	CABLE TERM AT INSTRAMENT	X		I17	

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SYSTEM _____ INSTRUMENT N44B

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
N44B	INSTRUMENT	X		I17	
8470 CW-1	INSTRUMENT CABLE	X		I17	
	CABLE TERM. AT JUNCTION BOX	X		I17	
	CABLE TERM AT PENETRATION	X		I17	
	CABLE TERM AT INSTRAMENT	X		I17	

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SYSTEM INSTRUMENT NTP-110

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
NTP-110	Nuclear Reactor Coolant Temperature Protection	X		E27 -	
8708 CO-2	Instrument Cable	X		CI8 CI9	
	Cable Term at Instrument	X		TI2	
					Rev
	Cable Term at Penetration	X		TI8 ~~ETH~~	
KAPTON INSU-CABLE		X		CJ12	

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SYSTEM INSTRUMENT NTP-111

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
NTP-111	NUCLEAR REACTOR COOLANT TEMPERATURE PROTECTION	X		I-26 I-25	
8710 CO-2	INSTRUMENT CABLE	X		CI 8 CI 9	
	CABLE TRAY AT INSTRUMENT	X		TI2	
					Rev
	CABLE TRAY AT PENETRATION	X		~~TI4~~ TI8	
KAPTON INSUL CABLE		X		CI 13	

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SYSTEM INSTRUMENT NTP-120

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
NTP-210	Nuclear Reactor Coolant Temperature Protection	X		I27	
8720 CB-1	Instrument Cable	X		CI8 CI9	
	Cable Term at Penetration	X		~~FI-4~~ TI8	
	CABLE TERM AT INSTRUMENT	X		TI2	
KAPTON INSUL CABLE		X		CI12	

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SYSTEM Instrument NTP-121

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
NTP-121	Nuclear Reactor Coolant Temp Protection	X		I26 I25	
8722 CB-1	Instrument Cable	X		CI8 CI9	
	Cable Term. at Instrument	X		TI1	
					Rev
	Cable Term. at Penetration	X		~~TI7~~ TI8	
Kapton Insul. Cable		X		TI2	

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SYSTEM Instrument NTP-130

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
NTP-130	Nuclear Reactor Coolan Temp Protection	X		I27	
8721 CY-1	Instrument Cable	X		CI8 CI9	
	Cable Term. at Instrument	X		TI2	
					Rev
	Cable Term. at Penetration	X		TI8 TF4	
Kapton Insul. Cable		X		CI12	

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SYSTEM Instrument NTP-131

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
NTP-131	Nuclear Reactor Coolant Temp. Protection	X		I 26 I 25	
8723 CY-1	Instrument Cable	X		CI8 CI9	
	Cable Term. at Instrument	X		TI2	
	Cable Term. at Penetration	X		~~TI1~~ TI8	
KAPTON INSUL CABLE		X		JI/2	

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SYSTEM Instrument NTP-140

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
NTP-140	Nuclear Reactor Coolant Temp. Protection	X		I 27	
8732 CW-1	Instrument Cable	X		CI 7 CI 8	
	Cable Team at Instrument	X		TI 2	
					Rev
	Cable Team at Penetration	X		TI 4 TI 8	
KAPTON INSUL CABLE		X		CI 2	

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SYSTEM Instrument NTP-141

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
NTP-141	Nuclear Reactor Coolant Temp. Prot.	X		I 26 I 25	
2734 CW-1	Instrument Cable	X		CI 8 CI 9	
	Cable Tray at Instrument	X		TI 2	
	Junction Box				
	Cable Tray at Penetration	X		TI 6 ~~TI 4~~	
Kaptan Insul. Cable		X		CI 12	

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SYSTEM INSTRUMENT NTP-210

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
NTP-210	NUCLEAR REACTOR COOLANT TEMPERATURE & PROTECTION	X		I27	
8709 CO-1	INSTRUMENT CABLE	X		CI8 CI9	
	Cable Term AT INSTRUMENT	X		TI2	
					Rev
	CABLE TERM AT PENETRATION	X		TI8 ~~TI4~~	
KAPTON INSUL CABLE		X		TI2	

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SYSTEM INSTRUMENT NTP-211

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
NTP-211	NUCLEAR REACTOR COOLANT TEMPERATURE PROTECTION	X		I25 I26	
8711-CO-1	INSTRUMENT CABLE	X		CI8 CI9	
	Cable Term. at INSTRUMENT	X		TI2	
	Cable Term at Penetration	X		TI8 ~~TI1~~	
KAPTON INSUL CABLE		X		I-12	

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SYSTEM INSTRUMENT NTP-220

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
NTP-220	Nuclear Reactor Coolant Temperature Protection	X		I27	
8721 CB-1	Instrument Cable	X		CI8 CI9	
	Cable Term. at Instrument	X		TI2	
		X			
	Cable Term at Penetration	X		TIO	
KAPTON INSULATED		X		TI-	

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SYSTEM: INSTRUMENT NTP-221

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
NTP-221	NUCLEAR REACTOR COOLANT TEMP. PROTECTION	X		I25 I26	
8723 CB-1	INSTRUMENT CABLE	X		CI8 CI9	
	CABLE TERM AT INSTRUMENT	X		TI2	
					Rev
	CABLE TERM AT PENETRATION	X		TI8 ~~TI4~~	
W-PATH FLEX CABLE		X		CI12	

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SYSTEM INSTRUMENT NTP-230

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
NTP-230	Nuclear Reactor Coolant Temp. Protection	X		I27	
8722 CY-1	Instrument Cable	X		CI2 CI9	
	Cable Term. at Instrument	X		TI2	
					Rev
	Cable Term. at Penetration	X		TI8 ~~TI4~~	
KAPTON INSUL. CABLE		X		[illegible]	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
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SYSTEM Instrument NTP-231

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
NTP-231	Nuclear Reactor Coolant Temp. Protection	X		I25 I26	
8724-CY-1	Instrument Cable	X		CI8 CI9	
	Cable Term at Instrument	X		TI2	
					Rev 1
	Cable Term. at Penetration	X		TI8 ~~TI4~~	
ICAD TAM TNCHL CABLE		X		CI12	

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SYSTEM Instrument NTP-240

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
NTP-240	Nuclear Reactor Coolant Temp. Post.	X		I27	
&733 CW-1	Instrument Cable	X		CI8 CI9	
	Cable term. at Penetration	X		TI8 II4	
	Cable term at Instrument	X		TI2	
KAPTON INSUL CABLE		X		[illegible]	

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SYSTEM Instrument NTP-241

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
NTP-241	Nuclear Reactor Coolant Temp. Prot.	X		I25 I26	
8735 CW-1	Instrument Cable	X		CI8 CI9	
	Cable Team. at Instrument	X		TI2	
	Cable Team at Penetration	X		TI8 ~~TI4~~	
Kaptan Insul. Cable		X		TI2	

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SYSTEM _____, RECORDER NTR-110

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
NTR-110	TEMP. RECORDER	X		I2B	
8725 C0-1	INSTRUMENT CABLE	X		CI5 CI3	
	CABLE TERMINATION AT INSTRUMENT	X		TI2	
	CABLE TERMINATION AT PENETRATION INSIDE FLOOD UP TURBINE	X		TI3	
	CABLE TERMINATION AT FLOOD UP TERMINAL BOX	X		TI4	
KAP-... TYCO CABLE		X		... 1	Rev

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SYSTEM _____, RECORDER NTR-120

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
NTR-120	TEMP. RECORDER	X		I28	
8726 CO-1	INSTRUMENT CABLE	X		CI5 CI3	
	CABLE TERMINATION AT INSTRUMENT	X		TI2	
	CABLE TERMINATION AT PENETRATION INSIDE FLOOD UP TUBING	X		TI3	
	CABLE TERMINATION AT FLOOD UP TERMINAL BOX	X		TI4	
KAP-1 INST CABLE	[illegible]	X		CI1	Rev

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SYSTEM _____, RECORDER NTR-130

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
NTR-130	TEMP. RECORDER	X		I28	
8727 CO-1	INSTRUMENT CABLE	X		CI3 CI5	
	CABLE TERMINATION AT INSTRUMENT	X		TI2	
	CABLE TERMINATION AT PENETRATION INSIDE FLOOD UP TUBING	X		TI3	
	CABLE TERMINATION AT FLOOD UP TERMINAL BOX	X		TI4	
KAPTON JACKET CABLE		X		CI1	

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SYSTEM _____ RECORDER NTR-140

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
NTR-140	TEMP. RECORDER	X		I28	
8728 C0-1	INSTRUMENT CABLE	X		CI3 CI5	
	CABLE TERMINATION AT INSTRUMENT	X		TI2	
	CABLE TERMINATION AT PENETRATION INSIDE FLOOD UP TUBING	X		TI3	
	CABLE TERMINATION AT FLOOD UP TERMINAL BOX	X		TI4	
[illegible]		X		CII1	Rev

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM _____, RECORDER NTR-210

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
NTR-210	TEMP. RECORDER	X		I28	
8729 CB-1	INSTRUMENT CABLE	X		AI 3 CI5	
	CABLE TERMINATION AT INSTRUMENT	X		TI2	
	CABLE TERMINATION AT PENETRATION INSIDE FLOOD UP TUBING	X		TI3	
	CABLE TERMINATION AT FLOOD UP TERMINAL BOX	X		TI4	
KAPTON INSUL. CABLE		X		[illegible]	

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DONALD C. COOK NUCLEAR PLANT UNIT No. 1
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SYSTEM _____, RECORDER NTR-220

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
NTR-220	TEMP. RECORDER	X		I28	
8730CB-1	INSTRUMENT CABLE	X		CI 3 CI5	
	CABLE TERMINATION AT INSTRUMENT	X		TI2	
	CABLE TERMINATION AT PENETRATION INSIDE FLOOD UP TUBING	X		TI3	
	CABLE TERMINATION AT FLOOD UP TERMINAL BOX	X		TI4	
[illegible] INSUL. CABLE	[illegible]	X		[illegible]	Rev

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
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SYSTEM _____ RECORDER NTR-230

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
NTR-230	TEMP. RECORDER	X		I28	
8731C8-1	INSTRUMENT CABLE	X		AI3 CES	
	CABLE TERMINATION AT INSTRUMENT	X		TI2	
	CABLE TERMINATION AT PENETRATION INSIDE FLOOD UP TUBING	X		TI3	
	CABLE TERMINATION AT FLOOD UP TERMINAL BOX	X		TI4	
KAPTON [illegible] CABLE	[illegible]	X		CI11	

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DONALD C. COOK NUCLEAR PLANT UNIT No. 1
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SYSTEM _____ RECORDER NTR-240

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
NTR-240	TEMP. RECORDER	X		I28	
8732 CB-1	INSTRUMENT CABLE	X		CI 8 CI9	
	CABLE TERMINATION AT INSTRUMENT	X		TI2	
	CABLE TERMINATION AT PENETRATION INSIDE FLOOD UP TUBING	X		TI3	
	CABLE TERMINATION AT FLOOD UP TERMINAL BOX	X		TI4	
KAPTON INSUL. WIRE		X		CII	

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DONALD C. COOK NUCLEAR PLANT UNIT No.1
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM _____ INSTRUMENT NPP-151

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
NPP-151	INSTRUMENT	X		I19 I20 I21	
8733 C0-1	INSTRUMENT CABLE	X		CI 5 CI 5	
	CABLE TERMINATION AT INSTRUMENT	X		TI1	
	CABLE TERMINATION AT PENETRATION INSIDE FLOOD UP TUBING	X		TI3	
	CABLE TERMINATION AT FLOOD UP TERMINAL BOX	X		TI4	
V.P.N.1 INSTR. CABLE		X		CI 11	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
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SYSTEM _____ INSTRUMENT NPP-152

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
NPP-152	INSTRUMENT	X		I19 I21 =20	
8736 C8-1	INSTRUMENT CABLE	X		CI-3 CI5	
	CABLE TERMINATION AT INSTRUMENT	X		TI1	
	CABLE TERMINATION AT PENETRATION INSIDE FLOOD UP TUBING	X		TI3	
	CABLE TERMINATION AT FLOOD UP TERMINAL BOX	X		TI4	
W [illegible] INSUL. CAGE		X		C-11	

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SYSTEM _____ INSTRUMENT NPP-153

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
NPP-153	INSTRUMENT	X		I19 I21 I20	
9600 CY-1	INSTRUMENT CABLE	X		CI3 CI5	
	CABLE TERMINATION AT INSTRUMENT	X		TI1	
	CABLE TERMINATION AT PENETRATION INSIDE FLOOD UP TUBING	X		TI3	
	CABLE TERMINATION AT FLOOD UP TERMINAL BOX	X		TI4	
KAPTON [illegible]		X		CI11	

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SYSTEM INSTRUMENT NPS-153

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
NPS-153	Nuclear Reactor Coolant Pressure Control Switch	X		I24	
9600 CW-2	Control Cable	X		CI3 CI5	
---	Cable term: at Instr	X		TI1	
	Cable term: at Pene	X		TI0 ~~I4~~	
[illegible]		X		CI7	

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SYSTEM _____, INSTRUMENT NLP-151

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
NLP-151	INSTRUMENT	X		I18	
8734C0-1	INSTRUMENT CABLE	X		CI 3 CI 5	
	CABLE TERMINATION AT INSTRUMENT	X		TI1	
	CABLE TERMINATION AT PENETRATION INSIDE FLOOD UP TUBING	X		TI3	
	CABLE TERMINATION AT FLOOD UP TERMINAL BOX	X		TI4	
[illegible]		X		[illegible]	

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SYSTEM _____, INSTRUMENT NLP-152

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
NLP-152	INSTRUMENT	X		I 18	
8737C8-1	INSTRUMENT CABLE	X		CI 3 CI5	
	CABLE TERMINATION AT INSTRUMENT	X		TI1	
	CABLE TERMINATION AT PENETRATION INSIDE FLOOD UP TUBING	X		TI3	
	CABLE TERMINATION AT FLOOD UP TERMINAL BOX	X		TI4	
[illegible]	[illegible]	[illegible]		[illegible]	Rev

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SYSTEM _____ INSTRUMENT NLP-153

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
NLP-153	INSTRUMENT	X		I 18	
9601 CY-1	INSTRUMENT CABLE	X		CI 5 CI5	
	CABLE TERMINATION AT INSTRUMENT	X		TI1	
	CABLE TERMINATION AT PENETRATION INSIDE FLOOD UP TURING	X		TI3	
	CABLE TERMINATION AT FLOOD UP TERMINAL BOX	X		TI4	
[illegible]	[illegible]	X		[illegible]	

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SYSTEM _____ INSTRUMENT BLP-110

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
BLP-110	INSTRUMENT	X		I1	
8584CW-1	INSTRUMENT CABLE	X		CI3 CI5.	
	CABLE TERMINATION AT INSTRUMENT	X		TI1	
	CABLE TERMINATION AT PENETRATION INSIDE FLOOD UP TUBING	X		TI3	
	CABLE TERMINATION AT FLOOD UP TERMINAL BOX	X		TI4	
K.I.P. TUBING CABLE		X		CI1	

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SYSTEM INSTRUMENT BLP-111

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
BLP-111	INSTRUMENT	X		I 1	
8558 CB-1	INSTRUMENT CABLE	X		CI 3. CI 5	
	CABLE TERMINATION AT INSTRUMENT	X		TI 1	
	CABLE TERMINATION AT PENETRATION INSIDE FLOOD UP TUBING	X		TI 3	
	CABLE TERMINATION AT FLOOD UP TERMINAL BOX	X		TI 4	
[illegible]		X		CI 11	

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SYSTEM _____, INSTRUMENT BLP-112

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
BLP-112	INSTRUMENT	X		I 1	
8584 CY-1	INSTRUMENT CABLE	X		CI 3 CI 5	
	CABLE TERMINATION AT INSTRUMENT	X		TI 1	
	CABLE TERMINATION AT PENETRATION INSIDE FLOOD UP TUBING	X		TI 3	
	CABLE TERMINATION AT FLOOD UP TERMINAL BOX	X		TI 4	
[illegible]		X		[illegible]	

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SYSTEM _____, INSTRUMENT BLP-120

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
BLP-120	INSTRUMENT	X		I1	
8585 CW-1	INSTRUMENT CABLE	X		CI3 CI5	
	CABLE TERMINATION AT INSTRUMENT	X		TI1	
	CABLE TERMINATION AT PENETRATION INSIDE FLOOD UP TUBING	X		TI3	
	CABLE TERMINATION AT FLOOD UP TERMINAL BOX	X		TI4	
[illegible]		X		[illegible]	

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SYSTEM _____, INSTRUMENT BLP-121

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
BLP-121	INSTRUMENT	X		I1	
8558C0-1	INSTRUMENT CABLE	X		CI3. CI4	
	CABLE TERMINATION AT INSTRUMENT	X		TI1	
	CABLE TERMINATION AT PENETRATION INSIDE FLOOD UP TUBING	X		TI3	
	CABLE TERMINATION AT FLOOD UP TERMINAL BOX	X		TI4	
[illegible]		X		CI[illegible]	

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SYSTEM _____ INSTRUMENT BLP-122

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
BLP-122	INSTRUMENT	X		I1	
8585CY-1	INSTRUMENT CABLE	X		CI 3 CI5	
	CABLE TERMINATION AT INSTRUMENT	X		TI1	
	CABLE TERMINATION AT PENETRATION INSIDE FLOOD UP TUBING	X		TI3	
	CABLE TERMINATION AT FLOOD UP TERMINAL BOX	X		TI4	
[illegible]		X		CT 11	

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SYSTEM _____ INSTRUMENT BLP-130

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
BLP-130	INSTRUMENT	X		I1	
8586 CW-1	INSTRUMENT CABLE	X		CI3 CI5	
	CABLE TERMINATION AT INSTRUMENT	X		TI1	
	CABLE TERMINATION AT PENETRATION INSIDE FLOOD UP TUBING	X		TI3	
	CABLE TERMINATION AT FLOOD UP TERMINAL BOX	X		TI4	
[illegible]		X		[illegible]	

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SYSTEM _____, INSTRUMENT BLP-131

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
BLP-131	INSTRUMENT	X		I1	
8559 C0-1	INSTRUMENT CABLE	X		CI 3 CI5	
	CABLE TERMINATION AT INSTRUMENT	X		TI1	
	CABLE TERMINATION AT PENETRATION INSIDE FLOOD UP TUBING	X		TI3	
	CABLE TERMINATION AT FLOOD UP TERMINAL BOX	X		TI4	
[illegible]		X		[illegible]	

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SYSTEM _____ INSTRUMENT BLP-132

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
BLP-132	INSTRUMENT	X		I 1	
8586 CY-1	INSTRUMENT CABLE	X		CI 3 'd15.	
	CABLE TERMINATION AT INSTRUMENT	X		TI 1	
	CABLE TERMINATION AT PENETRATION INSIDE FLOOD UP TUBING	X		TI 3	
	CABLE TERMINATION AT FLOOD UP TERMINAL BOX	X		TI 4	
[illegible]		X		[illegible]	

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SYSTEM _____, INSTRUMENT BLP-140

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
BLP-140	INSTRUMENT	X		I1	
8587 CIN-1	INSTRUMENT CABLE	X		CI3 CI5	
	CABLE TERMINATION AT INSTRUMENT	X		TI1	
	CABLE TERMINATION AT PENETRATION INSIDE FLOOD UP TUBING	X		TI3	
	CABLE TERMINATION AT FLOOD UP TERMINAL BOX	X		TI4	
KAPTON INSUL. CABLE		X		CI11	

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SYSTEM _____ INSTRUMENT BLP-141

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
BLP-141	INSTRUMENT	X		I1	
8559 CB-1	INSTRUMENT CABLE	X		CI3. CI5	
	CABLE TERMINATION AT INSTRUMENT	X		TI1	
	CABLE TERMINATION AT PENETRATION INSIDE FLOOD UP TUBING	X		TI3	
	CABLE TERMINATION AT FLOOD UP TERMINAL BOX	X		TI4	
KAPTON INSUL. CABLE		X		CI1	

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SYSTEM _____, INSTRUMENT BLP-142

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
BLP-142	INSTRUMENT	X		I1	
8587 Y-1	INSTRUMENT CABLE	X		CI3 CI5	
	CABLE TERMINATION AT INSTRUMENT	X		TI1	
	CABLE TERMINATION AT PENETRATION INSIDE FLOOD UP TUBING	X		TI3	
	CABLE TERMINATION AT FLOOD UP TERMINAL BOX	X		TI4	
KAPTON INSUL. CABLE		X		CI-11	

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SYSTEM INSTRUMENT - FFC-210

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
FFC-210	Feedwater Flow Controller		X	I3	
9070 O-1	INSTRUMENT CABLE		X	CI3 CI4 CI5	
	CABLE TERM. AT INSTRUMENT		X	TI1 ~~FI5~~	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58 INSTRUMENT
SYSTEM FFC-211

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
FFC-211	Feedwater Flow Controller		X	I3	
9064 B.1	Instrument Cable		X	CI3 CI4 CI5	
	Cable Term. at Instrument		X	TI1 TI5	

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SYSTEM INSTRUMENT FFC-220

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
FFC-220	Feedwater Flow Controller		X	I3	
9071 0-1	Instrument Cable		X	CI3 CIV CI5	
	Cable Term At. Instrument		X	TFI0 FI5	

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SYSTEM INSTRUMENT FFC-221

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
FFC-221	Feedwater Flow Controller		X	I3	
9070 B-1	Instrument Cable		X	CI3 CI4 CI5	
	Cable Term. at Instrument		X	TI1 FI5	

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SYSTEM INSTRUMENT FFC-230

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
FFC-230	Feedwater Flow Controller		X	I3	
9064 0-1	Instrument Cable		X	CI3 CI4 CI5	
	Cable Term at Instrument		X	TID IE5	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58 INSTRUMENT
SYSTEM FFC-231

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
FFC-231	Feedwater Flow Controller		X	I3	
9065 B-1	Instrument Cable		X	CI3 CI4 CI5	
	Cable Term. at Instrument		X	TI10 ~~TI5~~	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58 INSTRUMENT
SYSTEM FFC-240

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
FFC-240	Feedwater Flow Controller		X	I3	
9065-0-1	INSTRUMENT CABLE		X	CI3 CI4 CI5	
	CABLE TERM AT INSTRUMENT		X	TI10 TI5	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
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SYSTEM INSTRUMENT FFC-241

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
FFC-241	Feedwater Flow Controller		X	I3	
9071 B-2	Instrument Cable		X	CI3 CI4 CI5	
	Cable Term. at Instrument		X	II° II5	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
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SYSTEM INSTRUMENT MFC-110

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
MFC-110	MAIN STEAM FLOW CONTROLLER	X		I12	
9072 CO-2	INSTRUMENT CABLE	X		CI3 CI5	
	CABLE TERM AT PENETRATION	X		TI8 ~~II4~~	
	CABLE TERM. AT INSTRUMENT	X		TI1	
KAPTON INSUL CABLE		X		~~II~~ I2	

DONALD C. COOK NUCLEAR PLANT UNIT No.1
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM INSTRUMENT MFS-111

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
MFC-111	MAIN STEAM FLOW CONTROLLER	X		I12	
9066 C8-1	INSTRUMENT CABLE	X		CI3 CI5	
	CABLE TERM. AT INSTRUMENT	X		TI1	
	CABLE TERM AT PENETRATION	X		TI8 #I4	
KAPTON INCUL CABLE		X		CI2	

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SYSTEM INSTRUMENT MFC-120

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
MFC-120	MAIN Steam Flow Controller	X		I12	
9072 CB-2	INSTRUMENT CABLE	X		CI3 CI5	
	CABLE TERM. AT INSTRUMENT	X		TI1	
	CABLE TERM. AT PENETRATION	X		TI8 II4	
KAPTON INSUL CABLE		X		CI2	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM INSTRUMENT MFC-121

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
MFC-121	MAIN STEAM FLOW CONTROLLER	×		I12	
9073 CO-2	INSTRUMENT CABLE	×		CI3 CI5	
	CABLE TERM AT INSTRUMENT	×		TI1	
	CABLE TERM. AT PENETRATION	×		I18 I14	
KAPTON FAROL CABLE		X		CI12	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58 INSTRUMENT
SYSTEM MFL-130

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
MFL-130	MAIN Steam Flow Controller	X		CI2	
9067 CB-L	INSTRUMENT CABLE	X		CI3 CI5	
	CABLE TERM. AT INSTRUMENT	X		TI1	
	CABLE TERM. AT PENETRATION	X		TI8 TI9	
KAPTON INSUL CABLE		X		CI2	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58 INSTRUMENT
SYSTEM MFC-131

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
MFC-131	MAIN STEAM FLOW CONTROLLER	X		I12	
9066 CO-2	INSTRUMENT CABLE	X		CI3 CI5	
	CABLE TERM. AT INSTRUMENT	X		TI1	
	CABLE TERM AT PENETRATION	X		TI8 TI4	
KAPTON INSUL CABLE		X		CI12	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58 INSTRUMENT
SYSTEM MFC-140

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
MFC-140	MAIN STEAM FLOW TRANSMITTER	X		II2	
9067 CO-2	INSTRUMENT CABLE	X		CI3 CI5	
	CABLE TERM. AT INSTRUMENT	X		TI1	
	CABLE TERM AT PENETRATION	X		TI8 FI4	
KAPTON INSUL CABLE	---	X		CI2	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58
SYSTEM INSTRAMENT MEC-141

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
MEC-24L	MAIN STEAM FLOW CONTROLLER	X		I12	
9023 CB-1	INSTRAMENT CABLE	X		LI3 CI5	
	CABLE TERM. AT INSTRUMENT	X		TI1	
	CABLE TERM. AT PENETRATION	X		TI8 II4	
KAPTON INSUL. CABLE		X		CI12	

DONALD C. COOK NUCLEAR PLANT UNIT No.1
DOCKET No. 50-315, LICENSE No. DPR-58 INSTRUMENT
SYSTEM MPP-210

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
MPP-210	MAIN STEAM PRESSURE PROTECTION		X	I 14	
9074 0-1	INSTRUMENT CABLE		X	CI3 CI4 CI5	
	CABLE TERM AT INSTRUMENT		X	~~TI0 TI5~~	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1

DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM INSTRUMENT MPP-211

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
MPP-211	MAIN STEAM PRESSURE PROTECTION		X	I14	
906P 2-2	INSTRUMENT CABLE		X	CI3 CI4 CI5	
	CABLE TERM. AT INSTRUMENT		X	TFI0 TI5	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM INSTRUMENT MPP-212

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
MPP-212	MAIN STEAM PRESSURE PROTECTION		X	I15	
9050 W-1	INSTRUMENT CABLE		X	C=3 C=4 C=5	
	CABLE TERM. AT INSTRUMENT		X	T-F1 ~~I15~~	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58
SYSTEM INSTRUMENT MPP-220

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
MPP-220	MAIN Steam Pressure Protection		X	I14	
9075 O-1	INSTRUMENT CABLE		X	CI3 CI4 CI5	
	CABLE TERM AT INSTRUMENT		X	TI9 ~~TI5~~	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1 74

DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM INSTRUMENT MPP. 221

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
MPP-221	MAIN STEAM PRESSURE PROTECTION		X	I14	
9074-B-2	INSTRUMENT CABLE		X	CI3 CI4 CI5	
	CABLE TEAM. AT INSTRUMENT		X	TP10 TP15	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1

DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM INSTRUMENT MPP-222

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PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
MPP-222	MAIN STEAM PRESSURE PROTECTION		X	I 15.	
9050 4-2	INSTRUMENT CABLE		X	CI3 CI4. CI5	
	CABLE TERM. AT INSTRUMENT		X	TI10 ~~TI5~~	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM INSTRUMENT MPP-230

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
MPP-230	MAIN STEAM Pressure Protection		X	I14.	
9068 0-2	INSTRUMENT CABLE		X	CI3 CI4 CI5	
	CABLE TERM. AT INSTRUMENT		X	TI3 TI5	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58 INSTRUMENT
SYSTEM MPP-231

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
MPP-231	MAIN STEAM Pressure Protection		X	I14	
9069 B-1	INSTRUMENT CABLE		X	CI3 CI4 CI5	
	CABLE TERM. AT INSTRUMENT		X	TP1 TI5	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM INSTRUMENT MPP-232

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
MPP-232	MAIN STEAM PRESSURE PROTECTION		X	I15	
9051 Y-2	INSTRUMENT CABLE		X	CI3 CI4 CI5	
	CABLE TERM. AT INSTRUMENT		X	TI1 TI5	

DONALD C. COOK NUCLEAR PLANT UNIT No.1 74
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM INSTRUMENT MPP-240

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
MPP-240	MAIN STEAM Pressure Protection		X	I14.	
9069 O-1	INSTRUMENT CABLE		X	CI3 CI4 CI5	
	CABLE TERM. AT INSTRUMENT		X	TI10 PI5	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58 INSTRUMENT
SYSTEM MPP-241

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
MPP-241	MAIN STEAM PRESSURE PROTECTION		X	I14	
9075 B-2	INSTRUMENT CABLE		X	CI3 CI4 CI5	
	CABLE TERM. AT INSTRUMENT		X	TI0 TI5	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1

DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM INSTRUMENT MDP-242

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PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
MDP-242	MAIN STEAM PRESSURE PROT		X	I15	
9051 W-1	INSTRUMENT CABLE		X	CI3 CI4 CI5	
	CABLE TERM. AT INSTRUMENT		X	TI0 TI5	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM VALVE MRV-213

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
EPT-213	ELECTRONIC PRESS. TRANS.		X	S9	
6P41-1	CONTROL CABLE		X	CI3, CI4, CI5	
	CONTROL CABLE FROM... AT TRANSDUCER		X	S9	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM Valve MRV-223

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
EPT-223	ELECTRONIC PRESS. TRANS		x	S9	
18132 R-1	CONTROL CABLE		x	CII3 CIY CII5	
	CONTROL CABLE TERM. AT TRANSDUCER		x	S9	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM — VALVE MRV-233

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
EPT-233	ELECTRONIC PRESS TRANS.		X	S9	
18133E-1	CONTROL CABLE		X	CI3 CI4 CI5	
	CONTROL CABLE TERM. AT TRANSDUCER		X	S9	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM Valve MRV-243

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
EPT-243	Electronic Press Trans.		X	S9	
6842-1	Control Cable		X	CI3 CI4 CI5	
	Control Cable Term. at Transducer		X	S9	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM _____ VALVE ICM-111

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
ICM-111	VALVE MOTOR OPERATOR	X		V1	
9187CG-1	POWER CABLE	X		CP7 CP8 CP9	
9189CG-1	CONTROL CABLE	X		CC7 CC8	
	Power cable term at valve motor	X		TP5	
	Power cable term at Floodup term box	X		TP2	
	Power cable term inside floodup tube at Penetr.	X		TP1	
	control cable term at Valve lim. swts	X		TC3	
	control cable term at Floodup term box	X		TC7	
	control cable term inside floodup tube at Penetration	X		TC6	
CAPTON INSUL CABLE		X		CT11	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM VALVE ICM-129

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
9128 CG-1	POWER CABLE	X		CP7 CP8 CP9	
9190 CG-1	CONTROL CABLE	X		CC7 CC8	
ICM-129	VALVE MOTOR OPERATOR	X		VI	
	Power cable term at valve motor	X		TP3 5	
	Power cable term at Floodup box	X		TP2	
	Power cable term inside floodup tube at Pen.	X		TP1	
	Control cable term at valve Lim swtr.	X		TC3	
	control cable term at Floodup box	X		TC7	
	control cable term inside floodup tube at Pen.	X		TC6	
KAPTON INSUL. CABLE		X		CI-11	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM _____ VALVE ICM-250

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
ICM-250	VALVE MOTOR OPERATOR		X	V6	
8174G1	POWER CABLE		X	CP1 ~~2 IPC~~ CP3	
8173G1	CONTROL CABLE		X	CC7 CC8	
8175G1	CONTROL CABLE		X	CC7 CC8	
	PWR. CABLE TERM. AT VLV. MTR.		X	TP6 ~~IP3~~	
	CONTROL CABLE TERM. AT TERMINAL BOX		X	TC13	
	CONTROL CABLE TERM. AT VLV. MTR. OPERATOR		X	TC11	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM VALVE ICM-251

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
ICM-251.	VALVE MOTOR OPERATOR		X	V6	
8174R1	POWER CABLE		X	CP1 ~~CP2~~ CP3	
8173R1	CONTROL CABLE		X	CC7 CC8	
8175R1	CONTROL CABLE		X	CC7 CC8	
	PWR. CABLE TERM. AT VLV. MTR.		X	TP1 ~~TP2~~ TP3	
	CONTROL CABLE TERM. AT TERMINAL BOX		X	TC13	
	CONTROL CABLE TERM. AT VLV. MTR. OPERATOR		X	TC11	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM VALVE ICM-260

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
ICM-260	VALVE MOTOR OPERATOR		X	V6	
9637G1	POWER CABLE		X	CP1 ~~CP2~~ CP3	
9638G1	CONTROL CABLE		X	CC7 CC8	
9639G1	CONTROL CABLE		X	CC7 CC8	
	PWR. CABLE TERM. AT VLV. MTR.		X	TP6 ~~TP3~~	
	CONTROL CABLE TERM. AT TERMINAL BOX		X	TC13	
	CONTROL CABLE TERM. AT VLV. MTR. OPERATOR		X	TC11	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM _____ VALVE ICM-265

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
ICM-265	VALVE MOTOR OPERATOR		X	V6	
8260R1	POWER CABLE		X	CP1 ~~CP2~~ CP3	
8264R1	CONTROL CABLE		X	CC7 CC8	
8265R1	CONTROL CABLE		X	CC7 CC8	
	PWR. CABLE TERM. AT VLV. MTR.		X	TP6 ~~TP3~~	
	CONTROL CABLE TERM. AT TERMINAL BOX		X	TC13	
	CONTROL CABLE TERM. AT VLV. MTR. OPERATOR		X	TC11	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM VALVE Icm-305

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
Icm-305	VALVE MOTOR OPERATOR	~~X~~	X	V10	
9549G-1	POWER CABLE	~~X~~	X	EP-QR	Rev 1
9603G-1	CONTROL CABLE	~~X~~	X	EP-QR	Rev 1
	CONTROL CABLE TERM. AT VLV. MOTOR OPERATOR	~~X~~	X	TC14	
	CONTROL CABLE TERM. AT . TERM. BOX		X	TC13	
	POWER CABLE TERM. AT VLV. MOTOR	~~X~~	X	TP3	
	POWER CABLE TERM. AT. . TERM BOX		X	TC13	
V-10 DETERMINED TO BE RATHER THAN INSIDE CONT.	OUTSIDE CONT. AS PER REP. 108				

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM VALVE ICM-305

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.		
		INSIDE CONT.	OUTSIDE CONT.			
ICM-305	MOTOR VALVE OPERATOR	X	X	VIO		
9567R-1	POWER CABLE	X	X	EP-02		Rev 1
9569R-1	CONTROL CABLE	X	X	EP 02		Rev 1
	CONTROL CABLE TERM. AT VLV. MOTOR OPERATOR.	X	X	TC14		
	CONTROL CABLE TERM. AT TERM. BOX		X	TC13		
	POWER CABLE TERM. AT VLV. MOTOR	X	X	TP3		
	POWER CABLE TERM. AT TERM BOX		X	TC13		
VIO DETERMINED TO BE OUTSIDE CONT. RATHER THAN INSIDE CONT. AS PER	REF. 108					

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
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SYSTEM _____ VALVE ICM-311

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
ICM-311	VALVE MOTOR OPERATOR		X	11 V8	
8187G1	POWER CABLE		X	CP1, ~~CP2~~ CP3	
8189G1	CONTROL CABLE		X	CC7 / CC8	
8190G1	CONTROL CABLE		X	CC7 / CC8	
	PWR. CABLE TERM. AT VLV. MTR.		X	IP2 ~~IP3~~	
	CONTROL CABLE TERM. AT TERMINAL BOX		X	TC13	
	CONTROL CABLE TERM. AT VLV. MTR. OPERATOR L. SW'S.		X	11 TC9	

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DONALD C. COOK NUCLEAR PLANT UNIT No. 1
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SYSTEM _____ VALVE ICM-321

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
ICM-321	VALVE MOTOR OPERATOR		X	11 V8	
8187R1	POWER CABLE		X	CP1 ✓ ~~CP2~~ ✓ CP3 ✓	
8189R1	CONTROL CABLE		X	CC7 ✓ CC8 ✓	
8190R1	CONTROL CABLE		X	CC7 ✓ CC8 ✓	
	PWR. CABLE TERM. AT VLV. MTR.		X	TP1 TP3	
	CONTROL CABLE TERM. AT TERMINAL BOX.		X	TC13 ✓	
	CONTROL CABLE TERM. AT VLV. MTR. OPERATOR		X	11 TC9 ✓	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58
SYSTEM Valve MCM-221

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
MCM-221	VALVE MOTOR OPERATOR		X	V6	
903721	POWER CABLE		X	CP1 ~~CP2~~ CP3	
903821	CONTROL CABLE		X	CC7 CC8	
903921	CONTROL CABLE		X	CC7 CC8	
	Power cable term at Valve motor		X	TP6 TP3	
	Control cable term at valve lim Sw's.		X	TC11	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM Valve MCM-231

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
MCM-231	VALVE MOTOR OPERATOR		x	V6	
903361	POWER CABLE		x	CP1 ~~CP2~~ CP3	
903461	CONTROL CABLE		x	CC7 CC8	
903561	CONTROL CABLE		x	CC7 CC8	
	Power cable term at valve motor		x	TP1 TP3	
	control cable term at valve lim. sw's		x	TC11	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM VALVE QCM-250

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
2774 CG-1	POWER CABLE	X		CP7 CP8 CP9	
2775 CG-1	CONTROL CABLE	X		CC7 CC8	
2776 G-1	CONTROL CABLE	X		CC7 CC8	
QCM-250	VALVE MOTOR OPERATOR	X		V5	
	PWR. CABLE TERMINATION AT VALVE MTR.	X		TP3	
	PWR. CABLE TERMINATION AT FLOOD UP TERM. BOX	X		TP2	
	PWR. CABLE TERMINATION inside flood up tube AT PENETRATION	X		TP1	
	control cable term at valve lim. sw's	X		TC1	
	control cable term at term. box	X		TC8	
25-9	CONTROL CABLE TERM AT FLOODUP TERM BOX	X		TC7	
	control cable term INSIDE FLOODUP TUBES AT PENETRATION	X		TC6	
VARNISH INSUL CABLE		X		CI 11	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM Valve VCR-11

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
XSO-012	SOLENOID	X		S17	
9054R-1	CONTROL CABLE	X		CC1	
8+91CR-1	CONTROL CABLE	X		CC7 CC8	
	control cable term at Solenoid	X		TC15	
	control cable term at term box	X		TC8	
	control cable term at Pen. term box	X		TC8	
KAPTON INSUL CABLE		X		EE12	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM Valve VCR-21

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
XSO-021	SOLENOID	X		S17	
9181R-1	CONTROL CABLE	X		CI1, CI2	
9171CR-1	CONTROL CABLE	X		CC7 CC8	
	control cable term at Solenoid	X		TC16	
	Control cable term at Pen. Term box	X		TC8	
	control cable term at term box	X		TC8	
KAPTON INSUL CABLE		X		CI12	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM Valve VCR-101

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
XSO-121	SOLENOID	X		S17	
8480CG-1	CONTROL CABLE	X		CC7 CC8	
	control cable term at solenoid	X		TC16	
	control cable term at Pen. term box	X		TC8	
	control cable term at term box	X		TC8	
KAPTON INSIDE CABLE		X		CI12	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM Valve VCR-102

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
XSO-122	SOLENOID	X		S17	
9195G-1	CONTROL CABLE	X		CC1	
9191CG-1	CONTROL CABLE	X		CC7 CC8	
	control cable term at solenoid	X		TC16	
	a.				
	control cable term at Pen. term box	X		TC8	
	control cable term at term box	X		TC8	
KAPTON INSUL CABLE		X		CIN	

DONALD C. COOK NUCLEAR PLANT UNIT No.1
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM Valve VCR-103

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
XSO-123	SOLENOID	X		S17	
8478G-1	CONTROL CABLE	X		CC1	
9196CG-1	CONTROL CABLE	X		CC7 CC8	
	control cable term at solenoid	X		TC16	
	control cable term at Pen. term box	X		TC8	
	Control cable term at term box	X		TC8	
KAPTON INSUL. CABLE		X		CER	

DONALD C. COOK NUCLEAR PLANT UNIT No.1
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM Valve VCR-104

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
XSO – 124	SOLENOID	X		S17	
8479G-1	CONTROL CABLE	X		CC1	
				-	
				-	
9197CG-1	CONTROL CABLE	X		CC7 CC8	
	control cable term at solenoid	X		TC16	
	control cable term at Pen term box	X		TC8	
	control cable term at term box	X		TC8	
KAPTON INSUL CABLE		X		CI12	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM Valve VCR-105

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
XSO-125	SOLENOID	×		S17	
9056G-1	CONTROL CABLE	×		CC1	
9052CG-1	CONTROL CABLE	×		CC7 CC8	
	control cable term at solenoid	×		TC16	
	control cable term at Pen term box	×		TC8	
	control cable term at term box	×		TC8	
KAPTON INSUL CABLE		×		CIR	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM Valve VCR-106

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
XSO-126	SOLENOID	X		S17	
9061G-1	CONTROL CABLE	X		CC1	
9057CG-1	CONTROL CABLE	X		CC7 CC8	
	control cable term at solenoid	X		TC16	
	control/cable term at Bx. term box	X		TC8	
	control cable term at term box	X		TC8	
KAPTON INSUL CABLE		X		CI1	

DONALD C. COOK NUCLEAR PLANT UNIT No.1
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM Valve VCR-107

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
X50-127	SOLENOID	X		S17	
9070G-1	CONTROL CABLE	X		CC1	
9066CG-1	CONTROL CABLE	X		CC7 CC8	
	control cable term at solenoid	X		TC16	
	control cable term at Pen. term box	X		TC8	
	control cable term at term box	X		TC8	
KAPTON INSUL. CABLE		X		CIV	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM INSTRUMENT MPC-253

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
MPC-253	PRESS. CONTROLLER		X	I 13	
9318 0-1	CONTROL CABLE		X	CI3 CI4 CI5	
	CABLE TERM. AT CONTROLLER		X	TI0 TI5	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM INSTRUMENT MPC-254

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
MPC-254	Press. Controller		X	I13	
9318 B-2	Control Cable		X	CI3 CI4 CI5	
	Cable Term. at Controller		X	TF10 TI5	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58

FORM EGQ #96-1

84

SYSTEM VALVE NRV-151

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
NRV-151	SOLENOID	X		S11	
	LIMIT SWITCH	X		LS1	
	KAPTON INS. CABLE	X		CI11	
8754 R-1	CONTROL CABLE	X		CC5 CC6	
8577 R-1	CONTROL CABLE	X		CC1	
8755 R-1	CONTROL CABLE	X		CC5 CC6	
8756 R-1	SEAL ASSEMBLY	X		TC-17	
8757 R-1	SEAL ASSEMBLY	X		TC-17	
	CONT. CABLE TERM, AT SOLENOID	X		TC16	
	CONT. CABLE TERM, AT VALVE LIMIT SW's	X		LS1	
	CONT. CABLE TERM, AT SPLICE BOX	X		TC7	
	CONT. CABLE TERM, AT TERM. BOX	X		TC8	
	CONT. CABLE TERM, AT FLOODUP TERM BOX	X		TC7	
	CONT CABLE TERM AT FLOODUP TUBE	X		TC6	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58

FORM EGQ #96-1

84

SYSTEM VALVE NRV-152

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
NRV-152	SOLENOID	X		S11	
	LIMIT SWITCH	X		LS1	
8759 R-1	CONTROL CABLE	X		CC7 CC8	
8626 R-1	CONTROL CABLE	X		CC1	
8761 R-1	SEAL ASSEMBLY	X		TC-17	
8762 R-1	SEAL ASSEMBLY	X		TC-17	
	KAPTON INS. CABLE	X		CI 11	
	CONT. CABLE TERM. AT SOLENOID	X		TC16	
	CONT. CABLE TERM. AT LIMIT SW's.	X		LS1	
	CONT. CABLE TERM AT TERM. BOX	X		TC8	
	CONT. CABLE TERM. AT FLOODUP TERM. BOX	X		TC7	
	CONT. CABLE TERM. AT FLOODUP TUBE	X		TC6	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58

FORM EGQ #96-1

84

SYSTEM _____ VALVE NRV-153

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
NRV-153	SOLENOID	X		S11	
	LIMIT SWITCH	X		LS1	
	KAPTON INS. CABLE	X		CI11	
8766 G-1	CONTROL CABLE	X		CC7 CC8	
8588 G-1	CONTROL CABLE	X		CC1	
8772-G-1	SEAL ASSEMBLY	X		TC-17	
8773-G-1	SEAL ASSEMBLY	X		TC-17	
	CONT. CABLE TERM. AT SOLENOID	X		TC16	
	CONT. CABLE TERM AT VALVE LIMIT SW'S.	X		LS1	
	CONT. CABLE TERM. AT TERM. BOX	X		TC8	
	CONT. CABLE TERM. AT FLOODUP TERM. BOX	X		TC7	
	CONT. CABLE TERM. AT FLOODUP TUBE	X		TC6	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58
SYSTEM NMO-151 Valve

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
NMO-151	VALVE MOTOR OPERATOR	X		V9	
8758CR1	POWER CABLE	X		CP7 CP8 CP9	
8750CR1	CONTROL CABLE	X		CC7 CC8	
875121	CONTROL CABLE	X		CC1	
	POWER CABLE TERM. AT VLV. MTR. OPERATOR	X		TP3	
	POWER CABLE TERM. AT FLOOD UP TERM. BOX	X		TP2	
	POWER CABLE TERM. AT FLOOD UP TUBE	X		TP1	
	control cable term at valve lim. SW's	X		TC12	
	control cable term at term box	X		TC8	
	control cable term at FLOODUP TERM. BOX	X		TC7	
	control cable term at penetration in flooding Tubes	X		TC6	
KAPTON INSUL. CABLE		X		C=11	

DONALD C. COOK NUCLEAR PLANT UNIT No.1
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM Valve NMO-153

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
NMO-153	VALVE MOTOR OPERATO	X		V9	
8763CG1	POWER CABLE	X		CP7 CP8 CP9	
8764CG1	CONTROL CABLE	X		CC7 CC8	
8765G1	CONTROL CABLE	X		CC7 CC8	
	Power cable term at valve motor	X		TP3	
	Power cable term at floodup box	X		TP2	
	Power cable term inside floodup tube at pen.	X		TP1	
	control cable term at valve lim. swts	X		TC12	
	control cable term at term box	X		TC8	
	control cable term at FLOODUP TERM. BOX.	X		TC7	
	Control cable term at penetration inside floodup tubes	X		TC6	
KAPTON TWIN. CABLE		X		CI11	

DONALD C. COOK NUCLEAR PLANT UNIT No.1
DOCKET No. 50-315, LICENSE No. DPR-58

SYSTEM Valve NMO-152

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
NMO-152	VALVE MOTOR OPERATO	X		V9	
8752CR1	POWER CABLE	X		CP7 CP8 CP9	
8753CR1	CONTROL CABLE	X		CC7 CC8	
804921	CONTROL CABLE	X		CC7 CC8	
	Power cable term at valve motor	X		TP3	
	Power cable term at Floodup box	X		TP2	
	Power cable term inside Floodup tube at pen.	X		TP1	
	control cable term at valve lim sw's	X		TC12	
	control cable term at term box	X		TC8	
	control cable term at floodup term box	X		TC7	
	control cable term at penetration inside floodup tubes	X		TC6	
KAPTON INSTR. CABLE		X		CT11	

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DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-58
SYSTEM Motor Operated Valve Grease

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
Mobilux EP-2	Grease	X	X	G-1	

Attachment No. 13 to AEP:NRC:0578B
Donald C. Cook Nuclear Plant
Unit No. 2
Response to NRC SER on IE Bulletin 79-01B
Master Sheets of Equipment and Auxiliaries

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM ELECTRICAL PENETRATIONS

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
1P6	4kV CONTAINMENT PENETRATIONS	X		EP-01	
1P7		X		EP-01	
2P5		X		EP-01	
2P6		X		EP-01	
3P7		X		EP-01	
3P8		X		EP-01	
4P7		X		EP-01	
4P8	↓	X		EP-01	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM Electrical Penetrations

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
1P1	600V Containment Penetrations	X		EP-02	
1P2		X		EP-02	
1P3		X		EP-02	
1P4		X		EP02	
2P2		X		EP-02	
2P3		X		EP-02	
2P4		X		EP02	
2P7		X		EP-02	
2P8		X		EP02	
3P1		X		EP 02	
3P2		X		EP-02	
3P3		X		EP-02	
3P6		X		EP02	
4P2		X		EP-02	
4P3		X		EP-02	
4P4	↓	X		EP-02	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM Electrical Penetrations

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
4P5	600 V CONTAINMENT PENETRATIONS	X		EP.02	
4P6		X		EP.02	
4C1		X		EP.02	
4C2		X		EP.02	
4C3		X		EP.02	
1C1		X		EP-02	
1C3		X		EP-02	
1C4		X		EP-02	
4I5		X		EP-02	
4I6		X		EP-02	
4I7		X		EP-02	
4I8		X		EP-02	
1I5		X		EP-02	
1I6		X		EP 02	
1I8		X		EP 02	
3I8	↓	X		EP 02	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM Electrical Penetrations

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
3I7	600v Containment Penetrations	X		EP-02	
3I6		X		EP 02	
3I5		X		E.P 02	
2I8		X		EP-02	
2I7		X		EP-02	
2I6		X		EP-02	
2I5		X		EP-02	
3C4		X		EP 02	
3C2		X		EP-02	
3C1		X		EP-02	
2C4		X		EP-02	
2C3		X		E.P 02	
2C1		X		EP 02	
1I7		X		EP 02	
EP-14		X		EP 02	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

VALVE MRV-211

SYSTEM _____

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
9000 G-2	CONTROL CABLE		X	CC7 CC8	
9002 G-2	CONTROL CABLE		X	CC1	
	CONTROL CABLE TERM. AT TERMINAL BOX		X	TC13	
XSO-211	Solenoid		X	S7	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

VALVE
MRV-212

SYSTEM _____

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
				1	
9000R-2	CONTROL CABLE		X	CC7 CC8	
9002R-2	CONTROL CABLE		X	CC1	
	CONTROL CABLE TERM AT TERMINAL BOX.		X	TC13	
XSO-212	SOLENOID		X	S7	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2 VALVE
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM MRV-221

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
0006 G-2	CONTROL CABLE		X	CC1	
	control cable from at terminal box		X	TC13	
XSO-221	SOLENOID		X	S7	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM _____ VALVE MRY-.222

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
9006R-2	CONTROL CABLE		X	CC1	
	Control Cable Term at Term Box		X	TC13	
XSO-222	SOLENOID		X	ST	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2 VALVE
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM MRV-231

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
9018G-2	CONTROL CABLE		X	CC1	
	Control-Cable-Term at term. box		X	TC13	
XSO-231	SOLENOID		X	S7	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM _____ VALVE MRV-232

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
5018R-2	CONTROL CABLE		X	CC1	
	Control Cable Term at Term box		X	TC13	
XSO-232	SOLENOID		X	S7	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM _____ VALVE ... MRV-.241 .

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
9022G-2	CONTROL CABLE		X	CC1	
	Control Cable Term. at Term. box		X	TC13	
XSO-241	SOLENOID		X	ST	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

MRV-242

SYSTEM _____

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
9022R-2	CONTROL CABLE		X	CC1	
	CONTROL CABLE TERM AT X50-242		X	TC15	
X50-242	SELONOID		X	S7	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM INSTRUMENT FFI-210

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
FFI-210	FLOW INDICATOR		X	I5	
5152-2	INSTRUMENT CABLE		X	CI8 CI9 CI10 CI11	
	INSTRUMENT CABLE TERM AT INSTRUMENT		X	TI70	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM INSTRUMENT FFI-220

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
FFI-220	FLOW INDICATOR		X	I5	
5750-2	INSTRUMENT CABLE		X	CI5 CI6 CI7	
	INSTRUMENT CABLE TERM. AT INSTRUMENT		X	TI10	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM INSTRUMENT FFI-230

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
FFI-230	FLOW INDICATOR		X	I5	
5151-2	INSTRUMENT CABLE		X	C=5 C=6 C=7	
	INSTRUMENT CABLE TERM. AT INSTRUMENT		X	II10	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM INSTRUMENT FFI-240

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
FFI-240	FLOW INDICATOR		X	I5	
5153-2	INSTRUMENT CABLE		X	CI5 CI6 CI7	
	INSTRUMENT CABLE TERM. AT INSTRUMENT		X	TI10	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM _____ VALVE FRV-210

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
XSO-292 20-FRV-210	SOLENOID		X	S3	
XSO-291	SOLENOID		X	S3	
9502R-2	CONTROL CABLE		X	CC7 CC8	
9327R-2	CONTROL CABLE		X	CC1..	
9330G-2	CONTROL CABLE		X	CC8 CC9 CC10 CC11	
9328G-2	CONTROL CABLE		X	CC1	
	CONTROL CABLE TERM. AT SOLENOIDS		X	TC15	
	CONTROL CABLE TERM.: AT TERM. BOX		X	TC13	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM VALVE FRV-220

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
XSO-293	SOLENOID		X	S3	
XSO-294	SOLENOID		X	S3	
			—		
9334G-2	CONTROL CABLE		X	CC7 CC8	
9335G-2	CONTROL CABLE		X	CC1	
			—		
			—		
9329R-2	CONTROL CABLE		X	C=8 C=9 C=10 C=11	
9330R-2	CONTROL CABLE		X	CC1	
	CONTROL CABLE TERM. AT SOLENOIDS		X	TC15	
			—		
	CONTROL CABLE TERM.'S AT TERM. BOX		X	TC13	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM _____ VALVE FRV-230

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
XSO-295	SOLENOID		X	S3	
XSO-296	SOLENOID		X	S3	
9341G-2	CONTROL CABLE		X	CC7 CC8	
9342G-2	CONTROL CABLE		X	CC1,	
9332G-2	CONTROL CABLE		X	CC8 CC1 CC10 CC11	
9333G-2	CONTROL CABLE		X	CC1	
	CONTROL CABLE TERM. AT SOLENOIDS		X	TC14	
	CONTROL CABLE TERM.'S AT TERM BOX		X	TC13	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM _____ VALVE FRV-240

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
XSO-298	SOLENOID		X	S3	
XSO-297	SOLENOID		X	S3	
9506R-2	CONTROL CABLE		X	CC7 CC8	
9336R-2	CONTROL CABLE		X	CC1	
9401G-2	CONTROL CABLE		X	C=8 C=9 C=10 C=11	
9349G-2	CONTROL CABLE		X	CC1	
	CONTROL CABLE TERM. AT SOLENOIDS		X	TC16	
	CONTROL CABLE TERM.'S AT TERM. BOX		X	TC13	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM _____ VALVE FMO-201.

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
~~FMO-201~~	~~VLV. MOTOR OPERATOR~~		X	V8	
~~975-G-2~~	~~POWER CABLE~~		X	~~CP3~~	
~~975-G-2~~	CONTROL CABLE		X	~~C-9~~	
~~975-G-2~~	CONTROL CABLE		X	~~C-9~~	
	~~CONTROL CABLE TERM AT~~ MOTOR OPERATOR		X	~~TP3~~	
	CONTROL CABLE TERM AT ~~VA TERM BOX~~		X	~~TC3~~	
	~~POWER CABLE TERM AT~~ MOTOR		X	~~TC9~~ TC9	
/					
ALL DELETIONS AC DER REF 108					
	/				

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM _____ VALVE FMO-202

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
FMO-202	M.O.V. MOTOR OPERATOR		X	V8	
9753-R-2	POWER CABLE		X	~~cpl~~ ~~cpl~~	
9754R-2	CONTROL CABLE		X	~~cpl~~	
9755R-2	CONTROL CABLE		X	~~cpl~~	
	CONTROL CABLE TERM. AT M.O.V. MOTOR OPERATOR		X	T29	
	CONTROL CABLE TERM. AT VALVE TERM BOX		X	TC13	
	POWER CABLE TERM. AT MOTOR		X	TP4	
ALL DELETIONS AS PER REF. 108					

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM _____ VALVE FMO 203

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
~~FMO-203~~	~~VALVE MOTOR OPERATOR~~		X	V8	
~~9759R-2~~	~~POWER CABLE~~		X	~~C01~~ EP2	
~~9760R-2~~	~~CONTROL CABLE~~		X	~~CC9~~ CC-	
~~9761R-2~~	~~CONTROL CABLE~~		X	~~CC9~~ CC-	
	~~CONTROL CABLE TERM. AT VALVE MOTOR OPERATOR~~		X	~~TC9~~	
	~~CONTROL CABLE TERM. AT VALVE TERM. BOX~~		X	IC13	
	~~POWER CABLE TERM. AT V.V. MOTOR~~		X	~~FP~~ 6 5	
ALL DELETIONS AS PER REF. 108					

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM ..... VALVE . FMO-204 ...

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
~~FMO-204~~	~~VALVE MOTOR OPERATOR~~		X	~~V8~~	
~~9759G-2~~	~~POWER CABLE~~		X	~~CP1 CP2~~	
~~9760G-2~~	~~CONTROL CABLE~~		X	~~C9~~	
9761G-2	~~CONTROL CABLE~~		X	~~C9~~	
	~~CONTROL CABLE TERM. AT VALVE~~		X	TC9	
	~~CONTROL CABLE TERM. AT TERM. BOX~~		X	~~TC13~~	
	~~POWER CABLE TERM. AT V.L.V. MTR.~~		X	~~TP3~~ 6	
ALL DELETIONS AS PER REF. 108					

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM FMO-211

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
FMO-211	VALVE MOTOR OPERATOR		X	V6	
9982 BR-2	POWER CABLE		X	CC2 CC3 CC4	
9983BR-2	CONTROL CABLE		X	CC14	
9981BR-2	CONTROL CABLE		X	CC7 CC8	
	POWER CABLE TERM. AT VALVE MOTOR		X	TP6	
	CONTROL CABLE TERM. AT TERM. BOX		X	TC13	
	CONTROL CABLE TERM. AT VALVE MOTOR OPERATOR		X	TC11	
9955BR-2	CONTROL CABLE		X	CC7 CC8	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM VALVS. FMO-212

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
FMO-212	VALVE MOTOR OPERATOR		X	V6	
9092R-2	POWER CABLE		X	CP1 CP2	
9093R-2	CONTROL CABLE		X	CC7 CC8	
9094R-2	CONTROL CABLE		X	CI14	
	POWER CABLE TERM. AT VLV. MTR.		X	TP6	
	CONTROL CABLE TERM. AT VLV. MTR. OPERATOR		X	TC13	
	CONTROL CABLE TERM. AT VLV. TERM. BOX		X	TC11	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM _____ VALVE FMO-221.

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
FMO-221	VALVE MOTOR OPERATOR		X	V6	
9998BR-2	POWER CABLE		X	CC2 CC3 CC4	
9999BR-2	CONTROL CABLE		X	CC1 CC8	
9904BR-2	CONTROL CABLE		X	CI14	
	POWER CABLE TERM. AT VALVE MOTOR		X	TP6 TP7	
	CONTROL CABLE TERM. AT TERM. BOX		X	TC13	
	CONTROL CABLE TERM. AT VALVE MOTOR OPERATOR		X	TC11	
9985BR-2	CONTROL CABLE		X	CC1 CC8	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM _____ VALVE FMO-222

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
FMO-222	VALVE MOTOR OPERATOR		X	V6	
8533G-2	POWER CABLE		X	CP1 CP2	
8532G-2	CONTROL CABLE		X	CC7 CC8	
8536G-2	CONTROL CABLE		X	CC14	
	POWER CABLE TERM. AT VLV. MTR.		X	TP 6 3	
	CONTROL CABLE TERM. AT VLV. MTR. OPERATOR		X	TC13	
	CONTROL CABLE TERM'S, AT VLV. TERM. BOX		X	TC11	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM _____ VALVE FMO-231

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
FMO-231	VALVE MOTOR OPERATOR		X	V6	
9993 BR-2	POWER CABLE		X	CC2 CC3 CC4	
9992 BR-2	CONTROL CABLE		X	CC7 CC8	
9994 BR-2	CONTROL CABLE		X	CC14	
	POWER CABLE TERM. AT VALVE MOTOR		X	TP6	
	CONTROL CABLE TERM. AT TERM. BOX		X	TC13	
	CONTROL CABLE TERM. AT VALVE MOTOR OPERATOR		X	TC11	
9995 BR-2	CONTROL CABLE		X	CC7 CC8	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM _____ VALVE FMO-232.

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
FMO-232	VALVE MOTOR OPERATOR		X	V6	
8535G-2	POWER CABLE		X	CP1 CP2	
8534G-2	CONTROL CABLE		X	CC1	
8537G-2	CONTROL CABLE		X	CI14	
	POWER CABLE TERM. AT VLV. MTR.		X	TP3 6.	
	CONTROL CABLE TERM. AT VLV. MTR. OPERATOR		X	TC13	
	CONTROL CABLE TERM'L. AT VLV. TERM. BOX		X	TC11	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM VALVE FMO-241

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
FMO-241	VALVE MOTOR OPERATOR		X	V6	
9977BR-2	POWER CABLE		X	CC2 CC3 CC4	
9976BR-2	CONTROL CABLE		X	CC7 CC8	
9978BR-2	CONTROL CABLE		X	CE14	
	POWER CABLE TERM. AT VALVE MOTOR		X	TP6	
	CONTROL CABLE TERM. AT TERM. BOX		X	TC13	
	CONTROL CABLE TERM. AT VALVE MOTOR OPERATOR		X	TC11	
9968BR-2	CONTROL CABLE		X	CC7 CC8	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM _____ VALVE FMO-242

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
FMO-242	VALVE MOTOR OPERATOR		X	V6	
9086R-2	POWER CABLE		X	CP1 CP2	
9087R-2	CONTROL CABLE		X	CC7 CC8	
9088R-2	CONTROL CABLE		X	CC14	
	POWER CABLE TERMINATION AT VLV. MTR.		X	TP3 6	
	CONTROL CABLE TERM. AT VLV. MTR OPERATOR		X	TC13	
	CONTROL CABLE TERM. AT VLV. TERM. BOX		X	TC11	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM _____ WPS-702 PRESS. SW

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
~~WPS-702~~	~~PRESSURE SWITCH~~		X	~~I-32~~	del ref. 102
8447G-2	CONTROL CABLE		X	CC2 CC3 CC4	
	CONTROL CABLE TERM. AT PRES. SWITCH		X	T+6	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM VALVES WMO-712

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
WMO-712	VALVE MOTOR OPERATOR		X	V6	
8294 G-2	POWER CABLE		X	CP1 CP2	
8295 G-2	CONTROL CABLE		X	CC7 CC8	
8296 G-2	CONTROL CABLE		X	CC7 CC8	
	POWER CABLE TERM. AT VALVE MOTOR		X	TP3	
	CONTROL CABLE TERM. AT TERM. BOX		X	TC13	
	CONTROL CABLE TERM. AT VALVE MOTOR OPERATOR		X	TC11	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM VALVE WMO-714

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
WMO-714	VALVE MOTOR OPERATOR		X	V6	
8197 G-2	POWER CABLE		X	CP1 CP2	
8198 G-2	CONTROL CABLE		X	CC7 CC8	
8968 G-2	CONTROL CABLE		X	CC1	
	POWER CABLE TERM. AT VALVE MOTOR		X	TP6	
	CONTROL CABLE TERM. AT TERM. BOX		X	TC13	
	CONTROL CABLE TERM. AT VALVE MOTOR OPERATOR		X	TC11	
8199 G-2	CONTROL CABLE		X	CC12	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM WMO-724 VALVE

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
WMO-724	VALVE MOTOR OPERATOR		X	U6	
8057G-2	POWER CABLE		X	CP1 CP2	
8052G-2	CONTROL CABLE		X	cc7 cc8	
8059G-2	CONTROL CABLE		X	cc7 cc8	
	POWER CABLE TERM. AT VALVE MOTOR		X	TP6	
	CONTROL CABLE TERM. AT VA. TERM. BOX		X	TC13	
	CONTROL CABLE TERM. AT VALVE MOTOR OPERATOR		X	TC11	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM WMO-726 VALVE

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
WMO-726	VALVE MOTOR OPERATOR		X	U6	
8060G-2	POWER CABLE		X	CP1 CP2	
8061G-2	CONTROL CABLE		X	CC7 CC8	
8062G-2	CONTROL CABLE		X	CC7 CC8	
	POWER CABLE TERM. AT VALVE MOTOR		X	TP#6	
	CONTROL CABLE TERM. AT VA. TERM. BOX		X	TC13	
	CONTROL CABLE TERM. AT VALVE MOTOR OPER.		X	TC11	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM INSTRUMENT WPS-706

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
~~WPS-706~~	~~INSTRUMENT~~		X	~~I-32~~	SEE REF. 108
8447R-2	Control Cable		X	CC2 CC3 CC4	
	Control Cable Term. at Instr.		X	TI6	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM WMO-716

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
WMO-716	VALVE MOTOR OPERATOR		X	V6	
8294R-2	POWER CABLE		X	CP1 CP2	
8295R-2	CONTROL CABLE		X	CC7 CC8	
8296R-2	CONTROL CABLE		X	CC7 CC8	
	POWER CABLE TERM. AT VALVE MOTOR		X	TP 6 7 8	
	CONTROL CABLE TERM: AT TERM. BOX		X	TC13	
	CONTROL CABLE TERM. AT VALVE MOTOR OPERATOR		X	TC11	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM _____ WMO-718

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
WMO-718	VALVE MOTOR OPERATOR		X	V6	
8255R-2	POWER CABLE		X	CP1 CP2	
8256R-2	CONTROL CABLE		X	CC7 CC8	
8968R-2	CONTROL CABLE		X	CC7 CC8	
	POWER CABLE TERM. AT VALVE MOTOR		X	TP6	
	CONTROL CABLE TERM. AT TERM. BOX		X	TC13	
	CONTROL CABLE TERM. AT VALVE MOTOR OPERATOR		X	TC11	
8257R-2	CONTROL CABLE		X	CC7 CC8	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM VALVE WMO-722

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
WMO-722	Valve Motor		X	V6	
8057R-2	Power Cable		X	CP1 CP2	
8058R-2	Control Cable		X	CC7 CC8	
8059R-2	Control Cable.		X	CC7 CC8	
	Power Cable Term. at motor.		X	TP 6 3 R	
	Control Cable Term. at Term. Box.		X	TC13	
			X		
	Control Cable Term. at valve		X	TC11	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM VALVE WMO-728

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
WMO-728	VALVE MOTOR		X	V6	
8060R-2	Power Cable		X	CP1 CP2	
8061R-2	Control Cable		X	CC7 CC8	
8062R-2	Control Cable		X	CC7 CC8	
	Power Cable Term. at Motor		X	TP 6	
	Control Cable Term. at Term Box		X	TC13	
	Control Cable Term. at valve		X	TC11	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-315, LICENSE No. DPR-74

SYSTEM INSTRUMENT NPS-121

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
NPS-121	INSTRUMENT	X		I23 I24	
9765C8-2	INSTRUMENT CABLE	X		CI5 CI7	
	CABLE TERMINATION AT INSTRUMENT	X		TI1	
	CABLE TERMINATION AT PENETRATION INSIDE FLEXIBLE TUBING	X		TI3	
	CABLE TERMINATION AT FLOOD UP TERMINAL BOX	X		TI4	
Kapton insulated cables		X		CI15	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM INSTRUMENT NPS-122

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
NPS-122	INSTRUMENT	X		I-23 I-24	
9766CY-2	INSTRUMENT CABLE	X		CI-5 CI-7	
	CABLE TERMINATION AT INSTRUMENT	X		TI1	
	CABLE TERMINATION AT PENETRATION INSIDE CONTAINMENT	X		TI3	
	CABLE TERMINATION AT CONTAINMENT TERMINAL BOX	X		TI4	
Kapton insulated cables		X		CI-15	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM _____ VALVE ... IMO-910

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
IMO-910	VALVE MOTOR OPERATOR		X	U 11 8	
9955 G-2	POWER CABLE		X	CP1 CP2	
8031 G-2	CONTROL CABLE		X	CC9	
8032 G-2	CONTROL CABLE		X	CC9	
	POWER CABLE TERM. AT VALVE MOTOR		X	TP 6. A	
	CONTROL CABLE TERM. AT TERM. BOX		X	TC13	
	CONTROL CABLE TERM. AT VALVE MOTOR OPERATOR		X	TC 11 9	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM _____ VALVE IMO-911

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
IMO-911	VALVE MOTOR OPERATOR		X	V 11	
8026 R-1	POWER CABLE		X	CP1 CP2	
8031 R-2	CONTROL CABLE		X	CC9	
8032 R-2	CONTROL CABLE		X	CC9	
	POWER CABLE TERM. AT VALVE MOTOR		X	TP 6 3 R	
	CONTROL CABLE TERM. AT TERM. BOX		X	TC13	
	CONTROL CABLE TERM. AT VALVE MOTOR OPERATOR		X	TC 11 X	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM VALVE QMO-225

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
QMO-225	VALVE MOTOR OPERATOR		X	V6	
8039 G-2	POWER CABLE		X	CP1. LP2	
8037 G-2	CONTROL CABLE		X	CC7 CC8	
8038 G-2	CONTROL CABLE		X	CC7 CC8	
	POWER CABLE TERM. AT VALVE MOTOR		X	TP6	
	CONTROL CABLE TERM. AT TERM. BOX		X	TC13	
	CONTROL CABLE TERM. AT VALVE MOTOR OPERATOR		X	TC11	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM _____ VALVE . . QMO-226

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
QMO-226	VALVE MOTOR OPERATOR		X	V6	
8039 R-2	POWER CABLE		X	CP1 CP2	
8037 R-2	CONTROL CABLE		X	CC7 CC8	
8038 R-2	CONTROL CABLE		X	CC7 CC8	
	POWER CABLE TERM. AT VALVE MOTOR		X	TP6	
	CONTROL CABLE TERM. AT TERM. BOX		X	TC13	
	CONTROL CABLE TERM. AT VALVE MOTOR OPERATOR		X	TC11	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM EAST CENTRIFUGAL CHARGING PUMP

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
PP-150E	EAST CENT. CHARGING PUMP MOTOR		X	M1	
800762	POWER CABLE		X	CP13	
	POWER CABLE TERM. AT PUMP MOTOR		X	TP4	
	Motor Oil		x	G10	
	Coupling Grease		x	G11	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM WEST CENTRIFUGAL CHARGING PUMP

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
PP-050W	WEST CENT. CHARGING PUMP MOTOR		X	M1	
800722	POWER CABLE		X	CP13	
	POWER CABLE TERM. AT PUMP MOTOR		X	TP4	
	Motor G.I.		X	G10	
	Coupling Grease		X	G11	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM EAST CHARGING & LUBE OIL PUMP

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
Part of PP-050E	EAST CHARG. & LUBE OIL PUMP MOTOR		X	M1	
827692	POWER CABLE		X	CP1 CP2	
	POWER CABLE TERM. AT PUMP MOTOR		X	TP4	
	Motor O.i		x	G10	
	Coupling Grease		x	G11	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM WEST CHARGING & LUBE OIL PUMP

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
Part of PP-050W	WEST CHARG. & LUBE OIL PUMP MOTOR		X	M1	
827622	POWER CABLE		X	CP1 CP2	
	POWER CABLE TERM. AT PUMP MOTOR		X	TP4	
	Motor O.L		X	G10	
	Coupling Guard		X	G11	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-315, LICENSE No. DPR-74

SYSTEM VA. CMO-419

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
CMO-419	VALVE MOTOR OPERATOR		X	V6	
8250G-2	POWER CABLE		X	CP1 CP2	
8908G-2	CONTROL CABLE		X	CC7 CC8	
8251G-2	CONTROL CABLE		X	CC7 CC8	
8252G-2	CONTROL CABLE.		X	CC5 CC6	
8253G.-2	CONTROL CABLE		X	CC7 CC8	
8909G-2	CONTROL CABLE		X	CC2 CC3 CC4	
8254G-2	CONTROL CABLE		X	CC2 CC3 CC4	
	POWER CABLE TERM AT VA CMO-419		X	TP6	
	CONTROL CABLE TERM AT TERM. BOX		X	TC13	
	CONTROL CABLE TERM. AT VA MOTOR OPERATOR.		X	TC11	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM CM0-429

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
CM0-429	VALVE MOTOR OPERATOR		X	V6	
8902 R-2	POWER CABLE		X	CP1 CP2	
8908 R-2	CONTROL CABLE		X	CC2 CC3 CC4	
8903 R-2	CONTROL CABLE		X	CC7 CC8	
8907 R-2	CONTROL CABLE		X	CC7 CC8	
8906 R-2	CONTROL CABLE		X	CC2 CC3 CC4	
8905 R-2	CONTROL CABLE		X	CC5 CC6	
8904 R-2	CONTROL CABLE		X	CC7 CC8	
	POWER CABLE TERM AT VALVE MOTOR		X	TP6	
	CONTROL CABLE TERM AT VALVE MOTOR OPERATOR		X	TC13	
	CONTROL CABLE TERM AT TERM. BOX		X	TC11	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM _____ INSTRUMENT IFI-51

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
IFI-51	FLOW INDICATOR	X		I7 I8 I9	
4/10 CO-2	INSTRUMENT CABLE	X		CI5 CI7	
	CABLE TERMINATION AT INSTRUMENT	X		TI5	
	CABLE TERMINATION AT PENETRATION INSIDE FLOOD UP TUBING	X		TI3	
	CABLE TERMINATION AT FLOOD UP BOX	X		TI4	
KAPTON INSULATED CABLE		X		CI-15	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM INSTRUMENT IFI-52

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
IFI-52	FLOW INDICATOR	X		=7 =3 =9	
6211 CB-2	INSTRUMENT CABLE	X		CI5 CI7	
	CABLE TERMINATION AT INSTRUMENT	X		TI5	
	CABLE TERMINATION AT PENETRATION INSIDE FLOOD UP TUBING	X		TI3	
	CABLE TERMINATION AT FLOOD UP BOX	X		TI4	
KAPTON INSUL. CABLE		X		CI15	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM _____ INSTRUMENT IFI-53

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
IFI-53	FLOW INDICATOR	X		=7 =8 =9	
6210 CY-2	INSTRUMENT CABLE	X		CI5 CI7	
	CABLE TERMINATION AT INSTRUMENT	X		TI5	
	CABLE TERMINATION AT PENETRATION INSIDE FLOOD UP TUBING	X		TI3	
	CABLE TERMINATION AT FLOOD UP BOX	X		TI4	
KAPTON INSUL. CABLE		X		CI-15	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM _____ INSTRUMENT IFI-54

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
IFI-54	FLOW INDICATOR	X		I7 I8 I9	
6212CW-2	INSTRUMENT CABLE	X		CI5 CI7	
	CABLE TERMINATION AT INSTRUMENT	X		TI5	
	CABLE TERMINATION AT PENETRATION INSIDE FLOOD UP TUBING	X		TI3	
	CABLE TERMINATION AT FLOOD UP BOX	X		TI4	
KAPTON INSUL. CABLE		X		CI-15	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-315, LICENSE No. DPR-74

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SYSTEM INSTRUMENT IFI-260

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
IFI-260	INSTRUMENT		X	I10	
4610-2	INSTRUMENT CABLE		X	C15 C14 C17	
	CABLE TERM. AT INSTRUMENT		X	T19	
				0	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
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SYSTEM INSTRUMENT IFI-266

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
IFI-266	INSTRUMENT		X	I10	
1#297-2	INSTR. CABLE		X	C15 C16 C17	
	CABLE TERM. AT INSTRUMENT.		X	TI* 9	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM _____ VALVE IMO-51

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
IMO-51	VALVE MOTOR OPERATOR	X		V 1	
8315CG-2	POWER CABLE	X		CP9 CP10 CP11	
8316CG-2	CONTROL CABLE	X		CC7 CC8	
8317G-2	CONTROL CABLE	X		CC7 CC8	
	CONTROL CABLE TERM. AT VLV MTR. OPERATOR	X		TC3	
	CONTROL CABLE TERM. AT TERM. BOX	X		TC8	
	CONTROL CABLE TERM. AT FLOOD UP TERM BOX	X		TC7	
	CONTROL CABLE TERM. AT FLOOD UP TUBE	X		TC6	
	POWER CABLE TERM. AT VLV. MTR.	X		TP3 5	
	POWER CABLE TERM AT FLOOD UP TERM BOX	X		TP2	
	POWER CABLE TERM. AT FLOOD UP TUBE	X		TP1	
KAPTON INSUL. CABLE		X		CI5	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-315, LICENSE No. DPR-74

SYSTEM _____ VALVE IMO-51

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
IMO-51	VALVE MOTOR OPERATOR	X		V 1	
8315CG-2	POWER CABLE	X		CP9 CP10 CP11	
8316CG-2	CONTROL CABLE	X		CC7 CC8	
8317G-2	CONTROL CABLE	X		CC7 CC8	
	CONTROL CABLE TERM. AT VLV MTR. OPERATOR	X		TC3	
	CONTROL CABLE TERM. AT TERM. BOX	X		TC8	
	CONTROL CABLE TERM AT FLOOD UP TERM BOX	X		TC7	
	CONTROL CABLE TERM AT FLOOD UP TUBE	X		TC6	
	POWER CABLE TERM AT VLV. MTR.	X		TP3 5	
	POWER CABLE TERM AT FLOOD UP TERM BOX	X		TP2	
	POWER CABLE TERM. AT FLOOD UP TUBE	X		TP1	
KAPTON INSUL. CABLE		X		CIS	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM _____ VALVE IMO-53

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
IMO-53	VLV. MTR. OPERATOR	X		V 1	
8444CG-2	POWER CABLE	X		CP9 CP10 CP11	
8445CG-2	CONTROL CABLE	X		CC7 CC8	
	CONTROL CABLE TERM. AT MOTOR OPERATOR	X		TC3	
	CONTROL CABLE TERM AT TERM. BOX	X		TC8	
	CONTROL CABLE TERM. AT FLOOD UP TERM. BOX	X		TC7	
	CONTROL CABLE TERM. AT FLOOD UP TUBE.	X		TC6	
	POWER CABLE TERM. AT MOTOR	X		TP3 5	
	POWER CABLE TERM. AT FLOOD UP TERM. BOX	X		TP2	
	POWER CABLE TERM. AT FLOOD UP TUBE	X		TP1	
KAPTON INSUL. CABLE		X		CE15	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM _____ VALVE. IMO-54

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
IMO-54	VLV. MTR. OPERATOR	X		V: 1	
8472CR-2	POWER CABLE	X		CP9 CP10 CP11	
8473CR-2	CONTROL CABLE	X		CC7 CC8	
	CONTROL CABLE TERM. AT MOTOR OPERATOR	X		TC3	
	CONTROL CABLE TERM AT TERM. BOX	X		TC8	
	CONTROL CABLE TERM. AT FLOOD UP TERM BOX	X		TC7	
	CONTROL CABLE TERM. AT FLOOD UP TUBE	X		TC6	
	POWER CABLE TERM. AT MOTOR	X		TP 5 3 4	
	POWER CABLE TERM. AT FLOOD UP TERM. BOX	X		TP2	
	POWEE CABLE TERM. AT FLOOD UP TUBE	X		TP1	
KAPTON INSUL. CABLE		X		CT-15	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM _____ VALVE IMO-255

PLANT ID No:	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
IMO-255	VALVE MOTOR OPERATOR		X	V6	
8177 G-2	POWER CABLE		X	CP1 CP2	
8176 G-2	CONTROL CABLE		X	CC7 CC8	
8178 G-2	CONTROL CABLE		X	CC7 CC8	
	POWER CABLE TERM. AT VALVE MOTOR		X	TP6	
	CONTROL CABLE TERM. AT TERM. BOX		X	TC13	
	CONTROL CABLE TERM. AT VALVE MOTOR OPERATOR		X	TC11	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM _____ VALVE IMO-256

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
IMO-256	VALVE MOTOR OPERATOR		X	V6	
8177 R-2	POWER CABLE		X	CP1 CP2	
8176 R-2	CONTROL CABLE		X	CC7 CC8	
8178 R-2	CONTROL CABLE		X	CC7 CC8	
	POWER CABLE TERM. AT VALVE MOTOR		X	TP6	
	CONTROL CABLE TERM. AT TERM. BOX		X	TC13	
	CONTROL CABLE TERM. AT VALVE MOTOR OPERATOR		X	TC11	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM _____ VALVE IMO-261

PLANT ID No.	GENERIC NAME	LOCATION INSIDE CONT.	LOCATION OUTSIDE CONT.	EQUIP QUAL. CHART REF.	
IMO-261	VALVE-MOTOR OPERATOR		X	V8	
8030R-2	POWER CABLE		X	~~CP1~~ CP2	
8250R-2	CONTROL CABLE		X	~~SSW~~ CC8	
8251R-2	CONTROL CABLE		X	~~CC7~~ CC8	
	POWER CABLE TERM. AT VALVE MOTOR		X	TP6	
	CONTROL CABLE TERM. AT TERM. BOX		X	TC13	
	CONTROL CABLE TERM. AT VALVE MOTOR OPERATOR		X	TC9	
ALL DELETIONS	AS PER REF. 108				

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
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SYSTEM _____ VALVE IMO-262

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
IMO-262	VALVE MOTOR OPERATOR		X	V6	
8258 G-2	POWER CABLE		X	CP1 CP2	
8259 G-2	CONTROL CABLE		X	CC7 CC8	
8260 G-2	CONTROL CABLE		X	CC9	
	POWER CABLE TERM. AT VALVE MOTOR		X	TP 6 3	
	CONTROL CABLE TERM. AT TERM. BOX		X	TC13	
	CONTROL CABLE TERM. AT VALVE MOTOR OPERATOR		X	TC11	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM _____ VALVE IMO-263

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
IMO-263	Valve Motor Operator		X	V6	
8252 R-2	Power Cable		X	CP1 CP2	
8253 R-2	Control Cable		X	CC7 CC8	
8254-R-2	Control Cable		X	CC7 CC8	
	Power Cable Term. At Valve Motor		X	TP 6 3A	
	Control Cable Term. At Term. Box		X	TC13	
	Control Cable Term. At Valve Motor Operator		X	TC11	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
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SYSTEM _____ VALVE IMO-270

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
IMO-270	VALVE MOTOR OPERATOR		X	V6	
9651 G-2	POWER CABLE		X	CP1 CP2	
9652 G-2	CONTROL CABLE		X	CC7 CC8	
9653 G-2	CONTROL CABLE		X	CC7 CC8	
	POWER CABLE TERM. AT VALVE MOTOR		X	TP6	
	CONTROL CABLE TERM. AT TERM. BOX		X	TC13	
	CONTROL CABLE TERM. AT VALVE MOTOR OPERATOR		X	TC11	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM _____ VALVE IMO-275

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
IMO-275	VALVE MOTOR OPERATOR		X	V6	
9651 R-2	POWER CABLE		X	CP1 CP2	
9652 R-2	CONTROL CABLE		X	CC7 CC8	
9653 R-2	CONTROL CABLE		X	CC7 CC8	
	POWER CABLE TERM. AT VALVE MOTOR		X	TP6 R	
	CONTROL CABLE TERM. AT TERM. BOX		X	TC13	
	CONTROL CABLE TERM. AT VALVE MOTOR OPERATOR		X	TC11	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM _____ VALVE IMO-360

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
IMO-360	VALVE MOTOR OPERATOR		X	V 11 8	
8255 G-2	POWER CABLE		X	CP1 CP2	
8256 G-2	CONTROL CABLE		X	CC7 CC8	
8257 G-2	CONTROL CABLE		X	CC7 CC8	
	POWER CABLE TERM. AT VALVE MOTOR [illegible]		X	TP 6 A	
	CONTROL CABLE TERM. AT TERM. BOX		X	TC13	
	CONTROL CABLE TERM. AT VALVE MOTOR OPERATOR		X	TC 11 A	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
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SYSTEM _____ VALVE IMO-361

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
IMO-361	VALVE MOTOR OPERATOR		X	U 8 11	
8261 G-2	POWER CABLE		X	CP1 CP2	
8262 G-2	CONTROL CABLE		X	CC7 CC8	
8263 G-2	CONTROL CABLE		X	CC7 CC8	
	POWER CABLE TERM. AT VALVE MOTOR		X	TP 6 13	
	CONTROL CABLE TERM. AT TERM. BOX		X	TC13	
	CONTROL CABLE TERM. AT VALVE MOTOR OPERATOR		X	TC 8 11	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
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SYSTEM _____ VALVE IMO-362

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
IMO-362	VALVE MOTOR OPERATOR		X	V8 11	
8261 R-2	POWER CABLE		X	CP1 CP2	
8262 R-2	CONTROL CABLE		X	CC7 CC8	
8263 R-2	CONTROL CABLE		X	CC7 CC8	
	POWER CABLE TERM. AT VALVE MOTOR OPERATOR		X	TP 6 3	
	CONTROL CABLE TERM. AT TERM. BOX		X	TC13	
	CONTROL CABLE TERM. AT VALVE MOTOR OPERATOR		X	TC 11 8	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM SAFETY INJECTION PUMP 2N

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
PP026N	SAFETY INJECTION PUMP 2N MOTOR		X	M1	
800062	POWER CABLE		X	CP7 CP8 CP12	
	POWER CABLE TERM. AT PUMP MOTOR		X	TP4	
	Pump Oil		x	G7	
	Motor Oil		x	G8	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
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SYSTEM SAFETY INJECTION PUMP 2S

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
PP-026S	SAFETY INJECTION PUMP 2S MOTOR		X	M1	
800022	POWER CABLE		X	CP7 CP8 CP12	
	POWER CABLE TERM. AT PUMP MOTOR		X	TP4	
	Pump Oil		x	67	
	Motor Oil		x	68	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM Instrument IFC-315

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
IFC-315	Instrument		X	I6	
8872 G-2	Instrument Cable		X	C=8 C=9 C=10 C=11	
	Cable Term. at Term. Box		X	TIK 9	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM Instrument IFC-325

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
IFC-325	Instrument		X	I6	
8867 G.2	Instrument Cable		X	C=8 C=9 C=10 C=11	
	Cable Term. at Term. Box		X	TI 9	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM INSTRUMENT IFI-310

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
IFI-310	INSTRUMENT		X	I 11	
6296-2	INSTR. CABLE		X	C = 8 C = 9 C = 10 C = 11	
	CABLE TERM. AT INSTRUMENT		X	TI 5 10	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM INSTRUMENT IFI-311

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
IFI-311	INSTRUMENT		X	I12	
5104-2	INSTR. CABLE		X	c=8 c=9 c=10 c=11	
	CABLE TERM. AT INSTRUMENT		X	TI 10	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
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SYSTEM INSTRUMENT IFI-320

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
IFI-320	INSTRUMENT		X	I11	
6297-2	INSTR. CABLE		X	C18 C=9 C=10 C=11	
	CABLE TERM AT INSTRUMENT		X	TI 10/7	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
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SYSTEM INSTRUMENT IFI-321

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
IFI-321	Instrument		X	I12	
5103-2	Instr. Cable		X	C=8 C=9 C=10 C=11	
	Cable Term. at Instrument		X	TI 10	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM VALVE IMO-310

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
IMO-310	VALVE MOTOR OPERATOR		X	V6	
807662	POWER CABLE		X	CP1 CP2	
807762	CONTROL CABLE		X	CC7 CC8	
807862	CONTROL CABLE		X	CC7 CC8	
	POWER CABLE TERM. AT VALVE MOTOR		X	TP6	
	CONTROL CABLE TERM. AT TERM. BOX		X	TC13	
	CONTROL CABLE TERM. AT VALVE MOTOR OPERATOR		X	TC11	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM _____ VALVE IMO-312

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
IMO-312	VALVE MOTOR OPERATOR		X	V6	
8191G2	POWER CABLE		X	CP1 CP2	
8192G2	CONTROL CABLE		X	CC7 CC8	
8193G2	CONTROL CABLE		X	CC7 CC8	
	POWER CABLE TERM. AT VALVE MOTOR		X	TP3	
	CONTROL CABLE TERM. AT TERM. BOX		X	TC13	
	CONTROL CABLE TERM. AT VALVE MOTOR OPERATOR		X	TC11	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM VALVE IMO-314

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
IMO-314	VALVE MOTOR OPERATOR		X	V6	
9645G2	POWER CABLE		X	CP1 CP2	
9647G2	CONTROL CABLE		X	CC7 CC8	
9648G2	CONTROL CABLE		X	CC7 CC8	
	POWER CABLE TERM. AT VALVE MOTOR		X	TP6	
	CONTROL CABLE TERM. AT TERM. BOX		X	TC13	
	CONTROL CABLE TERM. AT VALVE MOTOR OPERATOR		X	TC11	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM IMO-315 VALVE

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
IMO-315	VA. MOTOR OPERATOR	X		V2	
9628CG-2	POWER CABLE	X		CP9 C P10 C P11	
9627CG-2	CONT. CABLE	X		CC7 CC8	
9643G-2	CONT. CABLE	X		CC7 CC8	
	POWER. CABLE TERM. AT VA. MOTOR	X		TP3	
	POWER CABLE TERM. AT FLOOD UP TERM BOX	X		TP2	
	POWER CABLE TERM. AT FLOOD UP TUBE	X		TP1	
	CONT. CABLE TERM. AT VA. MOTOR OPERATOR	X		TC4	
	CONT. CABLE TERM. AT TERM. BOX	X		TC8	
	CONT. CABLE TERM. AT FLOOD UP TERM. BOX	X		TC7	
	CONT. CABLE TERM. AT FLOOD UP TUBE	X		TC6	
KAPTON INSUL. CABLE		X		CI-15	

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DONALD C. COOK NUCLEAR PLANT UNIT No. 2
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SYSTEM IMO-316 VALVE

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
IMO-316	VALVE MOTOR OPERATOR	X		V2	
9631 CG-2	POWER CABLE	X		CP8 CP10 CP11	
9644G-2	CONTROL CABLE	X		CC7 CC8	
9630 CG-2	CONTROL CABLE	X		CC7 CC8	
	POWER CABLE TERM. AT VALVE MOTOR	X		TP3	
	POWER CABLE TERM. AT FLOOD UP TERM. BOX	X		TP2	
	POWER CABLE TERM. AT FLOOD UP TUBE	X		TP1	
	CONTROL CABLE TERM. AT VALVE OPERATOR	X		TC4	
	CONTROL CABLE TERM. AT TERM. BOX	X		TC8	
	CONTROL CABLE TERM. AT FLOOD UP TERM. BOX	X		TC7	
	CONTROL CABLE TERM. AT FLOOD UP TUBE	X		TC6	
KAPTON INSUL. CABLE		X		CIS	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM _____ VALVE IMO-320

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
IMO-320	Valve Motor Operator		X	V6	
807622	Power Cable		X	CP1 CP2	
807722	Control Cable		X	cc7 cc8	
807822	Control Cable		X	cc7 cc8	
	Power Cable Term. AT Valve Motor		X	TP6 TP8	
	Control Cable Term. AT Term. Box		X	TC13	
	Control Cable Term. AT Valve Motor Operator		X	TC11	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM _____ VALVE IMO-322

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
IMO-322	VALVE MOTOR OPERATOR		X	V6	
8191R2	POWER CABLE		X	CP1 CP2	
8192R2	CONTROL CABLE		X	CC7 CC8	
8193R2	CONTROL CABLE		X	CC7 CC8	
	POWER CABLE TERM. AT VALVE MOTOR		X	TP6	
	CONTROL CABLE TERM. AT TERM. BOX		X	TC13	
	CONTROL CABLE TERM. AT VALVE MOTOR OPERATOR		X	TC11	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM _____ VALVE IMO-324

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
IMO-324	VALVE MOTOR OPERATOR		X	V6	
9645R2	POWER CABLE		X	CP1 CP2	
9647R2	CONTROL CABLE		X	CC7 CC8	
9648R2	CONTROL CABLE		X	CC7 CC8	
	POWER CABLE TERM. AT VALVE MOTOR		X	TP6	
	CONTROL CABLE TERM. AT TERM. BOX		X	TC13	
	CONTROL CABLE TERM. AT VALVE MOTOR OPERATOR		X	TC11	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM IMO-325 VALVE

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
IMO-325	VALVE OPERATOR	X		V2	
9628 CR-2	POWER CABLE	X		CP9 CP10 CP11	
9643R-2	CONTROL CABLE	X		CC7 CC8	
9627 CR-2	CONTROL CABLE	X		CC7 CC8	
	POWER CABLE TERM. AT VALVE	X		TP3	
	POWER CABLE TERM. AT FLOOD UP TERM. BOX	X		TP2	
	POWER CABLE TERM. AT FLOOD UP TUBE	X		TP1	
	CONTROL CABLE TERM. AT VALVE OPERATOR	X		TC4	
	CONTROL CABLE TERM. AT TERM. BOX	X		TC8	
	CONTROL CABLE TERM. AT FLOOD UP TERM. BOX	X		TC7	
	CONTROL CABLE TERM. AT FLOOD UP TUBE	X		TC6	
KAPTON INSUL. CABLE		X		CIS	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM IMO-326 VALVE

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
IMO-326	VALVE OPERATOR	X		V2	
9631CR-2	POWER CABLE	X		CP9 CP10 CP11	
9644R-2	CONTROL CABLE	X		CC7 CC8	
9630 CR-2	CONTROL CABLE	X		CC7 CC8	
	POWER CABLE TERM. AT VALVE	X		TP3	
	POWER CABLE TERM. AT FLOOD UP TERM. BOX	X		TP2	
	POWER CABLE TERM. AT FLOOD UP TUBE	X		TP1	
	CONTROL CABLE TERM. AT VALVE OPERATOR	X		TC4	
	CONTROL CABLE TERM. AT TERM. BOX	X		TC8	
	CONTROL CABLE TERM. AT FLOOD UP TERM. BOX	X		TC7	
	CONTROL CABLE TERM. AT FLOOD UP TUBE	X		TC6	
KAPTON INSUL. CABLE		X		CIN-	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM _____ VALVE IMO-330

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
IMO-330	Valve Motor Operator		X	V7	
8186 G-2	Power Cable		X	CP1 CP2	
8185 G-7	Control Cable		X	CC7 CC8	
8188 G-2	Control Cable		X	CC7 CC8	
	Power Cable Term. At Valve Motor		X	TP6	
	Control Cable Term. At Term. Box		X	TC13	
	Control Cable Term. At Valve Motor Operator		X	TC10	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM _____ VALVE IMO-331

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
IMO-331	VALVE MOTOR OPERATOR		X	V7	
8185 R-2	POWER CABLE		X	CP1 CP2	
8186 R-2	CONTROL CABLE		X	CC7 CC8	
8188 R-2	CONTROL CABLE		X	CC7 CC8	
	POWER CABLE TERM. AT VALVE MOTOR		X	TP6	
	CONTROL CABLE TERM. AT TERM. BOX		X	TC13	
	CONTROL CABLE TERM. AT VALVE MOTOR OPERATOR		X	TC10	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM _____ VALVE IMO-340

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
IMO-340	Valve Motor Operator		X	V11	
8194 G-2	Power Cable		X	CP1 CP2	
8195 G-2	Control Cable		X	CC7 CC8	
8196 G-2	Control Cable		X	CC7 CC8	
	Power Cable Term. At Valve Motor		X	TP6	
	Control Cable Term. At Term. Box		X	TC13	
	Control Cable Term. At Valve Motor Operator		X	TC11	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM _____ VALVE IMO-350

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
IMO-350	VALVE MOTOR OPERATOR		X	V 11 8	
8182 R-2	POWER CABLE		X	CP1 CP2	
8183 R-2	CONTROL CABLE		X	CC7 CC8	
8184 R-2	CONTROL CABLE		X	CC7 CC8	
	POWER CABLE TERM. AT VALVE MOTOR		X	TP 6 3	
	CONTROL CABLE TERM. AT TERM. BOX		X	TC13	
	CONTROL CABLE TERM. AT VALVE MOTOR OPERATOR		X	TC 11 8	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM VALVE IMO-128

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
IMO-128	VALVE MOTOR OPERATOR	X		VI	
8086 CR-2	POWER CABLE	X		CP-9 CP-10 CP-11	
8094 R-2	CONTROL CABLE	X		CC7 CC8	
8087 CR-2	CONTROL CABLE	X		CC7 CC8	
	Power Cable Term at Valve Motor	X		TP5	
	Power Cable Term at Floodup Term. Box	X		TP2	
	Power Cable Term at Pen. inside Floodup Tube	X		TP1	
	Control Cable Term at Valve Motor Operator	X		TC3	
	CONTROL CABLE TERMINATION AT TERMINAL BOX	X		TC8	
	Control Cable Term at Floodup Term Box	X		TC7	
	Control Cable Term at Pen. inside Floodup Tube	X		TC6	
KAPTON INSUL. CABLE		X		CIS	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM RHR PUMP 2E

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
PP-135E	RHR PUMP 2E MOTOR		X	M1	
800362	POWER CABLE		X	CPB	
	POWER CABLE TERM. AT PUMP MOTOR		X	TP4	
	Motor Grease		X	G9	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316; LICENSE No. DPR-74

SYSTEM RHR PUMP 2W

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
DP-235W	RHR PUMP 2W MOTOR		X	M1	
800322	POWER CABLE		X	CPB	
	POWER CABLE TERM. AT PUMP MOTOR		X	TP4	
	Motor Grease		X	69	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM _____ INSTRUMENT PPP-300

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
PPP-300	CONTAINMENT PRESSURE INSTRUMENT		X	I-29	
9305 W-2	INSTRUMENT CABLE		X	C-5 C-6 C-7	
	INSTRUMENT CABLE TERM AT INSTRUMENT		X	TI-10	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM INSTRUMENT PPP-301.

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
PPP-301	CONTAINMENT PRESSURE INSTRUMENT		X	I29	
9304Y-2	INSTRUMENT CABLE		X	CI5 CI6 CI7	
	INSTRUMENT CABLE TERM. AT INSTRUMENT		X	TI10	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No: DPR-74

SYSTEM INSTRUMENT PPP-302

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
PPP-302	CONTAINMENT PRESSURE INSTRUMENT		X	I29	
9305B-2	INSTRUMENT CABLE		X	C=5 C=6 C=7	
	INSTRUMENT CABLE TERM. AT INSTRUMENT		X	TI 10	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM INSTRUMENT PPP-303

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
PPP-303	CONTAINMENT PRESSURE INSTRUMENT		X	I30	
9304 O-2	INSTRUMENT CABLE		X	CI 8 CI 9 CI 10 CI 11	
	INSTRUMENT CABLE TERM. AT INSTRUMENT		X	TI 10	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM _____ INSTRUMENT IIS-950

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
9541G-2	INSTRUMENT CABLE		X	C=5 C=6 C=7	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM INSTRUMENT ILS-951

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
9544R-2	INSTRUMENT CABLE		X	C=5 C=6 C=7	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM _____ VALVE IMO-212

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
IMO-212	VALVE MOTOR OPERATOR		X	V7	
P070G-2	POWER CABLE		X	CP1 CP2	
8071G-2	CONTROL CABLE		X	CC7 CC8	
8072G-2	CONTROL CABLE		X	CC7 CC8	
	POWER CABLE TERM. AT VALVE MOTOR		X	TP6A	
	CONTROL CABLE TERM. AT TERM. BOX		X	TC13	
	CONTROL CABLE TERM. AT VALVE MOTOR OPERATOR		X	TC10	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM _____ VALVE IMO-222

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
IMO-222	VALVE MOTOR OPERATOR		X	V7	
8070 R-2	POWER CABLE		X	CP1 CP2	
8071 R-2	CONTROL CABLE		X	CC7 CC8	
8072 R-2	CONTROL CABLE		X	CC7 CC8	
	POWER CABLE TERM. AT VALVE MOTOR		X	TP3	
	CONTROL CABLE TERM. AT TERM. BOX		X	TC13	
	CONTROL CABLE TERM. AT VALVE MOTOR OPERATOR		X	TC10	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM _____, VALVE IMO-52.

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
IMO-52	VALVE MOTOR OPERATOR	X		V1	
8080 CR-2	POWER CABLE	X		CP9 CP10 CP11	
8081 CR-2	CONTROL CABLE	X		CC7 CC8	
8082 R-2	CONTROL CABLE	X		CC7 CC8	
	CONTROL CABLE TERM. AT MOTOR OPERATOR	X		TC3	
	CONTROL CABLE TERM. AT TERM. BOX	X		TC8	
	CONTROL CABLE TERM. AT FLOOD UP TERM. BOX	X		TC9	
	CONTROL CABLE TERM. AT FLOOD UP TUBE	X		TC6	
	POWER CABLE TERM. AT VALVE MTR.	X		TP5	
	POWER CABLE TERM. AT FLOOD UP TERM. BOX	X		TP2	
	POWER CABLE TERM. AT FLOOD UP TUBE.	X		TP1	
KAPTON INSUL. CABLE		X		CI5	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM _____ VALVE IMO-221

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
IMO-221	VALVE MOTOR OPERATOR		X	U7	
8067 R-2	POWER CABLE		X	CP1 CP2	
80.68 R-2	CONTROL CABLE		X	CC7 CC8	
8069 R-2	CONTROL CABLE		X	CC7 CC8	
	POWER CABLE TERM. AT VALVE MOTOR		X	TP6	
	CONTROL CABLE TERM. AT TERM. BOX		X	TC13	
	CONTROL CABLE TERM. AT VALVE MOTOR OPERATOR		X	TC10	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM _____ VALVE IMO-220

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
IMO-220	VALVE MOTOR OPERATOR		X	V7	
8064 R-2	POWER CABLE		X	CP2 CP1	
8065 R-2	CONTROL CABLE		X	CC7 CC8	
8066 R-2	CONTROL CABLE		X	CC7 CC8	
	POWER CABLE TERM. AT VALVE MOTOR		X	TP6	
	CONTROL CABLE TERM. AT TERM. BOX		X	TC13	
	CONTROL CABLE TERM. AT VALVE MOTOR OPERATOR		X	TC10	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM _____ VALVE IMO-210

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
IMO-210	VALVE MOTOR OPERATOR		X	V7	
8064G-2	POWER CABLE		X	CP1 CP2	
8065G-2	CONTROL CABLE		X	CC2 CC3 CC4	
P066G-2	CONTROL CABLE		X	CC7 CC8	
	POWER CABLE TERM. AT VALVE MOTOR		X	TP6	
	CONTROL CABLE TERM. AT TERM. BOX		X	TC13	
	CONTROL CABLE TERM. AT VALVE MOTOR OPERATOR		X	TC10	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM _____ VALVE IMO-211

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
IMO-211	VALVE MOTOR OPERATOR		X	V7	
8067G-2	POWER CABLE		X	CP1 CP2	
8068G-2	CONTROL CABLE		X	CC7 CC8	
8069G-2	CONTROL CABLE		X	CC7 CC8	
	POWER CABLE TERM. AT VALVE MOTOR		X	TP6A	
	CONTROL CABLE TERM. AT TERM. BOX		X	TC13	
	CONTROL CABLE TERM. AT VALVE MOTOR OPERATOR		X	TC10	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM _____ VALVE IMO-215

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
IMO-215	VALVE MOTOR OPERATOR		X	V7	
8073 G-2	POWER CABLE		X	CP1 CP2	
8074 G-2	CONTROL CABLE		X	CC7 CC8	
8075 G-2	CONTROL CABLE		X	CC7 CC8	
	POWER CABLE TERM. AT VALVE MOTOR		X	TP6	
	CONTROL CABLE TERM. AT TERM. BOX		X	TC13	
	CONTROL CABLE TERM. AT VALVE MOTOR OPERATOR		X	TC10	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM _____ VALVE IMO-225

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
IMO-225	VALVE MOTOR OPERATOR		X	V7	
8073 R-2	POWER CABLE		X	CP1 CP2	
8074 R-2	CONTROL CABLE		X	CC7 CC8	
8075 R-2	CONTROL CABLE		X	CC7 CC8	
	POWER CABLE TERM. AT VALVE MOTOR		X	TP6	
	CONTROL CABLE TERM. AT TERM. BOX		X	TC13	
	CONTROL CABLE TERM. AT VALVE MOTOR OPERATOR		X	TC10	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM EAST CONT. SPRAY PUMP

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
PP: 009 East	EAST CONT. SPRAY PUMP MOTOR		X	M2	
8002G2	POWER CABLE		X	CP13	
	POWER CABLE TERM. AT PUMP MOTOR		X	TP4	
	Motor Oil		x	G3	
	Motor Grease		x	G4	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM WEST CONT. SPRAY PUMP

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
PP-009 West	WEST CONT. SPRAY PUMP MOTOR		X	M2	
800222	POWER CABLE		X	CP13	
	POWER CABLE TERM. AT PUMP MOTOR		X	TP4	
	Motor Oil		X	G3	
	Motor Grease		X	G4	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM VMO-101 VALVE

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
VMO-101	VALVE MOTOR OPERATOR	X		V4	
9540CR-2	CONTROL CABLE	X		CC7 CC8	
9541R-2	CONTROL CABLE	X		CC7 CC8	
9539CR-2	POWER CABLE	X		CP9 CP10 CP11	
	POWER CABLE TERM. AT VA. MOTOR	X		TP3	
	POWER CABLE TERM. AT FLOOD UP TERM. BOX	X		TP2	
	POWER CABLE TERM. AT FLOOD UP TUBE	X		TP1	
	CONTROL CABLE TERM AT TERM. BOX	X		TC8	
	CONTROL CABLE TERM. AT VA. MOTOR OPERATOR	X		TC2	
	CONTROL CABLE TERM. AT FLOOD UP TERM. BOX	X		TC7	
	CONTROL CABLE TERM. AT FLOOD UP TUBE	X		TC6	
KAPTON INSUL. CABLE		X		CIP	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM VMO-102 VALVE

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
VMO-102	VALVE MOTOR OPERATOR	X		V4	
9608CG-2	POWER CABLE	X		CP9 CP10 CP11	
9606-2	CONTROL CABLE	X		CC7 CC8	
9609CG-2	CONTROL CABLE	X		CC7 CC8	
	POWER CABLE TERM AT VA. MOTOR	X		TP3	
	POWER CABLE TERM AT FLOOD UP TERM. BOX	X		TP2	
	POWER CABLE TERM. AT FLOOD UP TUBE	X		TP1	
	CONTROL CABLE TERM AT VA. MOTOR OPERATOR	X		TC2	
	CONTROL CABLE TERM AT TERM. BOX	X		TC8	
	CONTROL CABLE TERM AT FLOOD UP TERM. BOX	X		TC7	
	CONTROL CABLE TERM. AT FLOOD UP TUBE	X		TC6	
KAPTON INSUL. CABLE		X		CIS	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM Cont. Vent. Fan - 2HV-CEQ1

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
2HV-CEQ1	VENT. FAN	X		F1	
9532CR-2	POWER CABLE	X		CP4 CP5	
	POWER CABLE TERM. AT FAN MOTOR	X		TP3	
	POWER CABLE TERM. AT FLOOD UP TERM. BOX	X		TP2	
	POWER CABLE TERM. AT FLOOD UP TUBE	X		TP1	
KAPTON INSUL. CABLE		X		CI5	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM Cont. Vent. Fan 2HV-CEQ2

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
2HV-CEQ2	FAN MOTOR	X		F1	
9604CG-2	Power Cable	X		CP4 CP5	
	Power Cable Term. at Fan Motor	X		TP3	
	Power Cable Term. at Flood up Term. Box	X		TP2	
	Power Cable Term. at Flood up Tube	X		TP1	
Kapton Insul. Cable		X		CP5	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM Hyd. Recombiner # 2

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
8972CG-2	Power Cable	X		CP4 CP5 CP6	
	Power Cable Term. at Recombiner	X		TP3	
	Power Cable Term. at Flood up Term. Box	X		TP2	
	Power Cable Term. at Flood up Tube	X		TP1	
HR-2	Hydrogen Recombiner	X		H1	
Kapton Insul Cable		X		CP15	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM Hydrogen Recombiner Htr #1

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
8978 CR-2	Power Cable	X		CP4 CP5 CP6.	
	Power Cable Term. at _____ Recombiner	X		TP3	
	Power Cable Term. at Flood up Term Box	X		TP2	
	Power Cable Term. at Flood up Tube	X		TP1	
HR-1	Hydrogen Recombiner	X		H1	
Kapton Insul. Cable		X		3E-15	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM _____ INSTRUMENT N35

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
N35-CV	INSTRUMENT	✓		E17	
N35-SIG	INSTRUMENT	✓		E17	
N35-HV	INSTRUMENT	✓		E17	
9258CΦ-2	INSTR. CABLE	✓		E7	
9259CΦ-2	INSTR. CABLE	✓		E17	
9260CΦ-2	INSTR. CABLE	✓		E17	
	CABLE TERM. AT INSTRUMENT	✓		E17	
	CABLE TERM. AT JUNC. BOX	✓		E17	
	CABLE TERM. AT PENETRATION	✓		E17	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM _____ INSTRUMENT N36

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
N36 - CV.	INSTRUMENT	✓		I17	
N36 - SIG	INSTRUMENT	✓		I17	
N36 - HV	INSTRUMENT	✓		I17	
9258 CB-2	INSTR. CABLE	✓		I17	
9259 CB-2	INSTR. CABLE	✓		I17	
9260 CB-2	INSTR. CABLE	✓		I17	
	CABLE TERM. AT. INSTR.	✓		I17	
	CABLE TERM. AT JUNC. BOX	✓		I17	
	CABLE TERM. AT PENETRATION	✓		I17	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM INSTRUMENT N41

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
N41A-SIG.	INSTRUMENT	✓		II8	
N41B-SIG.	INSTRUMENT	✓		II8	
9264 CΦ-2	INSTR. CABLE	✓		II8	
9266 CΦ-2	INSTR. CABLE	✓		II8	
	CABLE TERM. AT INSTR.	✓		II2	
	CABLE TERM. AT JUNC. BOX	✓		II2	
	CABLE TERM. AT PENETRATION	✓		II8	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM INSTRUMENTS N42 A & B.

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
N42A-SIG	INSTRUMENT	✓		I18	
N42B-SIG	INSTRUMENT	✓		I:8	
9264CB-2	INSTR. CABLE	✓		I:8	
9266CB-2	INSTR. CABLE	✓		I:8	
	CABLE TERM. AT INSTR.	✓		I:7	
	CABLE TERM. AT JUNC. BOX	✓		I:8	
	CABLE TERM. AT PENETRATION	✓		I:8	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM INSTRUMENT N43

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
N43A-SIG	INSTRUMENT	✓		I18	
N43B-SIG	INSTRUMENT	✓		I18	
8468CY-2	INSTR. CABLE	✓		I18	
8470CY-2	INSTR. CABLE	✓		I18	
	CABLE TERM. AT INSTR.	✓		I18	
	CABLE TERM. AT JUNC. BOX	✓		I18	
	CABLE TERM. AT PENETRATION	✓		I18	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM N44

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
N44A-SIG.	INSTRUMENT	✓		I-8	
N44B-SIG.	INSTRUMENT	✓		I-8	
8468 CW-2	INSTR. CABLE	✓		I-8	
8470 CW-2	INSTR. CABLE	✓		I-8	
	CABLE TERM. AT INSTR.	✓		I-8	6
	CABLE TERM. AT JUNC. BOX	✓		I-8	
	CABLE TERM. AT. PENETRATION	✓		I-8	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-315, LICENSE No. DPR-74

SYSTEM INSTRUMENT NTP-110

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
NTP-110	INSTRUMENT	X		I-27	
8708 C0-2	INSTRUMENT CABLE	X		CI 8 CI 9 CI 11	
	CABLE TERMINATION AT INSTRUMENT TERMINAL BOX	X		TI2	
	CABLE TERMINATION AT PENETRATION	X		TI 9	
Kapton insulated cable		X		CI-16	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM: INSTRUMENT NTP-111

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
NTP-111	INSTRUMENT	X		I26	
8710 CO-2	INSTRUMENT CABLE	X		C=8 C=9 C=11	
	CABLE TERMINATION AT INSTRUMENT TERMINAL BOX	X		TI2	
	[illegible]	[illegible]		[illegible]	
	CABLE TERMINATION AT PENETRATION	X		8 TIX	
KAPTON INSU. CABLE		X		CI16	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM INSTRUMENT NTP-120

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
NTP-120	INSTRUMENT	X		I-7	
8420 CB-2	INSTRUMENT CABLE	X		C-8 C-9 C-11	
	CABLE TERMINATION AT INSTRUMENT TERMINAL BOX	X		T-12	
	[illegible]	[illegible]		[illegible]	
	CABLE TERMINATION AT PENETRATION	X		T-9	
KAPTON INSUL. CABLE		X		C-16	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM INSTRUMENT NTP-121

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
NTP-121	INSTRUMENT	X		C-26	
8722 CB-2	INSTRUMENT CABLE	X		C-8 C-9 C-11	
	CABLE TERMINATION AT INSTRUMENT TERMINAL BOX	X		T-12	
	[illegible]	[illegible]		[illegible]	
	CABLE TERMINATION AT PENETRATION	X		T-14	
KAPTON INSUL. CABLE		X		C-16	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM INSTRUMENT NTP-130

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
NTP-130	INSTRUMENT	X		I27	
8721CY-2	INSTRUMENT CABLE	X		C=8 C=9 C=11	
	CABLE TERMINATION AT INSTRUMENT TERMINAL BOX	X		TI2	
	[illegible]	X		[illegible]	
	CABLE TERMINATION AT PENETRATION	X		TI4 8	
KAPTON INSUL. CABLE		X		CI6	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-315, LICENSE No. DPR-74

SYSTEM _____ INSTRUMENT NTP-131

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
NTP-131	INSTRUMENT	X		I26	
8723 CY-2	INSTRUMENT CABLE	X		C=8 C=9 C=11	
	CABLE TERMINATION AT INSTRUMENT TERMINAL BOX	X		TI2	
	[illegible]	[illegible]		[illegible]	
	CABLE TERMINATION AT PENETRATION	X		8 TI4	
KAPTON INNL. CABLE		X		CI16	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-315, LICENSE No. DPR-74

SYSTEM INSTRUMENT NTP-140

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
NTP-140	INSTRUMENT	X		I-27	
8732CW-2	INSTRUMENT CABLE	X		CI-8 CI-9 CI-11	
	CABLE TERMINATION AT INSTRUMENT TERMINAL BOX	X		TI-2	
	[illegible]			[illegible]	
	CABLE TERMINATION AT PENETRATION	X		TI-4, 8	
KAPTON INSUL CABLE		X		CI-15	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM _____ INSTRUMENT NTP-141

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
NTP-141	INSTRUMENT	X		I 26/28	
8734CW-2	INSTRUMENT CABLE	X		CI 8 CI 9 CI 11	
	CABLE TERMINATION AT INSTRUMENT TERMINAL BOX	X		TI 2	
	[illegible]	[illegible]		[illegible]	
	CABLE TERMINATION AT PENETRATION	X		TI 8/9	
KAPTON SIGNAL CABLE		X		CI 16	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-315, LICENSE No. DPR-74

SYSTEM _____ INSTRUMENT NTP-210

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
NTP-210	INSTRUMENT	X		I-27	
8709 CO-2	INSTRUMENT CABLE	X		C-8 C-9 C-11	
	CABLE TERMINATION AT INSTRUMENT TERMINAL BOX	X		T-12	
	CABLE TERMINATION AT PENETRATION	X		T-8	
KAPTON INSUL. CABLE		X		C-16	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM INSTRUMENT NTP-211

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
NTP-211	INSTRUMENT	X		I26	
8711C0-2	INSTRUMENT CABLE	X		CI 8 CI 9 CI 11	
	CABLE TERMINATION AT INSTRUMENT TERMINAL BOX	X		TI2	
	CABLE TERMINATION AT PENETRATION	X		TI 8	
KAPTON INSUL. CABLE		X		CI 16	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-315, LICENSE No. DPR-74

SYSTEM INSTRUMENT NTP-220

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
NTP-220	INSTRUMENT	X		I27	
8421CB-2	INSTRUMENT CABLE	X		CI8 CI9 CI11	
	CABLE TERMINATION AT INSTRUMENT TERMINAL BOX	X		TI2	
	[illegible]	[illegible]		[illegible]	
	CABLE TERMINATION AT PENETRATION	X		TI 8/4	
KAPTON INSUL. CABLE		X		CI16	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-315, LICENSE No. DPR-74

SYSTEM INSTRUMENT NTP-221

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
NTP-221	INSTRUMENT	X		I26	
8723C8-2	INSTRUMENT CABLE	X		C28 C29 C211	
	CABLE TERMINATION AT INSTRUMENT TERMINAL BOX	X		TI2	
		X			
	CABLE TERMINATION AT PENETRATION	X		TI8	
KAPTON INSUL. CABLE		X		CI16	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-315, LICENSE No. DPR-74

SYSTEM _____ INSTRUMENT NTP-230

PLANT ID No. . . .	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
NTP-230	INSTRUMENT	X		I27	
8722CY-2	INSTRUMENT CABLE	X		CI8 CI9 CI11	
	CABLE TERMINATION AT INSTRUMENT TERMINAL BOX	X		TI2	
	[illegible]	[illegible]		[illegible]	
	CABLE TERMINATION AT PENETRATION	X		TI8	
KAPTON INSUL. CABLE		X		CI16	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM _____ INSTRUMENT NTP-231

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
NTP-231	INSTRUMENT	X		I26	
8724CY-2	INSTRUMENT CABLE	X		C=8 C=9 C=11	
	CABLE TERMINATION AT INSTRUMENT TERMINAL BOX	X		TI2	
	[illegible]	--		[illegible]	
	CABLE TERMINATION AT PENETRATION	X		TI8	
KAPTON INSUL. CABLE		X		CI16	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM _____ INSTRUMENT NTP-240

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
NTP-240	INSTRUMENT	X		I27	
8733 CW-2	INSTRUMENT CABLE	X		CI8 CI9 CI11	
	CABLE TERMINATION AT INSTRUMENT TERMINAL BOX	X		TI2	
	CABLE TERMINATION AT PENETRATION	X		TI4 8	
KAPTON INSU. CABLE		X		CI12	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM _____ INSTRUMENT NTP-241

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
NTP-241	INSTRUMENT	X		II 26	
8735CW-2	INSTRUMENT CABLE	X		C II 8 C II 9 C II 11	
	CABLE TERMINATION AT INSTRUMENT TERMINAL BOX	X		TI 2	
	CABLE TERMINATION AT PENETRATION	X		TI 4 8/1	
KAPTON INSUL CABLE		X		C II 16	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM INSTRUMENT NTR-110

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
NTR-110	INSTRUMENT	X		I-28	
8725 CO-2	INSTRUMENT CABLE	X		C-8 C-9 C-11	
	CABLE TERMINATION AT INSTRUMENT TERMINAL BOX	X		TI2	
	CABLE TERMINATION AT PENETRATION ENDING HOOD I.D. TUBING	X		TI3	
	CABLE TERMINATION AT HOOD I.D. STAINING SEAL	X		TI4	
KAPTON INSUL. CABLE		X		C-15	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-315, LICENSE No. DPR-74

SYSTEM INSTRUMENT NTR-120

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
NTR-120	INSTRUMENT	X		I28	
8726 CO-2	INSTRUMENT CABLE	X		C=8 C=9 C=11	
	CABLE TERMINATION AT INSTRUMENT TERMINAL BOX	X		TI2	
"	CABLE TERMINATION AT PENETRATION INSIDE CONTAINMENT	X		TI3	
	CABLE TERMINATION AT FIELD UP TERMINAL BOX	X		TI4	
KAPTON INSUL. CABLE	" " " "	X		C=15	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM INSTRUMENT NTR-130

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
NTR-130	INSTRUMENT	X		I28	
8727 C0-2	INSTRUMENT CABLE	X		C28 C29 C211	
	CABLE TERMINATION AT INSTRUMENT TERMINAL BOX	X		TI2	
	CABLE TERMINATION AT PENETRATION INSIDE CNMT OR TURBINE	X		TI3	
	CABLE TERMINATION AT CNMT OR TERMINAL BOX	X		TI4	
KAPTON INSUL. CABLE		X		C215	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM INSTRUMENT NTR-140

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
NTR-140	INSTRUMENT	X		I22	
8728 C0-2	INSTRUMENT CABLE	X		CI8 CI9 CI11	
	CABLE TERMINATION AT INSTRUMENT TERMINAL BOX	X		TI2	
	CABLE TERMINATION AT PENETRATION INSIDE STEEL OR CONCRETE	X		TI3	
	CABLE TERMINATION AT STEEL OR CONCRETE	X		TI4	
KAPTON INSUL CABLE	[illegible]	X		CEI5	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-315, LICENSE No. DPR-74

SYSTEM INSTRUMENT NTR-210

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
NTR-210	INSTRUMENT	X		I-2	
8729 CB-2	INSTRUMENT CABLE	X		C-8 C-9 C-11	
	CABLE TERMINATION AT INSTRUMENT TERMINAL BOX	X		TI-2	
	CABLE TERMINATION AT PENETRATION INSIDE CONTAINMENT	X		TI-3	
	CABLE TERMINATION AT CONTAINMENT TERMINAL BOX	X		TI-4	
KAPTON INSUL. CABLE		X		C-15	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-315, LICENSE No. DPR-74

SYSTEM INSTRUMENT NTR-220

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
NTR-220	INSTRUMENT	X		C-2	
8730 CB-2	INSTRUMENT CABLE	X		C-8 C-9 C-11	
	CABLE TERMINATION AT INSTRUMENT TERMINAL BOX	X		TI2	
	CABLE TERMINATION AT INSTRUMENT INSIDE HOOD OF TURBINE	X		TI3	
	CABLE TERMINATION AT HOOD OF TERMINAL BOX	X		TI4	
KAPTON INSUL. CABLE		X		C-15	

DONALD C. COOK NUCLEAR PLANT UNIT No. 1
DOCKET No. 50-315, LICENSE No. DPR-74

SYSTEM INSTRUMENT NTE-230

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
NTE-230	INSTRUMENT	X		I2?	
873103-2	INSTRUMENT CABLE	X		CI8 CI9 CI11	
	CABLE TERMINATION AT INSTRUMENT TERMINAL BOX	X		TI2	
	CABLE TERMINATION AT PENETRATION INSIDE CONTAINMENT	X		TI3	
	CABLE TERMINATION AT PENETRATION OUTSIDE CONTAINMENT	X		TI4	
NON-METALLIC INSULATION		X		CIN	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM INSTRUMENT NTE-240

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
NTE-240	INSTRUMENT	X		I-28	
8732CB-2	INSTRUMENT CABLE	X		a I-8 c I-9 c I-11	
	CABLE TERMINATION AT INSTRUMENT TERMINAL BOX	X		TI2	
	CABLE TERMINATION AT PENETRATION INSIDE CROSS UP TUBING	X		TI3	
	CABLE TERMINATION AT CROSS UP TUBING BOX	X		TI4	
KAPTON INSUL. CABLE	[illegible]	X		C-EN	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-315, LICENSE No. DPR-74

SYSTEM INSTRUMENT NLP-151

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
NLP-151	INSTRUMENT	X		=19	
8734C0-2	INSTRUMENT CABLE	X		C=8 C=9, C1 11	
	CABLE TERMINATION AT INSTRUMENT	X		TI1	
	CABLE TERMINATION AT PENETRATION INSIDE FLOOD UP TUBING	X		TI3	
	CABLE TERMINATION AT FLOOD UP TERMINAL BOX	X		TI4	
KAPTON INSULATED		X		CIN	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-315, LICENSE No. DPR-74

SYSTEM INSTRUMENT NLP-152

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
NLP-152	INSTRUMENT	X		I9	
8737CB-2	INSTRUMENT CABLE	X		C=5 C17	
	CABLE TERMINATION AT INSTRUMENT	X		TI1	
	CABLE TERMINATION AT PENETRATION INSIDE FLOOD UP TERMINAL BOX	X		TI3	
	CABLE TERMINATION AT FLOOD UP TERMINAL BOX	X		TI4	
KAPTON INSUL. CABLE		X		C=N	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
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SYSTEM INSTRUMENT NLP-153

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
NLP-153	INSTRUMENT	X		I19	
9601CY-2	INSTRUMENT CABLE	X		C=5 CI7	
	CABLE TERMINATION AT INSTRUMENT	X		TI1	
	CABLE TERMINATION AT PENETRATION INSIDE AUXILIARY BUILDING	X		TI3	
	CABLE TERMINATION AT FLOOD UP TERMINAL BOX	X		TI4	
[illegible]		X		C2I5	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM INSTRUMENT NPP-151

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
NPP-151	INSTRUMENT	X		I21 I20 I22	
873300-2	INSTRUMENT CABLE	X		CI? CI?	
	CABLE TERMINATION AT INSTRUMENT	X		TI1	
	CABLE TERMINATION AT PENETRATION INSIDE HOOD UP TERMINAL	X		TI3	
	CABLE TERMINATION AT HOOD UP TERMINAL BOX	X		TI4	
KAPTON INSUL. CABLE		X		CNT	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
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SYSTEM INSTRUMENT NPP-152

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
NPP-152	INSTRUMENT	X		I21 I20 I22	
8736 CB-2	INSTRUMENT CABLE	X		C15 C17	
	CABLE TERMINATION AT INSTRUMENT	X		TI1	
	CABLE TERMINATION AT PENETRATION INSIDE MCB JUNCTION	X		TI3	
	CABLE TERMINATION AT FLOOD UP TERMINAL BOX	X		TI4	
KAPTON INSUL. CABLE		X		CIN	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
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SYSTEM INSTRUMENT NPP-153

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
NPP-153	INSTRUMENT	X		I21 I20 I22	
9600 CY-2	INSTRUMENT CABLE	X		CI5 CI7	
	CABLE TERMINATION AT INSTRUMENT	X		TI1	
	CABLE TERMINATION AT PENETRATION INSIDE CONDUIT OR TUBING	X		TI3	
	CABLE TERMINATION AT CONDUIT OR TERMINAL BOX	X		TI4	
[illegible]		X		[illegible]	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
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SYSTEM INSTRUMENT NPS-153

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
NPS-153	INSTRUMENT	X		I25	
9600CW-2	Instrument Cable.	X		CI5 CI7	
	Cable term. at Instrument	X		TI4	
	Cable term. at Penetration.	X		TI8	
KAPTON TAPE CABLES		X		CI16	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM Instrument BLP-110

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
BLP-110	Instrument	X		E2 I1	
8584CW-2	INSTRUMENT CABLE	X		CE5 CE7	
	CABLE TERMINATION AT INSTRUMENT	X		TI1	
	CABLE TERMINATION AT PENETRATION INSIDE FLOOD UP TUBING	X		TI3	
	CABLE TERMINATION AT FLOOD UP TERMINAL BOX	X		TI4	
[illegible]		X		CE5	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
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SYSTEM Instrument BCP-111

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
BCP-111	Instrument	X		I2 I1	
8558 CB-2	INSTRUMENT CABLE	X		CI5 CI7	
	CABLE TERMINATION AT INSTRUMENT	X		TI1	
	CABLE TERMINATION AT PENETRATIONS INSIDE FLOOD UP TERMINAL BOX	X		TI3	
	CABLE TERMINATION AT FLOOD UP TERMINAL BOX	X		TI4	
ELECTRICAL CABLE		X		CI5	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM Instrument BLP-112

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
BLP-112	Instrument	X		E2 I1	
8584 CX-2	INSTRUMENT CABLE	X		CI5 CI7	
	CABLE TERMINATION AT INSTRUMENT	X		TI1	
	CABLE TERMINATION AT PENETRATION INSIDE AREA UP TO SEAL	X		TI3	
	CABLE TERMINATION AT SEAL UP TO TERMINAL BOX	X		TI4	
KAPTON INSUL. CABLE		X		CIK	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
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SYSTEM Instrument BLP-120

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
BLP-120	Instrument	X		I2 I1	
8585CW-2	INSTRUMENT CABLE	X		CIE CIF	
	CABLE TERMINATION AT INSTRUMENT	X		TI1	
	CABLE TERMINATION AT PENETRATION INSIDE FLOOD UP TUBING	X		TI3	
	CABLE TERMINATION AT FLOOD UP TERMINAL BOX	X		TI4	
KAPTON INSUL. WIRE		X		CIH	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
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SYSTEM Instrument BLP-121

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
BLP-121	Instrument	X		=2 I1	
8558 CO-2	INSTRUMENT CABLE	X		CI5 CI7	
	CABLE TERMINATION AT INSTRUMENT	X		TI1	
	CABLE TERMINATION AT PENETRATION INSIDE CNMT FLOOR TERMINAL BOX	X		TI3	
	CABLE TERMINATION AT FLOOR TERMINAL BOX	X		TI4	
KAPTON INSUL. CABLE		X		CI1	

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SYSTEM Instrument BLP-122

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
BLP-122	Instrument	X		I2 I1	
BOB5CX-2	INSTRUMENT CABLE	X		C5 C7	
	CABLE TERMINATION AT INSTRUMENT	X		TI1	
	CABLE TERMINATION AT PENETRATION INSIDE FLOOD UP TURRET	X		TI3	
	CABLE TERMINATION AT FLOOD UP TERMINAL BOX	X		TI4	
RADIATION RESIST. CABLE		X		C1,7	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM Instrument BLP-130

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
BLP-130	Instrument	X		I2 I1	
8586CW-2	INSTRUMENT CABLE	X		C=5 C=7	
	CABLE TERMINATION AT INSTRUMENT	X		TI1	
	CABLE TERMINATION AT PENETRATION INSIDE FLOOD UP TUBING	X		TI3	
	CABLE TERMINATION AT FLOOD UP TERMINAL BOX	X		TI4	
RADIAL INST. CABLE		X		CEN	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
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SYSTEM Instrument BLP-131

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
BLP-131	Instrument	X		I2 I1	
855960-2	INSTRUMENT CABLE	X		CI5 CI7	
	CABLE TERMINATION AT INSTRUMENT	X		TI1	
	CABLE TERMINATION AT PENETRATION INSIDE CONTAINMENT	X		TI3	
	CABLE TERMINATION AT FIELD JUNCTION BOX	X		TI4	
KAPTON INST. CABLE		X		CIN	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
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SYSTEM Instrument BLP-132

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
BLP-132	Instrument	X		I2 I1	
8586CY-2	INSTRUMENT CABLE	X		C15 C37	
	CABLE TERMINATION AT INSTRUMENT	X		TI1	
	CABLE TERMINATION AT PENETRATION INSIDE FLOOD UP TUBING	X		TI3	
	CABLE TERMINATION AT FLOOD UP TERMINAL BOX	X		TI4	
KAPTON INSTR. CABLE		X		CEN	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
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SYSTEM Instrument BLP-140

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
BLP-140	Instrument	X		I2 I1	
8587 CIN-2	INSTRUMENT CABLE	X		CI3 CE7	
	CABLE TERMINATION AT INSTRUMENT	X		TI1	
	CABLE TERMINATION AT PENETRATION INSIDE CONT. AND TURNING	X		TI3	
	CABLE TERMINATION AT ROOM UP TERMINAL BOX	X		TI4	
KAPTON INSUL. CABLE		X		CIN	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
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SYSTEM Instrument BLP-141

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
BLP-141	Instrument	X		I2 I1	
8559 CB-2	INSTRUMENT CABLE	X		C5 C7	
	CABLE TERMINATION AT INSTRUMENT	X		TI1	
	SHIELD TERMINATION AT PENETRATION INSIDE FLOOD UP TERMINAL BOX	X		TI3	
	CABLE TERMINATION AT FLOOD UP TERMINAL BOX	X		TI4	
EXPOSED INSUL. CABLE	1	X		XI1	

SYSTEM Instrument BLP-142

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
BLP-142	Instrument	X		I2 I1	
8587 CY-2	INSTRUMENT CABLE	X		CI5 CI7	
	CABLE TERMINATION AT INSTRUMENT	X		TI1	
	CABLE TERMINATION AT PENETRATION INSIDE STEAM VALVE ROOM	X		TI3	
	CABLE TERMINATION AT STEAM VALVE ROOM	X		TI4	
MOTOR END CABLE		X		SRA1	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
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SYSTEM INSTRUMENT FFC-210

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
FFC-210	Instrument		X	I4	
9070 0-2	Instrument Cable		X	CI 8 CI 9 CI 10 CI 11	
	Cable term at Instrument		X	TIS 10/7	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
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SYSTEM INSTRUMENT FFC-211

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
FFC -211	INSTR.		X	I 4	
9064B-2	INSTR CABLE		X	CI 6 CI 9 CI 10 CI 11	
	CABLE TERM. AT INSTR.		X	TI 10	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
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SYSTEM INSTRUMENT FFC-220

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
FFC-220	INSTRUMENT		X	I4	
9071 0-2	INSTRUMENT CABLE		X	CI5 CI6 CI7	
	CABLE TERM. AT INSTRUMENT		X	TI10	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
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SYSTEM INSTRUMENT FFC-221

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
FFC-221	INSTR.		X	E4	
9070B-2	INSTR. CABLE		X	cI5 cI6 cI7	
	FE CABLE TERM. AT INSTR.		X	TI 10	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2 FORM EQ #96-2
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SYSTEM INSTRUMENT FFC-230

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
FFC-230	INSTRUMENT		X	I 4	
9064 CO-2	INSTRUMENT CABLE		X	CI5 CI6 CI7	
	CABLE TERMINATION AT INSTRUMENT		X	TI5	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM INSTRUMENT FFC-231

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
FFC-231	INSTR		X	I4	
9065B-2	INSTR CABLE		X	CI5 CI6 CI7	
	CABLE TERM. AT INSTR.		X	TI 10 A	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
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SYSTEM INSTRUMENT EFC-240

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
EFC-240	INSTRUMENT		X	4	
9065 C0-2	INSTRUMENT CABLE		X	C 8 C 9 C 10 C 11	
	CABLE TERM. AT INSTRUMENT		X	TI 10	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
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SYSTEM INSTRUMENT FFC-241

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
FFC-241	INSTR		X	I4	
9071B-2	INSTR. CABLE		X	CI8 CI9 CI10 CI11	
	CABLE TERM. AT INSTR.		X	TI 10	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
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SYSTEM INSTRUMENT MFC-110

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
MFC-110	INSTRUMENT	X		I13	
9072 CO-2	INSTRUMENT CABLE	X		CI5 CI7	
	CABLE TERM. AT INSTRUMENT	X		TI1	
	CABLE TERM AT PENETRATION	X		TI 8	
KAPTON INSUL. CABLE		X		CI16	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM INSTRUMENT MFC-111

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
MFC-111	INSTR	X		I13	
9066.CB-2	INSTR. CABLE	X		CI5 CI7	
	CABLE TERM. AT INSTR.	X		TI1	
	CABLE TERM. AT PEN.	X		TI8	
KAPTON INSUL. CABLE		X		CI16	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM INSTRUMENT MFC-120

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
MFC-120	INSTR.	X		CI3	
9072 CB-2	INSTR. CABLE	X		CI5 CI7	
	CABLE TERM. AT INSTR	X		TI1	
	CABLE TERM. AT PEN.	X		TI8 TI9	
KAPTON INSUL. RELIEF		X		CI16	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
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SYSTEM INSTRUMENT MFC-121

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
MFC-121	INSTRUMENT	X		C13	
9073 CO. 2	INSTR. CABLE	X		C15 C17	
	CABLE TERM. AT INSTRUMENT	X		TI1	
	CABLE TERM AT PENETRATION	X		TI 8	
KAPTON INSUL. CABLE		X		C16	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM INSTRUMENT MFC-130

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
MFC-130	INSTR	X		I13	
9067 CB-2	& INSTR. CABLE	X		CI5 CI7	
	CABLE TERM. AT INSTR.	X		TI1	
	CABLE TERM. AT PEN.	X		TI4	
KAPTON INSUL. CABLE		X		CI16	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM INSTRUMENT MFC-131

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
MFC-131	INSTRUMENT	X		I13	
9066 CO-2	INSTRUMENT CABLE	X		CI5 CI7	
	CABLE TERM. AT INSTRUMENT	X		TI1	
	CABLE TERM AT PENETRATION	X		TI4	
KAPTON INSUL. SHIELD		X		CI6	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
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SYSTEM INSTRUMENT MFC-140.

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
MFC-140	INSTRUMENT	X		I13	
9067 CO-2	INSTRUMENT CABLE	X		CI5 CI7	
	CABLE TERM AT INSTRUMENT	X		TI1	
	CABLE TERM AT PENETRATION	X		TI4 &	
MULTICONDUCTOR CABLE		X		CI16	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM INSTRUMENT MFC-141

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
MFC-141	INSTRUMENT	X		I13	
9073 CB-2	INSTR CABLE	X		CI5 CI7	
	CABLE TERM. AT INSTR.	X		TI1	
	CABLE TERM. AT PEN.	X		TI8	
KAPTON INSUL CABLE		X		CI16	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM INSTRUMENT MPP-210

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
MPP-210	INSTRUMENT		X	=15	
9074 0-2	INSTR. CABLE		X	C=8 CI 9 C=10 CI 11	
	CABLE TERM. AT INSTRUMENT		X	TI 10	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
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SYSTEM INSTRUMENT MPP 211

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
MPP 211	INSTR		X	I15	
9068B-2	INSTR CABLE		X	CI8 CI9 CI10 CI11	
	CABLE TERM. AT INSTR.		X	T10	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
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SYSTEM INSTRUMENT MPP-212

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
MPP-212	INSTRUMENT		X	I16	
9050W-2	INSTRUMENT CABLE		X	CI8 CI9 CI10 CI11	
	CABLE TERM. AT INSTRUMENT		X	C TI X 10	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
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SYSTEM INSTRUMENT MPP-220.

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
MPP-220	INSTRUMENT		X	I15	
9075 0-2	INSTR. CABLE		X	CI3 CI? EI19	
	CABLE TRAM. AT INSTRUMENT		X	TI10	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
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SYSTEM INSTRUMENT MPP-221

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
MPP-221	INSTR.		X	I15	
9074B-2	INSTR. CABLE		X	C I 8 C 9 C I 10 C 11	
	CABLE TERM. AT INSTR		X	TI 10	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
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SYSTEM INSTRUMENT MPP 222

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
MPP-222	INSTRUMENT		X	I16	
9050Y-2	INSTR. CABLE		X	I8 I9 I10 I11	
	CABLE TERM. AT INSTR.		X	TI 10	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
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SYSTEM INSTRUMENT MPP-230

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
MPP-230	Instrument		X	I5	
9068 0-2	Instrument Cable		X	CI8 CI9 CI10 CI11	
	Cable Term. at Instrument.		X	TI5	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
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SYSTEM INSTRUMENT MPP-231.

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
MPP-231	INSTR		X	I5	
9069B-2.	INSTR CABLE		X	CI8 CI9 CI10 CI11	
	CABLE TERM. AT. INSTR.		X	TI10	

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SYSTEM INSTRUMENT MPP 232

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
MPP-232	INSTRUMENT		X	I16	
9051Y-2	INSTR. CABLE		X	CI8 CI9 CI10 CI11	
	CABLE TERM. AT INSTR.		X	TI5	

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SYSTEM INSTRUMENT MAP-240

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
MAP-240	Instrument		X	I15	
9069 0-2	Instrument Cable		X	c=8 c=9 c=10 c=11	
	Cable Term. at Instrument		X	TI 10	

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SYSTEM INSTRUMENT MPP-241

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
MPP-241	INSTR.		X	I15	
9075B-2	INSTR. CABLE		X	CI8 CI5 CI0 CI1	
	CABLE TERM. AT INSTR.		X	TI 10	

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SYSTEM INSTRUMENT MPP 242

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
MPP- 242	INSTRUMENT		X	I16	
9051 W-2	INSTR. CABLE		X	C=8 C=9 C=10 C=11	
	CABLE TERM. AT. INSTR.		X	TI 10	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
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SYSTEM VALVE MRV-213

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
EPT-213	ELECTRO PNEUMATIC TRANSDUCER		X	S-9	
6841-2	CONTROL CABLE		X	CE5 CE6 CE7	
	CABLE TERM AT TRANSDUCER		X	S-9	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
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SYSTEM VALVE MRV-223

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
EPT-223	ELECTRO PNEUMATIC TRANSDUCER		X	S-9	
				—	
18132-2	CONTROL CABLE		X	CI8, CI9, CI10, CI11	
	CABLE TERM. AT TRANSDUCER		X	S-9	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM VALVE MRV-233

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
EPT-733	ELECTRO PNEUMATIC TRANSDUCER		X	S-9	
18133-2	Control Cable		X	a ≡ 8 c ≡ 9 c ≡ 10 c ≡ 11	
	Cable Term AT TRANSDUCER		X	S-9	

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SYSTEM _____ VALVE MRV-243

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
EPT-243	ELECTRO PNEUMATIC TRANSDUCER		X	S-9	
6842-2	CONTROL CABLE		X	C=5 I=6 C=7	
	CABLE TERM. AT TRANSDUCER		X	S-9	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM ICM-III VALVE

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
ICM-III	VALVE OPERATOR	X		VI	
9187CG-2	POWER CABLE	X		CP9 CP10 CP11	
9189CG-2	CONTROL CABLE	X		CC7 CC8	
	POWER CABLE TERM. AT VALVE MOTOR	X		TP3 5	
	POWER CABLE TERM. AT FLOOD UP TERM. BOX	X		TP2	
	POWER CABLE TERM. AT FLOOD UP TUBE	X		TP1	
	CONT. CABLE TERM. AT VALVE OPERATOR	X		TC3	
	CONTROL CABLE TERM. AT TERM. BOX	X		TC8	
	CONT. CABLE TERM. AT FLOOD UP TERM. BOX	X		TC7	
	CON. CABLE TERM. AT FLOOD UP TUBE	X		TC6	
KAPTON FLEX CABLE		X		CFT	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM ICM-129 VALVE

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
ICM-129	VALVE OPERATOR	X		VI	
9/88CG-2	POWER CABLE	X		CP9 CP10 CP11	
9/90CG-2	CONTROL CABLE	X		CC7 CC8	
	POWER CABLE TERM. AT VALVE OPR.	X		TP5	
	POWER CABLE TERM. AT FLOOD UP T. BOX	X		TP2	
	POWER CABLE TERM. AT FLOOD UP TUBE	X		TP1	
	CONT. CABLE TERM. AT VALVE OPERATOR	X		TC3	
	CONTROL CABLE TERM AT TERM BOX	X		TC8	
	CONT. CABLE TERM. AT FLOOD UP T. BOX	X		TC7	
	CONT. CABLE TERM. AT FLOOD UP TUBE	X		TC6	
ICM-129 INSUL. CABLE		X		CIR	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
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SYSTEM VALVE ICM-250

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
ICM-250	VALVE MOTOR OPERATOR		X	V6	
8174G2	POWER CABLE		X	CP1 CP2	
8173G2	CONTROL CABLE		X	CC9	
8175G2	CONTROL CABLE		X	CC7 CC8	
	POWER CABLE TERM. AT VALVE MOTOR		X	TP6 TP3	
	CONTROL CABLE TERM. AT TERM. BOX		X	TC13	
	CONTROL CABLE TERM. AT VALVE MOTOR OPERATOR		X	TC11	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM _____ VALVE ICM-251

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
ICM-251	VALVE MOTOR OPERATOR		X	V6	
817422	POWER CABLE		X	CP1 CP2	
817322	CONTROL CABLE		X	CC7 CC8	
817522	CONTROL CABLE		X	CC7 CC8	
	POWER CABLE TERM. AT VALVE MOTOR		X	TP6 TP7	
	CONTROL CABLE TERM. AT TERM. BOX		X	TC13	
	CONTROL CABLE TERM. AT VALVE MOTOR OPERATOR		X	TC11	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM _____ VALVE ICM-260

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
ICM-260	VALVE MOTOR OPERATOR		X	V6	
963782	POWER CABLE		X	CP1 CP2	
963862	CONTROL CABLE		X	CC7 CC8	
963962	CONTROL CABLE		X	CC7 CC8	
	POWER CABLE TERM. AT VALVE MOTOR		X	TP6 TP3 A	
	CONTROL CABLE TERM. AT TERM. BOX		X	TC13	
	CONTROL CABLE TERM. AT VALVE MOTOR OPERATOR		X	TC11	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM _____ VALVE ICM-265

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
ICM-265	VALVE MOTOR OPERATOR		X	V6	
826022	POWER CABLE		X	CP1 CP2	
8264R2	CONTROL CABLE		X	CC7 CC8	
8265R2	CONTROL CABLE		X	CC7 CC8	
	POWER CABLE TERM. AT VALVE MOTOR		X	TP6 R	
	CONTROL CABLE TERM. AT TERM. BOX		X	TC13	
	CONTROL CABLE TERM. AT VALVE MOTOR OPERATOR		X	TC11	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM ICM-305 VALVE . .

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
ICM-305	VALVE OPERATOR	X	X	V10	
9549G-2	POWER CABLE	X	X	EP-02	
9603G-2	CONTROL CABLE	X	X	EP02	
	POWER CABLE TERM. AT T. BOX		X	TC13	
	POWER CABLE TERM. AT VALVE OPERATOR	X	X	TP7	
	CONT. CABLE TERM. AT T. BOX		X	TC13	
	CONT. CABLE TERM. AT VALVE OPERATOR	X	X	TC14	
V10 DETERMINED TO BE OUTSIDE CONT. RATHER THAN INSIDE CONT. AS PER REF. 108					

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM ICM-306 VALVE

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
ICM-306	VALVE OPERATOR	X	X	V10	
9567R-2	POWER CABLE	X	X	EP-02	
9569R-2	CONTROL CABLE	X	X	EP-02	
	POWER CABLE TERM. AT T. BOX		X	TC13	
	POWER CABLE TERM. AT VALVE OPERATOR	X	X	TP3	
	CONT. CABLE TERM. AT T. BOX		X	TC13	
	CONT. CABLE TERM. AT VALVE OPERATOR	X	X	TC14	
V10 DETERMINED TO BE OUTSIDE CONT. RATHER THAN INSIDE CONT. AS PER REF. 10					

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM _____ VALVE ICM-311

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
ICM-311	VALVE MOTOR OPERATOR		X	V11	
818762	POWER CABLE		X	CP1 CP2	
818962	CONTROL CABLE		X	CC7 CC8	
819062	CONTROL CABLE		X	CC7 CC8	
	POWER CABLE TERM. AT VALVE MOTOR		X	TPA6	
	CONTROL CABLE TERM. AT TERM. BOX		X	TC13	
	CONTROL CABLE TERM. AT VALVE MOTOR OPERATOR		X	TC11	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM VALVE ICM-321

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
ICM-321	VALVE MOTOR OPERATOR		X	V 11	
8187R2	POWER CABLE		X	CP1 CP2	
8189R2	CONTROL CABLE		X	CC7 CC8	
8190R2	CONTROL CABLE		X	CC7 CC8	
	POWER CABLE TERM. AT VALVE MOTOR		X	TP 6	
	CONTROL CABLE TERM. AT TERM. BOX		X	TC13	
	CONTROL CABLE TERM. AT VALVE MOTOR OPERATOR		X	TC 11	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM MCM-221 VALVE

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
MCM-221	VALVE MOTOR OPERATOR		X	V6	
9037R-2	POWER CABLE		X	CP1 CP2	
9038R-2	CONTROL CABLE		X	CC7 CC8	
9039R-2	CONTROL CABLE		X	CC7 CC8	
	POWER CABLE TERM. AT VALVE MOTOR		X	TP6	
	CONTROL CABLE TERM. AT TERM. BOX		X	TC13	
	CONTROL CABLE TERM. AT VALVE MOTOR OPERATOR		X	TC11	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM MCM-231 VALVE

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
MCM-231	Valve Motor Operator		X	V6	
9033G-2	Power Cable		X	CP1 CP2	
9034G-2	Control Cable		X	CC7 CC8	
9035G-2	Control Cable		X	CC7 CC8	
	Power Cable Term. AT Valve Motor		X	TPA 6	
	Control Cable Term. AT Term. Box		X	TC13	
	Control Cable Term. AT Valve Motor Operator		X	TC11	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM QCM-250 VALVE

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
QCM-250	VALVE OPERATOR	X		V5	
8774 CG-2	POWER CABLE	X		CP9 CP10 CP11	
8775 CG-2	CONTROL CABLE	X		CC7 CC8	
8776 G-2	CONTROL CABLE	X		CC7 CC8	
	POWER CABLE TERM. AT VALVE	X		TP5	
	POWER CABLE TERM. AT FLOOD UP TERM. BOX.	X		TP2	
	POWER CABLE TERM. AT FLOOD UP TUBE	X		TP1	
	CONT. CABLE TERM. AT VALVE OPERATOR	X		TC1	
	CONT. CABLE TERM. AT TERM. BOX	X		TC8	
	CONT. CABLE TERM. AT FLOOD UP TERM. BOX	X		TC7	
	CONT. CABLE TERM. AT : FLOODUP. TUBE	X		TC6	
KAPTON INSUL. CABLE		X		CDN	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM VCR-11 VALVE

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
XSO-12	SOLENOID	X		S17	
8491CR-2	CONTROL CABLE	X		cc7 cc8	
9054R-2	CONTROL CABLE	X		cc1	
	CONT. CABLE TERM. AT SOLENOID VALVE	X		TC16	
	CONT. CABLE TERM AT TERM. BOX	X		TC8	
	CONT. CABLE TERM AT FLOOD UP TERM BOX	X		TC7	
	CONT. CABLE TERM AT FLOOD UP TUBE	X		TC6	
ICAPTON INSUL. CABLE		X		CONT	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM VCR-21 VALVE

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
XSO-21	SOLENOID	X		S17	
917/CR-2	CONTROL CABLE	X		CC7 CC8	
918/R-2	CONTROL CABLE	X		CC1	
	CONT. CABLE TERM. AT SOLENOID VALVE	X		TC16	
	CONT. CABLE TERM AT TERM. BOX	X		TC8	
	CONT. CABLE TERM AT FLOOD UP TERM BOX	X		TC7	
	CONT. CABLE TERM AT FLOOD UP TUBE	X		TC6	
KAPTON INSUL. CABLE		X		CIN-	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM VCR-101 VALVE

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
XSO-121	SOLENOID	X		S17	
8480CG-2	CONTROL CABLE	X		CC7 CC8	
8484G-2	CONTROL CABLE	X		CC1	
	CONT. CABLE TERM. AT SOLENOID VALVE	X		TC16	
	CONT. CABLE TERM AT TERM. BOX	X		TC8	
	CONT. CABLE TERM AT FLOOD UP TERM BOX	X		TC7	
	CONT. CABLE TERM AT FLOOD UP TUBE	X		TC6	
KAPTON INSUL. CABLE		X		CIV	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM _____ VCR-102 VALVE ___

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
XSO-122	SOLENOID	X		S17	
9191CG-2	CONTROL CABLE	X		CC7 CC8	
9195G-2	CONTROL CABLE	X		CC7 CC8	
	CONT. CABLE TERM. AT SOLENOID VALVE	X		TC16	
	CONT. CABLE TERM AT TERM. BOX	X		TCB	
	CONT. CABLE TERM AT FLOOD UP TERM BOX	X		TC7	
	CONT. CABLE TERM AT FLOOD UP TUBE	X		TC6	
KAPTON INSUL. TAPE		X		CENT	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM VCR-103 VALVE

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
XSO-124	SOLENOID	X		S17	
9196CG-2	CONTROL CABLE	X		cc7 cc8	
8478G-2	CONTROL CABLE	X		cc1	
	CONT. CABLE TERM. AT SOLENOID VALVE	X		TC16	
	CONT. CABLE TERM AT TERM. BOX	X		TC8	
	CONT. CABLE TERM AT FLOOD UP TERM BOX	X		TC7	
	CONT. CABLE TERM AT FLOOD UP TUBE	X		TC6	
[illegible] CABLE		X		CEN-	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM _____ VCR-104 VALVE

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
XSO-123	SOLENOID	X		S17	
9197CG-2	CONTROL CABLE	X		CC7 CC8.	
8479 G-2	CONTROL CABLE	X		CC1	
	CONT. CABLE TERM. AT SOLENOID VALVE	X		TC16	
	CONT. CABLE TERM AT TERM. BOX	X		TC8	
	CONT. CABLE TERM AT. FLOOD UP TERM BOX	X		TC7	
	CONT. CABLE TERM AT FLOOD UP TUBE	X		TC6	
KAPTON INSUL. CABLE		X		CIN-	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM VCR-105 VALVE

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
YSO-125	SOLENOID	X		S17	
9052CG-2	CONTROL CABLE	X		CC7 CC8	
9056G-2	CONTROL CABLE	X		CC1	
	CONT. CABLE TERM. AT SOLENOID VALVE	X		TC16	
	CONT. CABLE TERM AT TERM. BOX	X		TC8	
	CONT. CABLE TERM AT FLOOD UP TERM BOX	X		TC7	
	CONT. CABLE TERM AT FLOOD UP TUBE	X		TC6	
RG&P TIME INSUL. CABLE		X		CIN	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM VCR-106 VALVE

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
XSO-126	SOLENOID	X		S17	
9057CG-2	CONTROL CABLE	X		CC7 CC8	
9061G-2	CONTROL CABLE	X		CC1	
	CONT. CABLE TERM AT SOLENOID VALVE	X		TC16	
	CONT. CABLE TERM AT TERM. BOX	X		TC8	
	CONT. CABLE TERM AT FLOOD UP TERM BOX	X		TC7	
	CONT. CABLE TERM. AT FLOOD UP TUBE	X		TC6	
KAPTON INSUL CABLE		X		CC10	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM _____ VCR-107 VALVE

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
XSO-127	SOLENOID	X		S17	
9066CG-2	CONTROL CABLE	X		CC7 CC8	
9070G-2	CONTROL CABLE	X		CC1	
	CONT. CABLE TERM. AT SOLENOID	X		TC16	
	CONT CABLE TERM AT TERM. BOX.	X		TC8	
	CONT. CABLE TERM. AT FLOOD UP TERM BOX	X		TC7	
	CONT. CABLE TERM AT FLOOD UP TUBE	X		TC6	
KAPTON INSUL. WIRE		X		CIN	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM INSTRUMENT MPC 253

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
9318Ø-2	CONTROL CABLE		X	CI5 CI6 CI7	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM Main Steam Press. Instrument MPC-254

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
93188-2	Control Cable		X	CI5 CI6 CI7	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM _____ VALVE NMO-151

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
NMO-151	VALVE MOTOR	X		V9	
8758 CR-2	POWER CABLE	X		CP9 CP10 CP11	
8751 R-2	CONTROL CABLE	X		CC7 CC8	
8750 CR-2	CONTROL CABLE	X		CC7 CC8	
	POWER CABLE TERM. AT VALVE MOTOR	X		TP3	
	POWER CABLE TERM. AT FLOODUP BOX	X		TP2	
	POWER CABLE TERM. AT FLOOD UP TUBE	X		TP1	
	CONTROL CABLE TERM AT VALVE LIM. SW's.	X		TC12	
	CONTROL CABLE TERM AT TERM. BOX	X		TC8	
	CONTROL CABLE TERM AT FLOOD UP BOX	X		TC8	
	CONTROL CABLE TERMINATION INSIDE FLOOD UP TUBE	X		TC6	
[illegible]		X		CIN	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM _____ VALVE NMO-152

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
NMO-152	VALVE MOTOR	X		V9	
8752 CR-2	POWER CABLE	X		CP9 CP10 CP11	
8049 R-2	CONTROL CABLE	X		CC7 CC8	
8753 CR-2	CONTROL CABLE	X		CC7 CC8	
	POWER CABLE TERM. AT VALVE MOTOR	X		TP3	
	POWER CABLE TERM. AT FLOOD UP BOX	X		TP2	
	POWER CABLE TERM. AT FLOOD UP TUBE	X		TP1	
	CONTROL CABLE TERM. AT VALVE LIM. SW's	X		TC12	
	CONTROL CABLE TERM AT TERM. BOX	X		TC8	
	CONTROL CABLE TERM AT FLOOD UP BOX.	X		TC8	
	CONTROL CABLE TERM. INSIDE FLOOD UP TUBE	X		TC6	
KAPTON INSUL. CABLE		X		CIN	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

VALVE NMO-153

SYSTEM _____

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
NMO-153	VALVE MOTOR	X		V9	
8763 CG-2	POWER CABLE	X		CP9 CP10 CP11	
8765 G-2	CONTROL CABLE	X		CC7 CC8	
8764 CG-2	CONTROL CABLE	X		CC7 CC8	
	POWER CABLE TERM. AT VALVE MOTOR	X		TP3	
	POWER CABLE TERM. AT FLOOD UP BOX	X		TP2	
	POWER CABLE TERM. AT FLOOD UP TUBE	X		TP1	
	CONTROL CABLE TERM. AT VALVE LIM. SW's	X		TC12	
	CONTROL CABLE TERM. AT TERM. BOX	X		TC8	
	CONTROL CABLE TERM. AT FLOOD UP BOX	X		TC8	
	CONTROL CABLE TERM. INSIDE FLOOD UP TUBE	X		TC6	
KERITON CONTROL CABLE		X		CIN	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

FORM EGQ #96-2

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SYSTEM VALVE NRV-151

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
NRV-151	VALVE SOL.	X		S11	
9705 CR-2	CONTROL CABLE	X		CC7 CC8	
8543 R-2	CONTROL CABLE	X		CC2 CC3 CC4	
8755 R-2	SEAL ASSEMBLY	X		TC17	
8847 R-2	SEAL ASSEMBLY	X		TC17	
	CONT. CABLE TERM. AT VALVE LIMIT SW'S	X		LS1	
	CONT. CABLE TERM AT SOLENOID	X		TC16	
	CONT. CABLE TERM. AT TERM. BOX	X.		TC8	
	CONT. CABLE TERM. AT FLOODUP TERM. BOX	X		TC7	
	CONT. CABLE TERM. AT FLOODUP TUBE	X		TC6	
	LIMIT SWITCH	X		LS1	
	KAPTON INS. CABLE	X		CI15	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

FORM EGQ #96-2

84

SYSTEM VALVE NRV-152

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
NRV-152	VALVE SOL.	X		S11	
9706 CR-2	CONTROL CABLE	X		CC7 CC8	
8760 R-2	CONTROL CABLE	X		CC5 CC6	
8872 R-2	SEAL ASSEMBLY	X		TC17	
8873 R-2	SEAL ASSEMBLY	X		TC17	
8544 R-2	CONTROL CABLE	X		CC2 CC3 CC4	
	CONT. CABLE TERM. AT VALVE LIMIT SW's	X		LS1	
	CONT. CABLE TERM. AT SOLENOID	X		TC16	
	CONT. CABLE TERM. AT SPLICE BOX	X		TC7	
	CONT. CABLE TERM. AT TERM. BOX	X		TC8	
	CONT. CABLE TERM. AT FLOODUP TERM. BOX	X		TC7	
	CONT. CABLE TERM. AT FLOODUP BOX	X		TC6	
	LIMIT SWITCH	X		LS1	
	KAPTON INS. CABLE	X		CI15	

DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

FORM EGQ #96-2

84

SYSTEM VALVE NRV-153

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
NRV-153	VALVE SOL.	X		S11	
8757 CG-2	CONTROL CABLE	X		CC7 CC8	
8599 G-2	CONTROL CABLE	X		CC2 CC3 CC4	
8771-G-2	SEAL ASSEMBLY	X		TC17	
8772 G-2	SEAL ASSEMBLY	X		TC17	
	CONT. CABLE TERM. AT VALVE LIMIT SW'S	X		LS1	
	CONT. CABLE TERM. AT SOLENOID	X		TC16	
	CONT. CABLE TERM. AT TERM. BOX	X		TC8	
	CONT. CABLE TERM. AT FLOODUP TERM. BOX	X		TC7	
	CONT. CABLE TERM. AT FLOODUP TUBE	X		TC6	
	LIMIT SWITCH	X		LS1	
	KAPTON INS. CABLE	X		CI15	

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DONALD C. COOK NUCLEAR PLANT UNIT No. 2
DOCKET No. 50-316, LICENSE No. DPR-74

SYSTEM Motor Operated Valve Grease

PLANT ID No.	GENERIC NAME	LOCATION		EQUIP QUAL. CHART REF.	
		INSIDE CONT.	OUTSIDE CONT.		
Mobilux EP-2	Grease	X	X	G-1	