

United States Nuclear Regulatory Commission

Enclosure A

Marked-up Technical Specification Pages

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- c. A verification or coding system for emergency messages between Vermont Yankee and the state police headquarters of the respective states and the Commonwealth.

14. Vermont Yankee shall furnish advance notification to MDPH, or to another Commonwealth agency designated by MDPH, of the time, method and proposed route through the Commonwealth of any shipments of nuclear fuel and wastes to and from the Vermont Yankee facility which will utilize railways or roadways in the Commonwealth.

- F. The licensee may proceed with and is required to complete the modifications identified in Paragraph 3.1.1 through 3.1.20 of the NRC's Fire Protection Safety Evaluation (SE) on the facility dated January 13, 1978. These modifications shall be completed as specified in Table 3.1 of the SE. In addition, the licensee shall submit the additional information identified in Table 3.2 of this SE in accordance with the schedule contained therein. In the event these dates for submittal cannot be met, the licensee shall submit a report, explaining the circumstances, together with a revised schedule.

A-43
1.13.78

3.G. Security Plan

A-107
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The licensee shall fully implement and maintain in effect all provisions of the Commission-approved physical security, guard training and qualification, and safeguards contingency plans including amendments made pursuant to provisions of the Miscellaneous Amendments and Search Requirements revisions to 10CFR73.55 (51FR27817 and 27822) and to the authority of 10CFR50.90 and 10CFR50.54(p). The plans, which contain Safeguards Information protected under 10CFR73.21, are entitled: "Vermont Yankee Nuclear Power Station Physical Security Plan," with revisions submitted through March 16, 1988; "Vermont Yankee Nuclear Power Station Training and Qualification Plan," with revisions submitted through November 10, 1982; and "Vermont Yankee Nuclear Power Station Safeguards Contingency Plan," with revisions submitted through December 30, 1985. Changes made in accordance with 10CFR73.55 shall be implemented in accordance with the schedule set forth therein.

3.H. This Paragraph Deleted

Vermont Yankee shall implement and maintain in effect all provisions of the approved Fire Protection Program as described in the Final Safety Analysis Report for the facility and as approved in the SER dated January 13, 1978, and supplemental SERs, subject to the following provision:

Vermont Yankee may make changes to the approved Fire Protection Program without prior approval of the Commission only if those changes would not adversely affect the ability to achieve and maintain safe shutdown in the event of a fire.

TABLE OF CONTENTS
(Continued)

<u>LIMITING CONDITIONS OF OPERATION</u>	<u>Page No.</u>	<u>SURVEILLANCE</u>
D. Control Rod and Control Rod Drive Maintenance.....	232	...
E. Extended Core Maintenance.....	233	...
F. Fuel Movement.....	235	...
G. Crane Operability.....	235	...
H. Spent Fuel Pool Water Temperature.....	236	...
BASES	237	
3.13 FIRE PROTECTION SYSTEM.....	240	...
BASES	252	
5.0 DESIGN FEATURES.....	253	
6.0 ADMINISTRATIVE CONTROLS.....	255	

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1.0 DEFINITIONS

- X. Transition Boiling - Transition boiling means the boiling regime between nucleate and film boiling. Transition boiling is the regime in which both nucleate and film boiling occur intermittently with neither type being completely stable.
- Y. Surveillance Frequency - Unless otherwise stated in these specifications, periodic surveillance tests, checks, calibrations, and examinations shall be performed within the specified surveillance intervals. These intervals may be adjusted plus 25%. The operating cycle interval is considered to be 18 months and the tolerance stated above is applicable.
- Z. Surveillance Interval - The surveillance interval is the calendar time between surveillance tests, checks, calibrations, and examinations to be performed upon an instrument or component when it is required to be operable. These tests unless otherwise stated in these specifications may be waived when the instrument, component, or system is not required to be operable, but these tests shall be performed on the instrument, component, or system prior to being required to be operable.
- AA. Vital Fire Suppression Water System - The vital fire suppression water system is that part of the fire suppression system which protects those instruments, components, and systems required to perform a safe shutdown of the reactor. The vital fire suppression system includes the water supply, pumps, and distribution piping with associated sectionalizing valves, which provide immediate coverage of the Reactor Building, Control Room Building, and Diesel Generator Rooms.
- BB. Source Check - The qualitative assessment of channel response when the channel sensor is exposed to a radioactive source.
- CC. Dose Equivalent I-131 - The dose equivalent I-131 shall be that concentration of I-131 (microcurie/gram) which alone would produce the same thyroid dose as the quantity and isotopic mixture of I-131, I-132, I-133, I-134 and I-135 actually present. The thyroid dose conversion factors used for this calculation shall be those listed in NRC Regulatory Guide 1.109, Revision 1, October 1977.
- DD. Solidification - Solidification shall be the conversion of wet wastes into a form that meets shipping and burial ground requirements. Suitable forms include dewatered resins and filter sludges.
- EE. Member(s) of the Public - Members of the public shall include all persons who are not occupationally associated with the plant. This category does not include employees of the utility, its contractors or vendors. Also excluded from this category are casual visitors to the plant and persons who enter the site to service equipment or to make deliveries.
- FF. Site Boundary - The site boundary is shown in Figure 2.2-5 in the FSAR.
- GG. Deleted
- HH. Deleted

3.10 LIMITING CONDITIONS FOR OPERATION

c. From and after the date that one of the two 24 volt ECCS Instrumentation Battery Systems is made or found to be inoperable for any reason, continued reactor operation is permissible only during the succeeding three days unless such Battery System is sooner made operable.

d. From and after the date that the AS-2 125 Volt battery system is made or found to be inoperable for any reason, continued reactor operation is permissible provided Diesel Generator DG-1-1A control power is transferred to Station Battery B1.

and a fire watch is established to inspect the cable vault a minimum of every two hours.

e. From and after the date that one of the two 24 Volt Neutron Monitoring and Process Radiation Monitoring battery systems is found or made to be inoperable for any reason, continued reactor operation is permissible providing the minimum channel requirements of Sections 3.1 and 3.2 for the Neutron Monitoring and Process Radiation Monitoring systems are met.

4.10 SURVEILLANCE REQUIREMENTS

3.13 LIMITING CONDITIONS FOR OPERATION

3.13 FIRE PROTECTION SYSTEM

Applicability:

Applies to the operational status of the fire protection systems.

Objective:

To assure adequate capability to detect and suppress a fire which could affect the safe shutdown of the reactor.

Specification:

A. Fire Detection

1. Except as specified in Specification 3.13.A.2 below, the minimum number of fire detection sensors and their associated instrument for each location shall be operable in accordance with Table 3.13.A.1, whenever the equipment it protects is required to be operable.
2. From and after the date that less than the minimum number of sensors or their associated instruments are found to be operable, a fire watch shall be established to inspect the location with the inoperable sensor or instruments at least once every hour. Restore the required number of sensors and instruments to operable status within 14 days or submit a report within the next 30 days to the Commission as specified in 6.7.C.2 outlining the cause of malfunction and the plans for restoring the instrument(s) to operable status.

4.13 SURVEILLANCE REQUIREMENTS

4.13 FIRE PROTECTION SYSTEM

Applicability:

Applies to the surveillance requirements of the fire protection systems.

Objective:

To verify the operability of the fire protection systems.

Specification:

A. Fire Detection

1. Each of the sensors specified in 3.13.A.1 and their associated instruments including the supervisory circuitry shall be demonstrated operable at least once per 6 months.

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3.13 LIMITING CONDITIONS FOR OPERATION

B. Vital Fire Suppression Water System

1. Except as specified in Specification 3.13.B.2 and 3.13.B.3 below, the Vital Fire Suppression Water System shall be operable with:
 - a. Two fire pumps operable and lined up to the fire suppression loop.
 - b. Water available from the Connecticut River.
 - c. An operable flow path capable of taking suction from the Connecticut River and transferring the water through the distribution piping with operable sectionalizing control or isolation valves to the yard hydrant, curb valves and the hose station isolation valves.
2. From and after the date that less than the above required equipment is operable, restore the component to operable status within 7 days or submit a report within the next 30 days to the Commission as specified in 6.7.C.2 outlining the plans and procedures to be used to provide for the loss of redundancy in this system.
3. With the fire suppression water supply system inoperable;
 - a. Establish a backup fire suppression water system within 24 hours; and

4.13 SURVEILLANCE REQUIREMENTS

B. Vital Fire Suppression Water System

1. The Vital Fire Suppression Water System shall be demonstrated operable:
 - a. At least once per month by starting each pump and operating it for 15 minutes.
 - b. At least once each month by verifying each valve in the flow path is in its correct position. (For electrically supervised valves, adequate verification is a visual check of electrical indication.)
 - c. At least once each year by performance of a system flush of the yard fire loop.
 - d. At least once per 12 months by cycling each testable valve in the flow path through at least one complete cycle of full travel.
 - e. At least once each 18 months:
 - 1) By performing a system functional test by simulating sequential automatic start of the fire pumps as applicable to maintain the Vital Fire Suppression Water System pressure of at least 125 psig.

3.13 LIMITING CONDITIONS FOR OPERATION

b. Submit a Special Report as specified in 6.7.C.2;

- 1) By telephone within 24 hours,
- 2) Confirmed by telegraph, mailgram, or facsimile transmission no later than the first working day following the event, and
- 3) In writing within 14 days following the event, outlining the action taken, the cause of the inoperability and the plans and schedule for restoring the system to operable status, or

c. If a. above cannot be fulfilled, place the reactor in hot standby within the next six (6) hours and in cold shutdown with the following thirty (30) hours.

4.13 SURVEILLANCE REQUIREMENTS

2) By verifying that each pump will develop a flow of at least 2500 gpm at a discharge pressure of at least 115 psig corrected for river water level.

3) Cycling each valve in the flow path that is not testable during plant operation through at least one complete cycle of full travel.

f. At least once per 3 years by performing a flow test in accordance with Chapter 5, Section II, of the Fire Protection Handbook, 14th Edition, published by the National Fire Protection Association.

2. The fire pump diesel engine shall be demonstrated OPERABLE:

a. At least once per month by verifying:

1) The fuel storage tank contains at least 150 gallons of fuel, and

2) The diesel starts from ambient conditions and operates for at least 20 minutes.

3.13 LIMITING CONDITIONS FOR OPERATION

4.13 SURVEILLANCE REQUIREMENTS

- b. At least once per quarter by verifying that a sample of diesel fuel from the fuel storage tank is within the acceptable limits specified in Table 1 of ASTM D975-68 with respect to viscosity, water content, and sediment.
 - c. At least once per 18 months by verifying the diesel starts from ambient conditions on the auto-start signal and operates for ≥ 20 minutes while loaded with the fire pump.
3. The fire pump diesel starting 24-volt battery bank and charger shall be demonstrated OPERABLE:
- a. At least once per week by verifying that:
 - 1) The electrolyte level of each battery is above the plates, and
 - 2) The overall battery voltage is ≥ 24 volts.
 - b. At least once per quarter by verifying that the specific gravity is appropriate for continued service of the battery.
 - c. At least once per 18 months by verifying that:

3.13 LIMITING CONDITIONS FOR OPERATION

C. Fire Hose Stations

1. Except as specified in 3.12.C.2 below, all hose stations inside the Reactor Building, Turbine Building, and those inside the Administration Building which provided coverage of the Control Room Building shall be operable whenever equipment in the areas protected by the fire hose stations is required to be operable.
2. With one or more of the fire hose stations specified in 3.13.C.1 above inoperable, route an additional equivalent capacity fire hose to the unprotected area(s) from an operable hose station within one hour.

4.13 SURVEILLANCE REQUIREMENTS

- 1) The batteries, cell plates and battery racks show no visual indication of physical damage or abnormal deterioration, and
- 2) The battery-to-battery and terminal connections are clean, tight, free of corrosion and coated with anti-corrosion material.

C. Fire Hose Stations

1. Each fire hose station shall be verified to be operable:
 - a. At least monthly by visual inspection of the station to assure all equipment is available.
 - b. At least once each 18 months by removing the hose for inspection and replacing degraded coupling gaskets and reracking.
 - c. At least once each year by hydro-statically testing each outside hose at 250 lbs.
 - d. At least once per 3 years by hydro-statically testing inside hose at 150 lbs.

3.13 LIMITING CONDITIONS FOR OPERATION

D. High Pressure CO₂ System

1. Except as specified in Specification 3.13.D.2, the CO₂ systems located in the cable vault, switchgear room, and diesel fire pump day tank room shall be operable, whenever equipment in the area protected by the system is required to be operable.
2. From and after the date that the CO₂ system in the cable vault or a switchgear room is inoperable, within one hour a fire watch shall be established to inspect the location at least once every hour, provided that the fire detection system is operable in accordance with 3.13.A. If the fire detection system is also inoperable, within one hour a continuous fire watch shall be established with backup fire suppression equipment. Restore the CO₂ system to operable status within 14 days or submit a report within the next 30 days to the Commission as specified in 6.7.C.2 outlining the cause of inoperability and the plans for restoring the CO₂ system to operable status.

4.13 SURVEILLANCE REQUIREMENTS

- e. At least once per 3 years, partially open hose station valves to verify valve operability and no blockage.

D. High Pressure CO₂ System

1. The CO₂ system located in the cable vault, switchgear room, and diesel fire pump day tank room shall be demonstrated operable.
 - a. At least once per six months by verifying each CO₂ cylinder does not contain less than 90% of its initial charge.
 - b. At least once per 18 months by verifying that the system, including associated ventilation dampers, will actuate automatically to a simulated actuation signal.
 - c. At least once per operating cycle a flow path test shall be performed to verify flow through each nozzle.

3.13 LIMITING CONDITIONS FOR OPERATION

3. From and after the date that the CO₂ system in the diesel fire pump day tank room is inoperable, within one hour a fire watch shall be established to inspect the location at least once every hour. Restore the system to operable status within 14 days or submit a report within the next 30 days to the Commission as specified in 6.7.C.2 outlining the cause of inoperability and the plans for restoring the system to operable status.

E. Vital Fire Barrier Penetration Fire Seals

1. Except as specified in Specification 3.13.E.2 below, vital fire barrier penetration seals protecting the Reactor Building, Control Room Building, and Diesel Generator Rooms shall be intact.
2. From and after the date a vital fire barrier penetration fire seal is not intact, a continuous fire watch shall be established on at least one side of the affected penetration within 1 hour.

F. Sprinkler Systems

1. Except as specified in Specification 3.13.F.2 below, those sprinkler systems listed in Table 3.13.F.1 shall be operable whenever equipment in the area protected by those sprinklers is required to be operable.

4.13 SURVEILLANCE REQUIREMENTS

E. Vital Fire Barrier Penetration Fire Seals

1. Vital fire barrier penetration seals shall be verified to be functional by visual inspection at least once per operating cycle and following any repair.

F. Sprinkler Systems

1. Each of the sprinkler systems specified in Table 3.13.F.1 shall be demonstrated operable:
 - a. At least once per 12 months by cycling each testable valve in the flow path through at least one complete cycle of full travel.

3.13 LIMITING CONDITIONS FOR OPERATION

2. From and after the date that one of the sprinkler systems specified in Table 3.13.F.1 is inoperable, a fire watch shall be established within one hour to inspect the location with the inoperable sprinkler system at least once every hour. Restore the sprinkler system to operable status within 14 days or submit a report within the next 30 days to the Commission as specified in 6.7.C.2 outlining the cause of the malfunction and the plans for restoring the system to operable status.

4.13 SURVEILLANCE REQUIREMENTS

- b. At least once each month by verifying each valve in the flow path is in its correct position. (For electrically supervised valves, adequate verification is a visual check of electrical indication.)
- c. At least once per 18 months by;
 1. Cycling each valve in the flow path that is not testable during plant operation through at least one complete cycle of full travel.
 2. A visual inspection of the sprinkler headers to verify their integrity, and
 3. A visual inspection of each nozzle's spray area to verify that the spray pattern is not obstructed.
 4. Verifying that automatic valves actuate to their correct position from a test signal.
- d. At least once per 3 years by performing a flow test through each open head sprinkler header and verifying each open head sprinkler nozzle is unobstructed.

3.13 LIMITING CONDITIONS FOR OPERATION

G. Foam Systems

1. Except as specified in Specification 3.13.G.2 below, the Recirculation M.G. Set Foam System shall be operable with its foam concentrate tank full (100 gallons) whenever the Recirculation M.G. Sets are operating.
2. From and after the date that the Recirculation M.G. Set Foam System is inoperable, a fire watch shall be established to inspect the location at least once every hour; and a foam nozzle shall be brought to the Reactor Building elevation containing the Recirculation M.G. Sets. A 100 gallon foam concentrate supply shall be available on site.
3. Except as specified in Specification 3.13.G.4 below, the Turbine Building Foam System shall be operable with its foam concentrate tank full (150 gallons).
4. From and after the date that the Turbine Building Foam System is inoperable a portable foam nozzle shall be brought to the Turbine Building Foam System location. A 150 gallon foam concentrate supply shall be available on-site.

4.13 SURVEILLANCE REQUIREMENTS

G. Foam Systems

1. The foam system specified in 3.13.G shall be demonstrated operable.
 - a. At least once per 12 months by cycling each testable valve in the flow path through at least one complete cycle of full travel.
 - b. At least once per 18 months by:
 1. Cycling each valve in the flow path that is not testable during plant operation through at least one complete cycle of full travel.
 2. A visual inspection of the foam system and equipment to verify integrity, and
 3. A visual inspection of the Recirculation M.G. Set Foam System foam nozzle area to verify that the spray pattern is not obstructed.
 4. Foam concentrate samples shall be taken and analyzed for acceptability.

3.13 LIMITING CONDITIONS FOR
OPERATION

4.13 SURVEILLANCE REQUIREMENTS

- ~~d. At least once per
3 years by
performing an air
flow test through
the Recirculation
M.G. Set foam
header and
verifying each foam
nozzle is
unobstructed.~~

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TABLE 3.13.A.1

FIRE DETECTION SENSORS

	<u>Sensor Location</u>	<u>Minimum No. of Sensors Required to Be Operable</u>		
		<u>Heat</u>	<u>Flame</u>	<u>Smoke</u>
1.	Cable Spreading Room & Station Battery Room	-	-	23
2.	Switchgear Room	-	-	20
3.	Diesel Generator Room (A)	-	-	2
4.	Diesel Generator Room (B)	-	-	2
5.	Intake Structure (Service Water)	1	1	1
6.	Recirc Motor Generator Set Area	3	-	8
7.a	Control Room Zone 1 (Control Room Ceiling)	-	-	14
7.b	Control Room Zone 2 (Control Room Panels)	-	-	18
7.c	Control Room Zone 3 (Control Room Panels)	-	-	25
7.d	Control Room Zone 4 (Control Room Panels)	-	-	10
7.e	Control Room Zone 5 (Exhaust & Supply Ducts)	-	-	2
8.a	Rx Bldg. Corner Rm NW 232	-	-	1
8.b	Rx Bldg. Corner Rm NW 213 (RCIC)	-	-	1
8.c	Rx Bldg. Corner Rm NE 232	-	-	1
8.d	Rx Bldg. Corner Rm NE 213	-	-	1
8.e	Rx Bldg. Corner Rm SE 232	-	-	1
8.f	Rx Bldg. Corner Rm SE 213	-	-	1
8.g	Rx Bldg. Corner Rm SW 232	-	-	1
9.	HPCI Room	-	-	8
10.	Torus area	12	-	16
11.	Rx Bldg. Cable Penetration Area	-	-	7
12.	Refuel Floor	-	-	13
13.	Diesel Oil Day Tank Room (A)	-	1*	1*
14.	Diesel Oil Day Tank Room (B)	-	1*	1*
15.	Turbine Loading Bay (vehicles)	-	3	-

*NOTE: The Diesel Day Tank Rooms require only one detector operable (1 flame or 1 smoke).

TABLE 3.13.F.1

SPRINKLER SYSTEMS

1. Reactor Building Penetration Area Preaction System
2. Diesel Generator Room A System
3. Diesel Generator Room B System
4. Turbine Loading Bay System
5. Diesel-driven Fire Pump System

BASES:3.13 & 4.13 FIRE PROTECTION SYSTEMS

On May 11, 1976, Vermont Yankee received a letter from the NRC requesting that an in-depth evaluation of the existing fire protection systems be performed using Branch Technical Position (BTP) APCSB 9.5-1 as a guide. Concurrent with this evaluation a fire hazards analysis of the entire plant complex was required. In an effort to clarify the BTP an Appendix A was subsequently issued to specifically address operating plants. Enclosed with this Appendix the NRC requested that proposed Technical Specifications on fire protection also be submitted. The subject section 3.13/4.13 and the following specific bases are those specifications evolving from these efforts.

- A. The smoke, heat and flame detectors provide the early warning fire detection capability necessary to detect problems in vital areas of the plant. Surveillance requirements assure these sensors and their associated instruments to be operable. When the equipment protected by the detectors is not required to be operable, specifications covering the sensors and instruments do not apply.
- B, C, D, F, G. The Vital Fire Suppression Water System, CO₂ systems, sprinkler systems and foam systems specifications are provided to meet and pre-established levels of system operability in the event of a fire. These systems provide the necessary protection to assure safe reactor shutdown. Periodic surveillance testing provides assurance that vital fire suppression systems are operable.
- E. Vital fire barrier penetration fire seals are provided to assure that the fire resistance rating of barriers is not reduced by a penetration. Surveillance inspections shall be performed to insure that the integrity of these seals is maintained.

The diesel fire pump has a design consumption rate of 18 gallons of fuel per hour; therefore, 150 gallons provides for greater than 8 hours of operation. Additional fuel can be delivered in about one hour and additional fuel is on site. When the equipment protected by the fire protection systems is not required to be operable, the specifications governing the fire protection system do not apply.

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5. The Radiation Protection Supervisor or Plant Health Physicist shall meet or exceed the qualifications of Regulatory Guide 1.8, Revision 1 (September 1975).
6. The Shift Engineer shall have a bachelor's degree or equivalent in a scientific or engineering discipline with specific training in plant design, and response and analysis of the plant for transients and accidents.
7. If the Operations Supervisor does not possess a Senior Operator License, then an Assistant Operations Supervisor shall be designated that does possess a Senior Operator License. All instructions to the shift crews involving licensed activities shall then be approved by designated Assistant Operations Supervisor.
8. The individuals who train the operating staff and those who carry out health physics and quality assurance functions may report to the appropriate on-site manager; however, they shall have sufficient organizational freedom to ensure their independence from operating pressures.

E. ~~A Fire Brigade of at least 5 members shall be maintained on-site at all times.* This excludes 2 members of the minimum shift crew necessary for safe shutdown of the plant and any personnel required for other essential functions during a fire emergency.~~

~~* Fire Brigade composition may be less than the minimum requirements for a period of time not to exceed 2 hours in order to accommodate unexpected absence of Fire Brigade members provided immediate action is taken to restore the Fire Brigade to within the minimum requirements.~~

- f. Investigate reported instances of violations of Technical Specifications, such investigations to include reporting, evaluation, and recommendations to prevent recurrence, to the Manager of Operations.
- g. Perform special reviews and investigations and render reports thereon as requested by the Chairman of the Nuclear Safety Audit and Review Committee.

7. Authority

- a. The Plant Operation Review Committee shall be advisory.
- b. The Plant Operation Review Committee shall recommend to the Plant Manager approval or disapproval of proposals under Items 6 (a) through (d) above.
 - 1. In the event of disagreement between the recommendations of the Plant Operation Review Committee and the actions contemplated by the Plant Manager, the course determined by the Plant Manager to be the more conservative will be followed with immediate notification to the Manager of Operations.
- c. The Plant Operation Review Committee shall make tentative determinations as to whether or not proposals considered by the Committee involve unreviewed safety questions. This determination shall be subject to review by the Nuclear Safety Audit and Review Committee.

8. Records

Minutes shall be kept at the plant of all meetings of the Plant Operation Review Committee and copies shall be sent to the Manager of Operations and the Nuclear Safety Audit and Review Committee.

B. Nuclear Safety Audit and Review Committee

- 1. The Committee shall consist of at least six (6) persons:
 - a. Chairman
 - b. Vice Chairman
 - c. Four technically qualified persons who are not members of the plant staff.
 - d. No more than three members shall be selected from the organization reporting to the Manager of Operations.
 - e. The Committee will obtain advice and counsel from scientific or technical personnel employed by the Company or other organizations whenever the Committee considers it necessary to obtain further scientific or technical assistance in carrying out its responsibilities.

h. Review of the Fire Protection program and implementing procedures

Any reportable occurrence shall be reported to the Manager of Operations and shall be reviewed by the Plant Operations Review Committee. This Committee shall prepare a separate, sequentially numbered, report for each reportable occurrence. Each report shall describe the circumstances leading up to and resulting from the occurrence, the corrective action taken by the shift, an attempt to define the cause of the occurrence, and shall recommend appropriate action to prevent or reduce the probability of a repetition of the occurrence.

Copies of all such reports shall be submitted to the Chairman of the Nuclear Safety Audit and Review Committee for review and to the Manager of Operations for review and approval of any recommendations.

6.4 ACTION TO BE TAKEN IF A SAFETY LIMIT IS EXCEEDED

Applies to administrative action to be followed in the event a safety limit is exceeded.

If a safety limit is exceeded, the reactor shall be shutdown immediately. An immediate report shall be made to the Manager of Operations. A complete analysis of the circumstances leading up to and resulting from the situation together with recommendations by the Plant Operations Review Committee shall also be prepared. This report shall be submitted to the Manager of Operations and the Chairman of the Nuclear Safety Audit and Review Committee.

Reactor operation shall not be resumed until authorized by the U.S. Nuclear Regulatory Commission.

6.5 PLANT OPERATING PROCEDURES

A. Detailed written procedures, involving both nuclear and non-nuclear safety, including applicable check-off lists and instructions, covering areas listed below shall be prepared and approved.

All procedures shall be adhered to.

1. Normal startup, operation and shutdown of systems and components of the facility.
2. Refueling operations.
3. Actions to be taken to correct specific and foreseen potential malfunctions of systems or components, suspected Primary System leaks and abnormal reactivity changes.
4. Emergency conditions involving potential or actual release of radioactivity.
5. Preventive and corrective maintenance operations which could have an effect on the safety of the reactor.
6. Surveillance and testing requirements.
7. Fire protection program implementation including minimum fire brigade requirements and training. The training program shall meet or exceed the requirements of Section 27 of the NFPA Code 1976. Training sessions will be scheduled as plant operations permit but will be completed in specified subjects annually. Initial fire brigade training shall be completed by March 13, 1978.

e. Land Use Census, Specification 3.9.D

With a land use census not being conducted as required by Specification 3.9.D, prepare and submit to the Commission within 30 days a special report which identifies the reasons why the survey was not conducted, and what steps are being taken to correct the situation.

f. Vital Fire Protection System, Specification 3.13

Where required by Section 3.13, special reports shall be submitted to the Commission following the discovery of certain inoperable sensors, instruments, components, or systems in the vital fire protection system.

Note: Routine surveillance testing or design modification of sensors, instruments, components, or systems which lead to operation of sensors, instruments, components, or systems in a degraded mode do not require special reporting except where tests themselves reveal a degraded mode.

3. Environmental Radiological Monitoring

Radiological Environmental Surveillance Reports covering the operation of the unit during previous calendar year shall be submitted prior to May 1 of each year.

The annual Radiological Environmental Surveillance Report shall include summaries, interpretations, and an analysis of trends of the results of the radiological environmental surveillance activities for the report period, including a comparison with operational controls (as appropriate), and previous environmental surveillance reports and an assessment of the observed impact of the plant operation on the environment.

The annual Radiological Environmental Surveillance Report shall include summarized and tabulated results of all radiological environmental samples taken during the report period pursuant to the table and figures in the ODCM. In the event that some results are not available for inclusion with the report, the report shall be submitted noting and explaining the reasons for the missing results. The missing data shall be submitted as soon as possible in a supplementary report.

With the level of radioactivity in an environmental sampling media at one or more of the locations specified in Table 3.9.3 exceeding the reporting levels of Table 3.9.4, the condition shall be described in the next annual Radiological Environmental Surveillance Report only if the measured level of radioactivity was not the result of plant effluents. With the radiological environmental monitoring program not being conducted as specified in Table 3.9.3, a description of the reasons for not conducting the program as required and the plans for preventing a recurrence shall be included in the next annual Radiological Environmental Surveillance Report.

United States Nuclear Regulatory Commission

Enclosure B

New Technical Specification Pages

- c. A verification or coding system for emergency messages between Vermont Yankee and the state police headquarters of the respective states and the Commonwealth.
- 14. Vermont Yankee shall furnish advance notifications to MDPH, or to another Commonwealth agency designated by MDPH, of the time, method and proposed route through the Commonwealth of any shipments of nuclear fuel and wastes to and from the Vermont Yankee facility which will utilize railways or roadways in the Commonwealth.
- F. Vermont Yankee shall implement and maintain in effect all provisions of the approved Fire Protection Program as described in the Final Safety Analysis Report for the facility and as approved in the SER dated January 13, 1978, and supplemental SERs, subject to the following provision:

Vermont Yankee may make changes to the approved Fire Protection Program without prior approval of the Commission only if those changes would not adversely affect the ability to achieve and maintain safe shutdown in the event of a fire.

3.G | Security Plan

The licensee shall fully implement and maintain in effect all provisions of the Commission-approved physical security, guard training and qualification, and safeguards contingency plans including amendments made pursuant to provisions of the Miscellaneous Amendments and Search Requirements revisions to 10CFR73.55 (51FR27817 and 27822) and to the authority of 10CFR50.90 and 10CFR50.54(p). The plans, which contain Safeguards Information protected under 10CFR73.21, are entitled: "Vermont Yankee Nuclear Power Physical Security Plan," with revisions submitted through March 16, 1988; "Vermont Yankee Nuclear Power Station Training and Qualification Plan," with revisions submitted through November 10, 1982; and "Vermont Yankee Nuclear Power Station Safeguards Contingency Plan," with revisions submitted through December 30, 1985. Changes made in accordance with 10CFR73.55 shall be implemented in accordance with the schedule set forth therein.

3.H | This Paragraph Deleted

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TABLE OF CONTENTS
(Continued)

<u>LIMITING CONDITIONS OF OPERATION</u>	<u>Page No.</u>	<u>SURVEILLANCE</u>
D. Control Rod and Control Rod Drive Maintenance.....	232 ...	D
E. Extended Core Maintenance.....	233 ...	E
F. Fuel Movement.....	235 ...	F
G. Crane Operability.....	235 ...	G
H. Spent Fuel Pool Water Temperature.....	236 ...	H
BASES	237	
3.13 DELETED		
5.0 DESIGN FEATURES.....	253	
6.0 ADMINISTRATIVE CONTROLS.....	255	

1.0 DEFINITIONS

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- X. Transition Boiling - Transition boiling means the boiling regime between nucleate and film boiling. Transition boiling is the regime in which both nucleate and film boiling occur intermittently with neither type being completely stable.
- Y. Surveillance Frequency - Unless otherwise stated in these specifications, periodic surveillance tests, checks, calibrations, and examinations shall be performed within the specified surveillance intervals. These intervals may be adjusted plus 25%. The operating cycle interval is considered to be 18 months and the tolerance stated above is applicable.
- Z. Surveillance Interval - The surveillance interval is the calendar time between surveillance tests, checks, calibrations, and examinations to be performed upon an instrument or component when it is required to be operable. These tests unless otherwise stated in these specifications may be waived when the instrument, component, or system is not required to be operable, but these tests shall be performed on the instrument, component, or system prior to being required to be operable.
- AA. DELETED
- BB. Source Check - The qualitative assessment of channel response when the channel sensor is exposed to a radioactive source.
- CC. Dose Equivalent I-131 - The dose equivalent I-131 shall be that concentration of I-131 (microcurie/gram) which alone would produce the same thyroid dose as the quantity and isotopic mixture of I-131, I-132, I-133, I-134 and I-135 actually present. The thyroid dose conversion factors used for this calculation shall be those listed in NRC Regulatory Guide 1.109, Revision 1, October 1977.
- DD. Solidification - Solidification shall be the conversion of wet wastes into a form that meets shipping and burial ground requirements. Suitable forms include dewatered resins and filter sludges.
- EE. Member(s) of the Public - Members of the public shall include all persons who are not occupationally associated with the plant. This category does not include employees of the utility, its contractors or vendors. Also excluded from this category are casual visitors to the plant and persons who enter the site to service equipment or to make deliveries.
- FF. Site Boundary - The site boundary is shown in Figure 2.2-5 in the FSAR.
- GG. Deleted
- HH. Deleted

3.10 LIMITING CONDITIONS FOR OPERATION

- c. From and after the date that one of the two 24 volt ECCS Instrumentation Battery Systems is made or found to be inoperable for any reason, continued reactor operation is permissible only during the succeeding three days unless such Battery System is sooner made operable.
- d. From and after the date that the AS-2 125 Volt battery system is made or found to be inoperable for any reason, continued reactor operation is permissible provided Diesel Generator DG-1-1A control power is transferred to Station Battery B1.
- e. From and after the date that one of the two 24 Volt Neutron Monitoring and Process Radiation Monitoring battery systems is found or made to be inoperable for any reason, continued reactor operation is permissible providing the minimum channel requirements of Sections 3.1 and 3.2 for the Neutron Monitoring and Process Radiation Monitoring systems are met.

4.10 SURVEILLANCE REQUIREMENTS

3.13 LIMITING CONDITIONS FOR
OPERATION

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OPERATION4.13 SURVEILLANCE REQUIREMENTS

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OPERATION4.13 SURVEILLANCE REQUIREMENTS

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OPERATION

4.13 SURVEILLANCE REQUIREMENTS

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VYNPS

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5. The Radiation Protection Supervisor or Plant Health Physicist shall meet or exceed the qualifications of Regulatory Guide 1.8, Revision 1 (September 1975).
6. The Shift Engineer shall have a bachelor's degree or equivalent in a scientific or engineering discipline with specific training in plant design, and response and analysis of the plant for transients and accidents.
7. If the Operations Supervisor does not possess a Senior Operator License, then an Assistant Operations Supervisor shall be designated that does possess a Senior Operator License. All instructions to the shift crews involving licensed activities shall then be approved by designated Assistant Operations Supervisor.
8. The individuals who train the operating staff and those who carry out health physics and quality assurance functions may report to the appropriate on-site manager; however, they shall have sufficient organizational freedom to ensure their independence from operating pressures.

VYNPS

- f. Investigate reported instances of violations of Technical Specifications, such investigations to include reporting, evaluation, and recommendations to prevent recurrence, to the Manager of Operations.
- g. Perform special reviews and investigations and render reports thereon as requested by the Chairman of the Nuclear Safety Audit and Review Committee.
- h. Review of the fire protection program and implementing procedures.

7. Authority

- a. The Plant Operation Review Committee shall be advisory.
- b. The Plant Operation Review Committee shall recommend to the Plant Manager approval or disapproval of proposals under Items 6 (a) through (d) above.
 - 1. In the event of disagreement between the recommendations of the Plant Operation Review Committee and the actions contemplated by the Plant Manager, the course determined by the Plant Manager to be the more conservative will be followed with immediate notification to the Manager of Operations.
- c. The Plant Operation Review Committee shall make tentative determinations as to whether or not proposals considered by the Committee involve unreviewed safety questions. This determination shall be subject to review by the Nuclear Safety Audit and Review Committee.

8. Records

Minutes shall be kept at the plant of all meetings of the Plant Operation Review Committee and copies shall be sent to the Manager of Operations and the Nuclear Safety Audit and Review Committee.

B. Nuclear Safety Audit and Review Committee

- 1. The Committee shall consist of at least six (6) persons:
 - a. Chairman
 - b. Vice Chairman
 - c. Four technically qualified persons who are not members of the plant staff.
 - d. No more than three members shall be selected from the organization reporting to the Manager of Operations.
 - e. The Committee will obtain advice and counsel from scientific or technical personnel employed by the Company or other organizations whenever the Committee considers it necessary to obtain further scientific or technical assistance in carrying out its responsibilities.

VYNPS

Any reportable occurrence shall be reported to the Manager of Operations and shall be reviewed by the Plant Operations Review Committee. This Committee shall prepare a separate, sequentially numbered, report for each reportable occurrence. Each report shall describe the circumstances leading up to and resulting from the occurrence, the corrective action taken by the shift, an attempt to define the cause of the occurrence, and shall recommend appropriate action to prevent or reduce the probability of a repetition of the occurrence.

Copies of all such reports shall be submitted to the Chairman of the Nuclear Safety Audit and Review Committee for review and to the Manager of Operations for review and approval of any recommendations.

6.4 ACTION TO BE TAKEN IF A SAFETY LIMIT IS EXCEEDED

Applies to administrative action to be followed in the event a safety limit is exceeded.

If a safety limit is exceeded, the reactor shall be shutdown immediately. An immediate report shall be made to the Manager of Operations. A complete analysis of the circumstances leading up to and resulting from the situation together with recommendations by the Plant Operations Review Committee shall also be prepared. This report shall be submitted to the Manager of Operations and the Chairman of the Nuclear Safety Audit and Review Committee.

Reactor operation shall not be resumed until authorized by the U.S. Nuclear Regulatory Commission.

6.5 PLANT OPERATING PROCEDURES

A. Detailed written procedures, involving both nuclear and non-nuclear safety, including applicable check-off lists and instructions, covering areas listed below shall be prepared and approved.

All procedures shall be adhered to.

1. Normal startup, operation and shutdown of systems and components of the facility.
2. Refueling operations.
3. Actions to be taken to correct specific and foreseen potential malfunctions of systems or components, suspected Primary System leaks and abnormal reactivity changes.
4. Emergency conditions involving potential or actual release of radioactivity.
5. Preventive and corrective maintenance operations which could have an effect on the safety of the reactor.
6. Surveillance and testing requirements.
7. Fire protection program implementation.

e. Land Use Census, Specification 3.9.D

With a land use census not being conducted as required by Specification 3.9.D, prepare and submit to the Commission within 30 days a special report which identifies the reasons why the survey was not conducted, and what steps are being taken to correct the situation.

3. Environmental Radiological Monitoring

Radiological Environmental Surveillance Reports covering the operation of the unit during previous calendar year shall be submitted prior to May 1 of each year.

The annual Radiological Environmental Surveillance Report shall include summaries, interpretations, and an analysis of trends of the results of the radiological environmental surveillance activities for the report period, including a comparison with operational controls (as appropriate), and previous environmental surveillance reports and an assessment of the observed impact of the plant operation on the environment.

The annual Radiological Environmental Surveillance Report shall include summarized and tabulated results of all radiological environmental samples taken during the report period pursuant to the table and figures in the ODCM. In the event that some results are not available for inclusion with the report, the report shall be submitted noting and explaining the reasons for the missing results. The missing data shall be submitted as soon as possible in a supplementary report.

With the level of radioactivity in an environmental sampling media at one or more of the locations specified in Table 3.9.3 exceeding the reporting levels of Table 3.9.4, the condition shall be described in the next annual Radiological Environmental Surveillance Report only if the measured level of radioactivity was not the result of plant effluents. With the radiological environmental monitoring program not being conducted as specified in Table 3.9.3, a description of the reasons for not conducting the program as required and the plans for preventing a recurrence shall be included in the next annual Radiological Environmental Surveillance Report.