EMERGENCY PLAN PROCEDURES INDEX

PEACH BOTTOM UNITS 2 AND 3

WJK

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NUMBER	TITLE	REVIEW DATE	REV. NO.	REVISION DATE
EP-209 APPENDIX P	STAFFING AUGMENTATION - 60 MINUTE CALL PROCEDURE	03/05/82	1	03/05/82
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EP-307	RECEPTION AND ORIENTATION OF SUPPORT PERSONNEL	04/12/82	0	04/12/82
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EP-318	LIQUID RELEASE DOSE CALCULATION METHOD FOR DRINKING WATER	05/06/82	0	05/06/82
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EP-401	ENTRY FOR EMERGENCY REPAIR, OPERATIONS, AND SEARCH AND RESCUE	04/08/82	3	04/08/82
EP-500	REVIEW AND REVISION OF EMERGENCY PLAN (FSAR APPENDIX Q)	04/01/81	0	04/01/81

PHILADELPHIA ELECTRIC COMPANY
PEACH BOTTOM UNITS 2 AND 3
EMERGENCY PLAN IMPLEMENTING PROCEDURE

EP-101 CLASSIFICATION OF EMERGENCIES

PURPOSE

To define the method of classification of an event or condition into one of four emergency classifications as described in the Emergency Plan. Additionally this procedure details the method of de-escalation from one emergency action level to another.

REFERENCES

1. Peach Bottom Atomic Power Station Emergency Plan
2. NUREG 0654 Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants.
3. EP 102, Unusual Event Immediate Actions
4. EP 103, Alert Immediate Actions
5. EP 104, Site Emergency Immediate Actions
6. EP 105, General Emergency Immediate Actions

ACTION LEVEL

Implemented this procedure whenever Shift Supervision detects conditions which meet the Emergency Action Levels in Appendix EP 101, Classification Table.

IMPLEMENTATION OF THIS PROCEDURE DOES NOT CONSTITUTE IMPLEMENTATION OF THE EMERGENCY PLAN.

PRECAUTIONS

THE JUDGEMENT OF THE EMERGENCY DIRECTOR IS VITAL IN PROPER CONTROL OF AN EMERGENCY AND TAKES PRECEDENCE OVER GUIDANCE IN THE EMERGENCY PLAN PROCEDURE.

IMMEDIATE ACTIONS

1.0 Shift Supervision or Emergency Director shall:

1.1 Select affected categories related to station events or conditons.

IMMEDIATE ACTIONS (cont'd)

Category	Reference Pages in Appendix EP-101
Unplanned Shutdown	1
Personnel Injury	2
Primary Containment Integrity	3
Radioactive Material Release	4
Fire	5
Environmental	6
Loss of Power	7
Secondary Containment	8
Instrument Failure	9
Fuel Damage	10
Hazards to Station Operation	11
Control Room Evacuation	12
Security	See Contingency Plan

1.2 Beginning at the indicated page in Appendix EP 101, review the Emergency Action Levels for all categories selected.

1.3 If the most severe events or conditions are classified as an Unusual Event, implement EP 102, "Unusual Event Response."

1.4 If the most severe events or conditions are classified as an Alert, implement EP 103, "Alert Immediate Response."

1.5 If the most severe events or conditions are classified as a Site Emergency, implement EP 104, "Site Emergency Response."

1.6 If the most severe events or conditions are classified as a General Emergency, implement EP 105, "General Emergency Response."

FOLLOW-UP ACTIONS

1.0 If event is classified as Alert, Site Emergency, or General Emergency, Shift Supervision or Emergency Director shall:

1.1 Periodically evaluate the event classification as listed on attached Appendix EP-101. Based upon results of corrective action taken to recover from the emergency situation, escalation or de-escalation of the emergency action level classification will be decided upon by the Emergency Director or Interim Emergency Director. (It is preferable, but not mandatory, to obtain concurrence from the Site Emergency Coordinator and Corporate Headquarters prior to classification reduction). The NRC and appropriate off-site authorities at the Emergency Operations Facility all be informed of the decision to move from one emergency class to the next. All agencies or personnel listed in checkoff lists of EP's 102, 103, 104, and 105 shall be informed as a minimum.

1.2 Provide written summary within eight hours to the NRC concerning basis and circumstances surrounding reduction of emergency action level or closeout of the emergency.

2.0 When the emergency has been mitigated and the power plant and auxiliaries have been placed in a safe shutdown condition, only then will a decision be made as to whether a recovery phase is justified. To enter the recovery phase after the emergency or accident situation is considered no longer in effect, the concurrence of the Site Emergency Coordinator, Emergency Director, the Emergency Control Officer at Corporate Headquarters, and Federal and State Government Liaison is required. The recovery phase is a departure from an emergency situation. The Site Emergency Coordinator and Emergency Director evaluates plant operating conditions as well as the in-plant and out-of-plant radiological conditions in this decision. Notifications to the various individuals and agencies that the recovery phase has been implemented is the responsibility of the Site Emergency Coordinator.

UNPLANNED SHUTDOWN

UNUSUAL EVENT

UNPLANNED SHUTDOWN

1) controlled shutdown due to failure to meet L.C.O.
2) any scram other than planned

ALERT

SCRAM WITH TRIPLE LO LEVEL

1) scram alarm and
2) double low level alarm (-48") and
3) triple low level alarm (-130") and
4) increase in containment pressure to greater than 1 psig but less than 2 psig on PR-2/3508

SCRAM WITH SMALL LEAK

1) scram alarm and
2) double low level alarm (-48") and
3) triple low level alarm (-130") and
4) containment high pressure alarm (2 psig) and
5) containment pressure 2 psig or greater on PR 2/3508

SITE EMERGENCY

SCRAM WITH LOCA

1) scram alarm and
2) double low level alarm (-48") and
3) triple low level alarm (-130") and
4) containment high pressure alarm (2 psig) and

5a) containment pressure 10 psig or greater on PR 2/3508 or

6b) containment dose rate greater than 10^5 R/hr on RI-8/9103A/C and RI-8/9103B/D

GENERAL EMERGENCY

SCRAM WITH LOCA & NO ECCS

1) scram alarm and
2) double low level alarm (-48") and
3) triple low level alarm (-130") and
4) active fuel range level indication shows less than -226" on LI-2/3-2-3-91A, B and
5) failure to reset triple low level alarm after 3 minutes and
6) containment high pressure alarm (2psig) and
7) containment pressure greater than 20 psig on PR-2/3508 and
8) containment dose rate greater than 10^6 R/hr on RI-8/9103A/C and RI-8/9103 B/D

PERSONNEL INJURY

UNUSUAL EVENT	ALERT
INJURIES REQUIRING AMBULANCE AND 48 HOUR TREATMENT 1) Verbal reports or direct observation INJURY WITH EXCESS RADIATION EXPOSURE OR CONTAMINATION 1) Contaminated injury warranting off-site medical treatment or 2) an acute whole body exposure greater than 3 R	N/A
SITE EMERGENCY	**GENERAL EMERGENCY**
N/A	N/A

PRIMARY CONTAINMENT

UNUSUAL EVENT

NON-ISOLABLE LEAKAGE

1) Primary containment leakrate is greater than 0.5 percent of volume per 24 hrs. at 49.1 psig or
2) N_2 makeup system is not capable of maintaining pressure (not due to lack of N_2).

FAILURE TO ISOLATE PENETRATION WHEN ISOLATED BY A TRANSIENT

1) incorrect valve position during Group I, II, or III isolation alarms

ALERT

LOSS OF PRIMARY CONTAINMENT INTEGRITY

1) Reactor Building vent rad effluent high rad alarm and inability to maintain pressure greater than 0.25 psig on narrow range PR-2/3508 or
2) Torus Room flood alarm with level decrease in torus

SITE EMERGENCY

LOSS OF PRIMARY CONTAINMENT INTEGRITY WITH LOCA

1) erratic containment pressure fluctuations above alarm setpoints of 1.5 psig, and
2) Group II and III isolation alarms, and
3) Containment dose rate greater than 10^5 R/hr on RI-8/9103A/C and RI-8/9103B/D and
4) Reactor Building area high temperature alarm, or Area Radiation Monitors on PR 2/3-18-55 abnormally high, and Reactor Bldg. vent rad effluent high alarm, or Main Stack Rad effluent on PR 0-17-051 increasing due to SGTS operation.

GENERAL EMERGENCY

N/A

SITE EMERGENCY
continued

POTENTIAL LOSS OF PRIMARY CONTAINMENT HIGH RADIATION

1) containment high pressure alarm (2.0 psig), and
2) scram, and
3) containment dose rate greater than 10^5 R/hr on RI-8/9103A/C and RI-8/9103B/D, and
4) Reactor Bldg Area Rad Monitors Alarming, and
5) Vent Stack Rad Effluent monitor high alarm

RADIOACTIVE RELEASE

UNUSUAL EVENT

INSTANTANEOUS RELEASE EXCEEDING TECH SPECS

1) A spike on rad effluent monitors:
   a) Main Stack greater than 6×10^3 cps on RR 0-17-051, or
   b) Reactor Bldg vent greater than 4×10^4 cpm on RR-2/3979 or
2) Analysis of particulate filters or charcoal cartridge:
   a) Main Stack greater than 5×10^1 uCi/sec, or
   b) Reactor Bldg vent greater than 4×10^1 uCi/sec

RELEASE EXCEEDING TECH SPEC QUARTERLY LIMIT

1) A report of the summation of individual release data within the quarterly period.

ALERT

ACTUAL OR POTENTIAL RELEASE 0.01 REM WHOLE BODY OR 0.05 REM THYROID

1) Uncontrollable release for more than 20 minutes from the:
   a) main stack greater than 1×10^3 cps on RR 0-17-051 or
   b) Reactor Bldg vent greater than 5×10^4 cpm on RR-2/3979 or
2) Continued particulate or iodine release such that analysis of particulate filter or charcoal cartridge results in the following estimated release rates:
   a) main stack greater than 5×10^2 uCi/sec or
   b) Reactor Bldg vent greater than 3×10^3 uCi/sec or
3) Containment dose rate greater than 10^4 R/hr on RI-8/9103 A/C and RI-8/9103 B/D

SITE EMERGENCY

ACTUAL OR POTENTIAL RELEASE 0.01 REM WHOLE BODY OR 0.05 REM THYROID

1) Uncontrollable release for more than 20 minutes from the:
   a) main stack greater than 1×10^4 cps on RR 0-17-051 or
   b) Reactor Bldg. vent greater than 5×10^5 cpm on RR-2/3979 or
2) continued particulate or iodine release such that analysis of particulate filter or charcoal cartridge results in the following estimated release rates:
   a) main stack greater than 5×10^3 uCi/sec or
   b) Reactor Bldg vent greater than 3×10^4 uCi/sec or
3) containment dose rate greater than 10^5 R/hr on RI-8/9103A/C and RI-8/9103B/D

GENERAL EMERGENCY

ACTUAL OR POTENTIAL RELEASE 0.01 REM WHOLE BODY OR 0.05 REM THYROID

1) Uncontrollable release for more than 20 minutes from the:
   a) main stack greater than 1×10^5 cps on RR 0-17-051 or
   b) Reactor Bldg vent greater than 5×10^6 cpm on RR 2/3979 or
2) continued particulate or iodine release such that analysis of particulate filter or charcoal cartridge results in the following estimated release rates:
   a) main stack greater than 5×10^4 uCi/sec or
   b) Reactor Bldg vent greater than 3×10^5 uCi/sec or
3) containment dose rate greater than 10^6 R/hr on RI-8/9103A/C and RI-8/9103B/D

FIRE

UNUSUAL EVENT

FIRE IN PROTECTED AREA LASTING 10 MIN. OR MORE AFTER INITIAL ATTEMPTS TO EXTINGUISH IT

1) Alarm and verbal report from SSV

ALERT

FIRE WHICH COULD MAKE AN ECCS INOP

1) Fire alarm and verbal report from SSV

SITE EMERGENCY

FIRE WHICH MAKES AN ECCS INOP

1) Fire alarm and verbal report from SSV

GENERAL EMERGENCY

FIRE WHICH CAUSES DAMAGE TO PLANT SYSTEMS SUFFICIENT TO LEAD TO OTHER GENERAL EMERGENCIES

1) Fire alarm and verbal report from SSV, and LOCA symptoms, ECCS, or containment failure

ENVIRONMENTAL

UNUSUAL EVENT

EARTHQUAKE

1) An actual earthquake detected by seismic instrumentation systems

ABNORMAL POND LEVEL

1) Conowingo Pond level on LI-2/3278A, B,C:
   a) greater than 113 feet or
   b) less than 104 feet without prior notification by L.D.

TORNADO

1) A tornado is observed on site

HURRICANE

1) Hurricane is expected to cross the station

ALERT

EARTHQUAKE

1) An actual earthquake beyond the Operating Basis Earthquake (OBE)

ABNORMAL POND LEVEL

1) Conowingo Pond level on LI-2/3278A,B, C:
   a) greater than 115 feet or
   b) less than 98.5 feet without prior notification by L.D.

TORNADO

1) A tornado strikes the Power Block with identifiable plant damage

HURRICANE

1) Station is experiencing a hurricane with winds greater than 100 mph

SITE EMERGENCY

EARTHQUAKE

1) An earthquake greater than Design Earthquake as detected on seismic instruments

ABNORMAL POND LEVEL

1) Conowingo Pond level on LI-2/3278A,B,C exceeding the following limits:
   a) greater than 116 feet or
   b) less than 87 feet

GENERAL EMERGENCY

LOSS OF POWER

UNUSUAL EVENT

LOSS OF OFFSITE OR ONSITE POWER

1) turbine generator trip with Startup Auxiliary transformer SU2 and SU3 unavailable for service for more than 60 seconds or
2) loss of voltage on the four 4160 volt emergency busses or 480 volt load centers supplied from the four 4160 volt emergency busses for more than 60 seconds.

ALERT

LOSS OF OFFSITE AND ONSITE AC POWER FOR LESS THAN 15 MINUTES

1) turbine generator trip with Startup Auxiliary transformer SU2 and SU3 unavailable for service and
2) failure of all diesel generators to energize their busses.

LOSS OF ALL DC POWER FOR LESS THAN 15 MIN.

1) less than 105 volts on the 2/3A,B,C & D distribution panels as indicated on Panels 2/3AD03, 2/3CD03, 2/3BD03, 2/3DD03 and
2) less than 21 volts on the 24 volt distribution panels as indicated on Panels 2/3AD28, 2/3CD28, 2/3BD28, 2/3DD28 and
3) loss of all alarms

SITE EMERGENCY

LOSS OF OFFSITE AND ONSITE AC POWER FOR LONGER THAN 15 MINUTES

1) turbine generator trip with SU2 and SU3 unavailable for service for longer than 15 minutes and
2) failure of all diesel generators to energize their busses for longer than 15 minutes

LOSS OF ALL 125 VDC POWER FOR LONGER THAN 15 MINUTES

1) less than 105 volts on the 2/3A,B, C&D distribution panels as indicated on Panels 2/3AD03, 2/3CD03,2/3BD03, 2/3DD03 for longer than 15 minutes and
2) less than 21 volts on the 24 volt distribution panels as indicated on Panels 2/3AD28, 2/3CD28, 2/3BD28 2/3DD28 for longer than 15 min. and
3) loss of all alarms for longer than 15 min.

GENERAL EMERGENCY

SECONDARY CONTAINMENT

UNUSUAL EVENT	ALERT
LOSS OF SECONDARY CONTAINMENT INTEGRITY 1) loss of secondary containment integrity for greater than 12 hours	N/A
SITE EMERGENCY	**GENERAL EMERGENCY**
N/A	N/A

INSTRUMENT FAILURE

UNUSUAL EVENT	ALERT
SIGNIFICANT LOSS OF ASSESSMENT OR COMMUNICATION CAPABILITY IN THE MAIN CONTROL ROOM 1) complete loss of all Main Control Room communication equipment	N/A
SITE EMERGENCY	**GENERAL EMERGENCY**
N/A	N/A

FUEL DAMAGE

UNUSUAL EVENT

POSSIBLE FUEL DAMAGE

1) Air ejector discharge rad monitor high alarm and an increase of 500mR/hr within 30 minutes or a level of **2.5 x 10^3 mR/hr as indicated on** RR-2/3-17-152, or
2) high reactor coolant activity as determined by sample analysis equal to or greater than 2 uCi/gm dose equivalent I-131

ALERT

FUEL DAMAGE

1) Air ejector discharge rad monitor indicating greater than 2.5 x 10^4mR/hr on RR 2/3-17-152, or
2) High coolant activity of 300 uCi/gm dose equivalent I-131, and main steam line high-high radiation alarm with resultant scram alarm, or
3) spent fuel damage resulting in a refueling floor area radiation monitor alarm or a high radiation alarm on refuel floor exhaust rad monitor

SITE EMERGENCY

FUEL DAMAGE

1) Following conditions occur:
   a) failure of control rods to fully insert on a scram and
   b) higher than normal readings on LPRMs adjacent to not-fully-inserted rods and
   c) at least 2 of the 4 containment rad monitors indicate levels greater than 10^5 R/hr on RI-8/9103A/C and RI-8/9103B/D.
2) Major damage to spent fuel in fuel pool or uncovering of spent fuel as confirmed by a fuel pool area radiation monitor alarm and:
   a) refuel floor exhaust radiation monitor high alarm, or
   b) refuel floor area radiation monitor alarm or
3) Observed major damage to spent fuel

GENERAL EMERGENCY

FUEL DAMAGE

1) When at least 2 of 4 containment rad monitors indicate levels greater than 10^6 R/hr on RI-8/9103A/C and RI-8/9103B/D and containment pressure exceeds 10 psig on PR 2/3508

HAZARDS

UNUSUAL EVENT	ALERT
MODERATE HAZARDS 1) Aircraft crash on or near site as determined by Shift Supervision or 2) Significant explosion on or near site as determined by Shift Supervision or 3) Toxic gas release on or near site as determined by Shift Supervision	SEVERE HAZARDS 1) Aircraft crash on the facility or missile impacts into the Reactor Bldg. Diesel Generator Bldg. or HPSW pump structure as determined by Shift Supervision or 2) Explosion damage to facility affecting plant safety as determined by Shift Supervision or 3) Chlorine gas detected in the Control Room
SITE EMERGENCY	GENERAL EMERGENCY

CONTROL ROOM EVACUATION

UNUSUAL EVENT	ALERT
N/A	REMOTE CONTROL ESTABLISHED 1) Evacuation of Main Control Room anticipated or required and control established at remote shutdown panels as determined by Shift Supervision
SITE EMERGENCY	**GENERAL EMERGENCY**
REMOTE CONTROL NOT ESTABLISHED 1) Evacuation of Main Control Room and control of shutdown systems not established at remote shutdown panels in 15 minutes as determined by Shift Supervision	N/A

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PHILADELPHIA ELECTRIC COMPANY
PEACH BOTTOM UNITS 2 AND 3
EMERGENCY PLAN IMPLEMENTING PROCEDURE

EP-102 - UNUSUAL EVENT RESPONSE

PURPOSE

TO DEFINE SITE RESPONSE IN THE EVENT OF AN UNUSUAL EVENT.

REFERENCES

1. PEACH BOTTOM ATOMIC POWER STATION EMERGENCY PLAN

SECTION	TITLE
4.1.1	UNUSUAL EVENT
5.0	ORGANIZATIONAL CONTROL OF EMERGENCIES
5.1.1	UNUSUAL EVENTS

2. NUREG 0654 / 1 — CRITERIA FOR PREPARATION AND EVALUATION OF RADIOLOGICAL EMERGENCY RESPONSE PLANS AND PREPAREDNESS IN SUPPORT OF NUCLEAR POWER PLANTS.
3. GP-15 — LOCAL EVACUATION
4. EP-101 — CLASSIFICATION OF EMERGENCIES

APPENDIX

EP 102-1 UNUSUAL EVENT NOTIFICATION CHECKOFF LIST

IMMEDIATE ACTIONS

1.0 SHIFT SUPERVISION SHALL:

1.1 ASSUME THE ROLE OF INTERIM EMERGENCY DIRECTOR.

1.2 ACTIVATE EMERGENCY TEAMS AS NECESSARY.

1.3 DIRECT THE EVACUATION OF AFFECTED AREAS AS NECESSARY. REFER TO THE FOLLOWING PROCEDURE:

GP-15 LOCAL EVACUATION

1.4 CONTACT THE STATION SUPERINTENDENT AND THE SHIFT TECHNICAL ADVISOR AND INFORM THEM OF THE SITUATION.

1.5 FILL OUT THE STANDARD PROMPT NOTIFICATION MESSAGE IN APPENDI EP 102-1 AND GIVE IT TO THE ASSIGNED COMMUNICATOR (PO OR HIGHER CLASSIFICATION) AND DIRECT THE COMMUNICATOR TO COMMENCE NOTIFICATION OF THE APPROPRIATE PARTIES AS SPECIFIED IN THAT APPENDIX.

NOTE: DO NOT USE BLUE RINGDOWN PHONE FOR THESE CALLS.

1.6 CLOSELY MONITOR CONDITIONS TO DETERMINE PRESENT HAZARDS TO PERSONNEL AND POTENTIAL ACCIDENT CONDITIONS THAT MAY DEVELOP.

2.0 COMMUNICATOR SHALL:

2.1 PERFORM NOTIFICATIONS ON APPENDIX EP 102-1 USING THE STANDARD PROMPT NOTIFICATION MESSAGE INCLUDED IN THAT APPENDIX. SEE EP 209, APPENDIX A FOR ADDITIONAL TELEPHONE NUMBERS IF NECESSARY.

FOLLOW-UP ACTIONS

1.0 EMERGENCY DIRECTOR SHALL:

1.1 PERIODICALLY EVALUATE THE EVENT CLASSIFICATION IN ACCORDANCE WITH EP 101, CLASSIFICATION OF EMERGENCIES AND ESCALATE OR DEESCALATE THE CLASSIFICATION AS NECESSARY.

1.2 DETERMINE WHICH SUPPORT PERSONNEL ARE NECESSARY FOR EMERGENCY FUNCTIONS AND DIRECT THE SHIFT CLERK TO CONTACT THOSE PERSONNEL. IF SHIFT CLERK IS NOT AVAILABLE THIS FUNCTION SHALL BE ASSIGNED TO ANY AVAILABLE INDIVIDUAL.

2.0 SHIFT CLERK SHALL:

2.1 NOTIFY ADDITIONAL SUPPORT PERSONNEL TO REPORT TO THE PLANT AS DIRECTED BY THE EMERGENCY DIRECTOR.

APPENDIX EP-102-1
UNUSUAL EVENT NOTIFICATION CHECKOFF LIST

MESSAGE: THIS (IS)(IS NOT) A DRILL. THIS (IS)(IS NOT) A DRILL. THIS IS PEACH BOTTOM ATOMIC POWER STATION CALLING TO REPORT AN UNUSUAL EVENT HAS BEEN DECLARED ON UNIT NO. ____. TIME AND DATE OF UNUSUAL EVENT CLASSIFICATION IS_____. THE BASIC PROBLEM IS _____ THE PLANT STATUS IS (STABLE)(IMPROVING)(DEGRADING)(NOT KNOWN). THERE (HAS BEEN)(HAS NOT BEEN) AN (AIRBORNE)(LIQUID) RADIOACTIVE RELEASE FROM THE PLANT. PROTECTIVE ACTIONS RECOMMENDED ARE (NONE)_____ _____THE AFFECTED POPULATION AREA IS (NONE)_____ _____. MY NAME IS _____. THIS (IS) (IS NOT) A DRILL.

NOTIFICATIONS:

PARTY	NAME OF PERSON RESPONDING	TIME OF NOTIFICATION	COMMUNICATOR INITIALS
STATION SUPT.	_____	_____	_____
LOAD DISPATCHER	_____	_____	_____
NRC OPERATIONS CENTER (RED PHONE)	_____	_____	_____
PENNSYLVANIA EMERG-ENCY MANAGEMENT AGENCY	_____	_____	_____
YORK COUNTY EMERG-ENCY MANAGEMENT AGENCY	_____	_____	_____
PA. BUREAU OF RAD. PROTECTION (WHITE PHONE OR	_____	_____	_____
MANAGER-PUBLIC INFORMATION OR PAGER	_____	_____	_____

TIME NOTIFICATIONS OF ABOVE PARTIES COMPLETED_____.

VERIFIED BY _____ DATE _____
(EMERG. DIRECTOR)

FILE SYS-3-1

Dr. J. Knapp

PHILADELPHIA ELECTRIC COMPANY
PEACH BOTTOM UNITS 2 AND 3
EMERGENCY PLAN IMPLEMENTING PROCEDURE

EP-103 ALERT RESPONSE

PURPOSE

TO DEFINE SITE RESPONSE IN THE EVENT OF AN ALERT.

REFERENCES

1. PEACH BOTTOM ATOMIC POWER STATION EMERGENCY PLAN

SECTION	TITLE
4.1.2	ALERT
5.0	ORGANIZATIONAL CONTROL OF EMERGENCIES
6.1.2	ALERT

2. NUREG 0654 — CRITERIA FOR PREPARATION AND EVALUATION OF RADIOLOGICAL EMERGENCY RESPONSE PLANS AND PREPAREDNESS IN SUPPORT OF NUCLEAR POWER PLANTS.

3. GP-15 — LOCAL EVACUATION

4. EP-101 — CLASSIFICATION OF EMERGENCIES

APPENDICES

EP-103-1 ALERT NOTIFICATION CHECKOFF LIST
EP-103-2 PERSONNEL CALL RECORD
EP-103-3 EMERGENCY EXPOSURE LIMITS (EMERGENCY PLAN TABLE 6.1)

PRECAUTIONS

1. PLANNED RADIATION EXPOSURES SHOULD BE LIMITED TO THE ADMINISTRATIVE GUIDE LEVELS IN APPENDIX EP 103-4, EMERGENCY EXPOSURE LIMITS.

IMMEDIATE ACTIONS

1.0 SHIFT SUPERVISION SHALL:

1.1 ASSUME THE ROLE OF INTERIM EMERGENCY DIRECTOR.

1.2 ACTIVATE EMERGENCY TEAMS AS NECESSARY.

1.3 DIRECT THE EVACUATION OF AFFECTED AREAS AS NECESSARY. REFER TO THE FOLLOWING PROCEDURES:

GP-15 LOCAL EVACUATION

EP 305 SITE EVACUATION

EP 306 EVACUATION OF THE INFORMATION CENTER

1.4 CONTACT THE STATION SUPERINTENDENT AND THE SHIFT TECHNICAL ADVISOR. INFORM THEM OF THE SITUATION.

1.5 FILL OUT THE STANDARD PROMPT NOTIFICATION MESSAGE CHECK-OFF APPENDIX EP 103-1 AND GIVE IT TO THE COMMUNICATOR (PU OR HIGHER CLASSIFICATION) AND DIRECT THE COMMUNICATOR TO COMMENCE NOTIFICATION OF THE APPROPRIATE PARTIES AS SPECIFIED IN SECTION 2.1 OF THIS PROCEDURE. THE COMMUNICATOR SHALL MAN THE NRC RED TELEPHONE ON A CONTINUOUS BASIS IF REQUIRED BY PROCEDURE A-31. IF COMMUNICATOR IS REQUIRED FOR URGENT PLANT OPERATIONS RELATED TO THE EMERGENCY. THE CONCURRENCE FOR SECURING THE PHONE SHOULD BE OBTAINED FROM THE NRC PRIOR TO SECURING THIS TELEPHONE.

1.6 DIRECT THE SHIFT CLERK TO ACTIVATE THE 60 MINUTE CALL LIST USING EP 209 APP P. IF SHIFT CLERK IS NOT AVAILABLE. THIS FUNCTION SHALL BE ASSIGNED TO ANY AVAILABLE INDIVIDUAL.

1.7 DIRECT ONE OF THE ON-SHIFT I&C TECHNICIANS TO ACTIVATE THE TECHNICAL SUPPORT CENTER AND EMERGENCY OPERATIONS FACILITY IN ACCORDANCE WITH EP 201 AND EP-203. INFORM SHIFT CLERK WHICH I&C TECHNICIAN WILL ACTIVATE THE CENTERS AT UNIT 1 IN ORDER THAT THE CLERK WILL KNOW WHICH REMAINING I&C TECHNICIAN TO CALL FOR THE PROMPT MOBILIZATION PROCEDURE.

1.8 DIRECT THE RADIATION PROTECTION TEAM LEADER TO INITIATE SITE RADIATION SURVEYS AS NECESSARY. IN ACCORDANCE WITH EP-205, RADIATION PROTECTION TEAM.

1.9 INITIATE THE IMPLEMENTATION OF EP 316. CUMULATIVE POPULATION DOSE CALCULATIONS, IF NECESSARY. (EP-316 NEEDED FOR ALERT AS PER PG. 8 ITEM 3 OF EP-101 APP. 101-1). THE SHIFT TECHNICAL ADVISOR (STA) COULD BE USED TO PERFORM THIS FUNCTION.

1.10 ASSIGN AN OPERATIONS SUPPORT CENTER COORDINATOR (SENIOR SHIFT PO OR APO AVAILABLE) AND DIRECT AVAILABLE SHIFT PERSONNEL TO REPORT TO THE OPERATIONS SUPPORT CENTER ON 135' ELEV. TURBINE BLDG. AND TO ACTIVATE IT IN ACCORDANCE WITH EP 202. IF HABITABLE. IF THIS OPERATIONS SUPPORT CENTER IS NOT HABITABLE, DIRECT SHIFT PERSONNEL TO REPORT TO THE CONTROL ROOM.

1.11 CLOSELY MONITOR CONDITIONS TO DETERMINE PRESENT HAZARDS

TO PERSONNEL AND POTENTIAL ACCIDENT CONDITIONS THAT MAY DEVELOP.

1.12 IF RELEASE HAS OCCURRED, DISPATCH A PLANT SURVEY TEAM MEMBER TO OBTAIN A SITE BOUNDARY DOSE RATE AS SOON AS PRACTICABLE.

1.13 IF NECESSARY, INITIATE IMPLEMENTATION OF EP-316 & EP-317. DIRECT RECOMMENDATIONS TO COUNTY EMERGENCY MANAGEMENT AGENCIES.

2.0 COMMUNICATOR SHALL:

2.1 PERFORM NOTIFICATIONS ON APPENDIX 103-1 USING THE ALERT NOTIFICATION CHECK OFF APPENDIX EP 103-1. SEE EP 209, APPENDIX A FOR ADDITIONAL TELEPHONE NUMBERS.

2.2 REPORT TO THE EMERGENCY DIRECTOR OR INTERIM EMERGENCY DIRECTOR WHEN NOTIFICATIONS ARE COMPLETE.

2.3 MAN THE RED NRC TELEPHONE IF REQUIRED BY A-31 UNTIL SITUATION STABILIZES AND RED TELEPHONE COMMUNICATION MAY BE SECURED.

3.0 OPERATIONS SUPPORT CENTER COORDINATOR OR HIS DESIGNEE SHALL:

3.1 ACTIVATE THE OPERATIONS SUPPORT CENTER ON 135' ELEV. TURBINE BLDG. IF IT IS HABITABLE, IN ACCORDANCE WITH EP 202. IF THIS OPERATIONS SUPPORT CENTER IS NOT HABITABLE, REPORT TO THE CONTROL ROOM.

4.0 RADIATION PROTECTION TEAM LEADER SHALL:

4.1 INITIATE SITE RADIATION SURVEYS IN ACCORDANCE WITH EP-205. RADIATION PROTECTION TEAM WHEN DIRECTED BY THE EMERGENCY DIRECTOR. (THE HP FIELD OFFICE ON 116' ELEV. TURB. BLDG. WILL SERVE AS THE HP&C OSC).

5.0 SHIFT CIC TECHNICIAN SHALL:

5.1 ACTIVATE THE TSC AND EOF WHEN DIRECTED BY INTERIM EMERGENCY DIRECTOR IN ACCORDANCE WITH EP 201 USING APPENDIX EP-201-2.

6.0 SHIFT CLERK SHALL:

6.1 CONTACT INDIVIDUALS ON EP 209 APP P TO CALL IN THOSE INDIVIDUALS TO MAN TSC AND REQUIRED EMERGENCY TEAMS (60 MINUTE CALL LIST). DOCUMENT CONTACTS ON EP 209 APP P.

6.2 INFORM INTERIM EMERGENCY DIRECTOR OR EMERGENCY DIRECTOR WHEN CONTACTS ARE COMPLETED.

FOLLOW-UP ACTIONS

1.0 EMERGENCY DIRECTOR SHALL:

1.1 PERIODICALLY EVALUATE THE EVENT CLASSIFICATION IN ACCORDANCE WITH EP 101, CLASSIFICATION OF EMERGENCIES, AND ESCALATE OR DEESCALATE THE CLASSIFICATION, AS NECESSARY.

1.2 OBTAIN THE RESULTS OF THE CUMULATIVE POPULATION DOSE CALCULATIONS AND ONSITE RADIATION SURVEYS FROM THE RADIATION PROTECTION TEAM LEADER, AS NECESSARY.

1.3 PERFORM ACTIONS AS NECESSARY TO MITIGATE CONDITIONS OF THE EMERGENCY SITUATION.

1.4 DETERMINE WHICH ADDITIONAL SUPPORT PERSONNEL ARE NECESSARY FOR EMERGENCY FUNCTIONS AND DIRECT THE SHIFT CLERK OR OTHER ASSIGNED COMMUNICATOR IN TSC TO CONTACT THOSE PERSONNEL.

1.5 PROVIDE SITE PERSONNEL WITH P.A. SPEAKER ANNOUNCEMENTS FOR ANY MAJOR CHANGES IN PLANT EMERGENCY STATUS, SUCH AS CHANGING EMERGENCY ACTION LEVELS, EVACUATIONS AND STARTING AND STOPPING OF RADIOACTIVE RELEASES (IF ANY).

2.0 STATION SUPERINTENDENT SHALL:

2.1 REPORT TO THE TECHNICAL SUPPORT CENTER OR CONTROL ROOM FOR A BRIEFING OF THE SITUATION.

2.2 ASSUME THE ROLE OF EMERGENCY DIRECTOR BY FORMALLY RELIEVING THE INTERIM EMERGENCY DIRECTOR (SHIFT SUPERINTENDENT). ANNOUNCE THAT HE HAS ASSUMED THE ROLE OF EMERGENCY DIRECTOR TO THE ASSEMBLED TECHNICAL SUPPORT CENTER PERSONNEL.

2.3 VERIFY THE EMERGENCY CLASSIFICATION.

2.4 VERIFY THAT THE TECHNICAL SUPPORT CENTER, THE EMERGENCY OPERATIONS FACILITY, AND THE OPERATIONS SUPPORT CENTER HAVE BEEN ACTIVATED.

3.0 OPERATIONS SUPPORT CENTER COORDINATOR SHALL:

3.1 NOTIFY THE INTERIM EMERGENCY DIRECTOR WHEN THEIR RESPECTIVE OPERATIONS SUPPORT CENTER IS ACTIVATED.

3.2 SUPPORT THE CONTROL ROOM AND SHIFT SUPERVISION AS NECESSARY.

4.0 RADIATION PROTECTION TEAM LEADER SHALL:

4.1 REPORT PROGRESS AND RESULTS OF CUMULATIVE POPULATION DOSE CALCULATIONS AND SITE RADIATION SURVEYS TO THE EMERGENCY DIRECTOR AS NECESSARY.

5.0 SHIFT CLERK OR ASSIGNED TSC COMMUNICATOR SHALL:

5.1 NOTIFY ADDITIONAL SUPPORT PERSONNEL TO REPORT TO THE PLANT AS DIRECTED BY THE INTERIM EMERGENCY DIRECTOR. REFER TO EP 209. DOCUMENT ON APP EP-103-2.

5.2 NOTIFY THE INTERIM EMERGENCY DIRECTOR WHEN THE ADDITIONAL SUPPORT PERSONNEL HAVE BEEN NOTIFIED.

6.0 SHIFT I&C TECHNICIAN SHALL:

6.1 INFORM THE INTERIM EMERGENCY DIRECTOR WHEN THE TSC AND EOF ARE ACTIVATED.

6.2 STATION HIMSELF AT THE TSC AS DATA DISPLAY (CCTV) OPERATOR AS DIRECTED BY THE EMERGENCY DIRECTOR.

APPENDIX EP-103-1
ALERT CHECKOFF LIST

MESSAGE: THIS (IS)(IS NOT) A DRILL. THIS (IS)(IS NOT) A DRILL.
THIS IS PEACH BOTTOM ATOMIC POWER STATION CALLING TO REPORT AN ALERT
HAS BEEN DECLARED ON UNIT NO. ____. TIME AND DATE OF ALERT CLASSIFICATION
IS _____. THE BASIC PROBLEM IS _____
_____. THE PLANT STATUS IS (STABLE)(IMPROVING)
(DEGRADING)(NOT KNOWN).
THERE (IS PRESENTLY)(HAS NOT BEEN)(IS POTENTIAL FOR)(HAS BEEN)
A RADIOACTIVE (AIRBORNE)(LIQUID) RELEASE FROM THE PLANT (AT A LEVEL BELOW
THAT CONSIDERED A PUBLIC HAZARD)(AT A LEVEL AT WHICH PROTECTIVE ACTION IS
ADVISABLE). RECOMMENDED PROTECTIVE ACTIONS ARE (NONE)_____
_____. THE AFFECTED POPULATION AREA IS (NONE)_____
_____. MY NAME IS _____. THIS (IS)(IS NOT)
A DRILL. THIS (IS)(IS NOT) A DRILL.

NOTIFICATIONS: RESPONDING	PARTY NOTIFICATION	PERSON INITIALS	TIME OF	COMMUNICATOR
STATION SUPERINTENDENT				
LOAD DISPATCHER	(TELL HIM TO INITIATE CALL LIST "C")			
PEMA	(BLUE PHONE OR			
MD. CDA	(BLUE PHONE OR			
YORK CTY. EMA	(BLUE PHONE OR			
LANC. CTY. EMA	(BLUE PHONE OR			
CHESTER CTY. EMA	(BLUE PHONE OR			
HARFORD CTY. CDA	(BLUE PHONE OR			
CECIL CTY. CDA	(BLUE PHONE OR			
NRC OPS CTR	(RED PHONE)			
PA. BRP	(WHITE PHONE OR			

TIME NOTIFICATIONS OF PARTIES ABOVE COMPLETED _____.

VERIFIED BY_____ DATE_____
EMERGENCY DIRECTOR

MUST NOTIFY PEMA BY USE OF COMMERCIAL TELEPHONE NO. ON BACKSHIFTS
(BLUE PHONE NOT MANNED BY PEMA ON BACKSHIFTS).

APPENDIX EP-103-2
PERSONNEL CALL RECORD

NAME OF PERSON CALLED	TIME CALLED	DISPOSITION OF CALL: NO ANSWER	BUSY	ESTIMATED TIME OF ARRIVAL	CALL COMPLETED BY

APPENDIX EP-103-3
EMERGENCY EXPOSURE LIMITS

	ACTION	PROJECTED WHOLE BODY DOSE	THYROID DOSE	AUTHORIZED BY
1.	LIFE SAVING AND REDUCTION OF INJURY	75 REM*	375 REM	EMERGENCY DIRECTOR**
2.	OPERATION OF EQUIPMENT TO MITIGATE AN EMERGENCY	25 REM*	125 REM	EMERGENCY DIRECTOR**
3.	PROTECTION OF HEALTH AND SAFETY OF THE PUBLIC	5 REM	25 REM	EMERGENCY DIRECTOR
4.	OTHER EMERGENCY ACTIVITIES	10 CFR 20 LIMITS	10 CFR 20 LIMITS	EMERGENCY DIRECTOR
.	RE-ENTRY/RECOVERY ACTIVITIES	ADMINISTRATIVE GUIDELINES	ADMINISTRATIVE GUIDELINES	N/A

*REFERENCE: EPA-520/1-75-001 TABLE 2.1
**SUCH EXPOSURE SHALL BE ON A VOLUNTARY BASIS

WJK

MAY 2 3 1982

PHILADELPHIA ELECTRIC COMPANY
PEACH BOTTOM UNITS 2 AND 3
EMERGENCY PLAN IMPLEMENTING PROCEDURE

EP-104 SITE EMERGENCY RESPONSE

PURPOSE

TO DEFINE THE SITE RESPONSE IN THE EVENT OF A SITE EMERGENCY.

REFERENCES

1. PEACH BOTTOM ATOMIC POWER STATION EMERGENCY PLAN

SECTION	TITLE
4.1.3	SITE EMERGENCY
5.0	ORGANIZATIONAL CONTROL OF EMERGENCIES
6.1.3	SITE EMERGENCY

2. NUREG 0654 — CRITERIA FOR PREPARATION AND EVALUATION OF RADIOLOGICAL EMERGENCY RESPONSE PLANS AND PREPAREDNESS IN SUPPORT OF NUCLEAR POWER PLANTS.

3. EP-101 — CLASSIFICATION OF EMERGENCIES

APPENDICES

EP 104-1 SITE EMERGENCY NOTIFICATION CHECKOFF LIST
EP-104-2 PERSONNEL CALL RECORD
EP 104-3 EMERGENCY EXPOSURE LIMITS (EMERGENCY PLAN TABLE 6.1)

PRECAUTIONS

1. PLANNED RADIATION EXPOSURES SHOULD BE LIMITED TO THE ADMINISTRATION GUIDE LEVELS IN APPENDIX EP 104-4, EMERGENCY EXPOSURE LIMITS.

IMMEDIATE ACTIONS

1.0 SHIFT SUPERVISION SHALL:

1.1 ASSUME THE ROLE OF INTERIM EMERGENCY DIRECTOR.

1.2 IF NOT ALREADY DONE AT AN EARLIER EMERGENCY ACTION LEVEL, ACTIVATE EMERGENCY TEAMS AS NECESSARY.

1.3 DIRECT THE EVACUATION OF AFFECTED AREAS AS NECESSARY. REFER TO THE FOLLOWING PROCEDURES:

GP 15 LOCAL EVACUATION

EP 305 SITE EVACUATION

EP 305 EVACUATION OF THE INFORMATION CENTER

1.4 CONTACT THE STATION SUPERINTENDENT AND THE SHIFT TECHNICAL ADVISOR. INFORM THEM OF THE SITUATION.

1.5 FILL OUT APPENDIX EP 104-1 STANDARD PROMPT NOTIFICATION MESSAGE AND GIVE IT TO THE COMMUNICATOR (PO OR HIGHER CLASSIFICATION) AND DIRECT THE COMMUNICATOR TO COMMENCE NOTIFICATION OF THE APPROPRIATE PARTIES AS SPECIFIED IN SECTION 2.1 OF THIS PROCEDURE. THE COMMUNICATOR SHALL MAN THE NRC RED TELEPHONE ON A CONTINUOUS BASIS, IF REQUIRED BY A-31. IF COMMUNICATOR IS REQUIRED FOR URGENT PLANT OPERATIONS RELATED TO THE EMERGENCY, THE CONCURRENCE FOR SECURING THE PHONE SHOULD BE OBTAINED FROM NRC PRIOR TO SECURING THIS TELEPHONE.

1.6 IF NOT ALREADY ACCOMPLISHED AT THE ALERT STAGE, DIRECT THE SHIFT CLERK TO ACTIVATE THE 60 MINUTE CALL LIST USING EP 209 APP P. IF SHIFT CLERK IS NOT AVAILABLE, THIS FUNCTION MAY BE ASSIGNED TO ANY AVAILABLE INDIVIDUAL.

1.7 DIRECT ONE OF THE ON-SHIFT I&C TECHNICIANS TO ACTIVATE THE TECHNICAL SUPPORT CENTER AND EMERGENCY OPERATIONS FACILITY IN ACCORDANCE WITH EP 201 AND 203 IF NOT ALREADY ACTIVATED. IF NOT ALREADY PERFORMED PREVIOUSLY, INFORM THE SHIFT CLERK WHICH I&C TECHNICIAN WILL ACTIVATE THE CENTERS AT UNIT 1 IN ORDER TO LET THE CLERK KNOW WHICH REMAINING I&C TECHNICIAN TO CALL FOR THE PROMPT MOBILIZATION PROCEDURE.

1.8 DIRECT THE RADIATION PROTECTION TEAM LEADER TO INITIATE ON- AND OFF SITE RADIATION SURVEYS, AS NECESSARY, IF NOT ALREADY DONE IN ACCORDANCE WITH EP 205, RADIATION PROTECTION TEAM.

1.9 INITIATE THE IMPLEMENTATION OF EP 316, CUMULATIVE POPULATION DOSE CALCULATIONS, AS NECESSARY.

1.10 ASSIGN A 135' ELEV. TURB. BLDG. OPERATIONS SUPPORT CENTER COORDINATOR (SENIOR PO OR APO AVAILABLE) IF NOT ALREADY DONE AND DIRECT AVAILABLE SHIFT PERSONNEL TO REPORT TO THIS OPERATIONS SUPPORT CENTER AND TO ACTIVATE IT IN ACCORDANCE WITH EP 202 IF HABITABLE. IF THIS OPERATIONS SUPPORT CENTER IS NOT HABITABLE, DIRECT SHIFT PERSONNEL TO REPORT TO THE CONTROL ROOM.

1.11 CLOSELY MONITOR CONDITIONS TO DETERMINE PRESENT HAZARDS TO PERSONNEL AND POTENTIAL ACCIDENT CONDITIONS THAT MAY DEVELOP.

1.12 IF RELEASE HAS OCCURRED, DISPATCH A PLANT SURVEY TEAM MEMBER TO OBTAIN A SITE BOUNDARY DOSE RATE AS SOON AS PRACTICABLE.

1.13 IF NECESSARY, INITIATE IMPLEMENTATION OF EP-316 AND EP-317, DIRECT RECOMMENDATIONS TO COUNTY EMERGENCY MANAGEMENT AGENCIES.

2.0 COMMUNICATOR SHALL:

2.1 PERFORM NOTIFICATIONS ON APPENDIX 104-1 USING THE STANDARD PROMPT NOTIFICATION MESSAGE INCLUDED. SEE EP-209 APPENDIX A FOR ADDITIONAL TELEPHONE NUMBERS, IF REQUIRED.

2.2 REPORT TO THE EMERGENCY DIRECTOR WHEN THE NOTIFICATIONS ARE COMPLETED.

2.3 MAN THE RED NRC TELEPHONE IF REQUIRED BY A-31 UNTIL SITUATION STABILIZES AND RED TELEPHONE COMMUNICATIONS MAY BE SECURED.

3.0 OPERATIONS SUPPORT CENTER COORDINATOR OR HIS DESIGNEE SHALL:

3.1 ACTIVATE THE OPERATIONS SUPPORT CENTER ON 135' ELEV TURB BLDG. IF IT IS HABITABLE, IN ACCORDANCE WITH EP 202. IF THIS OPERATIONS SUPPORT CENTER IS NOT HABITABLE REPORT TO THE CONTROL ROOM.

4.0 RADIATION PROTECTION TEAM LEADER SHALL:

4.1 INITIATE ON- AND OFF SITE RADIATION SURVEYS IN ACCORDANCE WITH EP 205, RADIATION PROTECTION TEAM, WHEN DIRECTED BY THE EMERGENCY DIRECTOR. IF THIS PERSON IS THE HP ENGINEER HE SHOULD REPORT TO THE EOF TO COORDINATE THIS FUNCTION.

5.0 SHIFT I&C TECHNICIAN SHALL:

5.1 ACTIVATE THE TSC AND EOF (IF NOT ALREADY ACTIVATED DURING ALERT STAGE) IN ACCORDANCE WITH EP 201 USING APPENDIX EP-201-2 AND PROCEDURE EP-203.

6.0 SHIFT CLERK SHALL:

6.1 IF NOT ALREADY IMPLEMENTED DURING ALERT STAGE, CONTACT INDIVIDUALS ON EP 209 APP P TO CALL IN THOSE INDIVIDUALS TO MAN TSC AND EOF (60 MINUTE CALL LIST). DOCUMENT CONTACTS ON EP 209 APP P.

6.2 INFORM INTERIM EMERGENCY DIRECTOR OR EMERGENCY DIRECTOR WHEN CONTACTS ARE COMPLETED.

FOLLOW-UP ACTIONS

1.0 EMERGENCY DIRECTOR SHALL:

1.1 PERIODICALLY EVALUATE THE EVENT CLASSIFICATION IN ACCORDANCE WITH EP 101, CLASSIFICATION OF EMERGENCIES AND ESCALATE OR DEESCALATE THE CLASSIFICATION, AS NECESSARY.

1.2 OBTAIN RESULTS OF THE CUMULATIVE POPULATION DOSE CALCULATIONS AND ONSITE/OFFSITE RADIATION SURVEYS FROM THE RADIATION PROTECTION TEAM LEADER, AS NECESSARY.

1.3 PROVIDE APPROPRIATE INFORMATION FROM THE PREVIOUS EVALUATIONS TO COMMUNICATOR IN THE EOF FOR NOTIFICATION OF THE BUREAU OF RADIATION PROTECTION.

1.4 PERFORM ACTIONS AS NECESSARY TO MITIGATE CONDITIONS OF THE EMERGENCY SITUATION.

1.5 DETERMINE WHICH ADDITIONAL SUPPORT PERSONNEL ARE NECESSARY FOR EMERGENCY FUNCTIONS AND DIRECT THE SHIFT CLERK OR OTHER ASSIGNED COMMUNICATOR IN TSC OR EOF TO CONTACT THOSE PERSONNEL.

1.6 PROVIDE SITE PERSONNEL WITH P.A. SPEAKER ANNOUNCEMENTS FOR ANY MAJOR CHANGES IN PLANT EMERGENCY STATUS, SUCH AS CHANGING EMERGENCY ACTION LEVELS, EVACUATIONS AND STARTING AND STOPPING OF RADIOACTIVE RELEASES (IF ANY).

2.0 STATION SUPERINTENDENT SHALL:

2.1 REPORT TO THE TECHNICAL SUPPORT CENTER OR CONTROL ROOM, FOR A BRIEFING OF THE SITUATION.

2.2 ASSUME THE ROLE OF EMERGENCY DIRECTOR (IF NOT ALREADY DONE) BY FORMALLY RELIEVING THE INTERIM EMERGENCY DIRECTOR OF THIS RESPONSIBILITY. ANNOUNCE THAT HE HAS ASSUMED THE ROLE OF EMERGENCY DIRECTOR TO THE ASSEMBLED TECHNICAL SUPPORT CENTER PERSONNEL.

2.3 VERIFY THE EMERGENCY CLASSIFICATION.

2.4 VERIFY THAT THE TECHNICAL SUPPORT CENTER, EMERGENCY OPERATIONS FACILITY AND THE OPERATIONS SUPPORT CENTER HAVE BEEN ACTIVATED.

3.0 135' ELEV. TURBINE BLDG. OPERATIONS SUPPORT CENTER COORDINATOR SHALL

3.1 NOTIFY THE INTERIM EMERGENCY DIRECTOR OR EMERGENCY DIRECTOR WHEN THE OPERATIONS SUPPORT CENTER IS ACTIVATED.

3.2 SUPPORT THE CONTROL ROOM AND SHIFT SUPERVISION AS NECESSARY.

4.0 RADIATION PROTECTION TEAM LEADER SHALL:

4.1 NOTIFY THE EMERGENCY DIRECTOR WHEN THE EMERGENCY OPERATIONS FACILITY IS MANNED.

4.2 REPORT PROGRESS AND RESULTS OF CUMULATIVE POPULATION DOSE CALCULATIONS AND ON AND OFF SITE RADIATION SURVEYS TO THE SITE EMERGENCY COORDINATOR AND EMERGENCY DIRECTOR AS NECESSARY.

4.3 NOTIFY THE SITE EMERGENCY COORDINATOR OF THE NEED FOR ASSISTANCE FROM RADIATION MANAGEMENT CORPORATION.

5.0 SHIFT CLERK OR ASSIGNED TSC OR EOF COMMUNICATOR SHALL:

5.1 IF NOT ALREADY DONE, NOTIFY ADDITIONAL SUPPORT PERSONNEL TO REPORT TO THE PLANT AS DIRECTED BY THE EMERGENCY DIRECTOR. REFER TO EP 209. DOCUMENT ON APP EP 101-2

5.2 NOTIFY EMERGENCY DIRECTOR OR SITE EMERGENCY COORDINATOR WHEN THE ADDITIONAL SUPPORT PERSONNEL HAVE BEEN NOTIFIED.

6.0 I&C TECHNICIANS SHALL: (IF NOT ALREADY PERFORMED AS PER EP-103)

6.1 INFORM THE EMERGENCY DIRECTOR WHEN THE CENTERS ARE ACTIVATED, IF NOT PREVIOUSLY DONE.

6.2 MAN THE TSC OR EOF DATA DISPLAY (CCTV) POSITIONS AS DIRECTED BY THE EMERGENCY DIRECTOR.

APPENDIX 104-1
SITE EMERGENCY NOTIFICATION CHECKOFF LIST

MESSAGE: THIS (IS) (IS NOT) A DRILL. THIS (IS) (IS NOT) A DRILL. THIS IS PEACH BOTTOM ATOMIC POWER STATION CALLING TO REPORT A SITE EMERGENCY HAS BEEN DECLARED ON UNIT _____. TIME AND DATE OF SITE EMERGENCY CLASSIFICATION IS _____.
THE BASIC PROBLEM IS _____.
THE PLANT STATUS IS (STABLE) (IMPROVING) (DEGRADING) (NOT KNOWN).
THERE (HAS NOT BEEN) (IS POTENTIAL FOR) (HAS BEEN) (IS PRESENTLY) A RADIOACTIVE (AIRBORNE) (LIQUID) RELEASE FROM THE PLANT (AT A LEVEL BELOW THAT CONSIDERED A PUBLIC HAZARD) (AT A LEVEL AT WHICH PROTECTIVE ACTION IS ADVISABLE). RECOMMENDED PROTECTIVE ACTIONS ARE (NONE) _____.
THE AFFECTED POPULATION AREA IS (NONE) _____.
THIS (IS) (IS NOT) A DRILL. THIS (IS) (IS NOT) A DRILL.

NOTIFICATIONS:

PARTY	PERSON RESPONDING	TIME OF NOTIFICATION	COMMUNICATOR'S INITIALS
STATION SUPERINTENDENT	_____	_____	_____
LOAD DISPATCHER	_____	_____	_____
(TELL HIM TO INITIATE CALL LIST "C")			
PENNSYLVANIA EMERGENCY MANAGEMENT AGENCY* (BLUE PHONE OR	_____	_____	_____
MARYLAND CIVIL DEFENSE AGENCY (BLUE PHONE OR	_____	_____	_____
YORK COUNTY EMERGENCY MANAGEMENT AGENCY (BLUE PHONE OR	_____	_____	_____
LANCASTER COUNTY EMERGENCY MANAGEMENT AGENCY (BLUE PHONE OR	_____	_____	_____
CHESTER COUNTY EMERGENCY MANAGEMENT AGENCY (BLUE PHONE OR	_____	_____	_____
HARFORD COUNTY CIVIL DEFENSE AGENCY (BLUE PHONE OR	_____	_____	_____

APPENDIX 104-1 (CONT'D)
SITE EMERGENCY NOTIFICATION CHECKOFF LIST

*CECIL COUNTY CIVIL DEFENSE AGENCY (BLUE PHONE OR	_____	_____	_____
PENNSYLVANIA STATE POLICE - YORK	_____	_____	_____
PA. BRP (WHITE PHONE OR	_____	_____	_____
NRC OPERATIONS CENTER** (RED PHONE)	_____	_____	_____

TIME NOTIFICATION OF PARTIES ABOVE COMPLETED._____

VERIFIED BY _____ DATE _____
EMERGENCY DIRECTOR

FILE SYS-3-1

* MUST NOTIFY PEMA BY USE OF COMMERCIAL TELEPHONE NO. ON BACKSHIFTS. (BLUE PHONE NOT MANNED BY PEMA ON BACKSHIFTS).

** IF NRC PREVIOUSLY NOTIFIED DURING ALERT CONDITION, THE ASSIGNED PO COMMUNICATOR CONTINUOUSLY MANNING RED PHONE IN CONTROL ROOM SHOULD HANDLE THIS NOTIFICATION AUTOMATICALLY HOWEVER, CHECK WITH CONTROL ROOM TO BE SURE. THIS NOTIFICATION IS MADE.

APPENDIX EP 104-2
PERSONNEL CALL RECORD

DISPOSITION OF CALL

NAME OF PERSON CALLED	TIME CALLED	NO ANSWER	BUSY	ESTIMATED TIME OF ARRIVAL	CALL COMPLETED BY

FILE SYS-3-1

APPENDIX EP-104-3
EMERGENCY EXPOSURE LIMITS

FUNCTION	PROJECTED WHOLE BODY DOSE	THYROID DOSE	AUTHORIZED BY
1. LIFE SAVING AND REDUCTION OF INJURY	75 REM*	375 REM	EMERGENCY** DIRECTOR
2. OPERATION OF EQUIPMENT TO MITIGATE AN EMERGENCY	25 REM*	125 REM	EMERGENCY** DIRECTOR
3. PROTECTION OF HEALTH AND SAFETY OF THE PUBLIC	5 REM	25 REM	EMERGENCY DIRECTOR
4. OTHER EMERGENCY ACTIVITIES	10 CFR 20 LIMITS	10 CFR 20 LIMITS	EMERGENCY DIRECTOR
5. RE-ENTRY/RECOVERY ACTIVITIES	ADMINISTRATIVE GUIDE LINES	ADMINISTRATIVE GUIDE LINES	N/A

* REFERENCE: EPA-520/1-75-001 TABLE 2.1
**SUCH EXPOSURE SHALL BE ON A VOLUNTARY BASIS

WJK

PHILADELPHIA ELECTRIC COMPANY

PEACH BOTTOM UNITS 2 AND 3

EMERGENCY PLAN IMPLEMENTING PROCEDURE

EP-105 GENERAL EMERGENCY RESPONSE

PURPOSE

TO DEFINE THE SITE RESPONSE IN THE EVENT OF A GENERAL EMERGENCY.

REFERENCES

1. PEACH BOTTOM ATOMIC POWER STATION EMERGENCY PLAN

SECTION	TITLE
4.1.4	GENERAL EMERGENCY
5.0	ORGANIZATIONAL CONTROL OF EMERGENCIES
6.1.4	GENERAL EMERGENCY

2. NUREG 0654 — CRITERIA FOR PREPARATION AND EVALUATION OF RADIOLOGICAL EMERGENCY RESPONSE PLANS AND PREPAREDNESS IN SUPPORT OF NUCLEAR POWER PLANTS.

3. EP-101 — CLASSIFICATION OF EMERGENCIES

APPENDICES

EP 105-1 GENERAL EMERGENCY CHECKOFF LIST
EP 105-2 PERSONNEL CALL RECORD
EP 105-3 EMERGENCY EXPOSURE LIMITS (EMERGENCY PLAN TABLE 6.1)

PRECAUTIONS

1. PLANNED RADIATION EXPOSURES SHOULD BE LIMITED TO THE ADMINISTRATIVE GUIDE LEVELS IN APPENDIX EP 105-4 EMERGENCY EXPOSURE LIMITS.

IMMEDIATE ACTIONS

1.0 SHIFT SUPERVISION SHALL:

1.1 ASSUME THE ROLE OF INTERIM EMERGENCY DIRECTOR.

1.2 ACTIVATE EMERGENCY TEAMS AS NECESSARY IF NOT ALREADY

MEMBER TO OBTAIN A SITE BOUNDARY DOSE RATE AS SOON AS PRACTICABLE.

1.14 IF NECESSARY, INITIATE IMPLEMENTATION OF EP-316 AND EP-317, DIRECT RECOMMENDATIONS TO COUNTY EMERGENCY MANAGEMENT AGENCIES.

2.0 COMMUNICATOR SHALL:

2.1 PERFORM NOTIFICATIONS ON APPENDIX EP 105-1 USING THE STANDARD PROMPT NOTIFICATION MESSAGE INCLUDED. SEE EP 209, APPENDIX A, FOR TELEPHONE NUMBERS.

2.2 REPORT TO THE EMERGENCY DIRECTOR WHEN THE NOTIFICATIONS ARE COMPLETED.

2.3 MAN THE RED NRC TELEPHONE IF REQUIRED BY A-31 UNTIL SITUATION STABILIZES AND RED TELEPHONE COMMUNICATIONS MAY BE SECURED.

3.0 OPERATIONS SUPPORT CENTER COORDINATOR OR HIS DESIGNEE SHALL:

3.1 ACTIVATE THE OPERATIONS SUPPORT CENTER, IF IT IS HABITABLE, IN ACCORDANCE WITH EP 202. IF THE OPERATIONS SUPPORT CENTER IS NOT HABITABLE REPORT TO THE CONTROL ROOM.

4.0 RADIATION PROTECTION TEAM LEADER SHALL:

4.1 INITIATE ON AND OFF SITE RADIATION SURVEYS IN ACCORDANCE WITH EP 205, RADIATION PROTECTION TEAM WHEN DIRECTED BY THE EMERGENCY DIRECTOR. IF THIS PERSON IS ALSO THE HP ENGINEER HE SHOULD REPORT TO THE EOF TO COORDINATE THIS FUNCTION.

5.0 SHIFT I&C TECHNICIANS SHALL:

5.1 ACTIVATE THE TSC AND EOF (IF NOT ALREADY ACTIVATED DURING ALERT OR SITE EMERGENCY STAGE) IN ACCORDANCE WITH EP 201 AND EP 203.

6.0 SHIFT CLERK SHALL:

6.1 IF NOT ALREADY IMPLEMENTED DURING ALERT OR SITE EMERGENCY STAGE, CONTACT INDIVIDUALS ON EP 209 APP P TO CALL IN THOSE INDIVIDUALS TO MAN THE TSC AND EOF (60 MINUTE CALL LIST). DOCUMENT CONTACTS ON EP 209 APP P.

6.2 INFORM INTERIM EMERGENCY DIRECTOR OR EMERGENCY DIRECTOR WHEN CONTACTS ARE COMPLETED.

FOLLOW-UP ACTIONS

1.0 EMERGENCY DIRECTOR SHALL:

1.1 PERIODICALLY EVALUATE THE EVENT CLASSIFICATION IN ACCORDANCE WITH EP 101, CLASSIFICATION OF EMERGENCIES. IF THE CONDITIONS CHANGE, DEESCALATE TO AN APPROPRIATE CLASSIFICATION.

1.2 OBTAIN RESULTS OF THE CUMULATIVE POPULATION DOSE CALCULATIONS AND ONSITE/OFFSITE RADIATION SURVEYS FROM THE RADIATION PROTECTION TEAM LEADER.

1.3 REFERRING TO EP-317, PROVIDE APPROPRIATE INFORMATION FROM THE PREVIOUS EVALUATIONS AND PROTECTIVE ACTION RECOMMENDATIONS TO A COMMUNICATOR IN THE EOF FOR NOTIFICATION OF THE BUREAU OF RADIATION PROTECTION.

1.4 PERFORM ACTIONS AS NECESSARY TO MITIGATE CONDITIONS OF THE EMERGENCY SITUATION.

1.5 IF NOT ALREADY PERFORMED, DETERMINE WHICH ADDITIONAL SUPPORT PERSONNEL ARE NECESSARY FOR EMERGENCY FUNCTIONS AND DIRECT THE SHIFT CLERK OR THE COMMUNICATOR IN THE TSC OR EOF TO CONTACT THOSE PERSONNEL.

1.6 PROVIDE SITE PERSONNEL WITH PA SPEAKER ANNOUNCEMENTS FOR ANY MAJOR CHANGES IN PLANT EMERGENCY STATUS, SUCH AS CHANGING EMERGENCY ACTION LEVELS, EVACUATIONS, AND STARTING AND STOPPING OF RADIOACTIVE RELEASES (IF ANY).

2.0 STATION SUPERINTENDENT SHALL:

2.1 REPORT TO THE TECHNICAL SUPPORT CENTER OR CONTROL ROOM, FOR A BRIEFING OF THE SITUATION.

2.2 ASSUME THE ROLE OF EMERGENCY DIRECTOR (IF NOT ALREADY DONE) BY FORMALLY RELIEVING THE INTERIM EMERGENCY DIRECTOR. ANNOUNCE THAT HE HAS ASSUMED THE ROLE OF EMERGENCY DIRECTOR TO THE ASSEMBLED TECHNICAL SUPPORT CENTER PERSONNEL.

2.3 VERIFY THE EMERGENCY CLASSIFICATION.

2.4 VERIFY THAT THE TECHNICAL SUPPORT CENTER, EMERGENCY OPERATIONS FACILITY AND THE OPERATIONS SUPPORT CENTER HAVE BEEN ACTIVATED.

3.0 OPERATIONS SUPPORT CENTER COORDINATOR SHALL:

3.1 NOTIFY THE INTERIM EMERGENCY DIRECTOR WHEN THE OPERATIONS SUPPORT CENTER IS ACTIVATED.

3.2 SUPPORT THE CONTROL ROOM AND SHIFT SUPERVISION AS NECESSARY.

4.0 RADIATION PROTECTION TEAM LEADER SHALL:

4.1 NOTIFY THE EMERGENCY DIRECTOR WHEN THE EMERGENCY OPERATIONS FACILITY IS ACTIVATED.

4.2 REPORT PROGRESS AND RESULTS OF CUMULATIVE POPULATION DOSE CALCULATIONS AND ON AND OFF SITE RADIATION SURVEYS TO THE EMERGENCY DIRECTOR, AS NECESSARY.

4.3 NOTIFY THE SITE EMERGENCY COORDINATOR OF THE NEED FOR ASSISTANCE FROM RADIATION MANAGEMENT CORPORATION.

5.0 SHIFT CLERK OR ASSIGNED TSC OR EOF COMMUNICATOR SHALL:

5.1 WHEN REQUESTED, NOTIFY ADDITIONAL SUPPORT PERSONNEL TO REPORT TO THE PLANT AS DIRECTED BY THE EMERGENCY DIRECTOR. REFER TO EP 209.

5.2 NOTIFY EMERGENCY DIRECTOR OR SITE EMERGENCY COORDINATOR WHEN ADDITIONAL SUPPORT PERSONEL HAVE BEEN NOTIFIED. DOCUMENT ON APP EP-105-2.

6.0 I&C TECHNICIANS SHALL: (IF NOT ALREADY PERFORMED AS PER EP-103 OR EP-104)

6.1 INFORM THE EMERGENCY DIRECTOR WHEN CENTERS ARE ACTIVATED.

6.2 MAN THE TSC AND EOF DATA DISPLAY (CCTV) POSITIONS AS DIRECTED BY THE EMERGENCY DIRECTOR.

APPENDIX EP-105-1
GENERAL EMERGENCY NOTIFICATION CHECKOFF LIST

MESSAGE: THIS (IS) (IS NOT) A DRILL. THIS (IS) (IS NOT) A DRILL. THIS IS PEACH BOTTOM ATOMIC POWER STATION CALLING TO REPORT A GENERAL EMERGENCY HAS BEEN DECLARED ON UNIT NO. _____. TIME AND DATE OF GENERAL EMERGENCY CLASSIFICATION IS _____. THE BASIC PROBLEM IS _____. THE PLANT STATUS IS (STABLE) (IMPROVING) (DEGRADING) (NOT KNOWN). THERE (IS PRESENTLY) (HAS NOT BEEN) (IS POTENTIAL FOR) (HAS BEEN) A RADIOACTIVE (AIRBORNE) (LIQUID) RELEASE FROM THE PLANT (AT A LEVEL BELOW THAT CONSIDERED A PUBLIC HAZARD) (AT A LEVEL AT WHICH PROTECTIVE ACTION IS ADVISABLE). RECOMMENDED PROTECTIVE ACTIONS ARE (NONE) _____. THE AFFECTED POPULATION AREA IS (NONE) _____. MY NAME IS _____. THIS (IS) (IS NOT) A DRILL. THIS (IS) (IS NOT) A DRILL.

NOTIFICATIONS:

PARTY	PERSON RESPONDING	TIME OF NOTIFICATION	COMMUNICATOR'S INITIALS
STATION SUPERINTENDENT			
LOAD DISPATCHER (TELL HIM TO INITIATE CALL LIST "C")			
PENNSYLVANIA EMERGENCY MANAGEMENT AGENCY (BLUE PHONE OR			
MARYLAND CIVIL DEFENSE AGENCY (BLUE PHONE OR			
YORK COUNTY EMERGENCY MANAGEMENT AGENCY (BLUE PHONE OR			
LANCASTER COUNTY EMERGENCY MANAGEMENT AGENCY (BLUE PHONE OR			
CHESTER COUNTY EMERGENCY MANAGEMENT AGENCY (BLUE PHONE OR			
HARFORD COUNTY CIVIL DEFENSE AGENCY (BLUE PHONE OR			

APPENDIX EP-105-1 (CONT'D)
GENERAL EMERGENCY NOTIFICATION CHECKOFF LIST

CECIL COUNTY CIVIL DEFENSE AGENCY (BLUE PHONE OR _____ _____ _____

PENNSYLVANIA STATE POLICE - YORK (1-848-6355) _____ _____ _____

PA BRP (WHITE PHONE OR _____ _____ _____

NRC OPERATIONS CENTER** (RED PHONE) _____ _____ _____

TIME NOTIFICATION OF PARTIES ABOVE COMPLETED _____.

VERIFIED BY _____ DATE _____
EMERGENCY DIRECTOR

FILE - SYS-3-1

* MUST NOTIFY PEMA BY USE OF COMMERCIAL TELEPHONE NO. ON BACKSHIFTS. (BLUE PHONE NOT MANNED BY PEMA ON BACKSHIFTS.

** IF NRC PREVIOUSLY NOTIFIED DURING ALERT OR SITE EMERGENCY CONDITION, THE ASSIGNED PO COMMUNICATOR CONTINUOUSLY MANNING THE RED PHONE IN CONTROL ROOM SHOULD HANDLE THIS NOTIFICATION AUTOMATICALLY. HOWEVER, CHECK WITH CONTROL ROOM TO BE SURE THIS NOTIFICATION IS MADE.

APPENDIX EP 105-2
PERSONNEL CALL RECORD

NAME OF PERSON CALLED	TIME CALLED	DISPOSITION OF CALL: NO ANSWER	BUSY	ESTIMATED TIME OF ARRIVAL	CALL COMPLETED BY

APPENDIX EP 105-3
EMERGENCY EXPOSURE LIMITS

	FUNCTION	PROJECTED WHOLE BODY DOSE	THYROID DOSE	AUTHORIZED BY
1.	LIFE SAVING AND REDUCTION OF INJURY	75 REM*	375 REM	EMERGENCY DIRECTOR
2.	OPERATION OF EQUIPMENT TO MITIGATE AN EMERGENCY	25 REM*	125 REM	EMERGENCY DIRECTOR
3.	PROTECTION OF HEALTH AND SAFETY OF THE PUBLIC	5 REM	25 REM	EMERGENCY DIRECTOR
4.	OTHER EMERGENCY ACTIVITIES	10 CFR 20 LIMITS	10 CFR 20 LIMITS	EMERGENCY DIRECTOR
5.	RE-ENTRY/RECOVERY ACTIVITIES	ADMINISTRATIVE GUIDELINES	ADMINISTRATIVE GUIDELINES	N/A

*REFERENCE: EPA-520/1-75-001 TABLE 2.1
**SUCH EXPOSURE SHALL BE ON A VOLUNTARY BASIS

MAY 25 1982

WJK

PHILADELPHIA ELECTRIC COMPANY

PEACH BOTTOM UNITS 2 AND 3

EMERGENCY PLAN IMPLEMENTING PROCEDURE

EP-205A CHEMISTRY SAMPLING AND ANALYSIS GROUP

PURPOSE

TO DEFINE THE ACTIONS OF THE CHEMISTRY SAMPLING AND ANALYSIS GROUP.

REFERENCES

1. PEACH BOTTOM ATOMIC POWER STATION EMERGENCY PLAN

SECTION	TITLE
5.2.2.2.1.E	CHEMISTRY SAMPLING AND ANALYSIS
6.2.1	ASSESSMENT METHODS FOR DETERMINING MAGNITUDE OF RELEASE TO THE ATMOSPHERE

2. HEALTH PHYSICS OPERATING/CHEMISTRY OPERATING PROCEDURES

NUMBER	TITLE
HPO/CO-4	RADIATION WORK PERMITS

3. NUREG 0654 PREPARATION AND EVALUATION OF RADIOLOGICAL EMERGENCY RESPONSE PLANS AND PREPAREDNESS IN SUPPORT OF NUCLEAR POWER PLANTS.

APPENDIX

EP 205A-1 EMERGENCY EXPOSURE LIMITS (EMERGENCY PLAN TABLE 6.1)

ACTION LEVEL

THE CHEMISTRY SAMPLING AND ANALYSIS GROUP WILL BE ACTIVATED AT THE DISCRETION OF THE RADIATION PROTECTION TEAM LEADER.

PRECAUTIONS

1. IN ALL STEPS OF THIS PROCEDURE, AN ALARA CONCEPT IS MANDATORY. SAMPLING AND ANALYSIS GROUP MEMBER'S EXPOSURE SHOULD BE LIMITED TO THE ADMINISTRATIVE GUIDE LEVELS IN APPENDIX EP 205A-1, EMERGENCY EXPOSURE LIMITS. CHEMISTRY SAMPLING AND ANALYSIS GROUP MEMBERS SHOULD CONTROL THEIR OWN EXPOSURES.

2. REQUIREMENTS OF HPO/CO-4, RADIATION WORK PERMITS, ARE NOT APPLICABLE.

IMMEDIATE ACTIONS

1.0 RADIATION PROTECTION TEAM LEADER SHALL:

1.1 CONTACT THE CHEMISTRY SAMPLING AND ANALYSIS GROUP LEADER, DIRECT HIM TO COLLECT SAMPLES, AS NECESSARY, AND ANALYZE THE SAMPLES IN ACCORDANCE WITH HPO/CO PROCEDURES; OR USE OFFSITE SUPPORT GROUPS FOR THE ANALYSES.

2.0 CHEMISTRY SAMPLING AND ANALYSIS GROUP LEADER SHALL:

2.1 ASSEMBLE THE CHEMISTRY SAMPLING AND ANALYSIS GROUP.

2.2 DIRECT THE MONITORING AND SAMPLING OF RELEASE POINTS, AIR MONITORS, AND PROCESS MONITORS AS REQUIRED AND IN ACCORDANCE WITH PRECAUTION 1, ABOVE.

2.3 ANALYZE THE DATA FROM SAMPLES, PROCESS INSTRUMENT READINGS, AND EFFLUENT INSTRUMENT READINGS. FROM THIS DATA DETERMINE ISOTOPIC COMPOSITION AND RELEASE RATES.

2.4 PROVIDE THE DOSE ASSESSMENT GROUP WITH PERTINENT INFORMATION AND DIRECT GROUP MEMBERS TO ASSIST, AS NECESSARY, WITH DOSE RATE CALCULATIONS AND DETERMINATION OF RADIOLOGICAL CONSEQUENCES.

3.0 CHEMISTRY SAMPLING AND ANALYSIS GROUP MEMBERS SHALL:

3.1 ASSEMBLE THE NECESSARY EQUIPMENT NEEDED TO OBTAIN AND ANALYZE SAMPLES. PRE LABEL ALL SAMPLE CONTAINERS BEFORE SAMPLING. USE APPENDIX EP 205A-2 TO INSURE ALL STEPS IN THE HPO/CO SAMPLING AND ANALYSIS PROCEDURES ARE FOLLOWED.

3.2 SAMPLE PRIMARY COOLANT AND DRYWELL ATMOSPHERE AS NECESSARY WITH THE FOLLOWING PROCEDURES:

EP 205A.1 OPERATION OF POST ACCIDENT SAMPLING STATION FOLLOWING ACCIDENT CONDITIONS

EP 205A.2 OBTAINING DRYWELL GAS SAMPLES FROM CONTAINMENT ATMOSPHERE DILUTION CABINETS

EP 205A.3 RETRIEVING AND CHANGING SAMPLE FILTERS AND CARTRIDGES FROM THE DRYWELL RADIATION MONITOR

EP 205A.4 OBTAINING DRYWELL GAS SAMPLES FROM THE DRYWELL RADIATION MONITOR SAMPLING STATION

EP 205A.5 OBTAINING REACTOR WATER SAMPLES FROM SAMPLE SINKS FOLLOWING ACCIDENT CONDITIONS.

3.3 IN THE EVENT OF A LARGE RADIOACTIVE LIQUID SPILL, OBTAIN SAMPLES OF THE RIVER WATER IN ACCORDANCE WITH:

EP 205A.6 OBTAINING CANAL DISCHARGE WATER SAMPLES FOLLOWING RADIOACTIVE LIQUID RELEASES FOLLOWING ACCIDENT CONDITIONS.

3.4 USE THE FOLLOWING PROCEDURES TO OBTAIN SAMPLES FROM THE VARIOUS SAMPLE POINTS.

MAIN STACK & ROOF VENTS

EP 205A.7 OBTAINING THE IODINE AND PARTICULATE SAMPLES FROM THE MAIN STACK AND ROOF VENTS FOLLOWING ACCIDENT CONDITIONS.

LIQUID RADWASTE

EP 205A.8 OBTAINING LIQUID RADWASTE

SAMPLES FROM THE RADWASTE SAMPLE SINK FOLLOWING ACCIDENT CONDITIONS.

CONDENSATE

EP 205A.9 OBTAINING SAMPLES FROM CONDENSATE SAMPLE SINK FOLLOWING ACCIDENT CONDITIONS.

OFF GAS

EP 205A.10 OFF GAS SAMPLES FROM THE OFF GAS HYDROGEN ANALYZER FOLLOWING ACCIDENT CONDITIONS.

RX BUILDING OR TORUS ATMOSPHERE

EP 205A.11 OPERATION OF POST ACCIDENT SAMPLING STATION.

3.5 USE THE FOLLOWING PROCEDURES FOR THE PREPARATION AND ANALYSIS OF HIGHLY RADIOACTIVE SAMPLES.

EP 205A.11 SALMPLE PREPARATION AND CHEMICAL ANALYSIS OF HIGHLY RADIOACTIVE LIQUID SAMPLES.

EP 205A.12 SAMPLE PREPARATION AND ANALYSIS OF HIGHLY RADIOACTIVE PARTICULATE FILTERS AND IODINE CARTRIDGES.

EP 205A.13 SAMPLE PREPARATION AND ANALYSIS OF HIGHLY RADIOACTIVE GAS SAMPLES.

3.6 ATTACH ALL DATA SHEETS AND ANALYSIS REPORTS TO APPENDIX EP 205A-2(CHEM SAMPLING & ANALYSIS C.O.L.) FOR EACH SAMPLE TAKEN. GIVE THIS INFORMATION TO THE CHEM SAMPLING AND ANALYSIS GROUP LEADER.

FOLLOW-UP ACTIONS

1.0 RADIATION PROTECTION TEAM LEADER SHALL:

1.1 REPORT THE RESULTS OF THESE ANALYSES TO THE SITE EMERGENCY COORDINATOR (IF ACTIVATED) AND THE EMERGENCY DIRECTOR.

1.2 PROVIDE GROUP MEMBERS WITH PERIODIC PLANT STATUS CHANGES INCLUDING SIGNIFICANT RADIATION EXPOSURE AND RADIACTIVE CONTAMINATION PROBLEMS WHICH MAY AFFECT THE FUNCTIONS OF THE TEAM.

2.0 CHEMISTRY SAMPLING AND ANALYSIS GROUP LEADER SHALL:

2.1 REPORT RESULTS OF SAMPLES AND ANALYSES TO THE RADIATION PROTECTION TEAM LEADER.

APPENDIX EP-205A-1
EMERGENCY EXPOSURE LIMITS

	FUNCTION	PROJECTED WHOLE BODY DOSE	THYROID DOSE	AUTHORIZED BY
1.	LIFE SAVING AND REDUCTION OF INJURY	75 REM*	375 REM	EMERGENCY** DIRECTOR
2.	OPERATION OF EQUIPMENT TO MITIGATE AN EMERGENCY	25 REM*	125 REM	EMERGENCY** DIRECTOR
3.	PROTECTION OF HEALTH AND SAFETY OF THE PUBLIC	5 REM	125 REM	EMERGENCY** DIRECTOR
4.	OTHER EMERGENCY ACTIVITIES	10 CFR 20	10 CFR 20	EMERGENCY DIRECTOR
5.	RE-ENTRY/RECOVERY ACTIVITIES	ADMINISTRATIVE GUIDELINES	ADMINISTRATIVE GUIDELINES	N/A

*REFERENCE: EPA-520/1-75-001 TABLE 2.1
**SUCH EXPOSURE SHALL BE ON A VOLUNTARY BASIS

APPENDIX EP 205A-2
CHEM SAMPLING & ANALYSIS C.O.L.

SAMPLE _____
TIME _____
DATE _____

SAMPLING:

SAMPLE CONTAINER PRELABELED _____
LEAD CARRYING PIG OBTAINED _____
SAMPLING EQUIPMENT ASSEMBLED _____
PROCEDURE REVIEWED _____
RWP ISSUED OR HP AVAILABLE _____
_____

SAMPLE SIZE
SAMPLE DOSE RATE (CONTACT) _____
_____

ANALYSIS:

EQUIPMENT ASSEMBLED
LAB SET UP FOR ANALYSIS _____
TO MINIMIZE EXPOSURE
PROCEDURE REVIEWED _____
_____
ANALYSIS PERFORMED: (ATTACH RESULTS OF ANALYSIS)
GELI SCAN _____
CHLORIDE ANALYSIS _____
BORON ANALYSIS _____
GAS CHROMATOGRAPHY _____
OTHER (EXPLAIN) _____
_____

SAMPLE VOLUME USED FOR ANALYSIS _____

WJK

PHILADELPHIA ELECTRIC COMPANY

PEACH BOTTOM UNITS 2 AND 3

EP 205A.3 RETRIEVING AND CHANGING SAMPLE FILTERS AND CARTRIDGES FROM THE DRYWELL RADIATION MONITOR DURING EMERGENCIES

PURPOSE:

This procedure provides guidelines in retrieving and changing particulate filters and charcoal cartridges (or silver xeolite cartridges) located at the drywell rad monitor following accident conditions with major fuel damage.

APPARATUS:

Appropriate health physics survey equpment
Respiratory protective equipment
Anti-contamination clothing
Low-volume air sampler
Designated remote handling devices
Transport containers (shielded)
Digital-alarming dosimeters
Extra rad monitor filter holder
Extra rad monitor cartridge holder

PRECAUTION:

NOTE:

A. In all steps of this procedure, an ALARA concept is mandatory. This procedure provides some philosophy in preplanning evolutions in changing and obtaining drywell rad monitor filters and cartridges. In addition to reviewing this procedure, an ALARA review of the sampling process should be performed prior to obtaining the filters. If the sample is not really needed, and lower dose methods to determine the gross data that the sample provides exist, the sample should not be obtained.

B. At no time may NRC exposure limits (either airborne or body dose) be exceeded during the surveying for sampling or obtaining the sample. If it appears that an overexposure could reasonably occur when obtaining the sample, do not proceed without written NRC approval.

PROCEDURE:

1. It has been determined that the particulate filter and iodine cartridge are required to be changed at the drywell rad monitor on 135' elevation of the Reactor Building.

2. Area radiation monitors shall be checked and if the monitors in the area of the drywell rad monitor are indicating greater than 10 R/hr, changing the sample should very possibly not be considered.

3. Have a health physics technician accompany the chemistry technician assigned to obtain samples in order to perform area surveys. Brief health physics personnel on the route to be taken and the time to get to the survey point. Attached as appendices are the location of the particulate filter and the iodine cartridge. Survey maps are also provided.

NOTE:

1. The time to travel from the 116' elevation entrance to the Turbine Building to the drywell rad monitor is approximately four minutes.

2. Other routes may be considered. The times expected would be approximately four minutes for these routes, as well.

4. Health physcis personnel shall take appropriate survey and protective equipment (e.g. SCBA, Anti-Cs, lead carrying container, etc.) Before making entry to the power block, ensure survey equipment is turned on and calibrated.

5. Upon entering the power block, the surveyors will note trends in general radiation levels enroute to the drywell rad monitor. If dose rates exceed 10 R/hr gamma or 10 rad/hr beta prior to arriving at the door leading to Rx 135 and upon further investigation this dose rate remains stable or increases, exit immediately and report to health physics supervision. If dose rates exceed 5 R/hr at the door leading to Rx 135, leave the area immediately and report to health physics supervision.

6. Survey the area concentrating especially on the particulate filter pig, iodine cartridge pig and sample lines. Ensure that a low-volume air sample is taken (in the "breathing zone"). Special note of window open readings must be made because of the submersion air dose beta fields.

NOTE:

A. It will take approximately two minutes to pull and change both the filter and cartridge.

B. Ensure that survey equipment is required when retrieving the samples.

C. Consider discarding samples in place at the time of the accident as they will likely be too radioactive to count for gamma spectroscopy. For more meaningful data, a shorter sampling time should be determined for the replacement particulate filter and iodine cartridge.

7. Suggested filter and cartridge change method (This procedure may be changed after an ALARA review.)

A. Obtain the extra filter holder and cartridge holder for the drywe radiation monitor.

B. Insert a new particulate filter and charcoal cartridge into these holders. Consider the use of silver zeolite cartridges in the place of charcoal to limit the noble gas buildup.

C. Obtain two "J" hooks for removing the holders which are presently in service. Use the "J" hooks for transporting the holders at a distance from the body.

D. At the drywell radiation monitor

1. place radiation monitor in purge
2. remove thumb screws on holders
3. place "J" hook on the "O" ring of the holder
4. pull the holder from the pig.
5. survey filter or cartridge and remove from area with "J" hook if required by HP.
6. slide new holder into the pig
7. repeat steps D(3) to D(6) for the other holder
8. replace one thumb screw in each holder
9. return radiation monitor to service
10. exit the area.

8. Consideration of expected dose rates from the samples must also be considered. In this regard, the time to take the filter and cartridge to the hot lab versus shielding the sample must be considered. The personnel who will obtain shall be briefed on all alternatives and will provide input into practical methods of remotely handling the samples.

9. A RWP shall be assigned for the retrieval and changing of the filter and cartridge evolution. The RWP shall be followed by all personnel handling the sample.

10. If the samples are too "hot" for gamma spectroscopy, they will be brought to the hot lab to await final disposition. Any shielding, remote handling devices or other protective measure shall be in place and ready to accept the samples prior to their arrival.

11. After the samples are properly stored, responsible supervision sh discuss and decide upon final disposition.

12. If the samples are able to be analyzed for gamma spectroscopy, the particulate filter and iodine cartridge shall be processed in a manner such that the detector does not become contaminated.

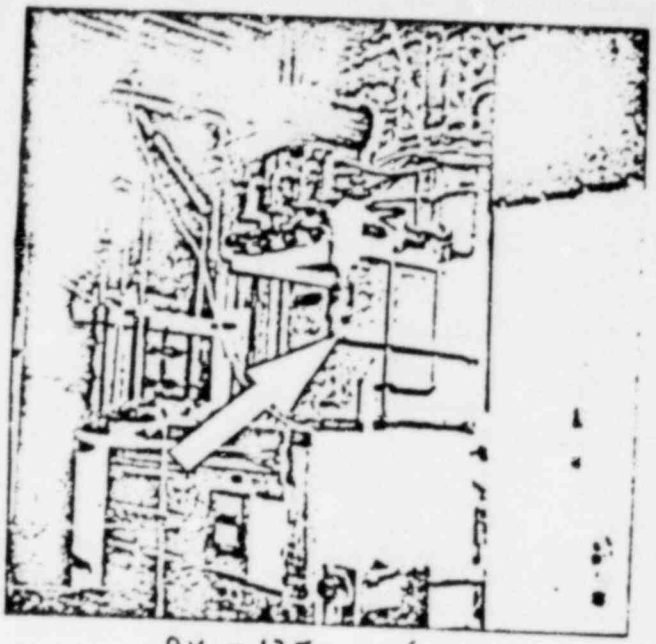
13. Following final analysis of the sample, results shall be reported to appropriate supervision.

EP 205A.3 APPENDICES

A. Photographs of sample points. Original photographs are kept on file with Health Physics Supervision.

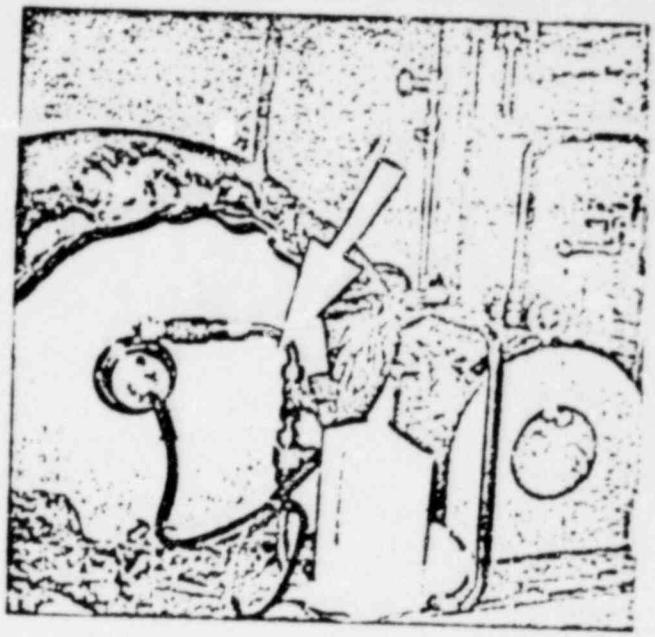
B. Plant layout maps.

C. Survey maps.

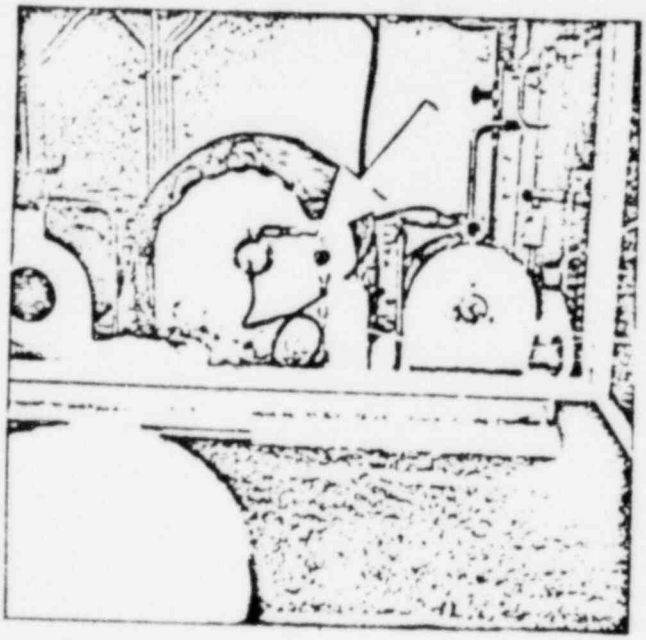


RX - 135

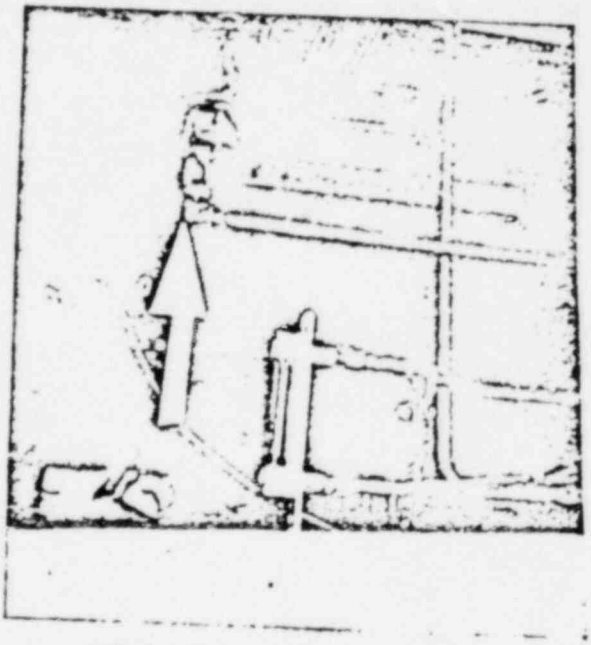
DRY WELL RAD. MONITOR



DRYWELL RAD. MONITOR

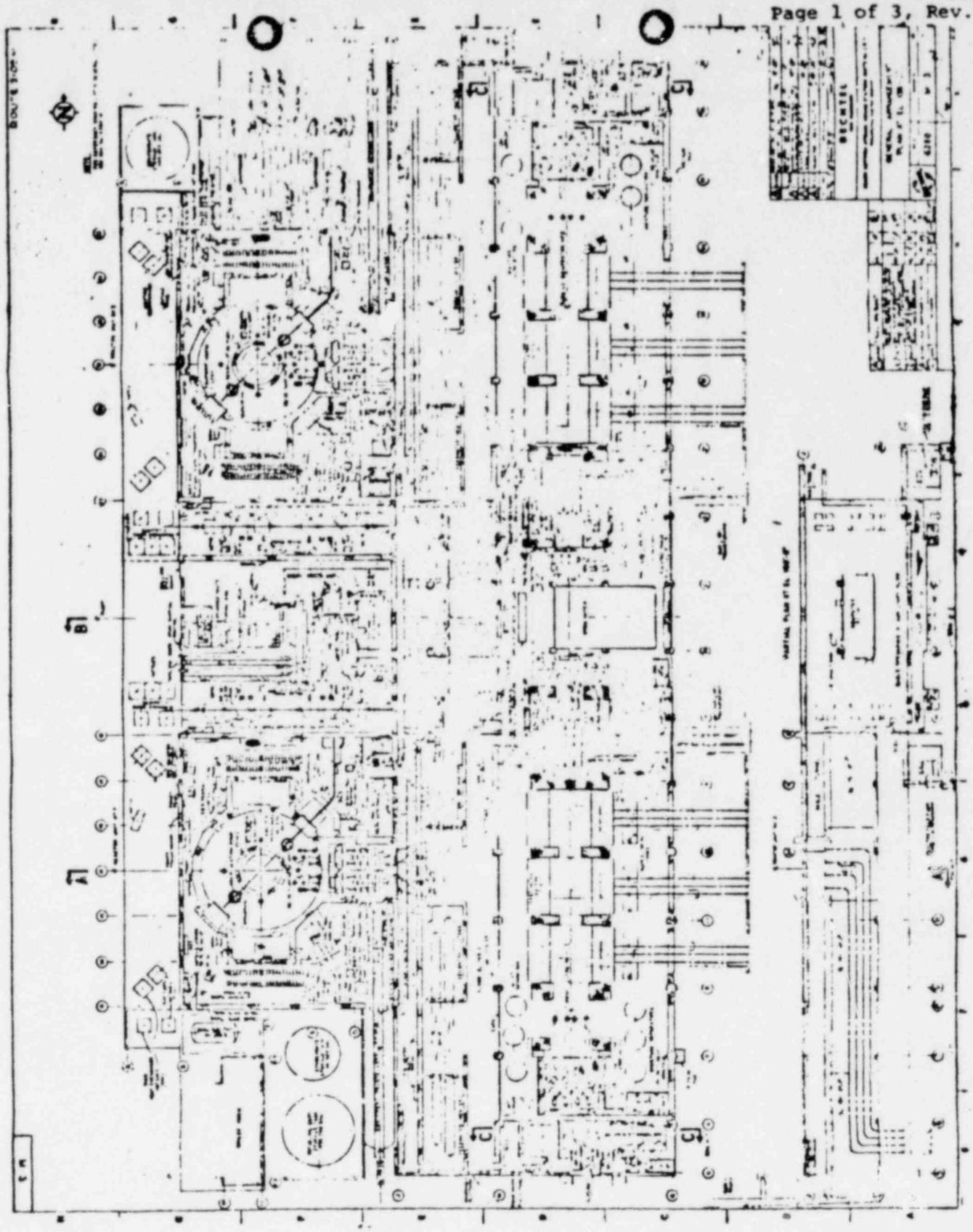


DRYWELL RAD. MONITOR

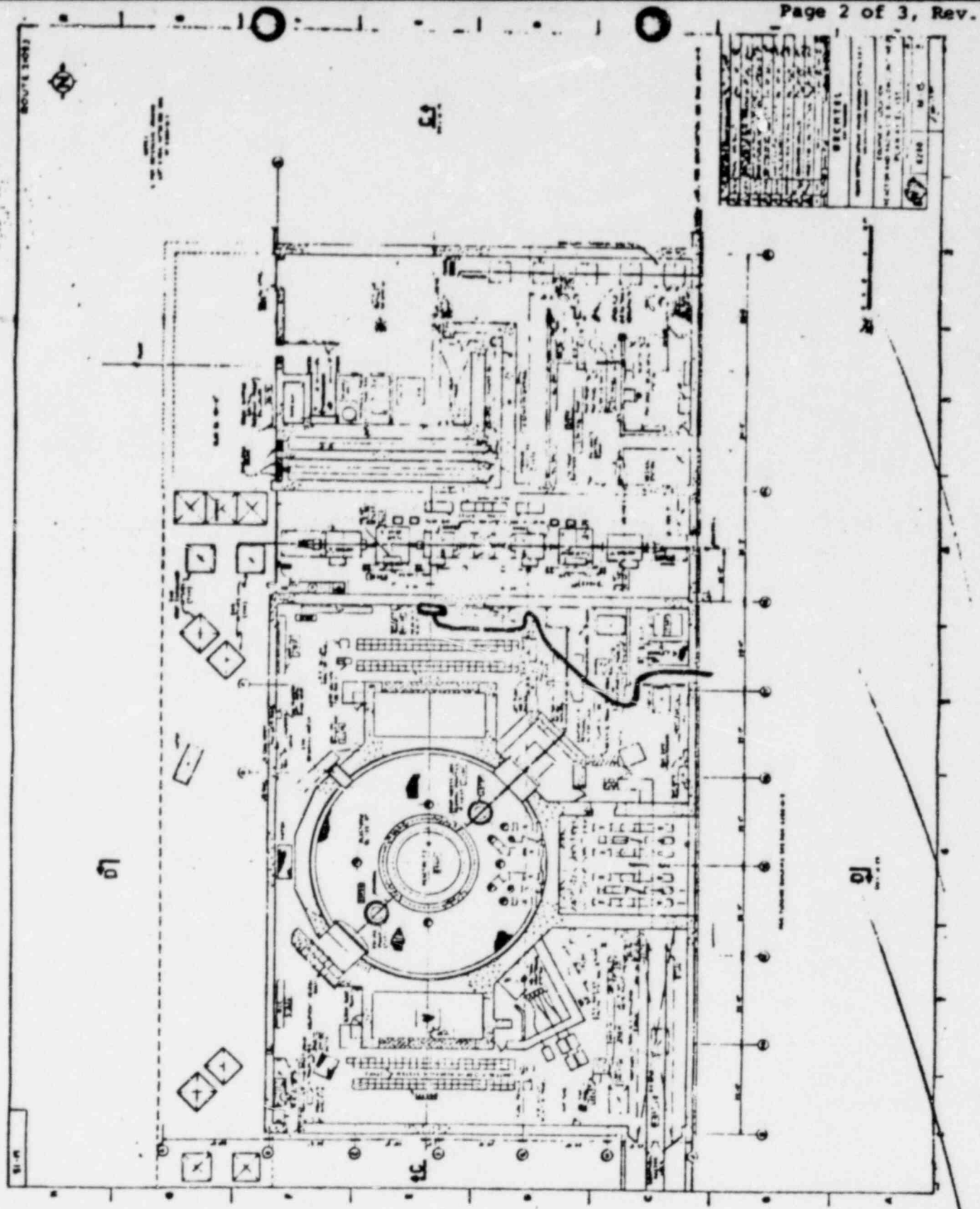


DRYWELL RAD. MONATOR

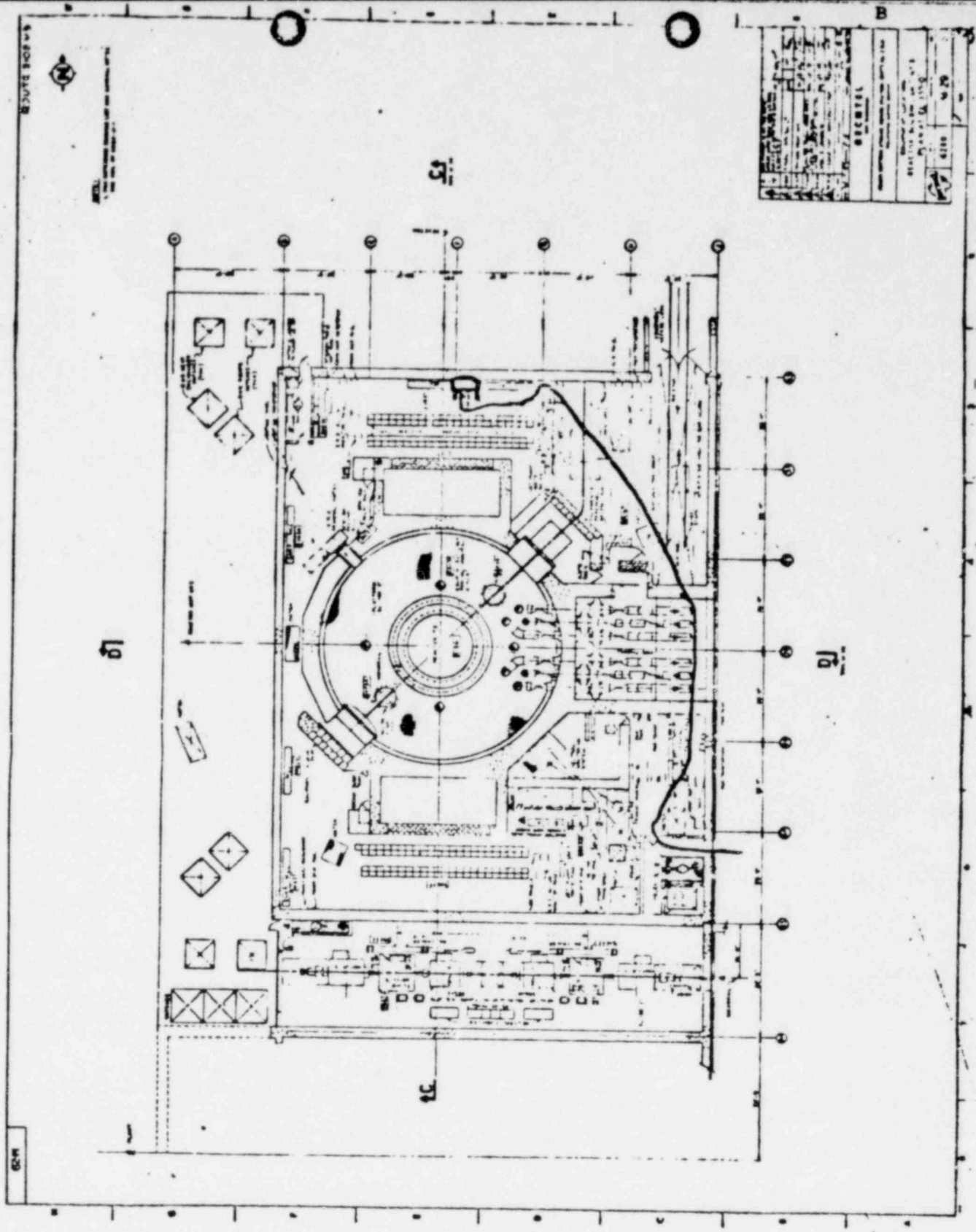
APPENDIX A



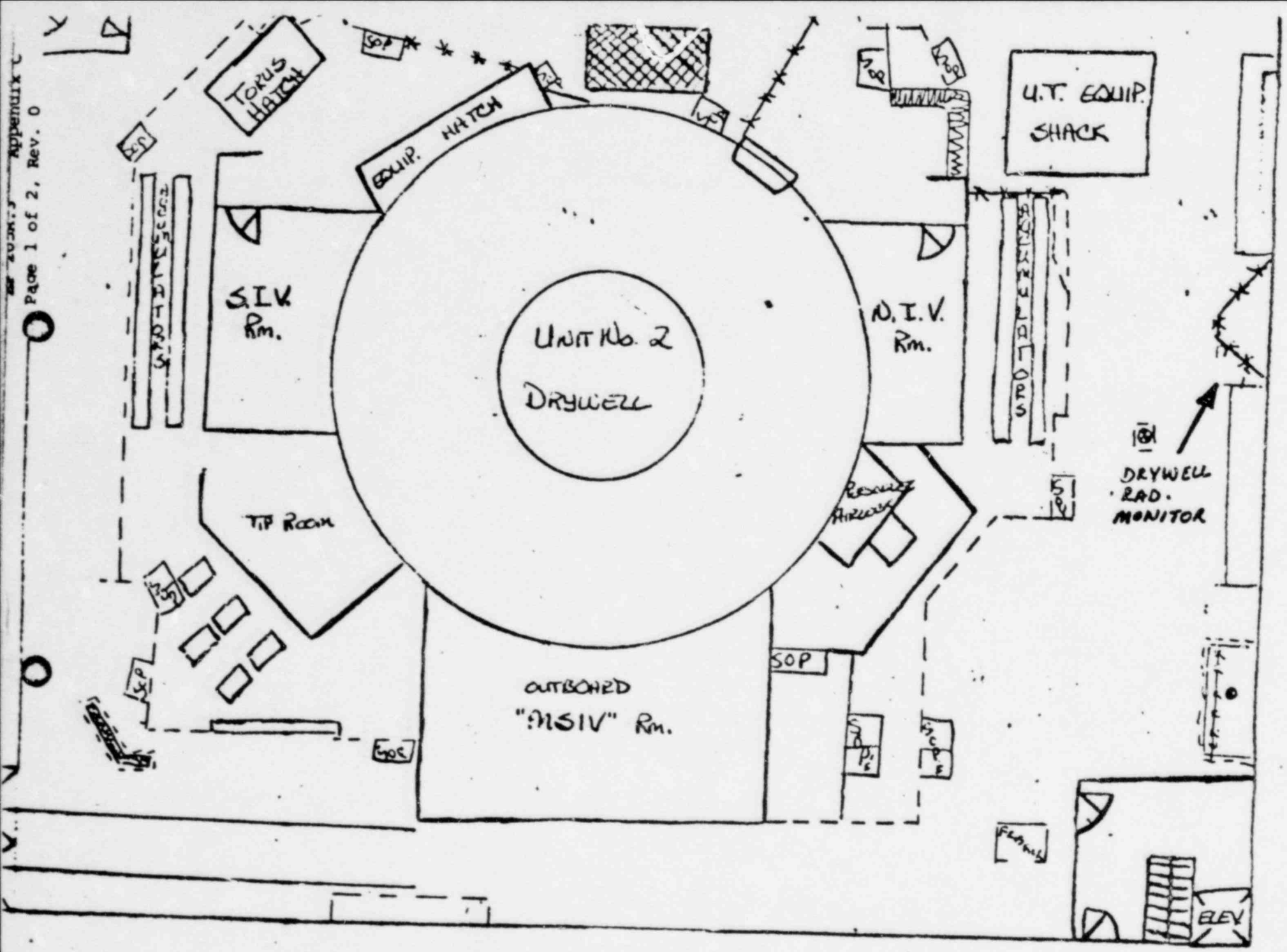
APPENDIX B



APPENDIX B



APPENDIX B


TORUS HATCH
EQUIP. HATCH
U.T. EQUIP. SHACK
S.I.V. Rm.
UNIT No. 2
DRYWELL
N.I.V. Rm.
TIP ROOM
OUTBOARD "MSIV" Rm.
DRYWELL RAD. MONITOR
ELEV.

Rx 3 135'EL

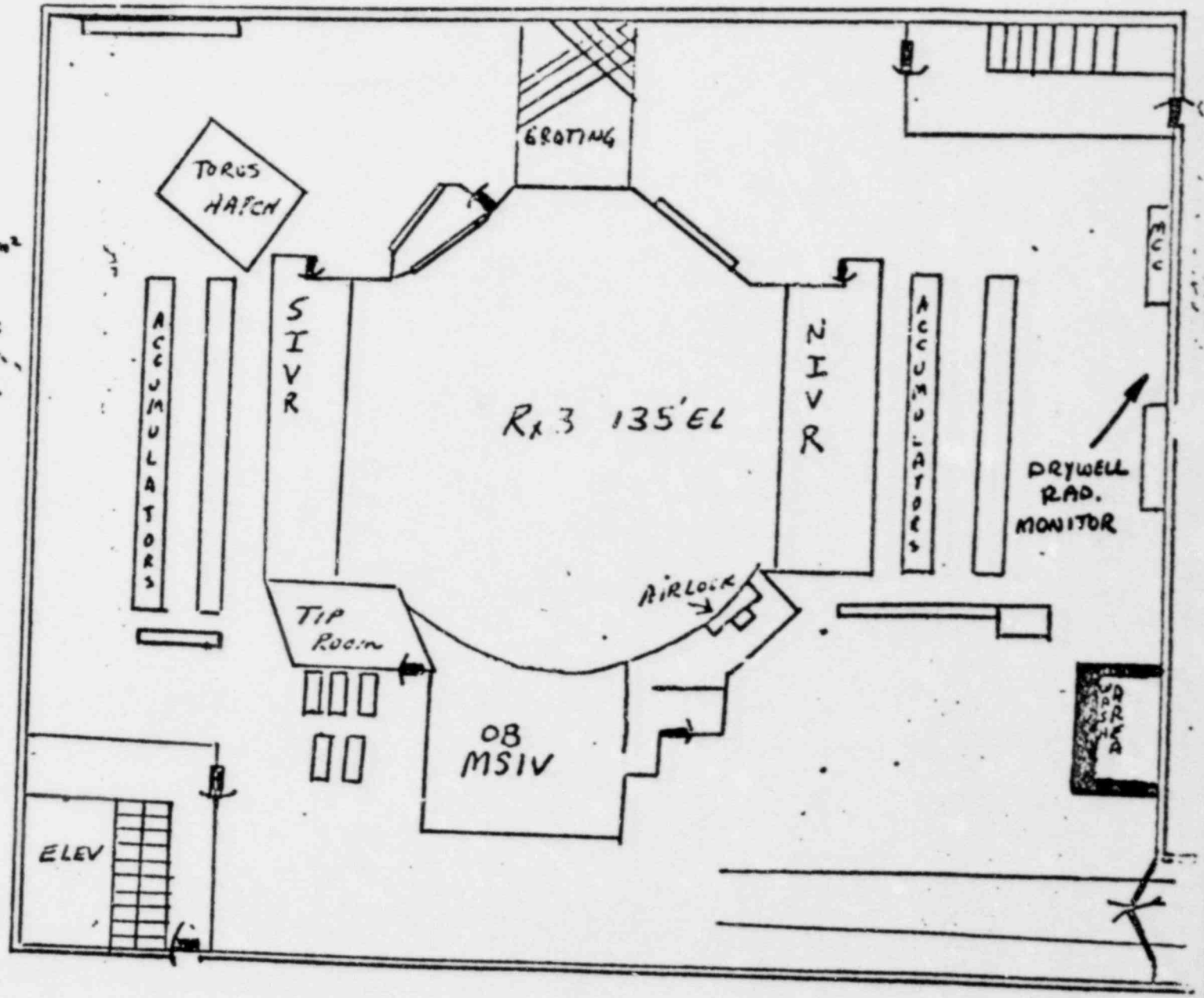
DATE:	TECH:
	INST:
TIME:	SN:

- ○ ▭ SMEARS <100 dpm/100 cm² UNLESS OTHERWISE INDICATED
- ▭ RAD READING IN MR/HR LESS THAN 2 MR/HR UNLESS OTHERWISE INDICATED

MAP CODE

- △ SMEAR SAMPLE
- ○ RAD READING IN MR/HR
- ○ CONTACT READINGS
- ○ ✱ ✱ ROPED AREA'S
- — — TAPED AREAS

REMARKS:



Knapp

PHILADELPHIA ELECTRIC COMPANY

Peach Bottom Units 2 and 3

EP 205A.5 - OBTAINING REACTOR WATER SAMPLES FROM SAMPLE SINKS FOLLOWING ACCIDENT CONDITIONS

PURPOSE:

The purpose of this procedure is to provide some guidelines prior to, during and after obtaining a reactor water sample following accident conditions with major fuel damage.

APPARATUS:

Appropriate Health Physics Survey Equipment
Air Sampler (low volume)
Anti-C clothing
Digital-Alarming dosimetry
30 oz sample bottle with lid
Tongs or remote tooling for holding the sample bottle during sampling
Respiratory protective equipment

PRECAUTION:

A. In all steps of this procedure, an ALARA concept is mandatory. This procedure provides some philosophy in preplanning sampling evolutions for reactor water samples during an accident. In addition to reviewing this procedure, an ALARA review of the sampling process should be performed prior to obtaining the sample. If the sample is not really needed, and lower dose methods to determine the gross data that the sample provides exist, the sample should not be obtained.

B. At no time may NRC exposure limits (either airborne or body dose) be exceeded during the surveying for sampling or obtaining the sample. If it appears that an overexposure could reasonably occur when obtaining the sample, do not proceed without written NRC approval.

PROCEDURE:

1. It has been determined that a reactor water sample is required. Two locations (for each Unit) where the sample may be taken from are available:

   a. Feedwater Sample Sink - Reactor Bldg. 165' elevation

   b. RWCU Sample Sink - Reactor Bldg. 165' elevation

PROCEDURE: (continued)

2. Determination of which sample sink the sample is to be taken from must be made.

   Consideration of which sample sink to use should be based upon plant conditions (i.e. is it stable?), which sample is operational, the time it will take to get there and dose rates from area radiation monitors in various locations, etc., approximate times and suggested routes are described:

   A. Feedwater Sample Sink, three routes are suggested:

      1. Entering at the normal, Turbine 116', plant entrance, up the stairs past the Control Room to the stairs near the Reactor Bldg. elevator, and up to 165' elevation.
         TIME: Approx. 5 minutes

      2. Entering the Radwaste Building, 135' elevation, proceeding to the stairs near the Reactor Building elevator, and up to 165' elevation.
         TIME: Approx. 4 minutes

      3. Entering the Recombiner Building, 116' elevation, up the stairs to 165' elevation.
         TIME: Approx. 4 minutes (For Unit 3 only)

   B. RWCU Sample Sink, The same three routes are suggested, corresponding approximated times are:

      1. 6 minutes
      2. 5 minutes
      3. 3 minutes (For Unit 3 Only)

3. Have a Health Physics technician accompany the Chemistry technician assigned to obtain samples in order to perform area surveys. Brief Health Physics personnel on the route to be taken and the time to get to the survey point. Attached on appendices are the locations of the sample points. Survey maps are also provided.

4. Health Physics personnel shall take appropriate survey equipment and protective equipment (e.g. SCBA gear LAN6-CIS lead carrying container, etc.). Before making entry to the Power Block, ensure survey equipment is turned on and calibrated. Chemistry personnel shall make initial entry to assist with the survey and to valve in grab sample point.

5. Upon entering the Power Block, the surveyor(s) will note trends in general radiation levels enroute to the sample point. If dose rates exceed 10 R/hr gamma or 10 rad/hr beta prior to arriving at the point specified below and upon further investigation this dose rate remains stable or increases exit immediately and report to Health Physics Supervision. The following dose rates shall be determined prior to entry:

PROCEDURE: (continued)

A. If the dose rate exceeds 5 R/hr at the door leading to RX 165, leave the area immediately and report to Health Physics Supervision with this information.

With dose rates less than 5 R/hr, enter the 165' elevation through that door. Take careful note of the dose rates.

B. If the sample is to be drawn from the Feedwater Sample Sink, Survey the area concentrating, especially, on the Sample Sink, verify that dose rates do not exceed 5 R/hr. Survey the grab sample point (Beta&Gamma), with sample flowing, ensure that the low-volume air sample is taken at the hood, in the "Breathing Zone". Special note of window open readings must be made because of the high beta fields expected in the sample sink, as well as, submersion air dose beta fields. Survey maps and photographs are provided as part of the Appendix of this procedure.

C. If the sample is to be drawn from the RWCU Sample Sink, continue past the feedwater sample sink. Prior to turning the corner located just before the RWCU sample sink, verify that dose rates do not exceed 10 R/hr (Return immediately to Health Physics Supervision if they do; Otherwise continue.)

Survey the area concentrating, especially, on the sample sink and Non-Regen Heat Exchanger room (U/2 is 'A' Non-Regen Heat Exchanger, U/3 is 'B' Non-Regen Heat Exchanger), verify that dose rates do not exceed 5 R/hr. Survey the grab sample point (Beta & Gamma) with the sample flowing. Ensure that a low-volume air sample is taken at the hood, in the "Breathing Zone." Special note of window open readings must be made because of the high beta fields expected in the sample sink, as well as, submersion air dose beta fields. Survey maps and photographs are provided as part of the Appendix of this procedure.

6. The following are times required to obtain the samples:

LOCATION	TIME TO SAMPLE
Feedwater Sample Sink	3 mins. or less depending on flow
RWCU Sample Sink	3 min. or less depending on flow

Suggested Sampling Method (This method may be changed after the ALARA review)

Obtain the smallest sample necessary for analysis to be performed. Obtain a 1 oz sample (about 1" up from bottom) or less in a 3 oz bottle. Use tongs or other remote handling tools which hold the sample bottle without operator attention. When required amount of sample is obtained remove bottle from hood, quickly place lid on bottle and transport with tongs or other remote tools or lead carrying container.

PROCEDURE: (continued)

7. Consideration of expected dose rates from the sample, itself, must also be made. In this regard, the time to take the sample to the hot lab versus shielding the sample must be considered. The personnel who will obtain the sample shall be briefed on all alternatives and will provide input into practical methods of remotely handling the sample. Before the sample is taken at least 3 dry runs using Demin water shall be made using the remote tooling or intended method.

8. A RWP shall be assigned for the sampling evolution. The RWP shall be followed by all personnel handling the sample.

9. Prior to the sample entering the hot lab, any shielding, remote tooling or other protective measure shall be in place and ready to accept the sample.

10. Upon introduction of the sample into the hot lab, the sample will be handled in a manner such that it will cause an ALARA whole body dose to personnel involved. Unnecessary personnel shall not remain in the hot lab.

11. Properly in place and shielded, the sample will be processed remotely (where and when possible). Careful handling of the sample is mandatory in preparation for analysis so contamination is not spread, airborne problems are held at a minimum, and a new sample isn't required.

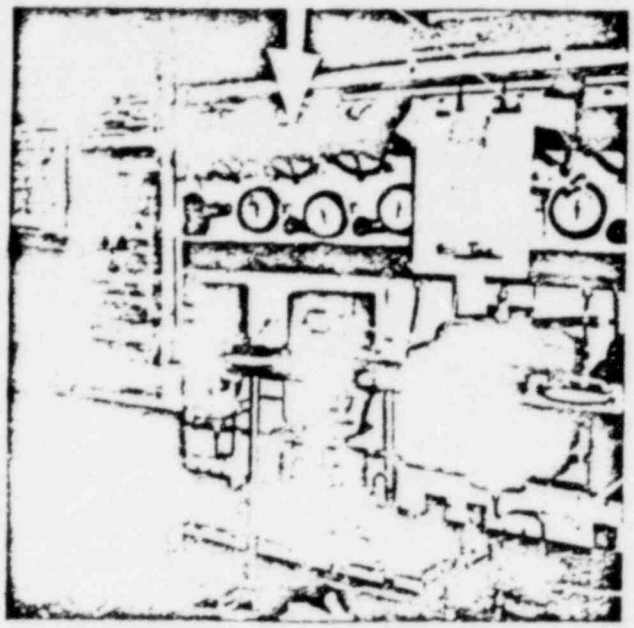
12. Following final analysis of the sample, results shall be reported to appropriate supervision.

EP 205A.5 APPENDICES

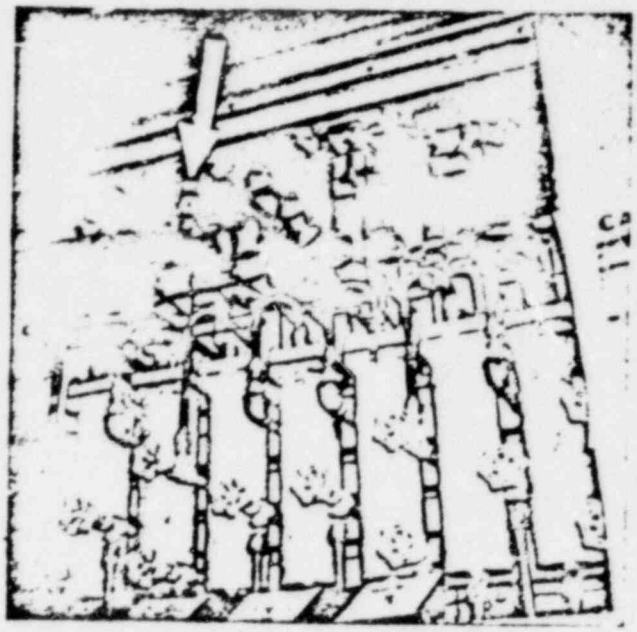
A. Photographs of Sample Points - Original Photographs are kept on file with Health Physics Supervision.

B. Plant layout maps.

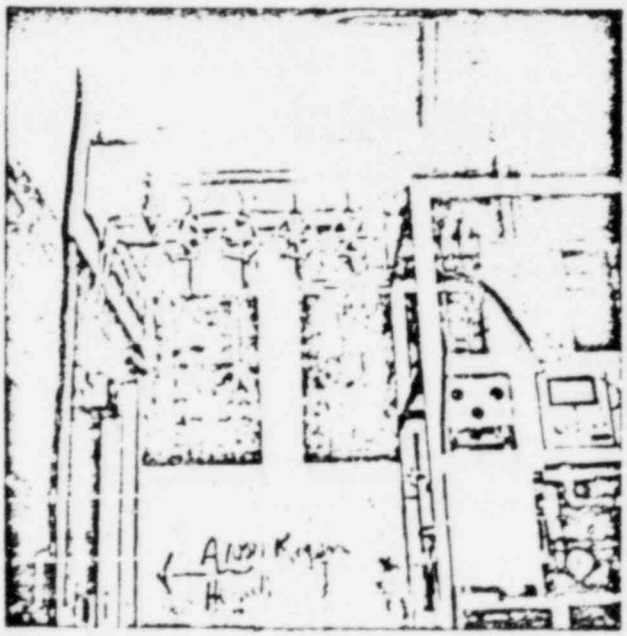
C. Survey maps.



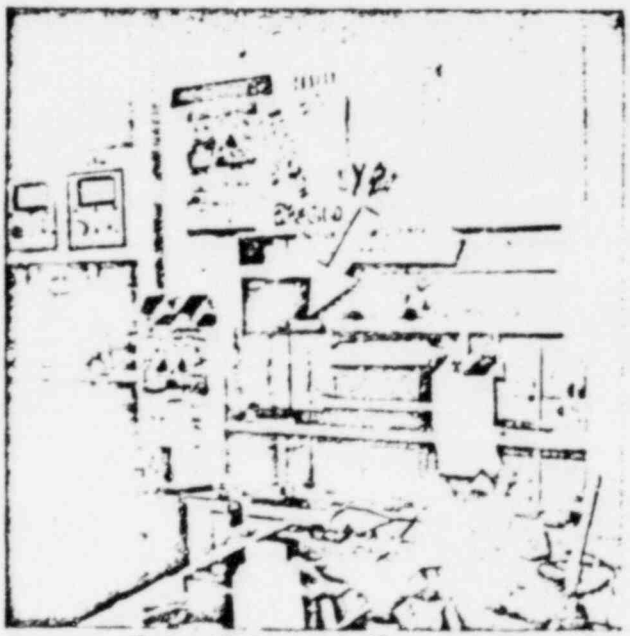
RX-165 UNIT 2
FEEDWATER SAMPLE SINK
(LOW PRESSURE) SE 2717



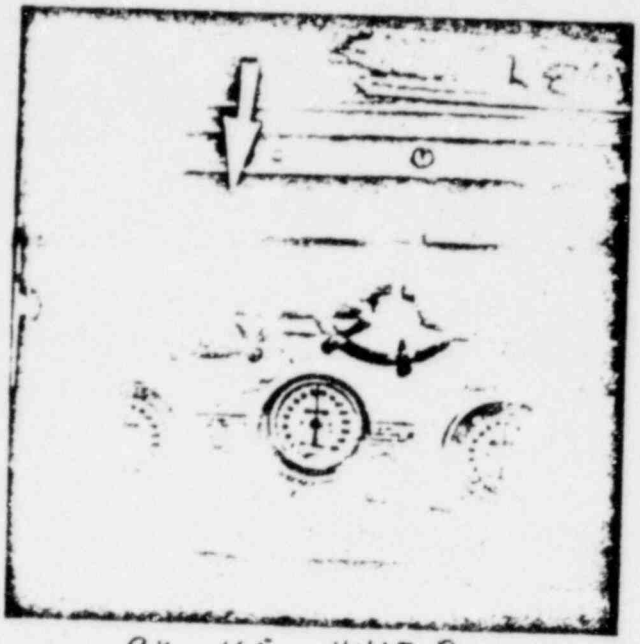
RX-165 UNIT 2
FEEDWATER SAMPLE SINK
(HIGH PRESSURE) SE 2717



RX-165 UNIT 2
RWCU SAMPLE SINK - VALVES

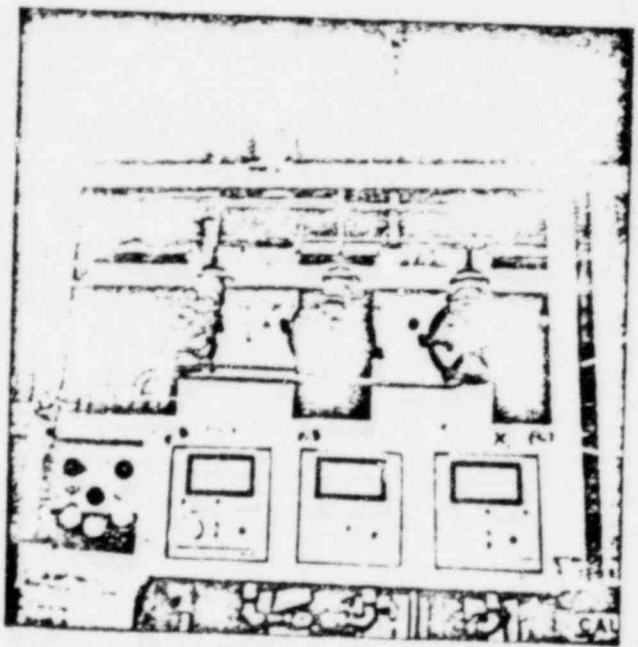


RX-165 UNIT 2
RWCU SAMPLE SINK - HOOD

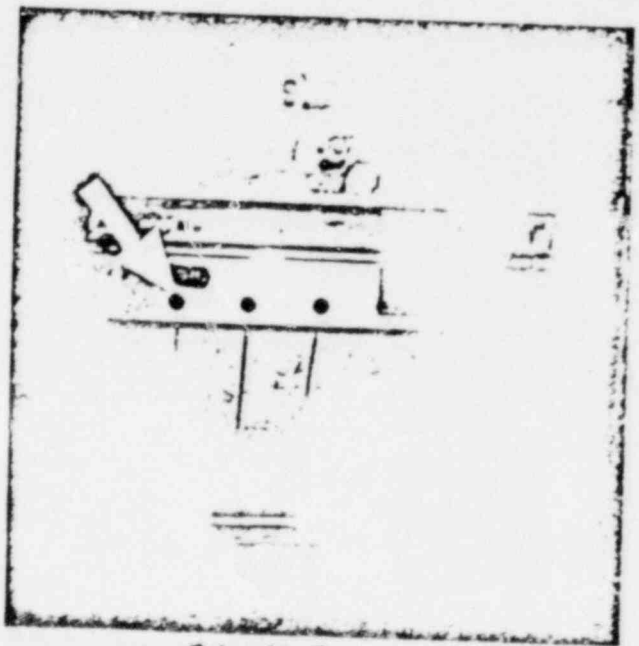


RX-165 UNIT 3
FEEDWATER SAMPLE SINK
(LOW PRESSURE) SE3717

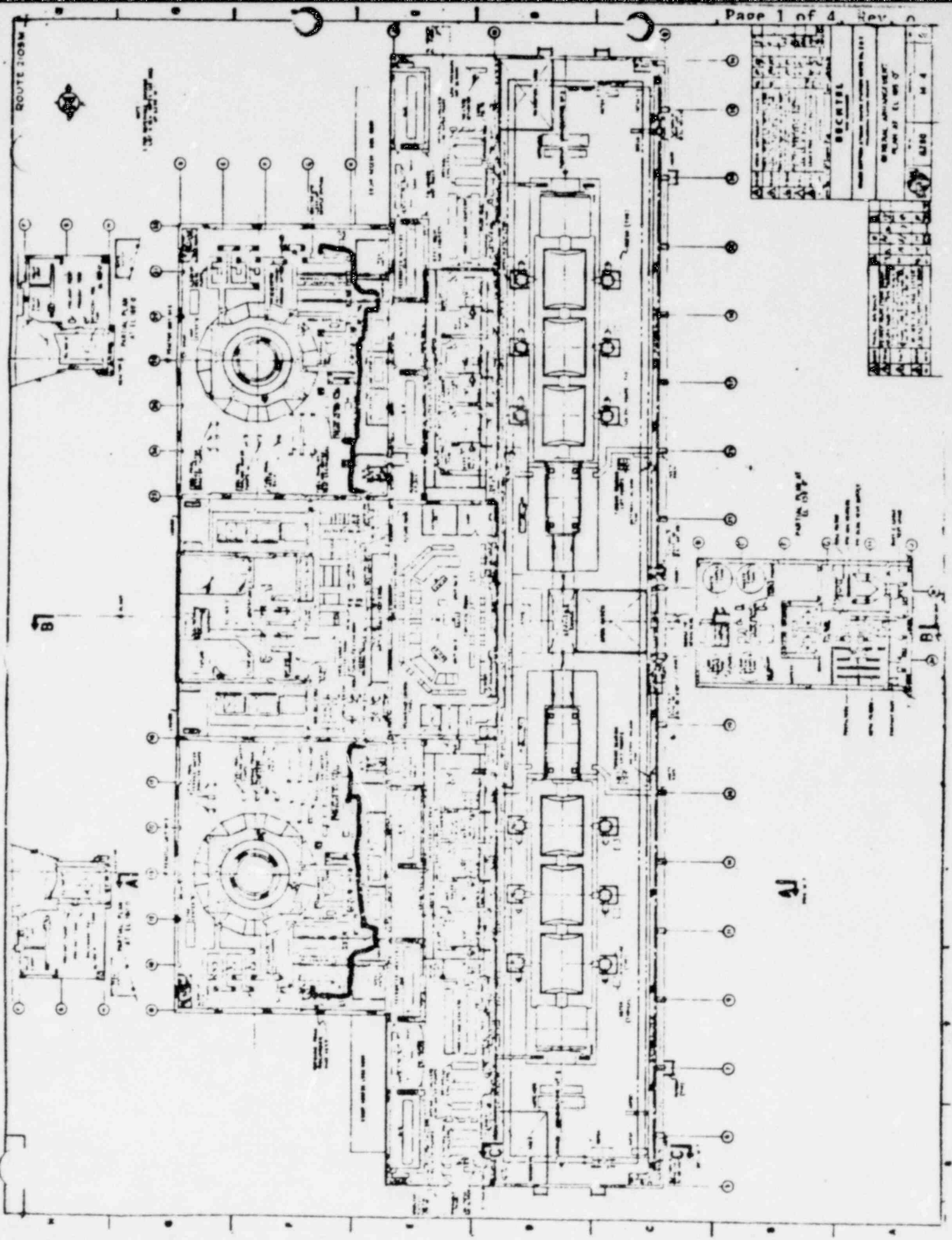
RX-165 UNIT 3
FEEDWATER SAMPLE SINK
(HIGH PRESSURE) SE3717



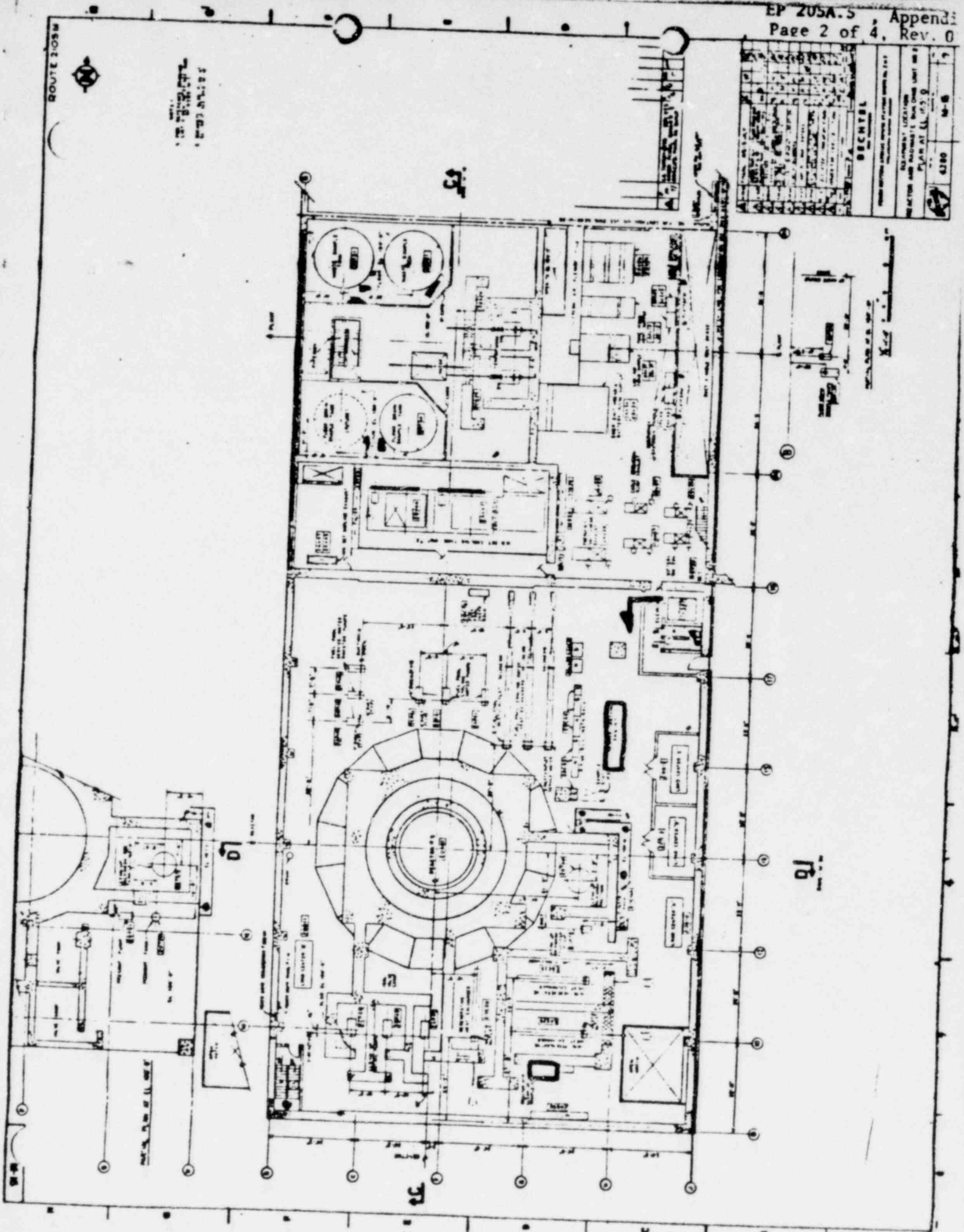
RX-165 UNIT 3
RWCU SAMPLE SINK - VALVES



RX-165 UNIT 3
RWCU SAMPLE SINK - HOOD



APPENDIX B



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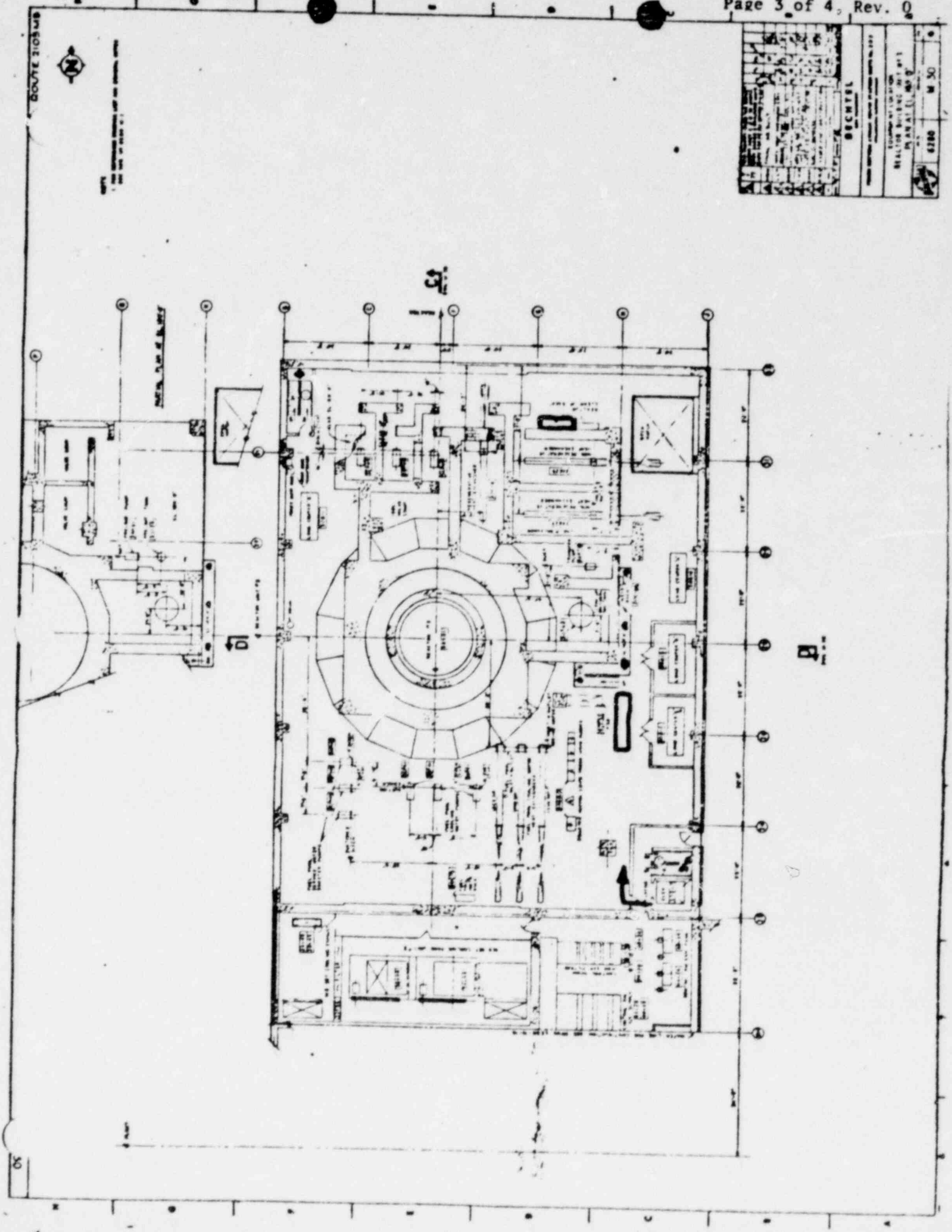
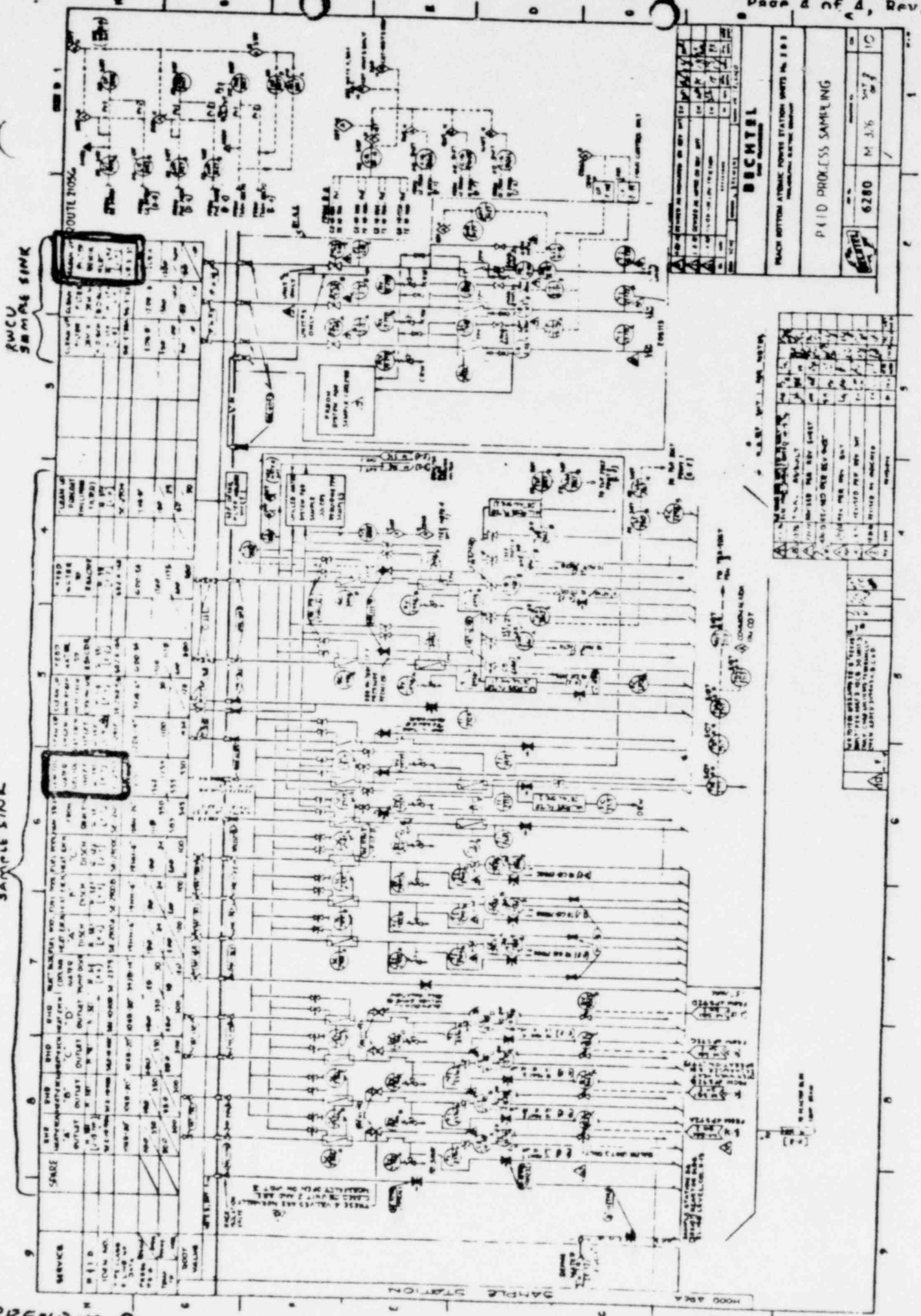


APPENDIX B


RWCU SAMPLE SINK
FEEDWATER SAMPLE SINK
BECHTEL
P&ID PROCESS SAMPLING
6280
M 36

APPENDIX B

DATE:	TECH:
	INST:
TIME:	
	SN:

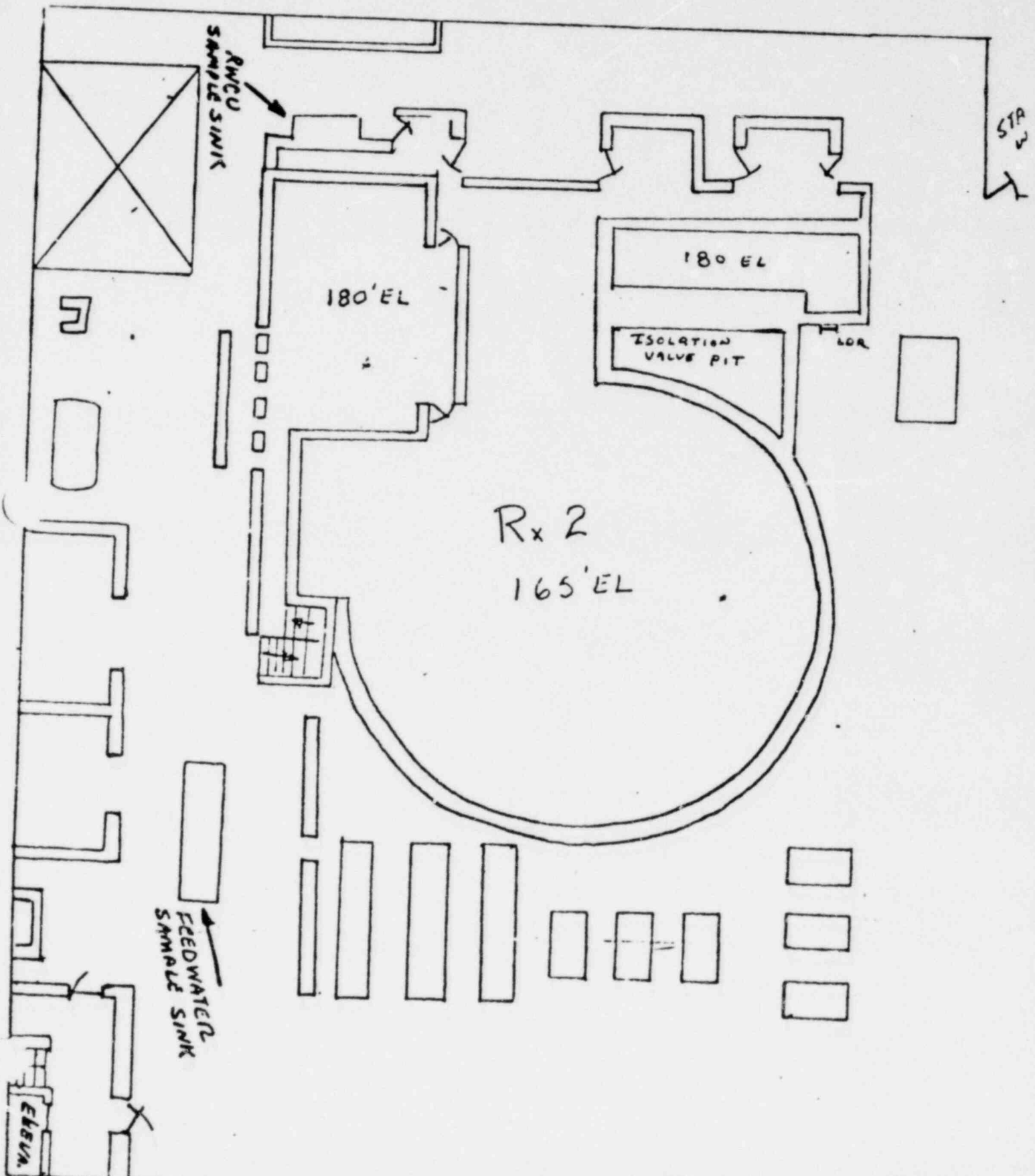
REMARKS:

MAP CODE

- △ Smear sample
- ○ Rad readings
- ○ Contact readings
- ✱✱ Roped off areas

SMEARS < 100 dpm/100 cm² UNLESS otherwise indicated

□ Radiation Readings in MR/HR



MAP CODE

SMEAR SAMPLE

RAD READINGS

RAD CONTACT READINGS

ROPED OFF AREAS

SMEARS 100 CPM ABOVE BACKGROUND UNLESS OTHERWISE INDICATED

RADIATION READINGS IN MR/HR

DATE: TECH: TIME: INST: SN:

REMARKS:

ELEVATOR

FEEDWATER SAMPLE SINK

TV CAGE

Rx 3 165

ISOLATION VALVE PIT

180' EL

180' E'

SHED

RWCU SAMPLE SINK

TO RECOMBINER

STAIR WELL

APPENDIX C

WJK

PHILADELPHIA ELECTRIC COMPANY

PEACH BOTTOM UNITS 2 AND 3

EP 205A.8 OBTAINING LIQUID RADWASTE SAMPLES FROM RADWASTE SAMPLE SINK FOLLOWING ACCIDENT CONDITIONS

PURPOSE:

The purpose of this procedure is to provide some guidelines prior to, during and after obtaining samples from the radwaste sample sink.

APPARATUS:

Appropriate Health Physics Survey Equipment
Air Sampler (low volume)
Anti-C clothing
Digital-Alarming dosimetry
3 oz sample bottle with lid
Tongs, remote tooling or lead carrying container for holding the sample bottle during sampling respiratory protective equipment

PRECAUTION:

A. In all steps of this procedure, an ALARA concept is mandatory. This procedure provides some philosophy in preplanning sampling evolutions for samples during an accident. In addition to reviewing this procedure, an ALARA review of the sampling process should be performed prior to obtaining the sample. If the sample is not really needed, and lower dose methods to determine the gross data that the sample provides exist, the sample should not be obtained.

B. At no time may NRC exposure limits (either airborne or body dose) be exceeded during the surveying for sampling or obtaining the sample. If it appears that an overexposure could reasonably occur when obtaining the sample, do not proceed without written NRC approval.

PROCEDURE:

1. It has been determined that a sample from the radwaste sample sink is required.

2. Two routes are suggested

   a. enter at the normal turbine building 116' plant entrance, time = approximately two minutes

b. entering at the roll up doors at either the north (Unit 3) or south (Unit 2) wall of turbine building 116'.
time = approximately four minutes

3. Have a health physics technician accompany the chemistry technician assigned to obtain samples in order to conduct area surveys. Brief Health Physics & Chemistry personnel on the route to be taken and the time to get to the sample point. Attached as Appendices are the locations of the sample points. Survey maps are also provided.

4. Health Physics personnel shall take appropriate survey equipment and protective equipment (e.g. SCBA gears and Anti-c's, etc.). Before making entry to the Power Block, ensure survey equipment is turned on and calibrated. Chemistry personnel shall make initial entry to assist with the survey and to valve in grab sample point.

5. Upon entering the Power Block, the surveyor(s) will note trends in general radiation levels enroute to the sample point. If dose rates exceed 10 R/hr gamma or 10 rad/hr beta prior to arriving at the point specified below and upon further investigation this dose rate remains stable or increases exit immediately and report to Health Physics Supervision. The following dose rates shall be determined prior to entry:

A. If the dose rate exceeds 5 R/hr at any portion of the either door leading to RW 116, leave the area immediately and report to Health Physics Supervision with this information.

With dose rates less than 5 R/hr, enter the Radwaste Building through that door. Take careful note of the dose rates.

B. Survey the area concentrating, especially, on the Sample Sink. Survey the grab sample point (Beta & Gamma), with sample flowing, ensure that the low-volume air sample is taken at the hood, in the "Breathing Zone". Special note of window open readings must be made because of the high beta fields expected in the sample sink, as well as, submersion air dose beta fields. Survey maps and photographs are provided as part of the Appendix of this procedure.

6. The following are times required to obtain the samples:

LOCATION	TIME TO SAMPLE
Radwaste Sample Sink	3 mins or less depending on flow

Suggested Sampling Method (This method may be changed after the ALARA review)

7. Obtain the smallest sample necessary for analysis to be performed. Obtain a 1 oz sample (about 1" up from bottom) or less in a 3 oz bottle. Use tongs or other remote handling tools which hold the sample bottle without operator attention. When required amount of sample is obtained remove bottle from hood, quickly place lid on bottle and transport with tongs or other remote tools.

8. Consideration of expected dose rates from the sample, itself, must also be made. In this regard, the time to take the sample to the hot lab versus shielding the sample must be considered. The personnel who will obtain the sample shall be briefed on all alternatives and will provide input into practical methods of remotely handling the sample. Before the sample is taken at least 3 dry runs using Demin water shall be made using the remote tooling or intended method.

9. A RWP shall be assigned for the sampling evolution. The RWP shall be followed by all personnel handling the sample.

10. Prior to the sample entering the hot lab, any shielding, remote tooling or other protective measure shall be in place and ready to accept the sample.

11. Upon introduction of the sample into the hot lab, the sample will be handled in a manner such that it will cause an ALARA whole body dose to personnel involved. Unnecessary personnel shall not remain in the hot lab.

12. Properly in place and shielded, the sample will be processed remotely (where and when possible). Careful handling of the sample is mandatory in preparation for analysis so contamination is not spread, airborne problems are held at a minimum, and a new sample isn't required.

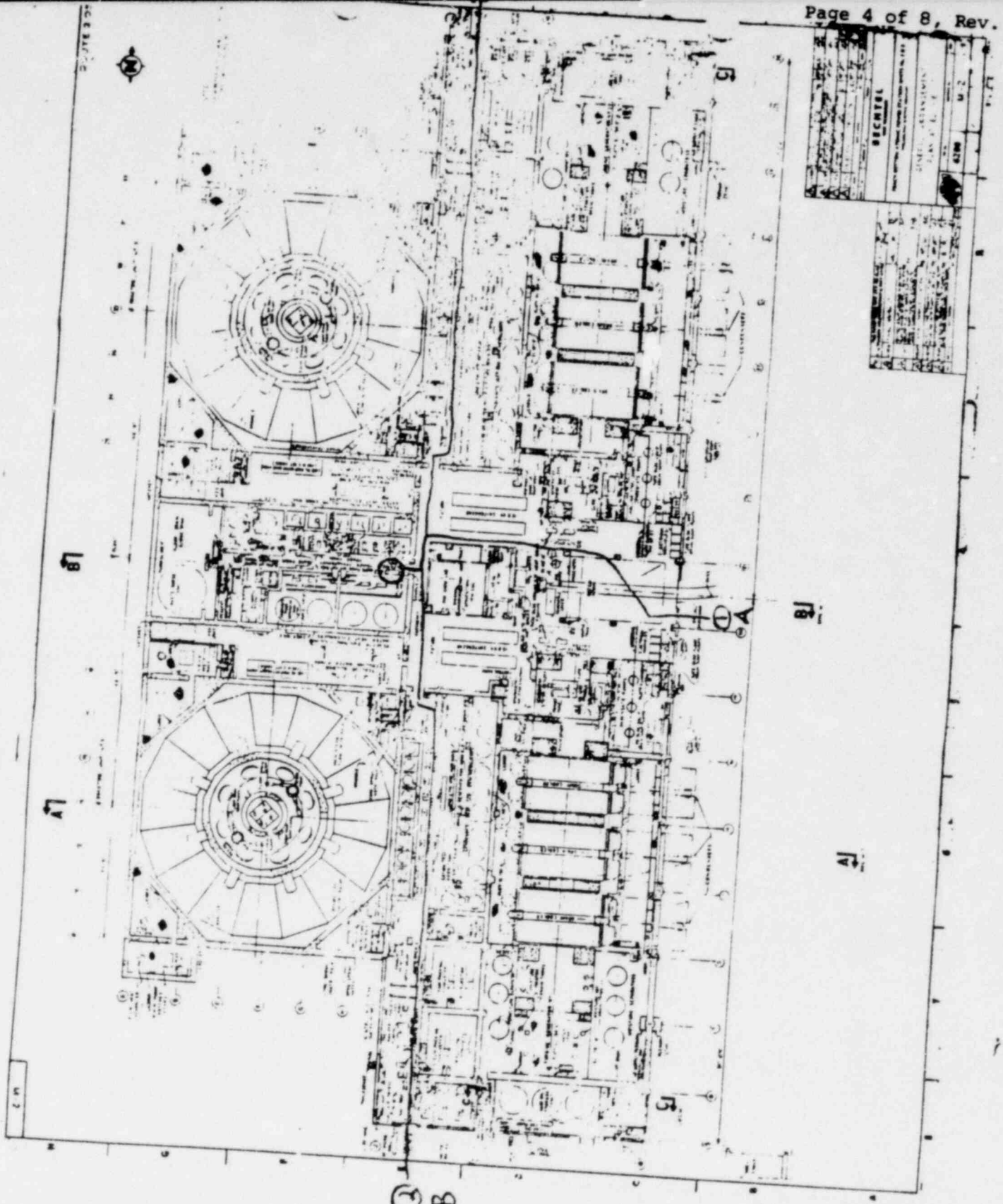
13. Following final analysis of the sample, results shall be reported to appropriate supervision.

EP 205A.8 APPENDICES

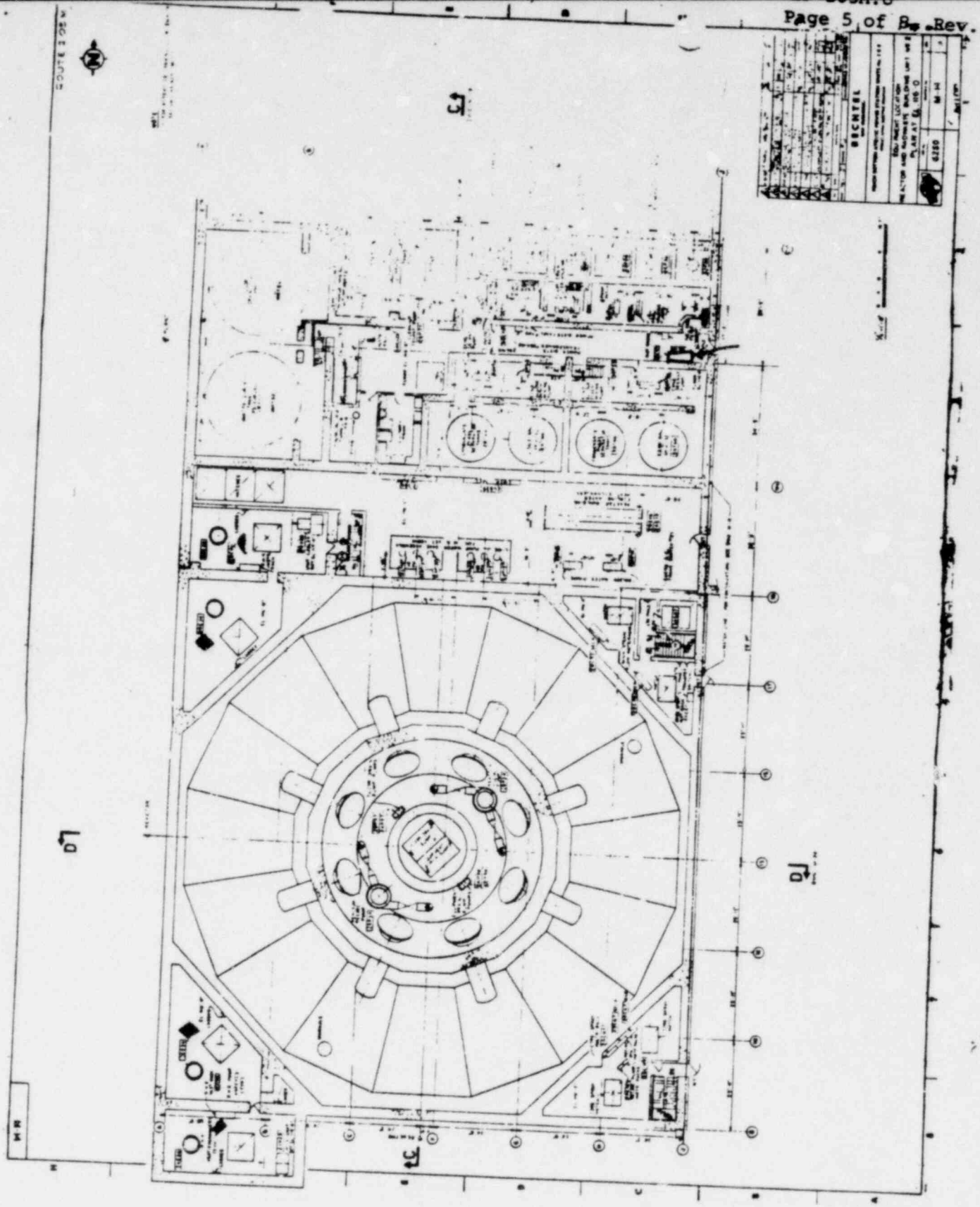
A. plant layout maps

B. survey maps

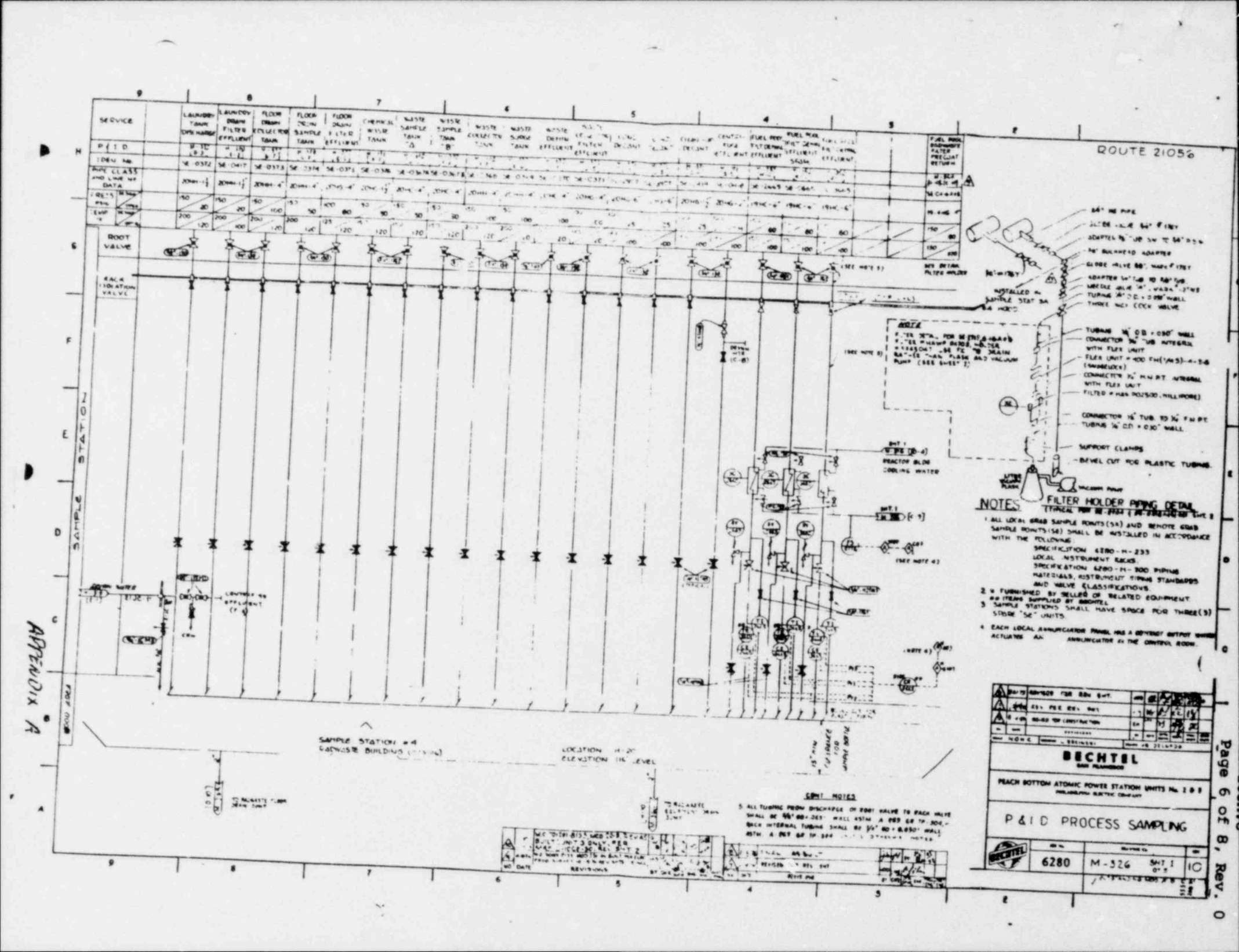
C. photographs



APPENDIX A



APPENDIX A


ROUTE 2105
SAMPLE STATION
ROOT VALVE
RACK ISOLATION VALVE
SAMPLE STATION #4
NOTES
FILTER HOLDER PIPING DETAIL
BECHTEL
PEACH BOTTOM ATOMIC POWER STATION UNITS No. 2 & 3
P & I D PROCESS SAMPLING
6280
M-326
10

APPENDIX A

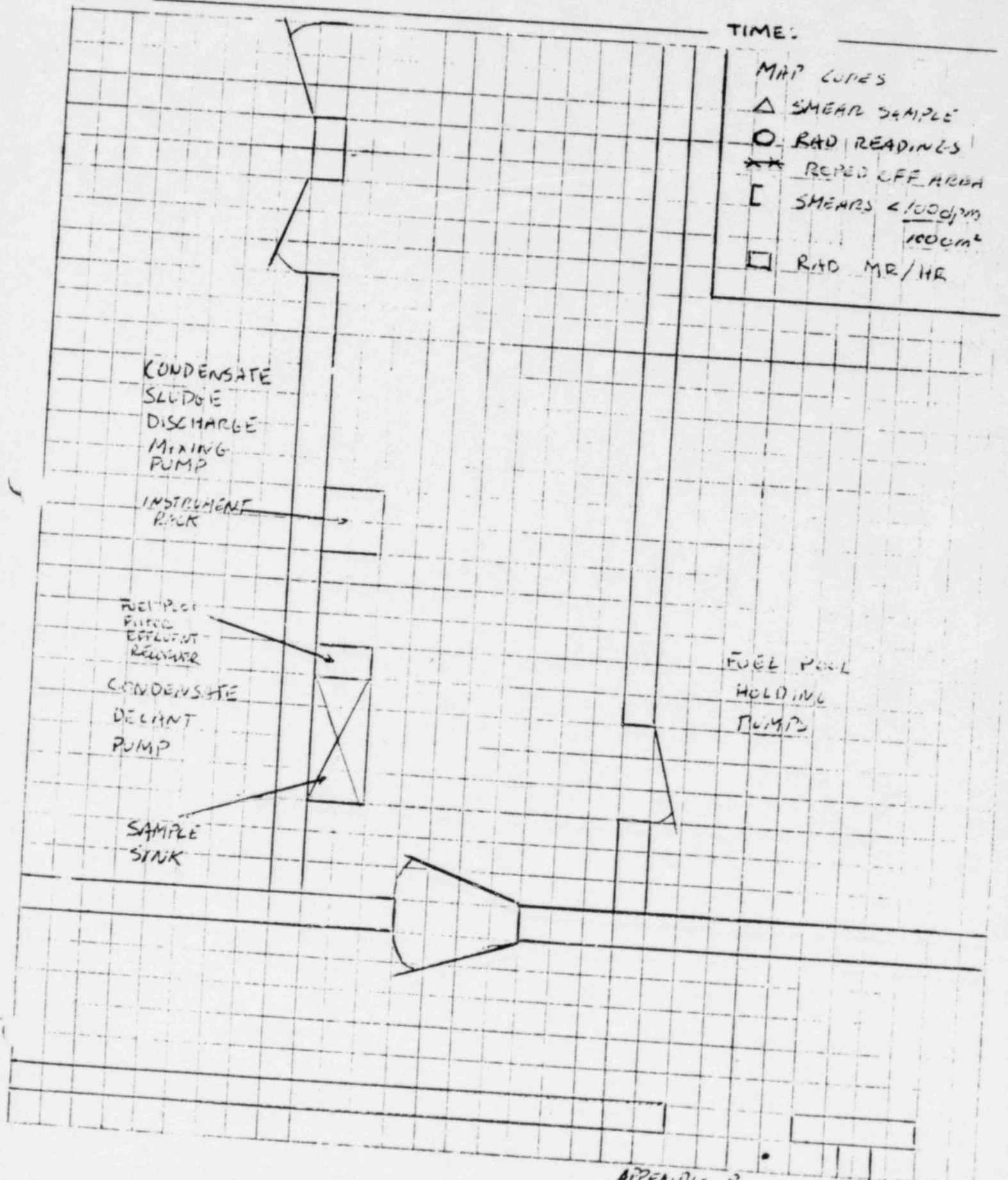
SURVEY MAP

PHILADELPHIA ELECTRIC CO.

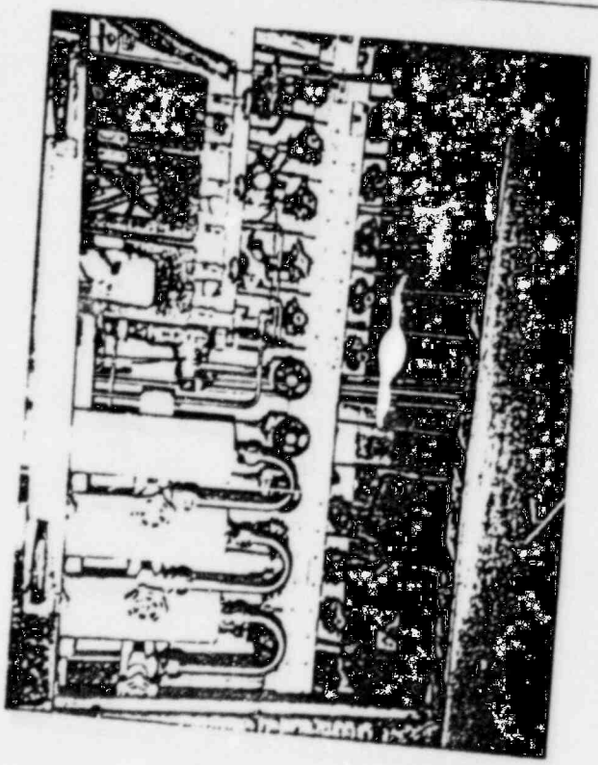
LOCATION RADWASTE SAMPLE SINK 116'

INST.

TIME:



RIGHT



LEFT

APPENDIX C

RADWASTE SAMPLE SINK

WJK

PHILADELPHIA ELECTRIC COMPANY

PEACH BOTTOM UNITS 2 AND 3

EP 205A.9 OBTAINING SAMPLES FROM CONDENSATE SAMPLE SINK FOLLOWING ACCIDENT CONDITIONS

PURPOSE:

The purpose of this procedure is to provide some guidelines prior to, during and after obtaining samples from the condensate sample sink following accident conditions with major fuel damage.

APPARATUS:

Appropriate Health Physics Survey Equipment
Air Sampler (low volume)
Anti-C Clothing
Digital-Alarming Dosimetry
3 Oz. Sample Bottle with Lid
Tongs or Remote Tooling or Lead Carrying Container for Holding the Sample Bottle During Sampling
Respiratory Protective Equipment

PRECAUTION:

A. In all steps of this procedure, an ALARA concept is mandatory. This procedure provides some philosophy in preplanning sampling evolutions for samples during an accident. In addition to reviewing this procedure, an ALARA review of the sampling process should be performed prior to obtaining the sample. If the sample is not really needed, and lower dose methods to determine the gross data that the sample provides exist, the sample should not be obtained.

B. At no time may NRC exposure limits (either airborne or body dose) be exceeded during the surveying for sampling or obtaining the sample. If it appears that an overexposure could reasonably occur when obtaining the sample, do not proceed without written NRC approval.

PROCEDURE:

1. It has been determined that a sample from the condensate sample sink is required.

2. Two routes are suggested:

   A. Entering at the normal turbine building 116' plant entrance.

      Time = approximately two minutes

   B. Entering at the roll up doors at either the north (Unit 3) or South (Unit 2) wall of turbine building 116'.

      Time = approximatley three minutes

3. Have a Health Physics Technician accompany the Chemistry Technician assigned to obtain samples in order to perform area surveys. brief Health Physics & Chemistry personnel on the route to be taken and the time to get to the sample point. Attached as Appendices are the locations of the sample points. Survey maps are also provided.

4. Health Physics personnel shall take appropriate survey equipment and protective equipment (e.g. SCBA gear,Anti C's etc.). Before making entry to the power block, ensure survey equipment is turned on and calibrated. Chemistry personnel shall make initial entry to assist with the survey and to valve in grab sample point.

5. Upon entering the Power Block, the surveyor(s) will note trends in general radiation levels enroute to the sample point. If dose rates exceed 10 R/hr gamma or 10 rad/hr beta prior to arriving at the point specified below and upon further investigation this dose rate remains stable or increases exit immediately and report to Health Physics Supervision. Survey the area concentrating, especially, on the Sample Sink. Survey the grab sample point (Beta & Gamma), with sample flowing, ensure that the low-volume air sample is taken at the hood, in the "Breathing Zone". Special note of window open readings must be made because of the high beta fields expected in the sample sink, as well as, submersion air dose beta fields. Survey maps and photographs are provided as part of the Appendix of this procedure.

6. The following are times required to obtain the samples:

   Condensate Sample Sink - 3 mins. or less depending on flow

   Suggested Sampling Method (This method may be changed after the ALARA review)

   Obtain the smallest sample necessary for analysis to be performed. Obtain a 1 oz. sample (about 1" up from bottom) or less in a 3 oz. bottle. Use tongs or other remote handling tools which hold the sample bottle without operator attention. When required amount of sample is obtained remove bottle from hood, quickly place lid on bottle and transport with tongs, other remote tools or lead carrying container.

7. Consideration of expected dose rates from the sample, itself, must also be made. In this regard, the time to take the sample to the hot lab versus shielding the sample must be considered. The personnel who will obtain the sample shall be briefed on all alternatives and will provide input into practical methods of remotely handling the sample. Before the sample is taken at least 3 dry runs using demin water shall be made using the remote tooling or intended method.

8. A RWP shall be assigned for the sample evolution. The RWP shall be followed by all personnel handling the sample.

9. Prior to the sample entering the hot lab, any shielding, remote tooling or other protective measure shall be in place and ready to accept the sample.

10. Upon introduction of the sample into the hot lab, the sample will be handled in a manner such that it will cause an ALARA whole body dose to personnel involved. Unnecessary personnel shall not remain in hot lab.

11. Properly in place and shielded, the sample will be processed remotely (where and when possible). Careful handling of the sample is mandatory in preparation for analysis so contamination is not spread, airborne problems are held at a minimum, and a new sample isn't required.

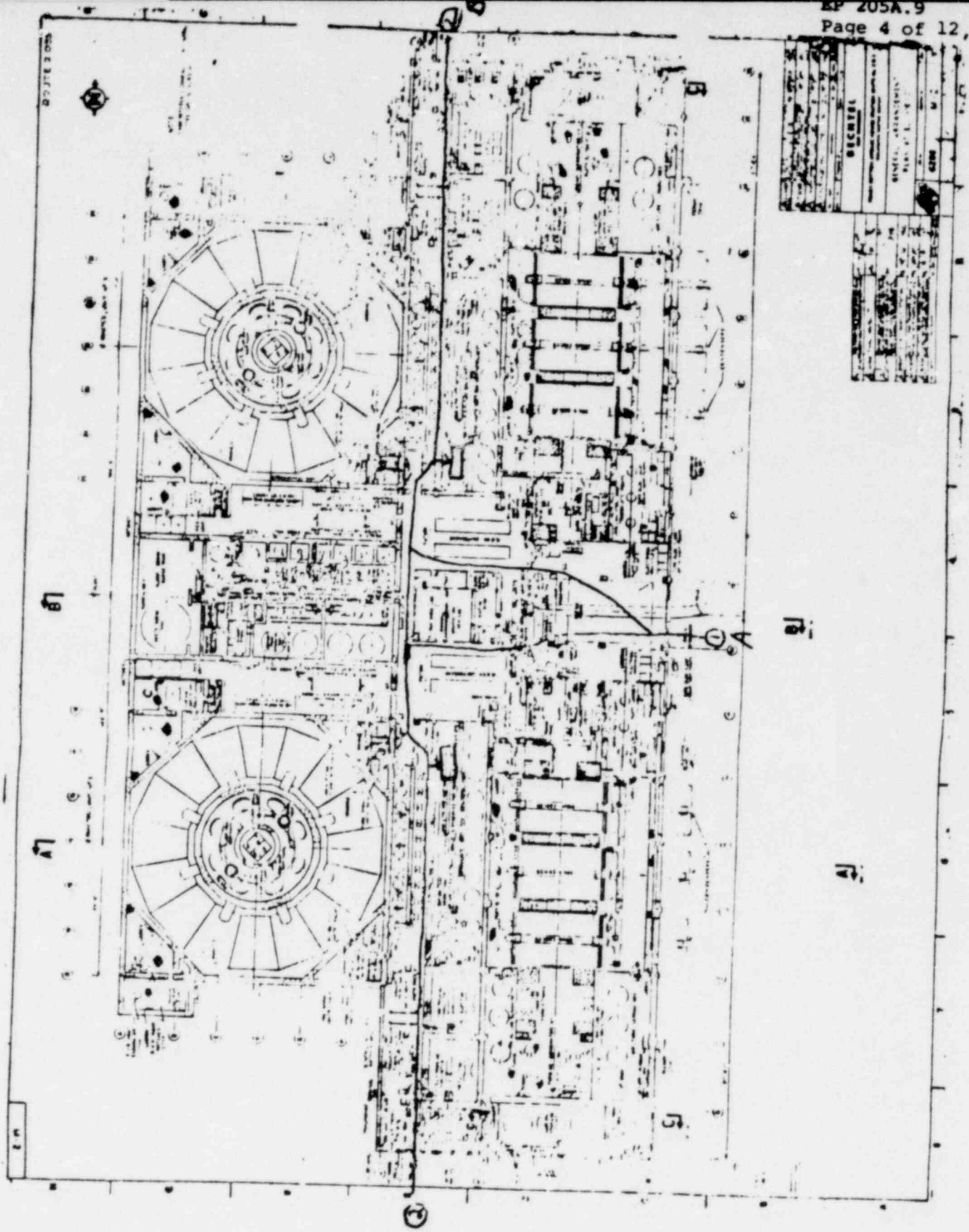
12. Following final analysis of the sample, results shall be reported to appropriate supervision.

EP 205A.9 APPENDICES

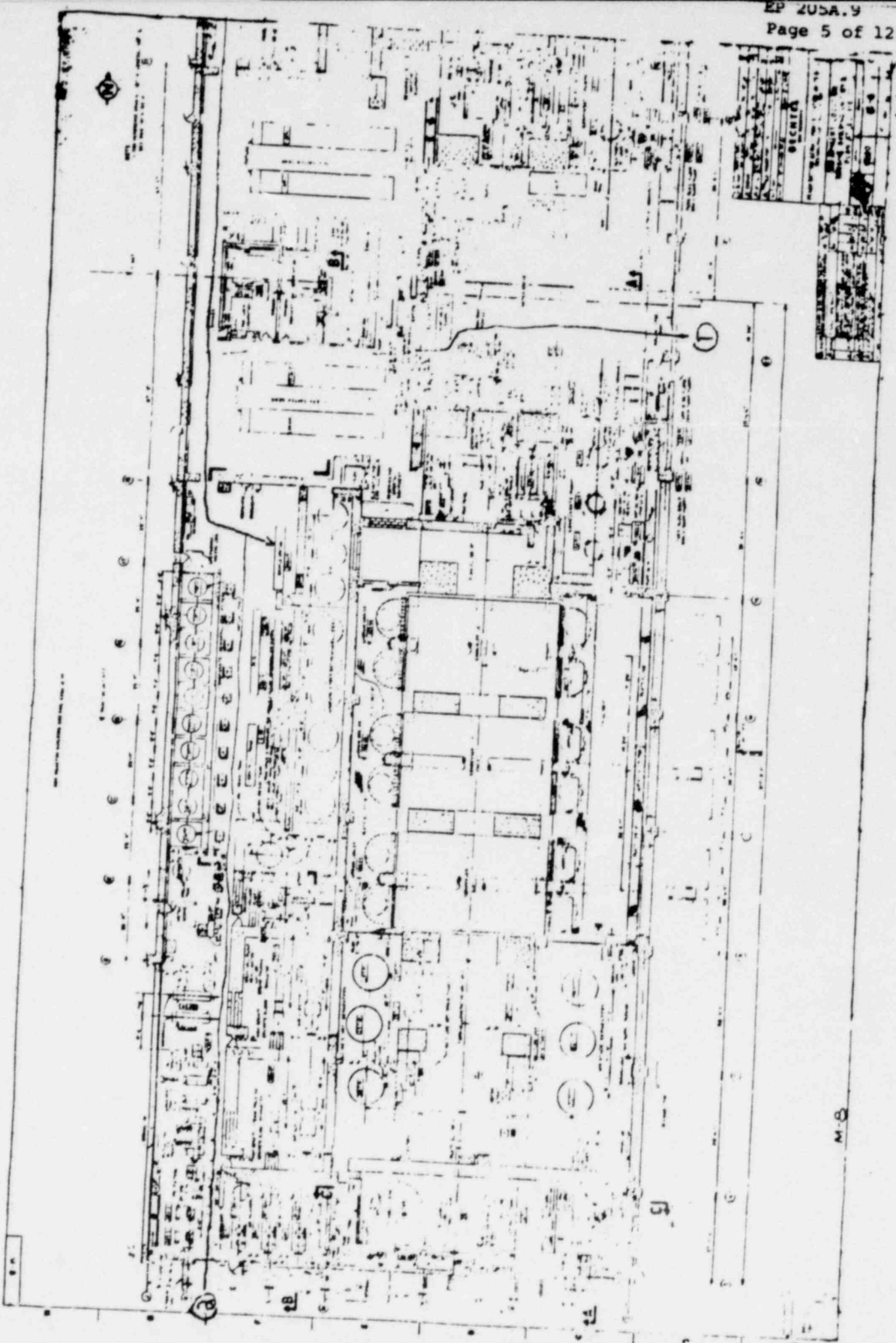
A. Plant Layout Maps

B. Survey Maps

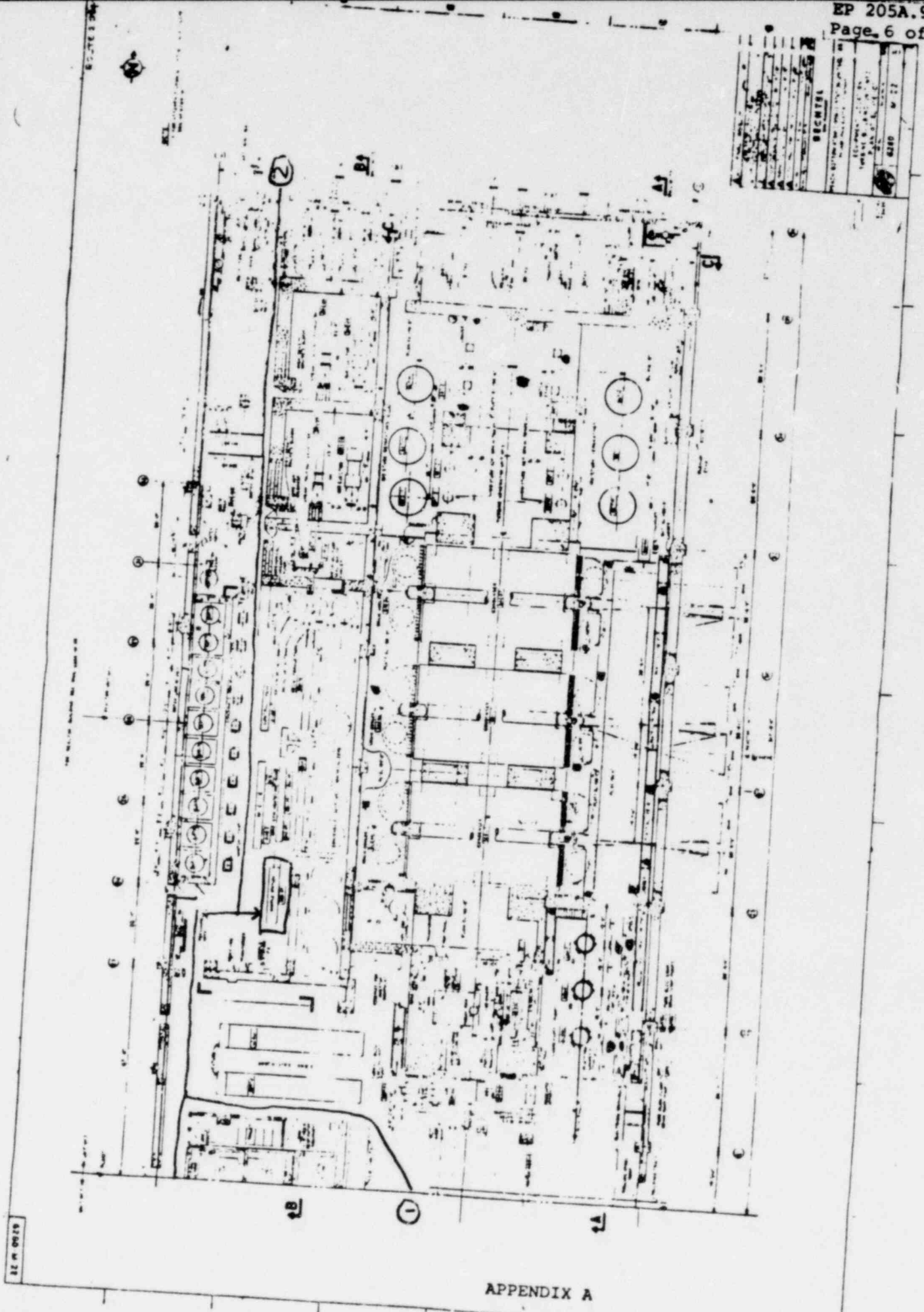
C. Photographs



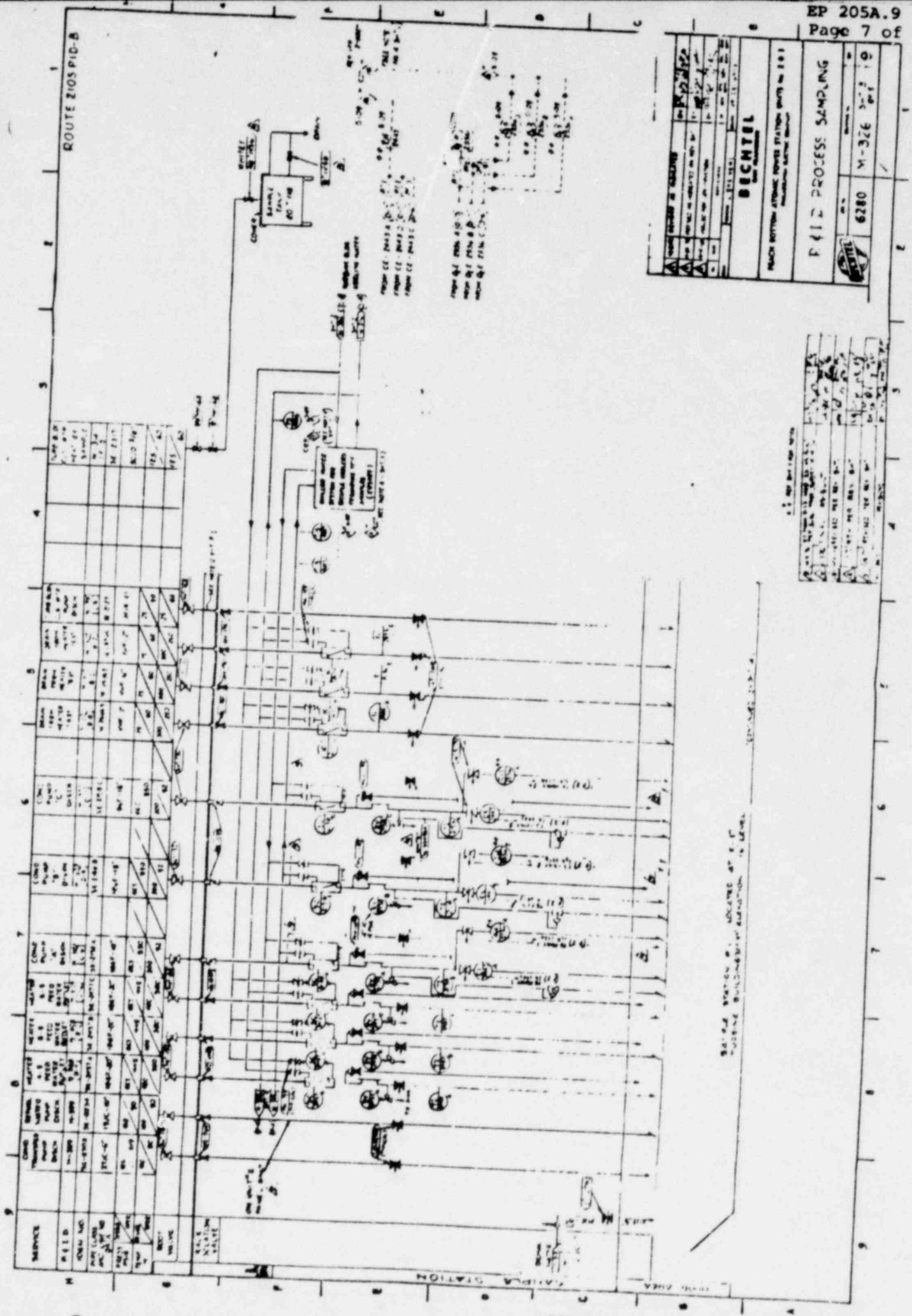
APPENDIX A



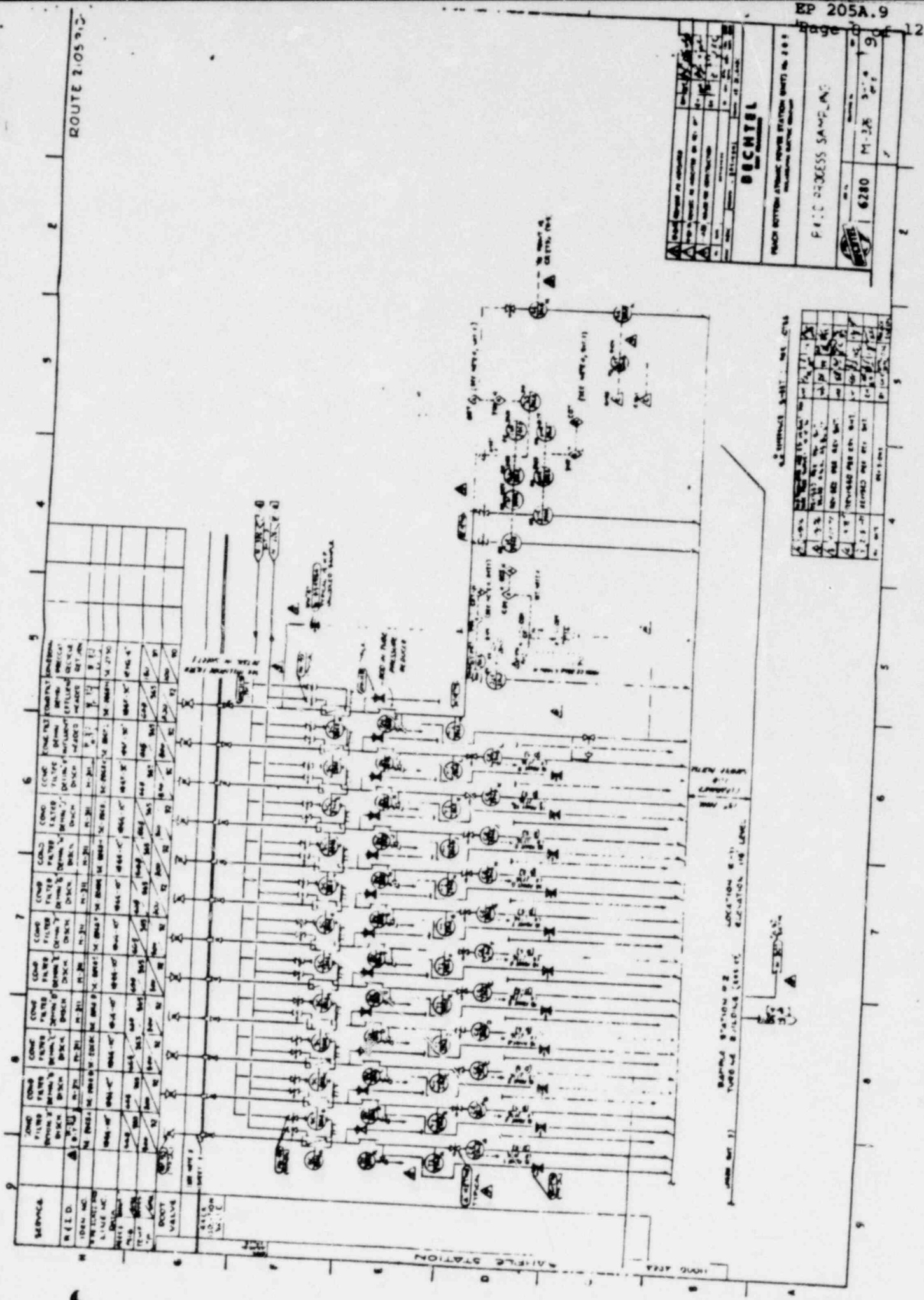
APPENDIX A



APPENDIX A



APPENDIX A


ROUTE 2.05 9.0
BECHTEL
PROCESS SAMPLING
6280
M-38
SERVICE
R.I.D.
BOOT VALVE
AUXILIARY BUILDING

C

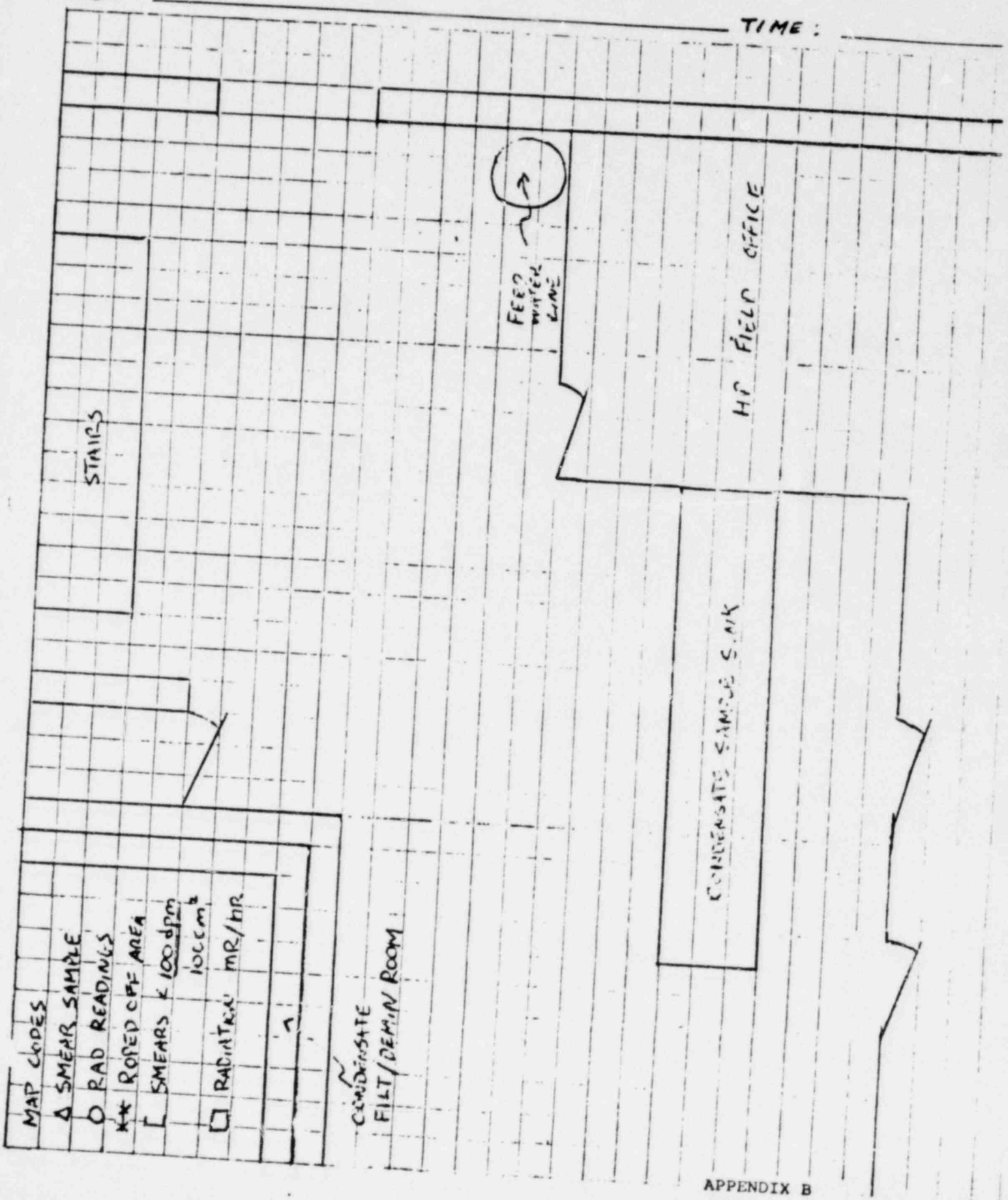
APPENDIX A

SURVEY MAP

PHILADELPHIA ELECTRIC CO.

LOCATION UNIT 2 CONDENSATE SAMPLE SINK 111'

INST. _____ TIME: _____



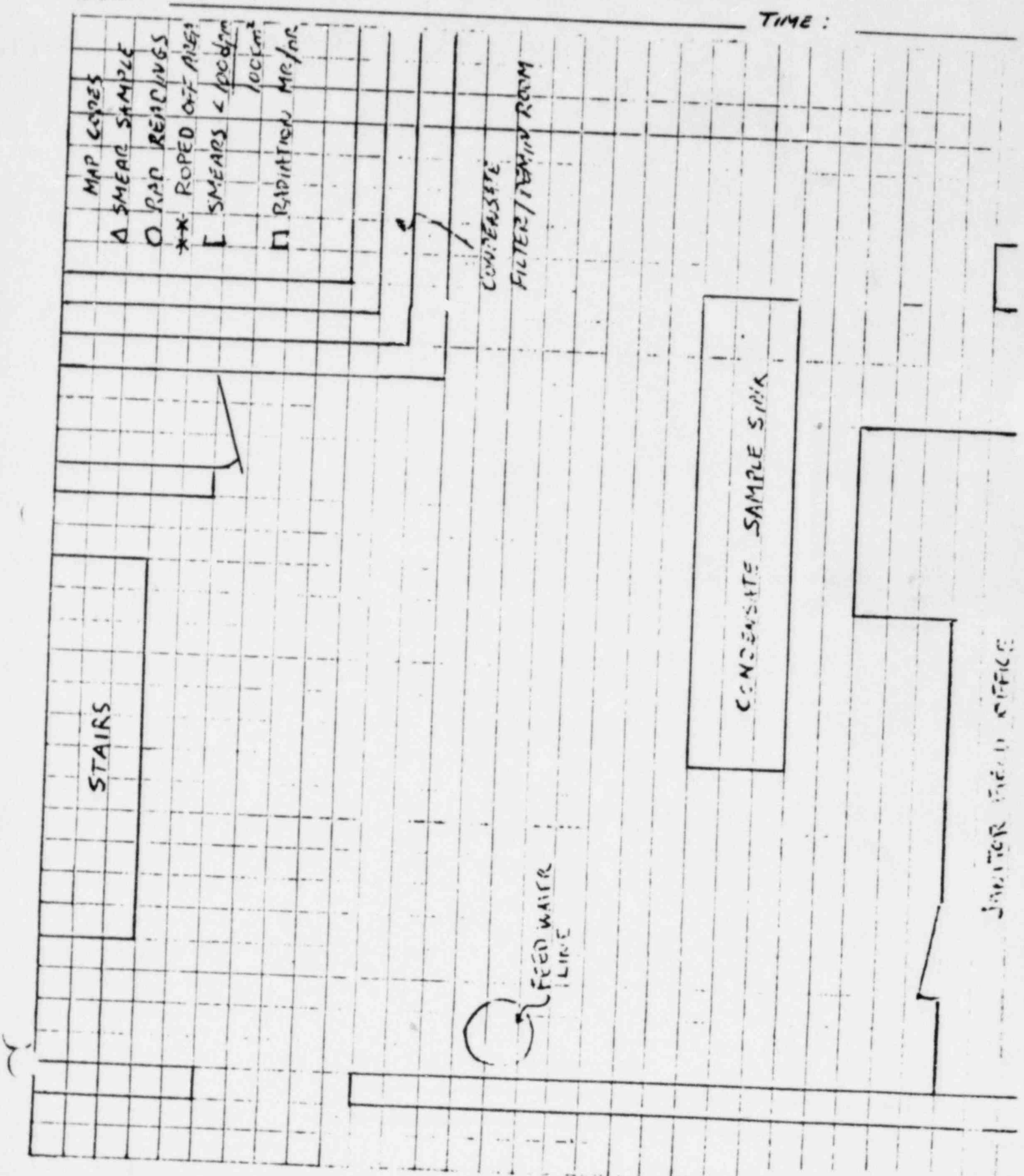
SURVEY MAP

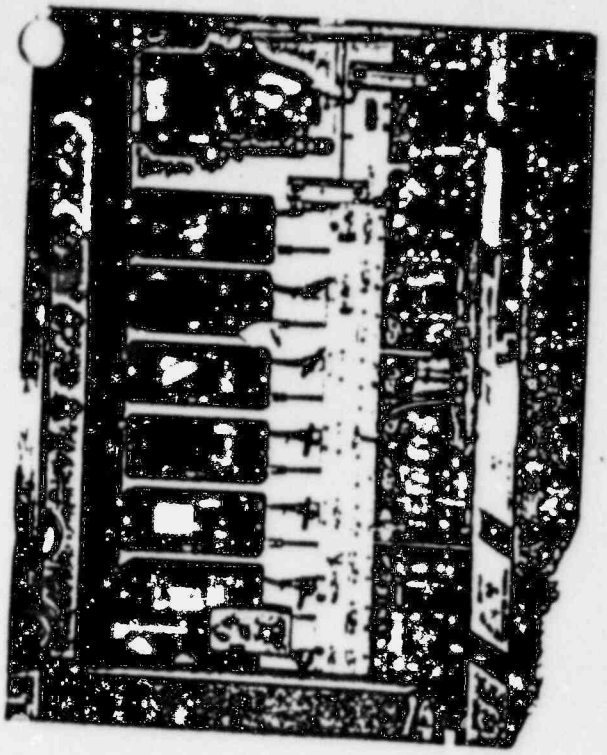
PHILADELPHIA ELECTRIC CO.

LOCATION UNIT 3 CONDENSATE SAMPLE SINK

INST.

TIME :





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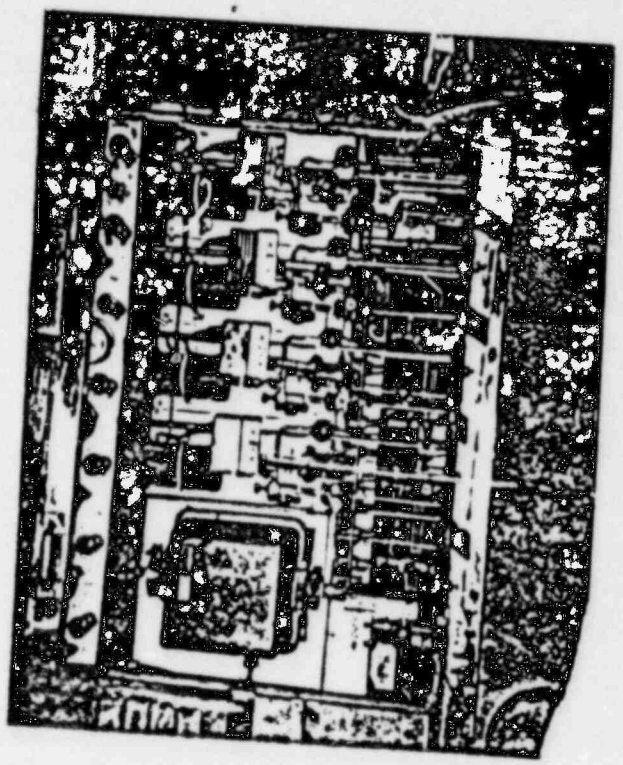

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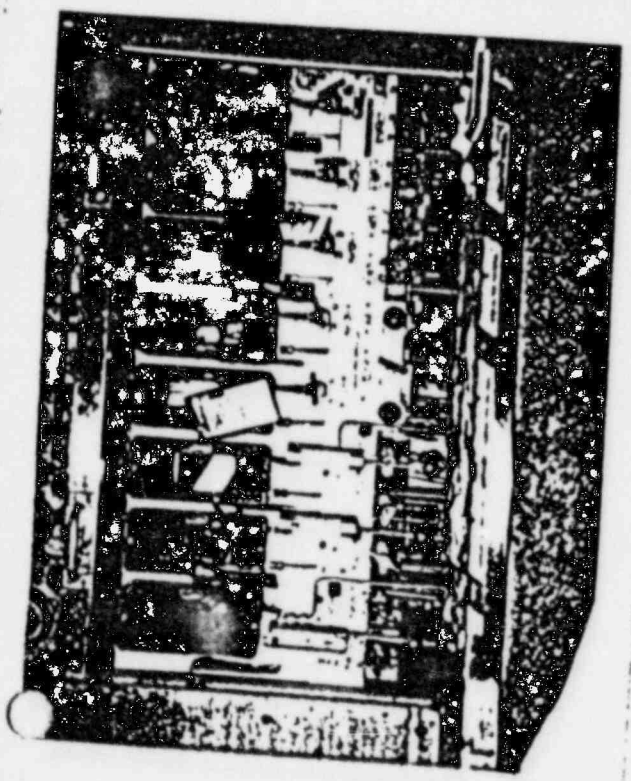

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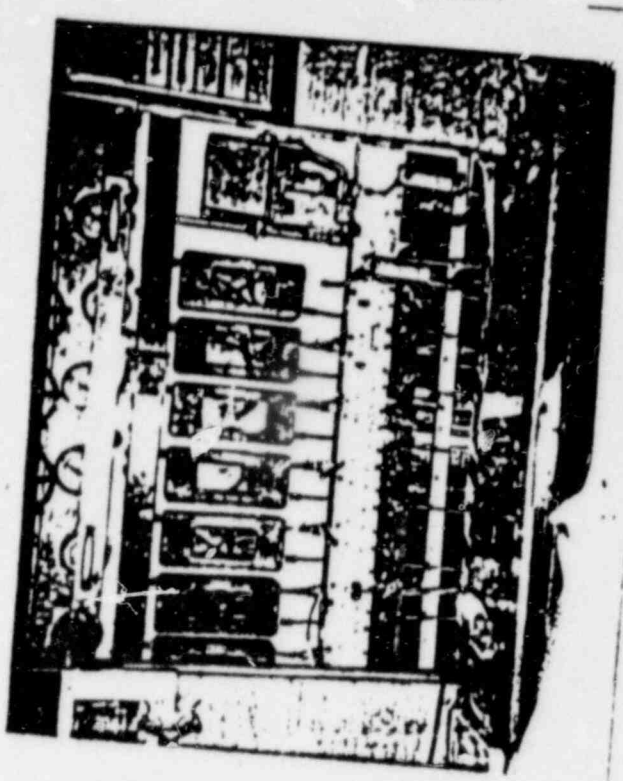
APPENDIX C

UNIT 2
CONDENSATE SAMPLE SINK



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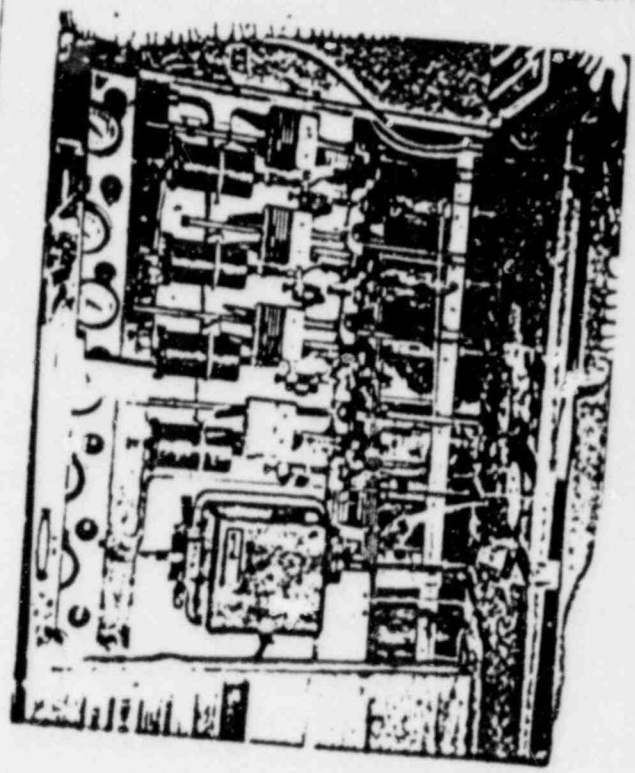

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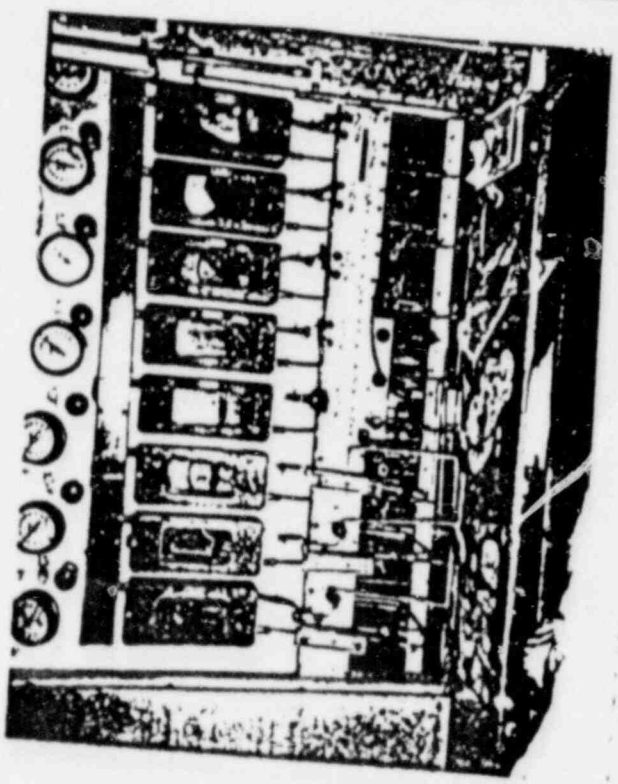

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APPENDIX C

UNIT 3
CONDENSATE SAMPLE SINK

PHILADELPHIA ELECTRIC COMPANY

PEACH BOTTOM UNITS 2 & 3

MAY 25 1982

EP-205A.10 OBTAINING OFF-GAS SAMPLES FROM THE OFF-GAS HYDROGEN ANALYZER FOLLOWING ACCIDENT CONDITIONS

PURPOSE:

The purpose of this procedure is to provide guidelines for consideration prior to, during, and after obtaining an off-gas sample from the off-gas hydrogen analyzer following accident conditions with major fuel damage.

APPARATUS:

Appropriate health physics survey equipment
Air sampler (low volume)
Respiratory protective equipment
Anti-C clothing
Digital-alarming dosimetry
14.4 ml off-gas vial with septums
0-1 ml microsyringe
Septum valve
Sample tee with valve
Tongs or other remote tooling or lead carrying container

PRECAUTION:

A. In all steps of this procedure, an ALARA concept is mandatory. This procedure provides some philosophy in pre-planning sampling evolutions for off-gas samples during an accident. In addition to reviewing this procedure, an ALARA review of the sampling process should be performed prior to obtaining the sample. If the sample is not really needed, and lower dose methods exist to determine the gross data that the sample provides, the sample should not be obtained.

B. At no time may NRC exposure limits (either airborne or body dose) be exceeded during the surveying for sampling or obtaining the sample. If it appears that an overexposure could reasonably occur when obtaining the sample, do NOT proceed without written NRC approval.

PROCEDURE:

1. It has been determined that an off-gas sample from the off-gas hydrogen analyzer is required.

2. Three paths to the analyzers are suggested:

   A. Entering the normal turbine building 116' plant entrance up the Unit 3 reactor building stairs to 165' elevation through the recombiner building door then down the stairs to 157' elevation.
   Time = approximately 10 minutes

   B. Entering the recombiner building 135' at the door next to the railroad airlock, north side of Unit 3 (key needed for locked door) up the stairs to 157' elevation.
   Time = approximately 3 minutes

   C. Going up the outside stairs of the recombiner building west wall to 157' elevation recombiner building door (key needed).
   Time = approximately 2 minutes

3. Once a path is selected, obtain the appropriate keys for locked doors from shift supervision. The key needed for the hydrogen analyzer rooms is key number 8457.

4. Have a Health Physics Technician accompany the chemistry technician assigned to obtain samples in order to perform area surveys. Brief Health Physics & Chemistry personnel on the route to be taken and the time to get to the sample point. Attached as Appendices are the locations of the sample points. Survey maps are also provided.

5. Health Physics personnel shall take appropriate survey equipment and protective equipment (e.g. SCBA gear, anti-C's, etc.). Before making entry to the Power Block, ensure survey equipment is turned on and calibrated. Chemistry personnel shall make initial entry to assist with the survey and to valve in grab sample point.

6. Upon entering the Power Block, the surveyor(s) will note trends in general radiation levels enroute to the sample point. If dose rates exceed 10 R/hr gamma or 10 rad/hr beta prior to arriving at the point specified below and upon further investigation this dose rate remains stable or increases, exit immediately and report to Health Physics Supervision.

   If the dose rate at any door that has to be opened is greater than 5 R/hr, leave the area immediately and report to Health Physics Supervision with this information. With the dose rates less than 5 R/hr, enter the area but take careful notice of the dose rates.

   Once the hydrogen analyzer room is entered, survey the hydrogen analyzer inlet line as well as the general area. Ensure that the low-volume air sample is taken in the "Breathing Zone". Survey maps and photographs are provided as part of the appendix of this procedure.

PROCEDURE: (Cont'd)

7. The following are the times required to obtain the samples:

Location	Time to Sample
H_2 Analyzer Recombiner Bldg. 157'	5 minutes

Suggested Sampling Method (this procedure may be changed based on the ALARA Review)

Use Appendix A (HPO/CO-130) for sampling procedure.

Obtain smallest sample necessary for analyses to be performed.

8. Consideration of expected dose rates from the sample itself must also be made. Review survey data for the sample inlet line and the H_2 analyzer inlet line as compared to general field for approximation of sample dose. In this regard the time to take the sample to the hot lab versus shielding the sample must be considered. The personnel who will obtain the sample shall be briefed on all alternatives and will provide input into practical methods of remotely handling the sample.

9. A RWP will be assigned for the sample collection and analysis. The RWP shall be followed by all personnel handling the sample.

10. Prior to the sample entering the hot lab, any shielding, remote tooling or other protective measure shall be in place and ready to accept the sample.

11. Upon introduction of the sample into the hot lab, the sample will be handled in a manner such that it will cause an ALARA whole body dose to personnel involved. Unnecessary personnel shall not remain in the hot lab.

12. Properly in place and shielded, the sample will be processed remotely (where and when possible). Careful handling of the sample is mandatory in preparation for analysis so contamination is not spread, airborne problems are held at a minimum, and a new sample is not required.

13. If the containment sample is too hot to count directly, a 0.1 ml sample can be taken from the off-gas sample vial after the vial is adjusted to ATM, pressure with syringe needed and transferred to another evacuated 14.4 ml off-gas vial. Repeat if needed.

14. Following final analysis of the sample, results shall be reported to appropriate supervision.

HPO/CO APPENDICES

A. HPO/CO-130 Obtaining Off-Gas Samples from the Off-Gas Hydrogen Analyzers

B. Plant Layout Maps

C. Survey Maps

D. Photographs

APPENDIX A

PHILADELPHIA ELECTRIC COMPANY

PEACH BOTTOM UNITS 2 & 3

HPO/CO-130 OBTAINING OFF-GAS SAMPLES FROM THE OFF-GAS H_2 ANALYZERS

PURPOSE:

The purpose of this procedure is to provide some guidelines for obtaining off-gas from H_2 Analyzer.

APPARATUS:

Appropriate Health Physics survey equipment
Air sampler (low volume)
Respiratory protective equipment
Anti-C clothing (as required)
14.4 ml off-gas vial with septums
Septum valve
Sample tee with valve

PROCEDURE:

1. Prior to obtaing the gas sample, a Radiation-Contamination-Airborne (R-C-A) survey shall be performed and an RWP obtained.
2. Suggested Sampling Method
   A. Install sampling tee (if not present) by the following:
      (1) Place the H_2 in purge.
      (2) Install the sample tee in the sample pump suction piping and verify the sample valve is closed.
      (3) Return the H_2 Analyzer to normal operation allow readings to stabilize before sampling.

B. Prerequistes

(1) Verify the sample valve is closed.

(2) The septum valve installed with a 1/4" to 1/8" reducer (if required) into the sample valve.

(3) Close septum valve (push red button all the way in).

C. Obtain a sample by the following method:

(4) Open the sample valve.

(5) Open the septum valve (push green button all the way in)

(6) Install the syringe needle through the septum valve and sample valve into the sample tee. Open syringe valve (push green button all the way in).

(7) Flush the microsyringe by taking a ml sample and returned the sample to the sample tee by pressing the plunger twice.

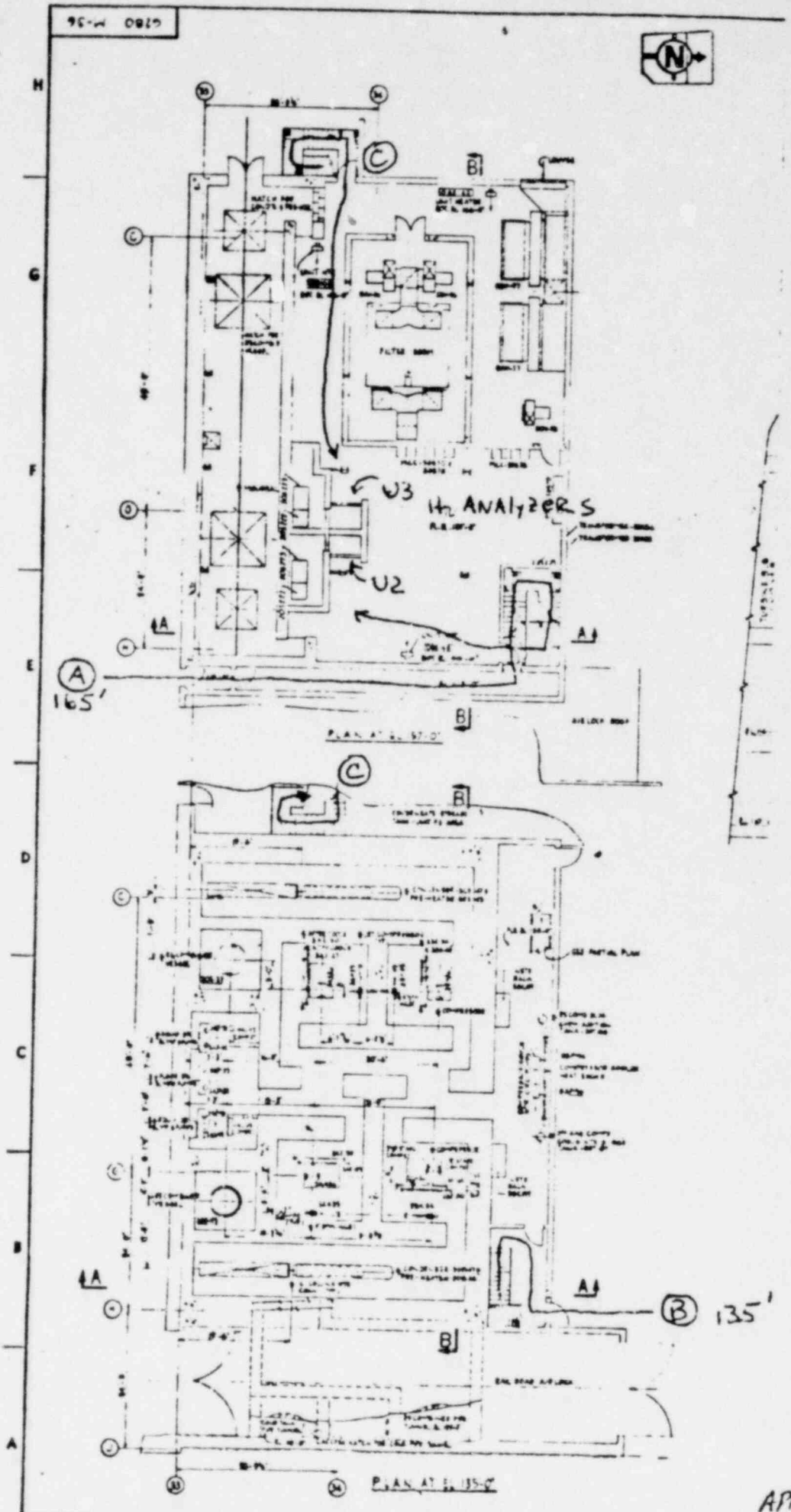
(8) Obtain a 5.0 ml sample from the sample in the microsyringe and close syringe valve (push red button all the way in)

(9) Close the sample valve and the septum valve (push red button all the way in).

(10) Place the 5.0 ml sample into a evaculated 14.4 ml off-gas vial after inserting needle into vial and opening syringe valve (push green button all the way in).

(11) Exit the area with the off-gas vial.

(12) Remove septum valve and replace pipe plug. When sample program is complete. No more than 2 weeks.



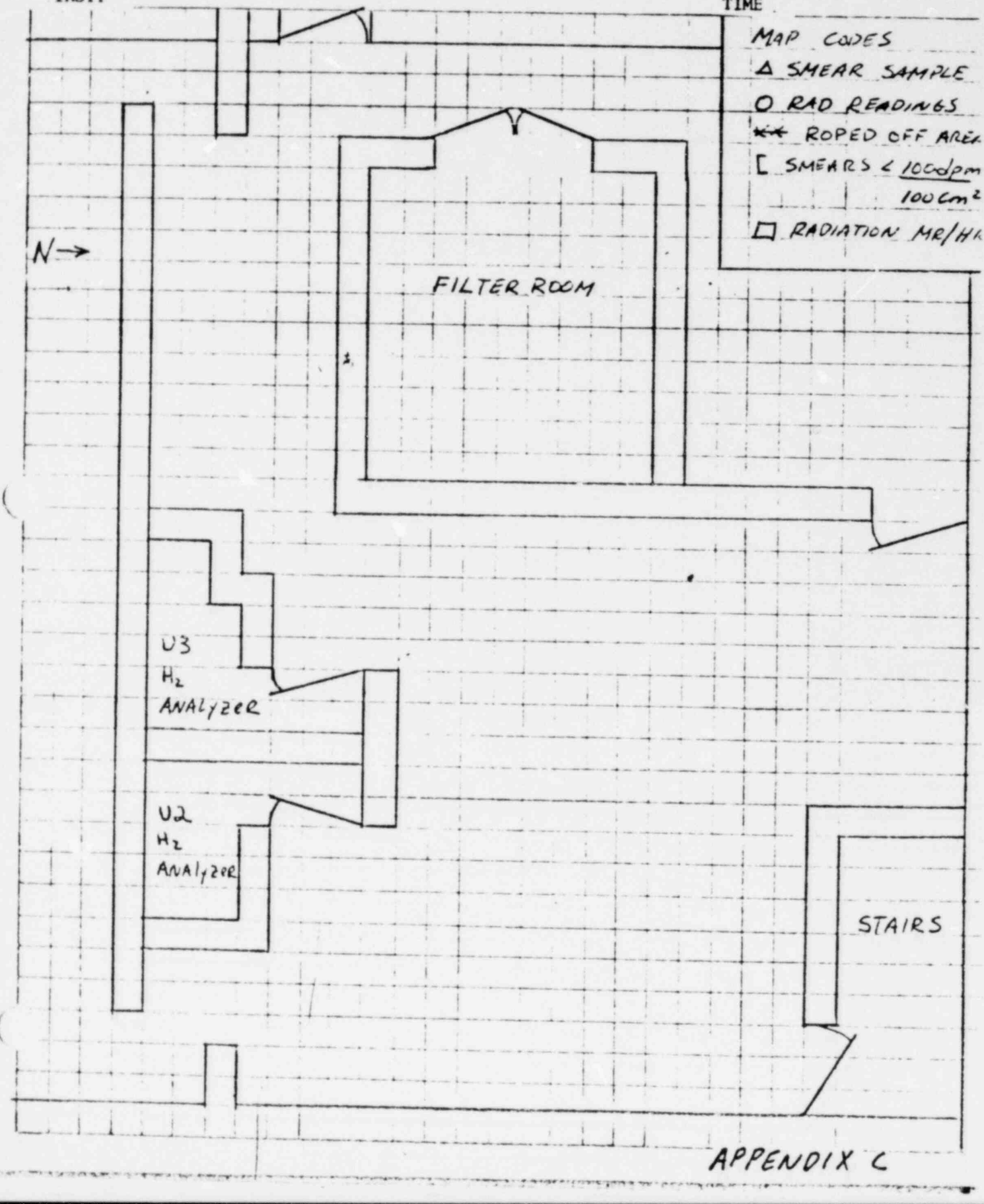
APPENDIX B

SURVEY MAP

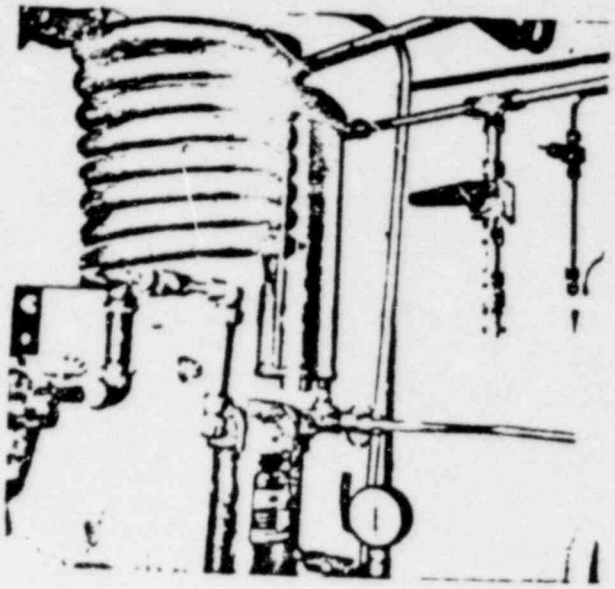
LOCATION: Recombiner Building 157'

INST.

TIME

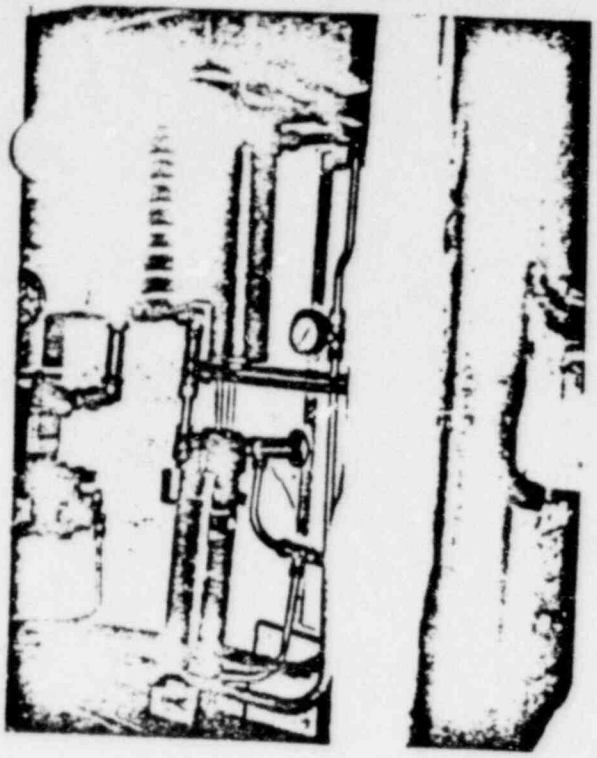


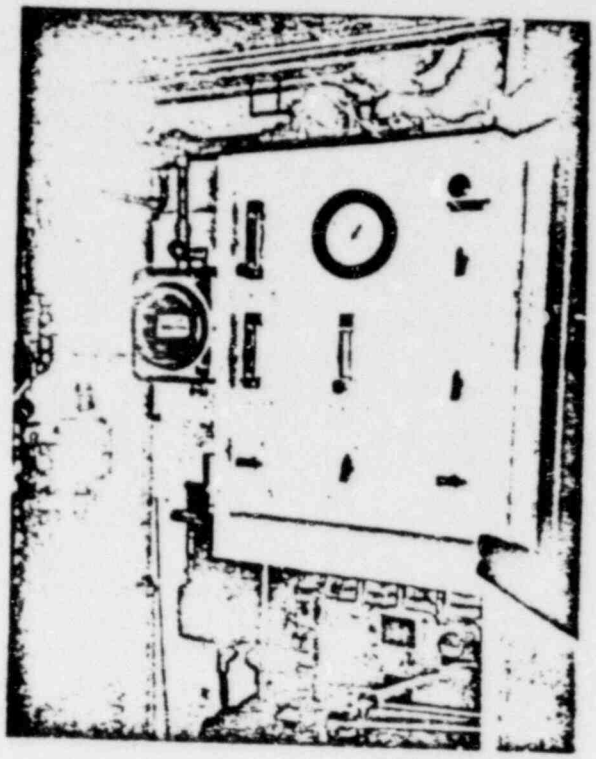
APPENDIX C

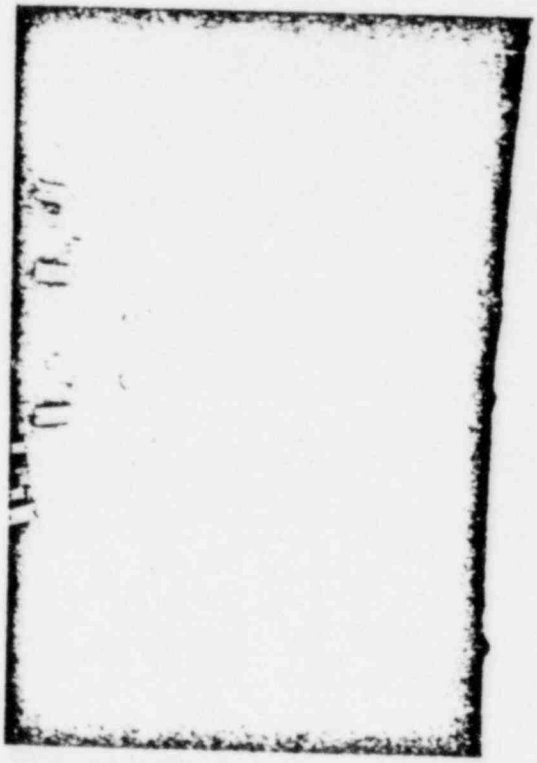


SAMPLE TEE INSTALLED

UNIT 2 OFF GAS
HYDROGEN ANALYZER







UNIT 3 OFF GAS
HYDROGEN ANALYZER

APPENDIX D

WJK

PHILADELPHIA ELECTRIC COMPANY

PEACH BOTTOM UNITS 2 & 3

EP 205A.11 SAMPLE PREPARATION AND CHEMICAL ANALYSIS OF HIGHLY RADIOACTIVE LIQUID SAMPLES

PURPOSE:

The purpose of this procedure is to provide some guidelines for consideration during sample preparation and chemical analysis of highly radioactive samples following accident conditions with major fuel damage.

APPARATUS:

Appropriate Health Physics Survey Equipment
Air Sampler (low volume)
Respirator Protection Equipment if required
Anti-C Clothing
Digital-Alarming Dosimetry
Appropriate Lead Shielding
Appropriate Microsyringes
Equipment for Cl-Analysis by Electrode
Equipment for Boron Analysis by Monital
14.4 ml Off Gas Vials with Septums

PRECAUTIONS:

A. In all steps of this procedure, an ALARA concept is mandatory. This procedure provides some philosophy in pre-planning for sample preparation and analysis of highly radioactive liquid samples. In addition to reviewing this procedure, an ALARA review of the sample preparation and analysis methods should be performed prior to beginning preparation and analysis. If an analysis is not really needed or a lower dose method is possible to obtain the same data, do not perform the analysis.

B. At no time, may NRC exposure limits (either airborne or body dose) be exceeded during the sample preparation and chemical analysis. If it appears that an overexposure could reasonably occur during sample preparation or analysis, DO NOT proceed without written NRC approval.

PROCEDURE:

1. Obtain the survey data obtained when the sample was taken and transported to the Chemical Lab. Brief Health Physics personnel on the sample preparation and chemical analysis to be performed. Health Physics supervision shall determine air sampling requirements.

2. Health Physics personnel shall monitor dose rates during the sample preparation and analysis. Based on their analysis, stay times shall be determined. During sample preparation and analysis, extremity doses should be limiting. However, whole body exposure shall also be considered. Extremity dosimetric devices shall be worn. An RWP shall be assigned to this activity.

3. Sample preparation shall be done in a ventilation hood or other ventilated area where respiratory protection equipment is not required if possible. When possible sample analysis shall also be done in a ventilation hood or where other engineering controls (like portable HIEPA/charcoal vent. units) may be used.

4. Consider the use of tongs or other remote tooling during sample preparation and analysis.

5. Lead shielding shall be used when handling undiluted reactor coolant At a minimum, lead bricks stacked around the sample shall be used. A small gap between the top lead bricks may be made for the insertion of a microsyringe needle into the sample bottle. The amount of sample removed and the dilution volume shall depend on the sample dose rate. After removing a sample close the gap the lead brick top to reduce dose rates. Monitor the dose to the hands during micropipeting.

6. Consider the use of more elaborate shielding during sample preparation if dose rates merit its use.

7. Chloride and boron analysis on undiluted samples should be done by remote methods. The chloride analysis may be performed by the electrode method. With this method, the electrode can be placed in the sample through a hole in a lead brick and injection of standard solution be made through a second hole in the brick. The boron analysis may be performed the same way. Health Physics surveys shall be made on all electrodes, pipets or microsyringes after their use and appropriate disposal or storage methods used.

8. Consider the use of more elaborate shielding or remote analysis tooling if extremity dose rates merit its use.

9. Liquid samples for gamma isotopic analysis shall be placed in a 14.4 ml off-gas vial. This vial shall be capped with a rubber septum and wrapped saran wrap to prevent contamination of counting equipment. The dose rate from these samples shall be $<$ 200 mRem/hr on contract or additional dilution is required.

10. The 14.4 liquid off-gas samples for gamma isotopic analysis (Geli) may be counted on the 3 cm or 30 cm shelf. The 30 cm shelf geometry can analyze samples with dose rates $<$ 200 mRem/hr on contact. Check the dead time while placing the sample in the counting cave. Samples with $>$ 30% dead time may be counted but do not exceed 50% dead time.

11. Before actual sample preparation or chemical analysis is performed at least three dry runs using demin, water shall be made. An ALARA review shall also be done. Based on these dry runs and the ALARA review, changes to sample preparation and analysis procedures shielding

or equipment shall be made to minimize exposure. Health Physics supervision shall also review the possibility of not performing the sample preparation and analysis at all.

12. Consideration shall be given to the final disposition of the samples, the remainder of the coolant sample and the waste produced.

13. Samples and the remainder of the coolant sample which are kept for additional analysis shall be stored in an appropriate location based on their dose rate and radiological hazard.

MAY 25 1982

WJK

PHILADELPHIA ELECTRIC COMPANY

PEACH BOTTOM UNITS 2 & 3

EP 205A.12 - SAMPLE PREPARATION AND ANALYSIS OF HIGHLY RADIOACTIVE PARTICULATE FILTERS AND IODINE CARTRIDGES

PURPOSE:

The purpose of this procedure is to provide some guidelines for consideration during sample preparation (sample reduction) and isotopic analysis of highly radioactive particulate filters and iodine cartridges following accident conditions with major fuel damage.

APPARATUS:

Appropriate Health Physics survey equipment
Air Sampler (low volume)
Respirator protection equipment if required
Anti-C clothing
Digital - alarming Dosimetry
Appropriate lead shielding
Whatman 452 filter paper
Cork borers or metal punch
14.4 ml off gas vials with septums
Plastic tape
Filter tower for Whatman 452 filters (25 mm)
Cartridge purging system
Supply of nitrogen (bottled) or breathing air (bottled)

PRECAUTIONS:

A. In all steps of this procedure, an ALARA concept is mandatory. This procedure provides some philosophy in pre-planning for sample preparation and analysis of highly radioactive samples. In addition to reviewing this procedure, an ALARA review of the sample preparation methods should be performed prior beginning preparation (sample reduction). If an analysis is not really needed or a lower dose method is possible to obtain the same data, do not perform the analysis.

B. At no time may NRC exposure limits (either airborne or body dose) be exceeded during the sample preparation and analysis. If it appears that an overexposure could reasonable occur during sample preparation or analysis, DO NOT proceed without written NRC approval.

PROCEDURE:

1. Obtain the survey data obtained when the sample was taken and transported to the Chemical Lab. Brief Health Physics personnel on the sample preparation (if required) and analysis to be performed. Health Physics Supervision shall determine air sampling requirement.

2. Health Physics personnel shall monitor dose rates during the sample preparation and analysis. Based on their analysis stay times shall be determined. During sample preparation and analysis, extremity doses should be limiting. However, whole body exposure shall also be considered. Extremity dosimetric devices shall be worn. An RWP shall be assigned to this activity.

3. Sample preparation shall be done in a ventilation hood or other ventilated area where respiratory protection equipment is not required if possible.

4. Consider the use of tongs or other remote tooling during sample preparation.

5. Determine the contact dose rate from the particulate filter and the charcoal cartridge. If the contact dose rate is $\leq$ 200 mRem/hr the sample may be analyzed directly by the Geli analysis on the 3 cm or 30 cm shelf. Check the dead time while placing the sample in the counting cave. Samples with $>$ 30% dead time may be counted but do not exceed 50% dead time.

6. Samples with contact dose rates $>$200 mRem/hr shall be analyzed by only counting a small portion of the original samples or by purging the nobles gas from the cartridge (for iodine sampling cartridges only)by step 13. After purging, if the dose rate is still $>$200 mRem/hr, reduce the sample size. Lead shielding shall be considered for use while removing smaller samples. At a minimum lead bricks stacked around the sample shall be used. Monitor the dose rate to the hands during sample preparation.

7. Particulate filters with contact dose rates of $>$ 200 mRem/hr may be analyzed by punching out a small area from the center of the filter. This may be done with a metal punch or a cork borer (rubber stopper cutter). The punched area shall be dissolved with nitric acid and placed in a 14.4 ml off-gas bottle for gamma isotopic analysis. Before analysis the off-gas vial shall be capped with a rubber septum and wrapped with saran wrap to prevent spread of contamination. The original activity on the filter can be determined by multipling the total activity measured in the off-gas vial by the ratio of the total area of the filter to the punched area. Check the dead time while placing the sample in the counting cave. Samples with $>$ 30% $>$ 50% dead time require further reduction in area. dead time may be counted but do not exceed .50% dead time. Samples

8. Iodine cartridges with contact dose rates of $>$ 200 mRem/hr after purging the noble gas may be analyzed by core boring or removing a small section (or volume) from the center of the cartridge. Try to remove a uniform core of charcoal or silver zeolite from the cartridge. Weigh the amount of filter material removed. Mount this material in a dose equivalent sample geometry (Whatman 452 filter on a card). Transfer this material to a Whatman 452 filter with a filter tower. DO NOT use water or any

other solvent to transfer the material. Weigh the amount of material on the Whatman 452 filter. Place the Whatman filter and material on a card and cover with plastic tape. Count this Geometry on the 3 cm shelf. Check the dead time while placing the samples in the counting cave. Samples with > 30% dead time may be counted but do not exceed 50% dead time. Samples > 50% dead time require further reduction of volume. The original activity of the cartridge can be determined by multipling the total activity measured on the Whatman 452 filter by the ratio of the weight of a cartridge to the weight of material on the Whatman filter.

9. Consider the use of more elaborate shielding during sample preparation if dose rates merit its use.

10. Before actual sample volume reduction is performed at least 3 dry runs using clean filters and cartridges shall be made. An ALARA Review shall also be done. Based on these dry runs and the ALARA Review changes to sample volume reduction procedures shielding or equipment shall be made to minimize exposure. Health Physics supervision shall also review the possibility of not performing the sample volume reduction and analysis at all.

11. Consider shorter sampling times so that the filter and cartridges may be analyzed directly. During accident condition this may require that grab samples be taken periodically instead of continuous sampling.

12. Consider the use of silver zeolite cartridges in the place of charcoal cartridges to reduce the noble gas interference during isotopic analysis. The use of silver zeolite will allow samples which contain more I-131 (as compared to charcoal) to be counted with less dead time.

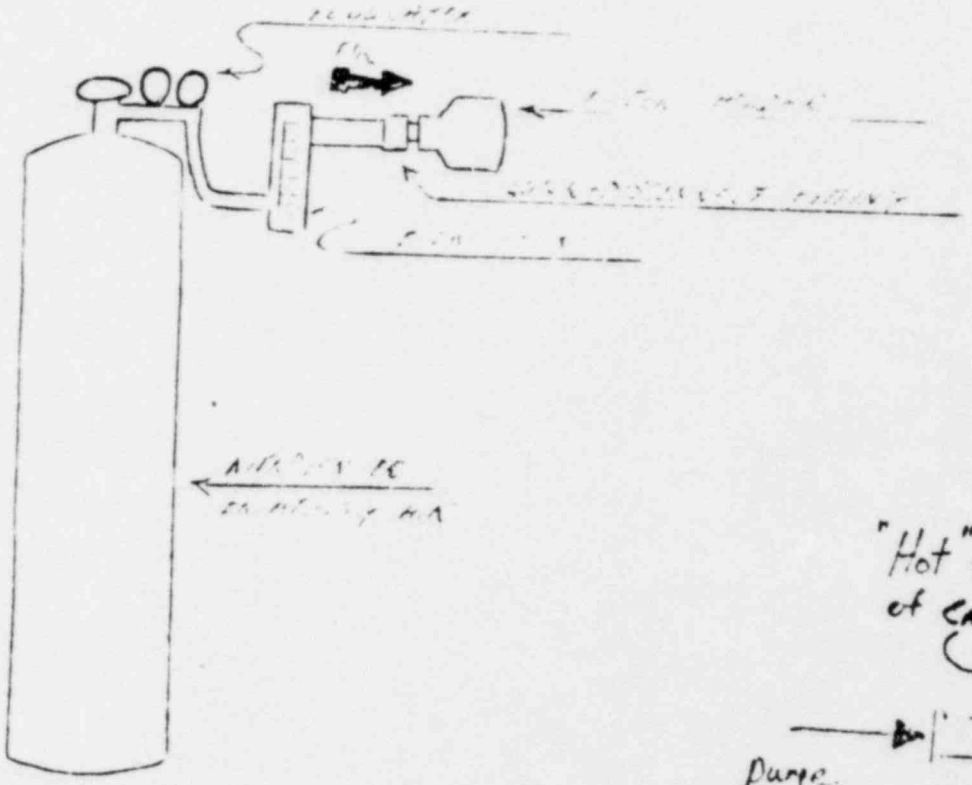
13. Samples with high noble gas backgrounds can be flushed to reduce the noble gas interference by the following method:

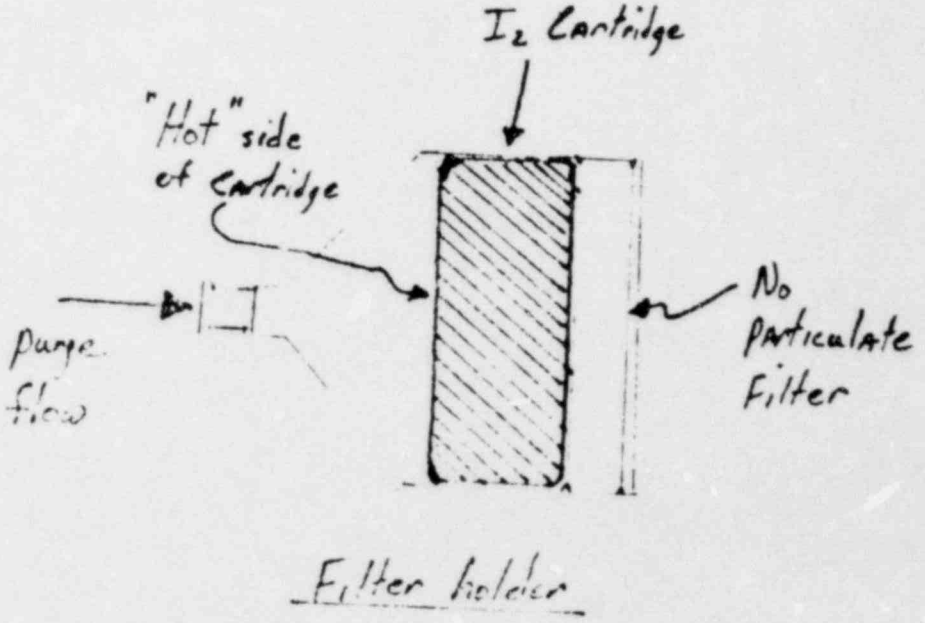
    a. Setup the purge system as shown in Figure HPO/CO-127-1 in a low background area where the release of noble gas would not present a personnel exposure or equipment (counting room) problem.
    b. Load the filter holder as shown in Figure HPO/CO-127-1. Place the "hot" side of the cartridge toward the quick-disconnect. Hold the cartridge in place with a filter backing ring but do not use a particule filter. Place the filter holder on the quick disconnect.
    c. Flow nitrogen or breathing air through the cartridge at the same flow rate as used for sampling for two hours or less. After purging stop purge flow ar remove cartridge. Repeat step 5 through 12.

14. Consideration shall be given to the final disposition of the samples, the remainder of the original sample and the waste produced.

15. Samples and the remainder of the original sample which are kept for additional analysis shall be stored in an appropriate location based on their dose rate and radiological hazard.

FIG. HP0/CO-127-1





Filter holder

MAY 25 1982

WJK

PHILADELPHIA ELECTRIC COMPANY

Peach Bottom Units 2 and 3

EP-205A.13 - SAMPLE PREPARATION AND ANALYSIS OF HIGHLY RADIOACTIVE GAS SAMPLES

PURPOSE:

The purpose of this procedure is to provide some guide lines for consideration during sample preparation and isotopic analysis of highiy radioactive gas samples following accident conditions with major fuel damage.

APPARATUS:

Appropriate Health Physics survey equipment
Air Sampler (low volume)
Respirator protection equipment if required
Anti-C clothing
Digital-Alarming Dosimetry
Appropriate lead shielding
Appropriate microsyringes
14.4 ml off gas vials with septums

PRECAUTIONS:

A. In all steps of this procedure, an ALARA concept is mandatory. This procedure provides some philosophy in pre-planning for sample preparation (dilution) and analysis of highly radioactive gas samples. In addition to reviewing this procedure, an ALARA review of the sample preparation (dilution) method should be performed prior beginning preparation and analysis. If an analysis is not really needed or a lower dose method is possible to obtain the same data, do not perform the analysis.

B. At no time may NRC exposure limits (either airborne or body dose) be exceeded during the sample preparation and analysis. If it appears that an overexposure could reasonable occur during sample preparation or analysis DO NOT proceed without written NRC approval.

PROCEDURE:

1. Obtain the survey data obtained when the sample was taken and transported to the chemical lab. Brief Health Physics personnel on the sample preparation (dilution) if required and analysis to be performed. Health Physics supervision shall determine air sampling requirements.

PROCEDURE: (continued)

2. Health Physics personnel shall monitor dose rates during the sample preparation and analysis. Based on their analysis stay times shall be determined. During sample preparation and analysis, extremity doses should be limiting. However whole body exposure shall also be considered. Extremity dosimetricdevices shall be worn. An RWP shall be assigned to this activity.

3. Off-gas vials with contact dose rates of < 2 mRem/hr may be analyzed by Geli isotopic analysis directly on the 3cm shelf. Samples that are > 2 mRem/hr. shall be diluted to reduce the dose rate in the vial to < 2 mRem/hr.

4. Check dead time while placing the sample in the counting cave. Samples with > 30% dead time may be counted but do not exceed 50% dead time. Samples > 50% shall be diluted to reduce the dead time.

5. Suggested sample dilution procedure:

   a. Adjust the pressure in the off-gas vial to atmospheric pressure by inserting a microsyringe needle and allow the pressure to equalize.
   b. Evaculate a new 14.4 ml off-gas vial with septum.
   c. Determine amount of dilution required. Based on this dilution, determine the amount (volume) of gas to remove from the hot off-gas vial.
   d. Inject a volume of air with a microsyringe into the hot off-gas vial which is equal to volume of gas to be removed for dilution.
   e. Mix the gas in the hot off-gas vial by pumping the microsyringe in and out.
   f. Set the microsyringe to the volume of gas to be removed from the hot off-gas vial and remove the microsyringe.
   g. Inject the gas in the microsyringe to a new evaculated 14.4 ml off-gas vial.
   h. Measure the dose rate of the vial to determine if additional dilution is necessary.
   i. Additional dilutions may be done by repeating Step 5.

6. Sample dilution shall be done in a ventilation hood or other ventilated area where respiratory protection equipment is not required, if possible.

7. Consider the use of tongs or other remote tooling if additional sample dilution is required.

8. Lead shielding shall be used, when handling samples > 200 mRem/hr. At a minimum, lead bricks stacked around the sample shall be used. A small gap between the top lead bricks may be made for the insertion of a microsyringe needle into the sample bottle. Before removing a volume gas for dilution insert a microsyringe needle into the bottle to adjust the bottle pressure to atmospheric. The amount of sample removed and the dilution volume shall depend on the sample dose rate. Before removing a volume of gas from the vial, inject a equal amount of air to compensate for the volume removed. Mix well before removing sample, After removing a sample close the gap the lead brick top to reduce dose rates. Monitor the dose to the hands during micropipeting.

9. Consider the use of more elaborate shielding during sample dilution if dose rates merit its use.

PROCEDURE: (continued)

10. Before actual sample dilution is performed at least 3 dry runs using air shall be made. An ALARA review shall also be done. Based on these dry runs and the ALARA review changes to sample dilution procedure shielding or equipment shall be made to minimize exposure. Health Physics Supervision shall also review the possibility of not performing the sample dilution and analysis at all.

11. Consideration shall be given to the final disposition of the samples, the remainder of the gas sample and the waste produced.

12. Samples and the remainder of the gas sample which are kept for additional analysis shall be stored in an appropriate location based on their dose rate and Radiological hazard.

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PHILADELPHIA ELECTRIC COMPANY

PEACH BOTTOM UNITS 2 AND 3

EMERGENCY PLAN IMPLEMENTING PROCEDURE

EP-206B EMERGENCY REPAIR GROUP

PURPOSE

TO DEFINE THE ACTIONS OF THE EMERGENCY REPAIR (DAMAGE CONTROL) GROUP.

REFERENCES

1. PEACH BOTTOM ATOMIC POWER STATION EMERGENCY PLAN

SECTION	TITLE
5.2.2.2.3	FIRE AND DAMAGE TEAM

2. EP 401 — ENTRY FOR EMERGENCY REPAIR, OPERATIONS, AND SEARCH AND RESCUE.

3. NUREG 0654 — CRITERIA FOR PREPARATION AND EVALUATION OF RADIOLOGICAL EMERGENCY RESPONSE PLANS AND PREPAREDNESS IN SUPPORT OF NUCLEAR POWER PLANTS.

APPENDIX

EP-206B-1 EMERGENCY EXPOSURE LIMITS (EMERGENCY PLAN TABLE 6.1)

ACTION LEVEL

THE EMERGENCY REPAIR GROUP WILL BE ACTIVATED WHENEVER THERE IS A SITUATION ON SITE THAT THE FIRE AND DAMAGE TEAM LEADER DEEMS THEIR SERVICES NECESSARY.

PRECAUTION

1. TEAM MEMBER'S EXPOSURE SHOULD BE LIMITED TO THE ADMINISTRATIVE GUIDE LEVELS IN APPENDIX EP 206B-1, EMERGENCY EXPOSURE LIMITS. THE EMERGENCY DIRECTOR SHALL APPROVE ANY TEAM MEMBER EXCEEDING PEACH BOTTOM QUARTERLY EXPOSURE LIMITS. THE INDIVIDUAL FIRE AND DAMAGE TEAM MEMBERS SHOULD ENSURE THAT THEY CONTROL THEIR OWN EXPOSURES IN ACCORDANCE WITH ALARA CONCEPTS.

2. REQUIREMENTS OF HPC/CO-4, RADIATION WORK PERMITS, ARE NOT APPLICABLE. THE HP ACCOMPANYING THE REPAIR GROUP WILL SERVE AS THE RWP.

3. THE FUNCTIONS OF THE INTERIM FIRE AND DAMAGE TEAM LEADER ARE PERFORMED BY THE SHIFT SUPERVISOR IN THE CONTROL ROOM UNTIL THE MAINTENANCE ENGINEER (OR ALTERNATE) RELIEVES HIM OF THESE RESPONSIBILITIES.

IMMEDIATE ACTIONS

1.0 INTERIM FIRE AND DAMAGE TEAM LEADER SHALL:

1.1 ASSEMBLE THE EMERGENCY REPAIR GROUP. ENSURE AN HP IS INCLUDED IN THE GROUP TO PROVIDE RADIOLOGICAL INFORMATION WHERE NEEDED BY THE TEAM.

1.2 EXPLAIN THE SITUATION AND WHAT HAS TO BE DONE, TO THE GROUP IN DETAIL.

1.3 DETERMINE IF HE NEEDS TO DESIGNATE AN EMERGENCY REPAIR GROUP LEADER DUE TO THE SITUATION AT HAND. IF THIS IS NECESSARY, GIVE HIM INSTRUCTIONS ON WHAT ACTIONS SHOULD BE TAKEN BY THE GROUP.

2.0 EMERGENCY REPAIR GROUP MEMBERS SHALL:

2.1 REPORT TO THE AREA DESIGNATED BY THE GROUP LEADER.

2.2 ASSEMBLE NECESSARY EQUIPMENT (I.E, TOOLS, PARTS, ETC. FOR THE PENDING OPERATIONS) FROM LOCATIONS ON OR OFF-SITE DESIGNATED BY THE FIRE AND DAMAGE TEAM LEADER. THE OPERATIONS SUPPORT CENTER FOR HP'S (ON 116' ELEVATION TURBINE BUILDING, UNIT 2 SIDE) SHOULD BE CONTACTED FOR RADIATION MONITORING EQUIPMENT NEEDED TO SUPPORT THE REPAIR EFFORT.

2.3 FOLLOW THE DIRECTIONS OF THE GROUP LEADER.

2.4 UTILIZE ALL COMMUNICATIONS MEANS AVAILABLE TO KEEP THE FIRE AND DAMAGE TEAM LEADER (IN THE TECHNICAL SUPPORT CENTER) UPDATED AS TO CURRENT STATUS OF EMERGENCY REPAIR EFFORTS.

FOLLOW-UP ACTIONS

1.0 INTERIM FIRE AND DAMAGE TEAM LEADER SHALL:

1.1 PERIODICALLY UPDATE THE EMERGENCY DIRECTOR OF THE STATUS OF THE REPAIR WORK.

2.0 FIRE AND DAMAGE TEAM LEADER SHALL:

2.1 IF POSSIBLE, REPORT TO THE AREA THAT HAS BEEN DAMAGED, OR THE TECHNICAL SUPPORT CENTER AS DIRECTED BY THE EMERGENCY DIRECTOR.

2.2 OBTAIN AN UPDATE OF THE SITUATION AND RELIEVE THE INTERIM FIRE AND DAMAGE LEADER.

2.3 DIRECT AND COORDINATE EMERGENCY REPAIR OPERATIONS AS NECESSARY. ENSURE SELECTION OF THE MOST EXPERIENCED ELECTRICAL AND MECHANICAL MAINTENANCE PERSONNEL AVAILABLE FOR THE PARTICULAR REPAIR EFFORT AT HAND.

2.4 PROVIDE TEAM MEMBERS WITH PERIODIC PLANT STATUS CHANGES INCLUDING SIGNIFICANT RADIATION EXPOSURE AND RADIOACTIVE CONTAMINATION PROBLEMS WHICH MAY AFFECT THE FUNCTIONS OF THE TEAM.

2.5 PERIODICALLY UPDATE THE EMERGENCY DIRECTOR OF THE STATUS OF THE REPAIR WORK.

APPENDIX EP-2060-1
EMERGENCY EXPOSURE LIMITS

	FUNCTION	PROJECTED WHOLE BODY DOSE	THYROID DOSE	AUTHORIZED BY
1.	LIFE SAVING AND REDUCTION OF INJURY	75 REM*	375 REM	EMERGENCY DIRECTOR**
2.	OPERATION OF EQUIPMENT TO MITIGATE AN EMERGENCY	25 REM*	125 REM	EMERGENCY DIRECTOR**
3.	PROTECTION OF HEALTH AND SAFETY OF THE PUBLIC	5 REM	25 REM	EMERGENCY DIRECTOR
4.	OTHER EMERGENCY ACTIVITIES	10 CFR 20 LIMITS	10 CFR 20 LIMITS	EMERGENCY DIRECTOR
5.	RE-ENTRY/ RECOVERY ACTIVITIES	ADMINISTRATIVE GUIDELINES	ADMINISTRATIVE GUIDELINES	N/A

*REFERENCE: EPA-520/1-75-001 TABLE 2.1
**SUCH EXPOSURE SHALL BE ON A VOLUNTARY BASIS

Knapp

PHILADELPHIA ELECTRIC COMPANY
PEACH BOTTOM UNITS 2 AND 3
EMERGENCY PLAN IMPLEMENTING PROCEDURE

EP-306 EVACUATION OF THE INFORMATION CENTER

PURPOSE

TO DEFINE THE ACTIONS TO BE PERFORMED IN THE EVENT THAT THE INFORMATION CENTER MUST BE EVACUATED.

REFERENCES

1. PEACH BOTTOM ATOMIC POWER STATION EMERGENCY PLAN

SECTION	TITLE
6.0	EMERGENCY MEASURES

2. NUREG 0654 — CRITERIA FOR PREPARATION AND EVALUATION OF RADIOLOGICAL EMERGENCY RESPONSE PLANS AND PREPAREDNESS IN SUPPORT OF NUCLEAR POWER PLANTS.

APPENDICES

EP 306-1 VISITOR'S LIST

ACTION LEVEL

1. THE INFORMATION CENTER WILL BE EVACUATED AT THE DISCRETION OF THE EMERGENCY DIRECTOR.

2. A SITE EVACUATION IS ANNOUNCED IN ACCORDANCE WITH EP 305.

PRECAUTIONS

1. ALL EFFORTS ARE TO BE MADE TO KEEP THE VISITORS CALM.

2. NO INFORMATION RELATING TO THE EMERGENCY IS TO BE DIVULGED TO THE VISITORS.

3. VISITORS WHO SHOW CONTAMINATION LEVELS OF 100 CPM OR GREATER ABOVE BACKGROUND WILL REQUIRE DECONTAMINATION.

4. ENSURE CONTAMINATED VISITORS REPORT TO THE DESIGNATED EVACUATION ASSEMBLY AREA FOR DECONTAMINATION.

IMMEDIATE ACTIONS

1.0 INFORMATION CENTER STAFF SHALL:

1.1 WHEN DIRECTED BY THE EMERGENCY DIRECTOR, INFORM THE VISITORS THAT THE SITUATION IN THE STATION REQUIRES THEM TO LEAVE THE CENTER VIA THE UNIT 1 ACCESS ROAD

1.2 INFORM THE VISITORS THAT IF THEY FOLLOW INSTRUCTIONS THERE SHOULD BE NO PROBLEM.

1.3 BEFORE EXITING THE INFORMATION CENTER, PERFORM THE FOLLOWING:

1.3.1 HAVE THE VISITORS PROVIDE THEIR NAMES AND ADDRESSES ON APPENDIX EP 306-1.

1.3.2 FRISK THE VISITORS FOR CONTAMINATION, USING A RM-14 OR EQUIVALENT FRISKER. IF THERE IS ANY CONTAMINATION ABOVE BACKGROUND RECORD THE LEVEL IN APPENDIX EP 306-1. VISITORS WHO SHOW CONTAMINATION LEVELS OF 100 CPM GREATER THAN BACKGROUND WILL NEED TO BE DECONTAMINATED AT THE DESIGNATED EVACUATION ASSEMBLY AREA.

1.3.3 THOSE VISITORS NOT CONTAMINATED SHOULD BE INSTRUCTED TO LEAVE THE AIC AND PROCEED HOME.

1.4 IF THE RADIATION LEVEL IN THE PARKING LOT IS LESS THAN OR EQUAL TO 1000 CPM ABOVE BACKGROUND, ALLOW THE VISITORS THAT HAVE BEEN FRISKED AND ARE DOCUMENTED AS "CLEAN" TO LEAVE THE CENTER AND PROCEED HOME AND THOSE CONTAMINATED VISITORS TO LEAVE THE CENTER AND PROCEED TO DESIGNATED EVACUATION ASSEMBLY AREA.

FOLLOW-UP ACTIONS

1.0 INFORMATION CENTER STAFF SHALL:

1.1 FORWARD THE INFORMATION CENTER DOSIMETRY BADGES TO THE PERSONNEL SAFETY TEAM LEADER FOR PROCESSING.

APPENDIX EP 306-1
VISITOR'S LIST

NAME	ADDRESS	VEHICLE TYPE	LICENSE NUMBER	CONTAMINATION LEVEL PERSONAL/VEHICLE
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				

P - PERSONNEL CONTAMINATION

V - VEHICULAR CONTAMINATION

_____
SIGNATURE-INFORMATION
CENTER STAFF MEMBER

DATE_____

EMERGENCY PLAN PROCEDURES INDEX

PEACH BOTTOM UNITS 2 AND 3

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EP-101	CLASSIFICATION OF EMERGENCIES	05/23/82	5	05/23/82
EP-102	UNUSUAL EVENT RESPONSE	05/23/82	5	05/23/82
EP-103	ALERT RESPONSE	05/23/82	6 5	05/23/82 ÷
EP-104	SITE EMERGENCY RESPONSE	05/23/82	5	05/23/82
EP-105	GENERAL EMERGENCY RESPONSE	05/23/82	5	05/23/82
EP-110	PERSONNEL ASSEMBLY AND ACCOUNTABILITY	04/14/82	0	04/14/82
EP-201	TECHNICAL SUPPORT CENTER (TSC) ACTIVATION	05/11/82	3	05/11/82
EP-202	OPERATIONAL SUPPORT CENTER (OSC) ACTIVATION	04/08/82	2	04/08/82
EP-203	EMERGENCY OPERATIONS FACILITY (EOF) ACTIVATION	05/11/82	3	05/11/82
EP-205	RADIATION PROTECTION TEAM ACTIVATION	04/08/82	3	04/08/82
EP-205A	CHEMISTRY SAMPLING AND ANALYSIS GROUP	05/25/82	4	05/25/82
EP-205A •2	OBTAINING DRYWELL GAS SAMPLES FROM CONTAINMENT ATMOSPHERE DILUTION CABINETS	05/26/82	0	05/25/82 ÷
EP-205A •3	RETRIEVING AND CHANGING SAMPLE FILTERS AND CARTRIDGES FROM THE DRYWELL RADIATION MONITOR DURING EMERGENCIES	05/25/82	0	05/25/82
EP-205A •4	OBTAINING DRYWELL GAS SAMPLES FROM THE DRYWELL RADIATION MONITOR SAMPLING STATION	05/25/82	0	05/25/82 ÷
EP-205A •5	OBTAINING REACTOR WATER SAMPLES FROM SAMPLE SINKS FOLLOWING ACCIDENT CONDITIONS	05/25/82	0	05/25/82
EP-205A •6	OBTAINING CANAL DISCHARGE WATER SAMPLES FOLLOWING RADIOACTIVE LIQUID RELEASES AFTER ACCIDENT CONDITIONS	05/25/82	0	05/25/82 ÷
EP-205A •8	OBTAINING LIQUID RADWASTE SAMPLES FROM RADWASTE SAMPLE SINK FOLLOWING ACCIDENT CONDITIONS	05/25/82	0	05/25/82
EP-205A	OBTAINING SAMPLES FROM CONDENSATE			

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PEACH BOTTOM UNITS 2 AND 3 *

NUMBER	TITLE	REVIEW DATE	REV. NO.	REVISION DATE
*9	SAMPLE SINK FOLLOWING ACCIDENT CONDITIONS	05/25/82	0	05/25/82
EP-205A *10	OBTAINING OFF-GAS SAMPLES FROM THE OFF-GAS HYDROGEN ANALYZER FOLLOWING ACCIDENT CONDITIONS	05/25/82	0	05/25/82
EP-205A *11	SAMPLE PREPARATION AND CHEMICAL ANALYSIS OF HIGHLY RADIOACTIVE LIQUID SAMPLES	05/25/82	0	05/25/82
EP-205A *12	SAMPLE PREPARATION AND ANALYSIS OF HIGHLY RADIOACTIVE PARTICULATE FILTERS AND IODINE CARTRIDGES	05/25/82	0	05/25/82
EP-205A *13	SAMPLE PREPARATION AND ANALYSIS OF HIGHLY RADIOACTIVE GAS SAMPLES	05/25/82	0	05/25/82
EP-205B	RADIATION SURVEY GROUPS	04/08/82	2	04/08/82
EP-205C	PERSONNEL DOSIMETRY BIOASSAY AND RESPIRATORY PROTECTION GROUP	04/08/82	2	04/08/82
EP-206	FIRE AND DAMAGE TEAM ACTIVATION	04/19/82	4	04/19/82
EP-206A	FIRE FIGHTING GROUP	04/19/82	2	04/19/82
EP-206B	EMERGENCY REPAIR GROUP	05/23/82	2	05/23/82
EP-207	PERSONNEL SAFETY TEAM ACTIVATION	05/11/82	4	05/11/82
EP-207A	SEARCH AND RESCUE	04/14/82	2	04/14/82
EP-207B	PERSONNEL ACCOUNTABILITY	05/11/82	3	05/11/82
EP-207C	FIRST AID	04/14/82	2	04/14/82
EP-207D	PERSONNEL MONITORING AND DECONTAMINATION	04/08/82	2	04/08/82
EP-207E	VEHICLE AND EVACUEE CONTROL PROCEDURE	04/08/82	0	04/08/82
EP-207F	VEHICLE DECONTAMINATION PROCEDURE	04/14/82	0	04/14/82
EP-208	SECURITY TEAM	04/01/81	0	04/01/81
EP-209	TELEPHONE LIST FOR EMERGENCY USE	04/26/82	4	04/26/82
EP-209 APPENDIX A	IMMEDIATE NOTIFICATION CALL LIST	04/26/82	4	04/26/82

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PEACH BOTTOM UNITS 2 AND 3

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EP-209 APPENDIX B	PHILADELPHIA ELECTRIC COMPANY OFFICIALS	07/23/81	1	07/23/81
EP-209 APPENDIX C	PEACH BOTTOM STATION SUPERVISION	04/08/82	4	04/08/82
EP-209 APPENDIX D-1	ON SITE EMERGENCY TEAM LEADERS	04/08/82	3	04/08/82
EP-209 APPENDIX D-2	RADIATION SURVEY TEAM	04/26/82	3	04/26/82
EP-209 APPENDIX D-3	FIRE AND DAMAGE TEAM	04/26/82	3	04/26/82
EP-209 APPENDIX D-4	PERSONNEL SAFETY TEAM	04/26/82	3	04/26/82
EP-209 APPENDIX D-5	SECURITY TEAM	04/26/82	3	04/26/82
EP-209 APPENDIX D-6	RE-ENTRY AND RECOVERY TEAM	04/26/82	2	04/26/82
EP-209 APPENDIX D-7	TECHNICAL SUPPORT CENTER TEAM	04/26/82	3	04/26/82
EP-209 APPENDIX E	CORPORATE EMERGENCY TEAM LEADERS AND SUPPORT PERSONNEL	04/26/82	4	04/26/82
EP-209 APPENDIX F	U. S. GOVERNMENT AGENCIES	04/08/82	2	04/08/82
EP-209 APPENDIX G	EMERGENCY MANAGEMENT AGENCIES	10/16/81	2	10/16/81
EP-209 APPENDIX H	COMPANY CONSULTANTS	10/16/81	2	10/16/81
EP-209 APPENDIX I-1	FIELD SUPPORT PERSONNEL	04/14/82	6	04/14/82
EP-209 APPENDIX I-2	RAD SERVICES CALL LIST	05/06/82	4	05/06/82
EP-209 APPENDIX J	NEARBY PUBLIC AND INDUSTRIAL USERS	07/23/81	1	07/23/81
EP-209 APPENDIX K	MISCELLANEOUS	07/23/81	1	07/23/81

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NUMBER	TITLE	REVIEW DATE	REV. NO.	REVISION DATE
EP-209 APPENDIX L	LOCAL PECO PHONES	07/23/81	1	07/23/81
EP-209 APPENDIX M	D E L E T E D	D E L E T E D		
EP-209 APPENDIX N	MEDICAL SUPPORT GROUPS	04/26/82	3	04/26/82
EP-209 APPENDIX P	STAFFING AUGMENTATION - 60 MINUTE CALL PROCEDURE	03/05/82	1	03/05/82
EP-301	OPERATING THE EVACUATION ALARM AND POND PAGE SYSTEM	04/01/81	0	04/01/81
EP-303	PARTIAL PLANT EVACUATION	12/22/81	1	12/22/81
EP-304	D E L E T E D			
EP-305	SITE EVACUATION	03/05/82	3	03/05/82
EP-306	EVACUATION OF THE INFORMATION CENTER	05/25/82	2	05/25/82
EP-307	RECEPTION AND ORIENTATION OF SUPPORT PERSONNEL	04/12/82	0	04/12/82
EP-311	HANDLING PERSONNEL WITH SERIOUS INJURIES, RADIOACTIVE CONTAMINATION EXPOSURE, OR EXCESSIVE RADIATION EXPOSURE EMERGENCY DIRECTOR FUNCTIONS	04/08/82	3	04/08/82
EP-312	RADIOACTIVE LIQUID RELEASE (EMERGENCY DIRECTOR FUNCTIONS)	04/01/81	0	04/01/81
EP-313	CONTROL OF THYROID BLOCKING (KI) TABLETS	04/08/82	0	04/08/82
EP-316	CUMULATIVE POPULATION DOSE CALCULATIONS	05/06/82	2	05/06/82
EP-317	DIRECT RECOMMENDATIONS TO COUNTY EMERGENCY MANAGEMENT AND CIVIL DEFENSE AGENCIES	04/14/82	0	04/14/82
EP-318	LIQUID RELEASE DOSE CALCULATION METHOD FOR DRINKING WATER	05/06/82	0	05/06/82
EP-319	LIQUID RELEASE DOSE CALCULATION METHOD FOR FISH	05/06/82	0	05/06/82

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PEACH BOTTOM UNITS 2 AND 3

NUMBER	TITLE	REVIEW DATE	REV. NO.	REVISION DATE
EP-320	PROCEDURE FOR LEAKING CHLORINE	03/12/82	1	03/12/82
EP-401	ENTRY FOR EMERGENCY REPAIR, OPERATIONS, AND SEARCH AND RESCUE	04/08/82	3	04/08/82
EP-500	REVIEW AND REVISION OF EMERGENCY PLAN (FSAR APPENDIX O)	04/01/81	0	04/01/81

5/21/82

PHILADELPHIA ELECTRIC COMPANY

PEACH BOTTOM UNITS 2 AND 3

EP 205A.2 OBTAINING DRYWELL GAS SAMPLES FROM CONTAINMENT ATMOSPHERE DILUTION CABINETS

PURPOSE:

The purpose of this procedure is to provide some guidelines for consideration prior to, during and after obtaining a drywell gas sample following accident conditions with major fuel damage.

APPARATUS:

Appropriate health physics survey equipment
Air sampler (low volume)
Respiratory protective equipment
Anti-C clothing
Digital-alarming dosimetry
14.4 ml off-gas vial with septums
0-1 ml microsyringe
Septum valve
Sample tee with valve

PRECAUTION:

A. In all steps of this procedure, an ALARA concept is mandatory. This procedure provides some philosophy in pre-planning sampling evolutions for drywell gas samples during an accident. In addition to reviewing this procedure, an ALARA review of the sampling process should be performed prior to obtaining the sample. If the sample is not really needed, and lower dose methods to determine the gross data that the sample provides exist, the sample should not be obtained.

B. At no time may NRC exposure limits (either airborne or body dose) be exceeded during the surveying for sampling or obtaining the sample. If it appears that an overexposure could reasonably occur when obtaining the sample. Do NOT proceed without written NRC approval.

PROCEDURE:

1. It has been determined that a drywell gas sample is required. Three locations exist where the sample may be taken from:

   A. Core spray CAD cabinet - core spray ("Triangle") room reactor building, 116' elevation.

   B. Torus cooling CAD cabinet - core spray ("Triangle") room reactor building, 116' elevation.

   C. CAD cabinet, reactor building 195' (U/2 south end, U/3 north end).

2. Determination of which cabinet the sample is to be taken from must be made.

   Consideration of which cabinet to be used should be based upon plant conditions (i.e., is it stable?), which analyzers are operating, the time it will take to get there, and dose rates from area monitors in various locations, etc., approximate times and suggested routes are described:

   A. Core spray ("Triangle") room - reactor building 116' elevation. Two routes are suggested:

      1. Entering at the normal, turbine 116', plant entrance.
         Time = approx. four minutes.

      2. Entering at the roll up doors at either the north (Unit 2) or south (Unit 3) wall of turbine 116' elevation.
         Time = approx. two minutes.

   B. CAD on reactor building 195' elevation. Three routes to this CAD are suggested:

      1. Entering at the normal turbine 116' plant entrance, up the stairs past control room to the stairs near the reactor building elevator.
         Time = approximately seven minutes.

      2. Entering radwaste building 135' elevation, proceeding to stairs by the reactor building elevator and up the stairs to 195' elevation.
         Time = approximately six minutes.

      3. Entering recombiner building 116' elevation up the stairs and proceed to the stairs near reactor building elevator, up the stairs to 195' elevation.
         NOTE: It is suggested that this route not be used (due to time consideration) for Unit 2.
         Time = approximately six minutes (to Unit 3, 195')

3. Have a health physics technician accompany the chemistry technician assigned to obtain samples in order to perform area surveys. Brief health physics personnel on the route to be taken and the time to get to the survey point. Attached as appendices are the location of the sample points. Survey maps are also provided.

4. Health physics personnel shall take appropriate survey equipment and protective equipment (e.g. SCBA gear, anti-C's, etc.). Before making entry to the power block, ensure survey equipment is turned on and calibrated.

5. Upon entering the power block, the surveyor will note trends in general radiation levels enroute to the sample point. If dose rates exceed 10 R/hr gamma, 10 Rad/hr beta, prior to arriving at the point specified below and upon further investigation this dose rate remains stable or increases, immediately report to health physics supervision. The following radiation dose rates shall be determined prior to entry:

   A. If the sample will be taken from the core spray ("Triangle") room, measure the dose rate at the watertight door located near the precoat area. If dose rates exceed 5 R/hr at the door, leave the area immediately and report to health physics supervision with this information.

      If dose rates are less than 5 R/hr enter the stairwell and note dose rates. If dose rates are greater than 5 R/hr in the stairwell and increase as the door to the "Triangle" room is approached or if the dose rate on contact with this door exceeds 5 R/hr, exit immediately and report to health physics supervision with this information.

      With dose rates less than 5R/hr at the door to "Triangle" room, enter the area taking careful note of the dose rates. Survey the room concentrating especially on the CAD cabinets. Survey the inlet line to the CAD analyzer (line with two isolation valves - see pictures). Open the CAD analyzer panel, take a general survey and survey the inlet line to the O2 analyzer (¼" heat traced line with/without sample tee - see pictures). Ensure that the low-volume air sample is taken in the "Breathing Zone". Survey maps and photographs are provided as part of the appendix of this procedure. Special note of window open readings must be made because of submersion air dose beta fields expected.

   B. If the sample will be taken from the CAD on reactor building 195' elevation, measure the dose rate at the door leading to the long corridor. If dose rates exceed 5 R/hr at the door, leave the area immediately and report to health physics supervision with this information.

If dose rates do not exceed 5 R/hr enter the area noting dose rates. Take special care walking down the long corridor towards the CAD cabinet; dose rates from the ventilation and pipes may add significantly to the whole body dose. If dose rate trends indicate dose rates exceeding 10 R/hr gamma or 10 Rad/hr beta, exit the area immediately and report to health physics supervision with this information.

With dose rates less than 5 R/hr along the corridor, survey the area concentrating especially on the CAD cabinet, if dose rates exceed 5 R/hr exit the area immediately and report to health physics supervision with this information. Survey the inlet line to the CAD analyzer (line with two isolation valves - see pictures). Open the CAD analyzer panel, take a general survey and survey the inlet line to the 02 analyzer (¼" heat traced line with/without sample tee - see pictures). Ensure that the low-volume air sample is taken in the "Breathing Zone". Survey maps and photographs are provided as part of the appendix of this procedure. Special note of window open readings must be made because of submersion air dose beta fields expected.

6. The following are the times required to obtain the samples:

Location	Time to Sample
	(Not including time to and from sample point)
Drywell CAD (T-116)	Four minutes with sample tee
Torus CAD (T-116)	Ten minutes without sample tee
Drywell CAD (Rx 195)	

Suggested Sampling Method (this procedure may be changed based on the ALARA Review)

Have sampling team (HP person(s) taking the sample) read the following procedure. This procedure shall be dry run at least three times before actual sample is taken. Obtain three evacuated 14.4 ml off gas vials, septum valve and two 1.0 ml microsyringes (see figure HPO/CO 121.1).

A. If a sampling tee has been installed continue with stop 7.B. Install a sampling tee as follows:

1. Take local control of the CAD analyzer panel and put zero gas into the 02 analyzer.

2. When analyzer reads 0, break the swagelok filter into the 02 analyzer and install sampling tee. See figure HPO/CO-121-1.

3. Reconnect tubing and return the 02 analyzer to service.

4. After 02 readings have stabilized, obtain a sample with section 7.B.

B. Obtain a 0.1 ml gas sample as follows:

1. Verify that the sample valve is closed
2. Remove the 1/4" pipe plug from the sample valve
3. Install the septum valve (a 1/4-1/8 reducer is required).
4. Close the septum valve
5. Open the sample valve
6. Open the septum valve
7. Insert the 1 ml microsyringe through the septum valve and the sample valve into the sample tee.
8. Flush the microsyringe by taking a 0.1 ml sample and injecting it back into the sample tee two times.
9. Take a 0.1 ml sample and remove microsyringe from the sample tee. Inject sample into an evacuated sample 14.4 off gas vial. Inject sample into an evacuated sample 14.4 off gas vial. Handle off gas vial with remote holder.
10. Close the septum valve and sample valve. Take off gas vial and leave the area.

Obtain smallest sample necessary for analyses to be performed.

7. Consideration of expected dose rates from the sample itself must also be made. Review survey data for the sample inlet line and the 02 analyzer inlet line as compared to general field for approximation of sample dose. In this regard the time to take the sample to the hot lab versus shielding the sample must be considered. The personnel who will obtain the sample shall be briefed on all alternatives and will provide input into practical methods of remotely handling the sample.

8. Prior to the sample entering the hot lab, any shielding, remote tooling or other protective measure shall be in place and ready to accept the sample.

9. Upon introduction of the sample into the hot lab, the sample will be handled in a manner such that it will cause an ALARA whole body dose to personnel involved. Unnecessary personnel shall not remain in the hot lab.

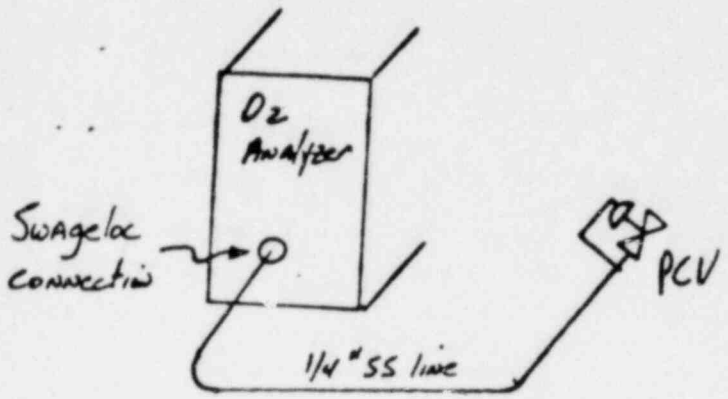
10. Properly in place and shielded, the sample will be processed remotely (where and when possible). Careful handling of the sample is mandatory in preparation for analysis so contamination is not spread, airborne problems are held at a minimum, and a new sample is not required.

11. If the containment sample is too hot to count directly, a 0.1 ml sample can be taken from the off gas sample vial after the vial is adjusted to ATM, pressure with syringe needed and transferred to another evacuated 14.4 ml off gas vial. Repeat if needed.

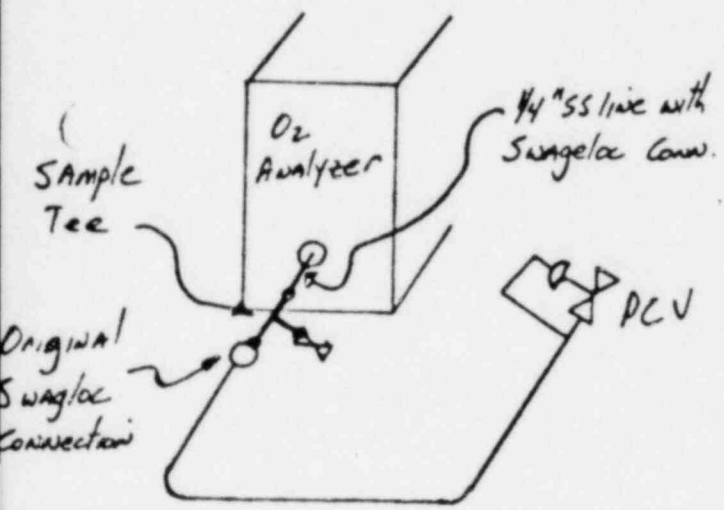
12. Following final analysis of the sample, results shall be reported to appropriate supervision.

FIGURE 1

As built O_2 Analyzer



Error. Addition of Sample tee (See Figure HPO/CD-121-2)



Modified O_2 Analyzer with Sample tee

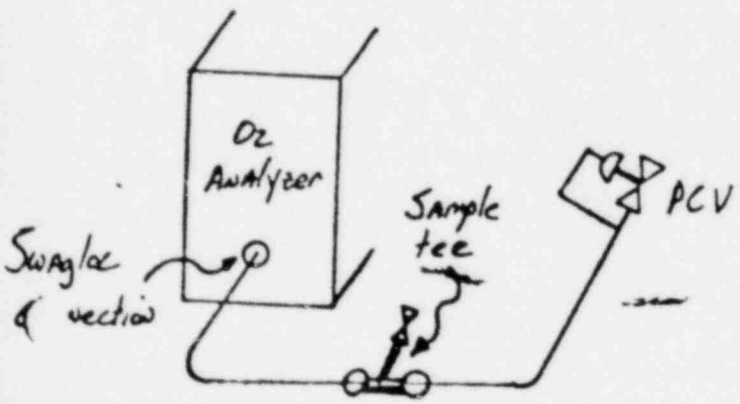
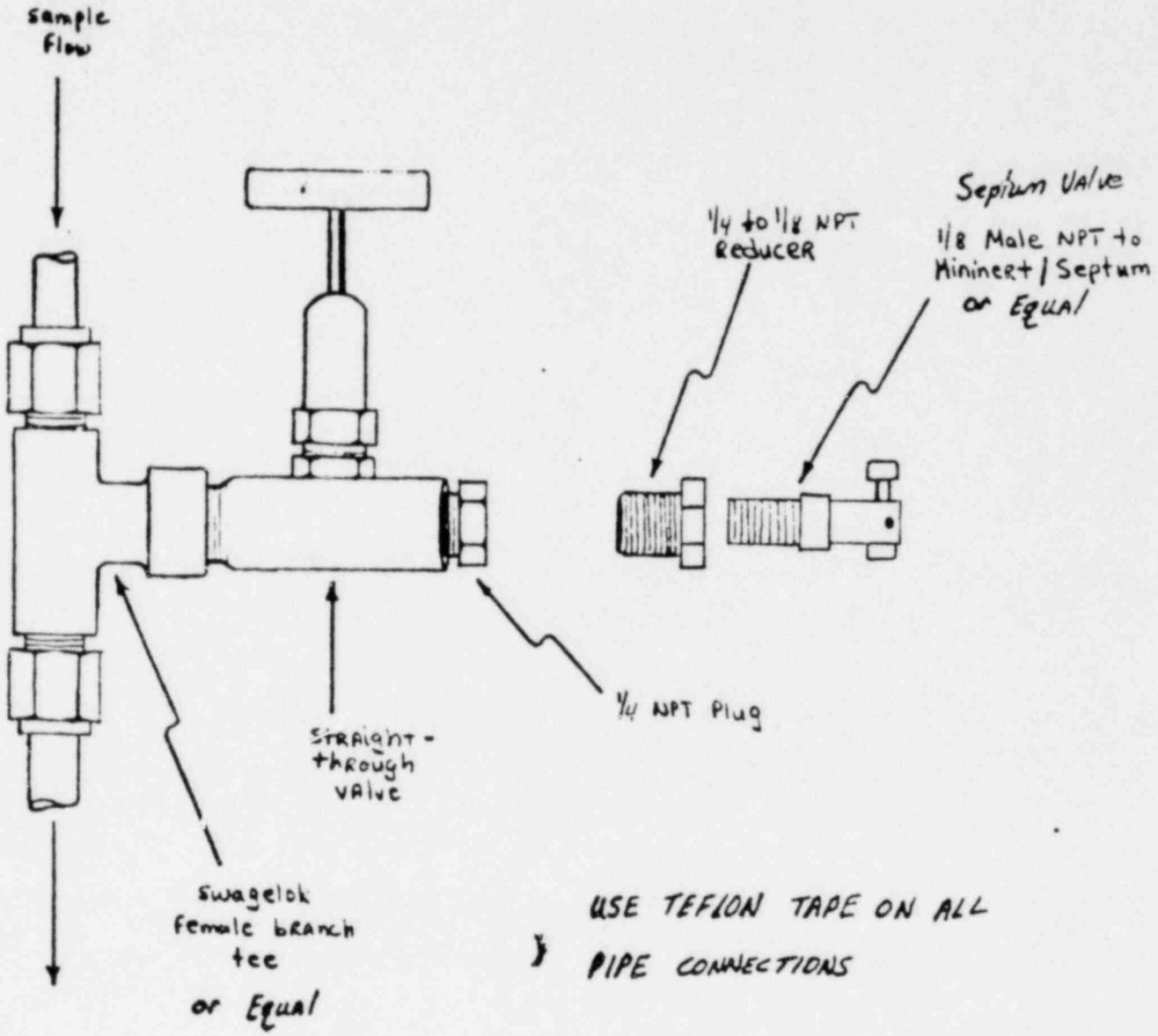


FIGURE 2

Gas Sample tee



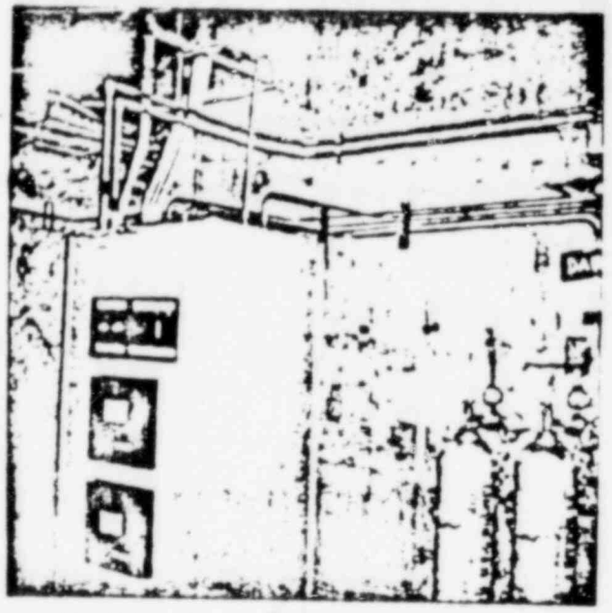
USE TEFLON TAPE ON ALL PIPE CONNECTIONS

EP 205A.2 Appendices

A. Photographs of sample points. Original photographs are kept on file with Health Physics supervision.

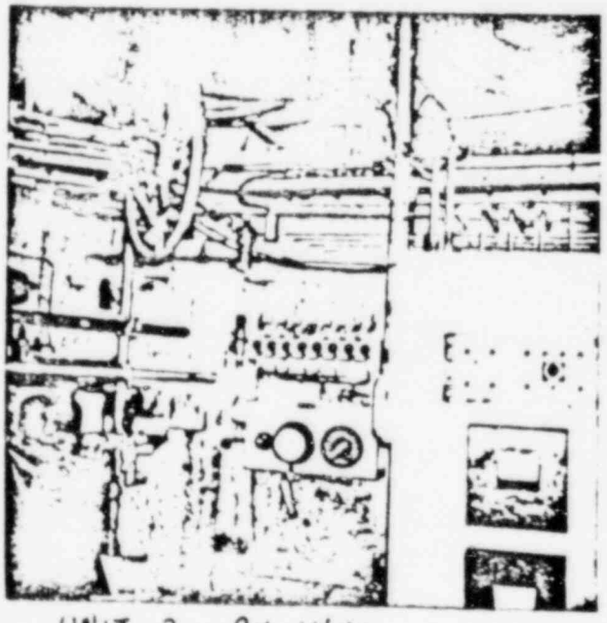
B. Plant layout maps.

C. Survey maps.

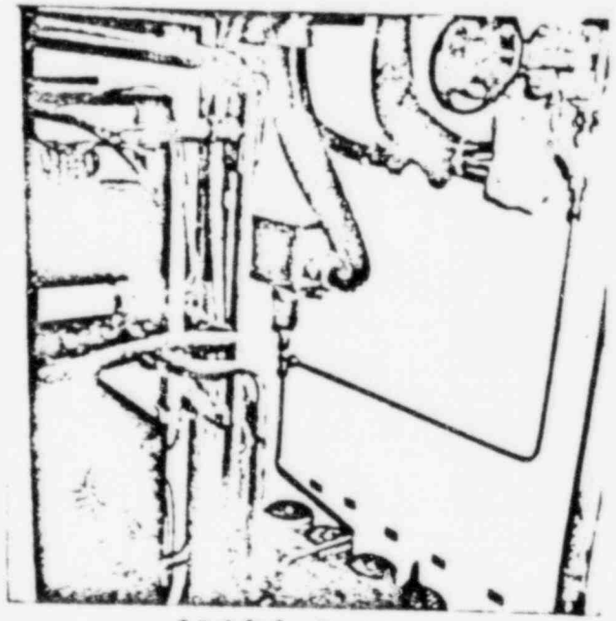


UNIT 2 - RX-116
TRIANGLE CORE SPRAY ROOM (AFC)
CAD CABINET (CORE SPRAY) 2CS215

SAMPLE POINT
IN
UNIT 2 CAD CABINET (CORE SPRAY)
2CS215

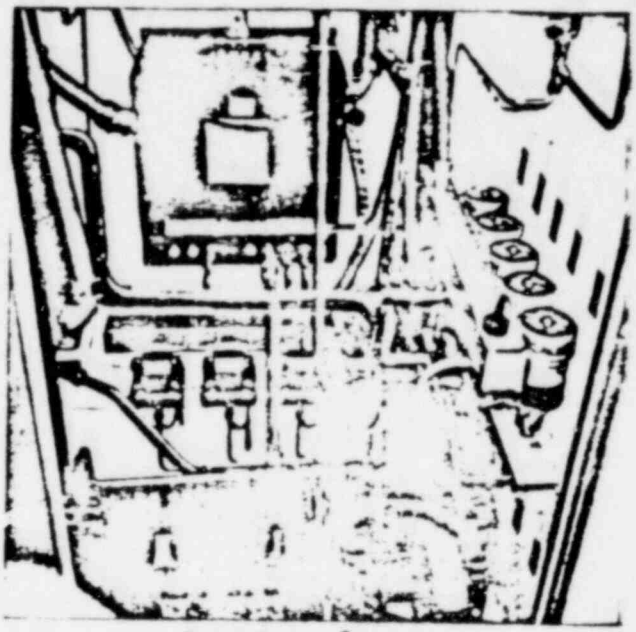


UNIT 2 RX-116
TRIANGLE CORE SPRAY ROOM (AFC)
CAD CABINET (TORUS) 2DS215

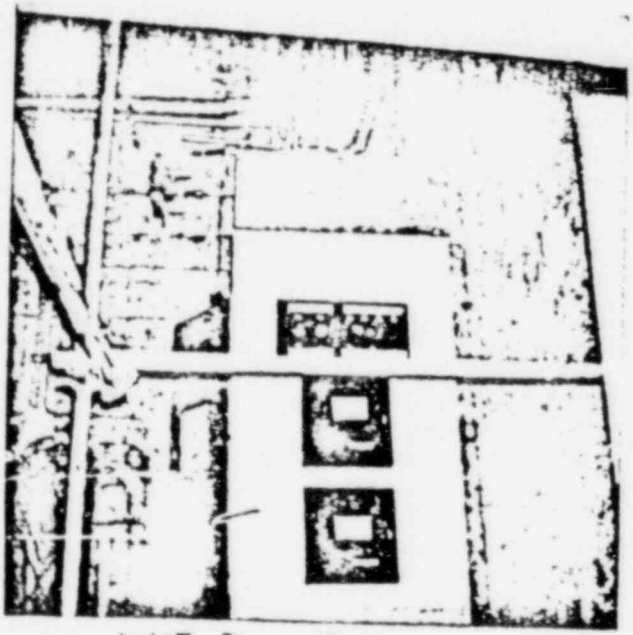


SAMPLE POINT
IN
UNIT 2 CAD CABINUT (TORUS)
2DS215

UNIT 3 - RX-116
TRIANGLE CORE SPRAY ROOM (A&C)
CAD CABINET (CORE SPRAY)
3CS215

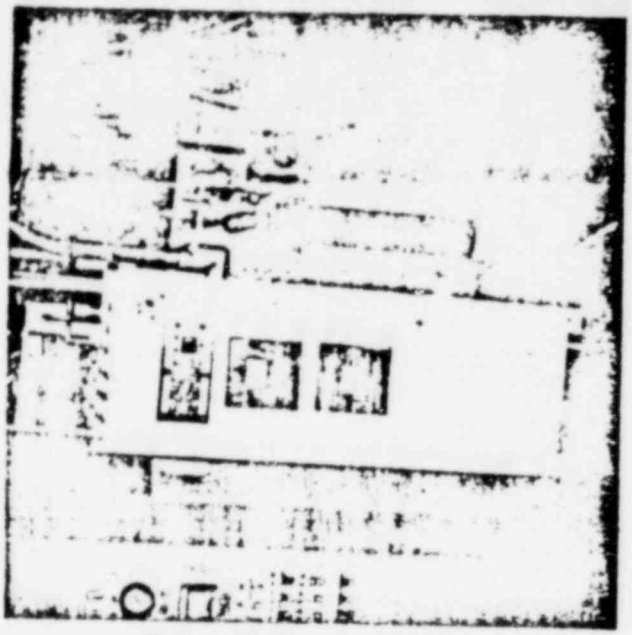


SAMPLE POINT
IN
CAD CABINET (CORE SPRAY)
3CS215



UNIT 3 RX-116
TRIANGLE CORE SPRAY ROOM (A&C)
CAD CABINET (TORUS)
3DS215

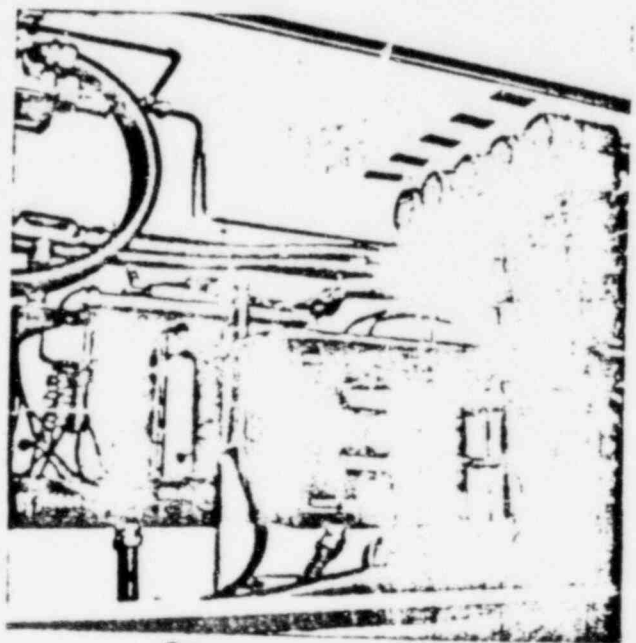
SAMPLE POINT
IN
CAD CABINET (TORUS)
3DS215



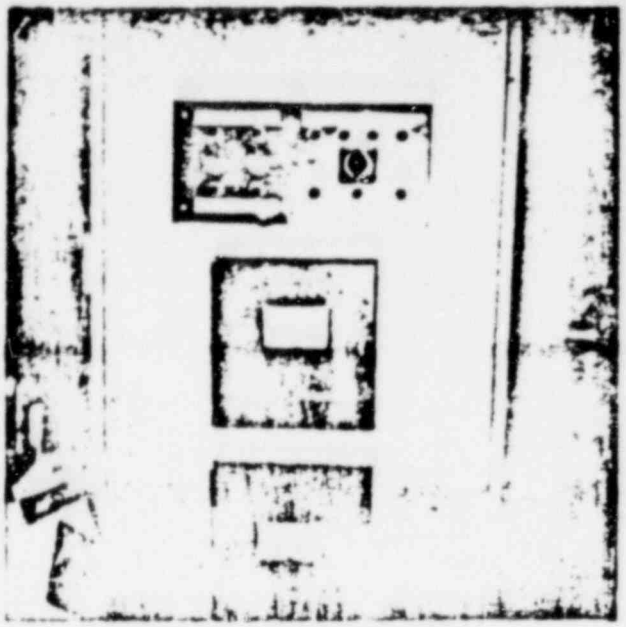
RX-195 UNIT 2
CAD CABINET
2BS215

SAMPLE POINT
IN
UNIT 2 CAD CABINET - RX-195
2BS215

RX-195 UNIT 3
CAD CABINET
3BS215



SAMPLE POINT
IN
UNIT 3 CAD CABINET - RX-195
3BS215

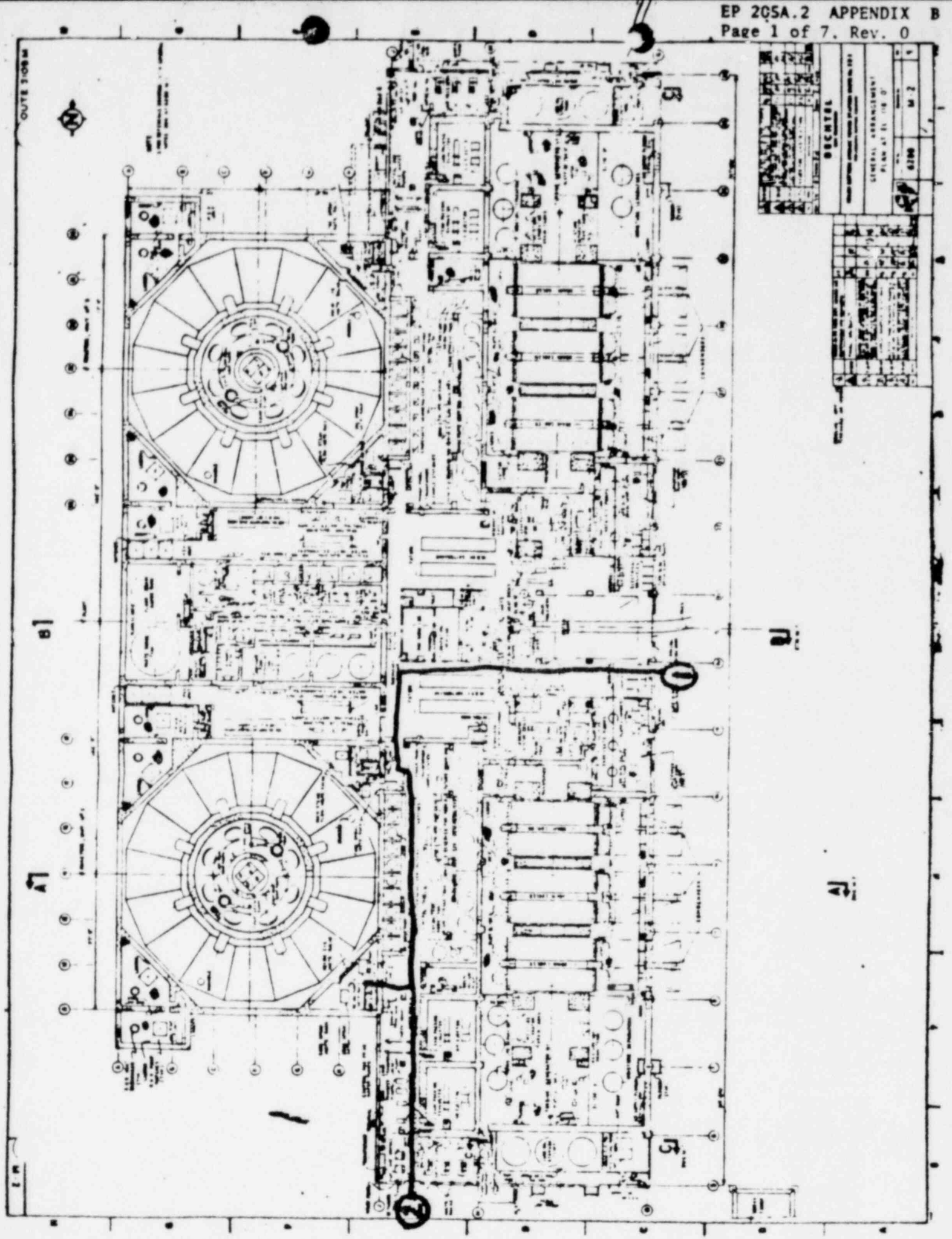


FRONT OF CABINET
GENERAL VIEW

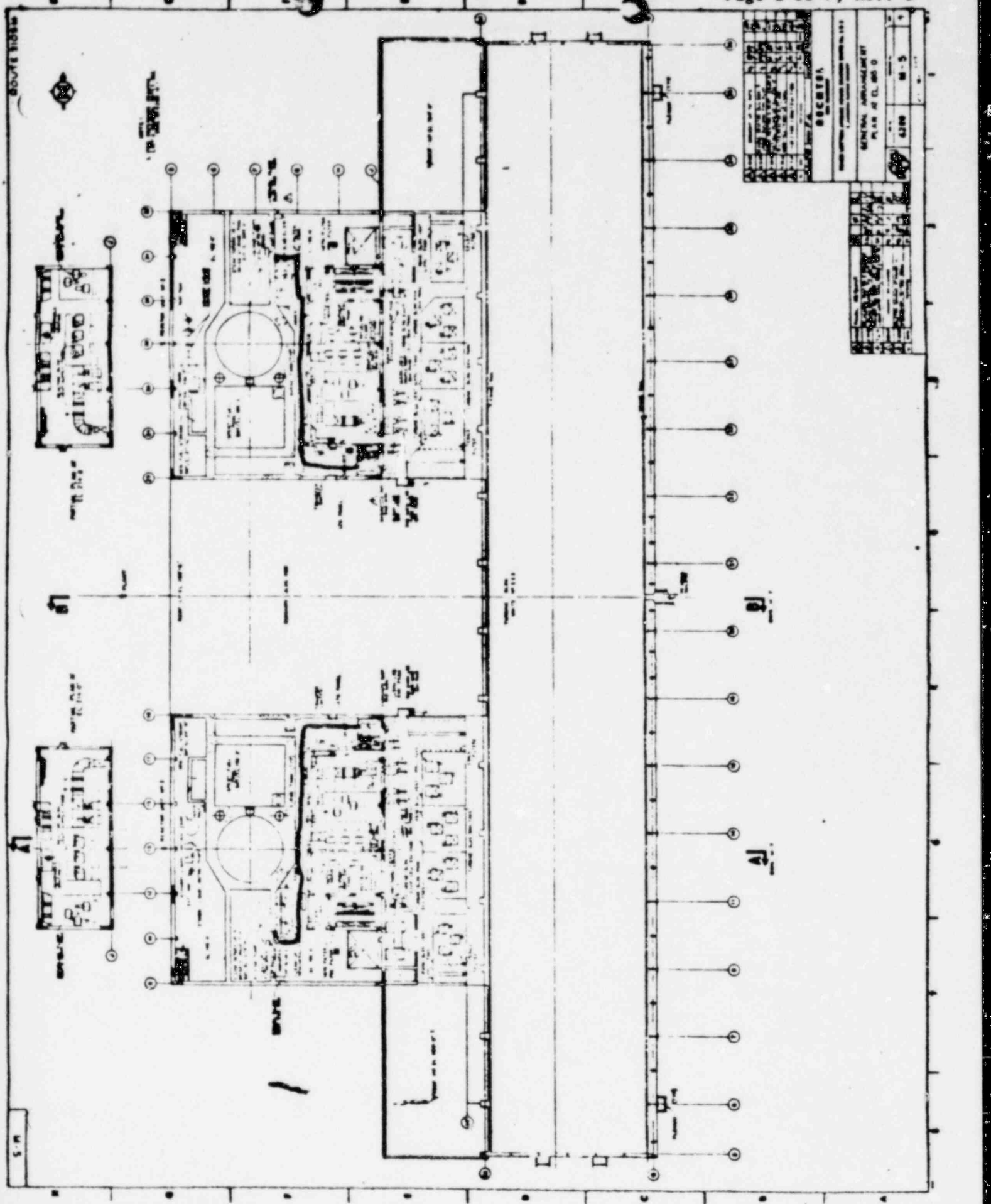
FRONT OF CABINET
FLOW RATE METER

BACK OF CABINET
SAMPLE POINT

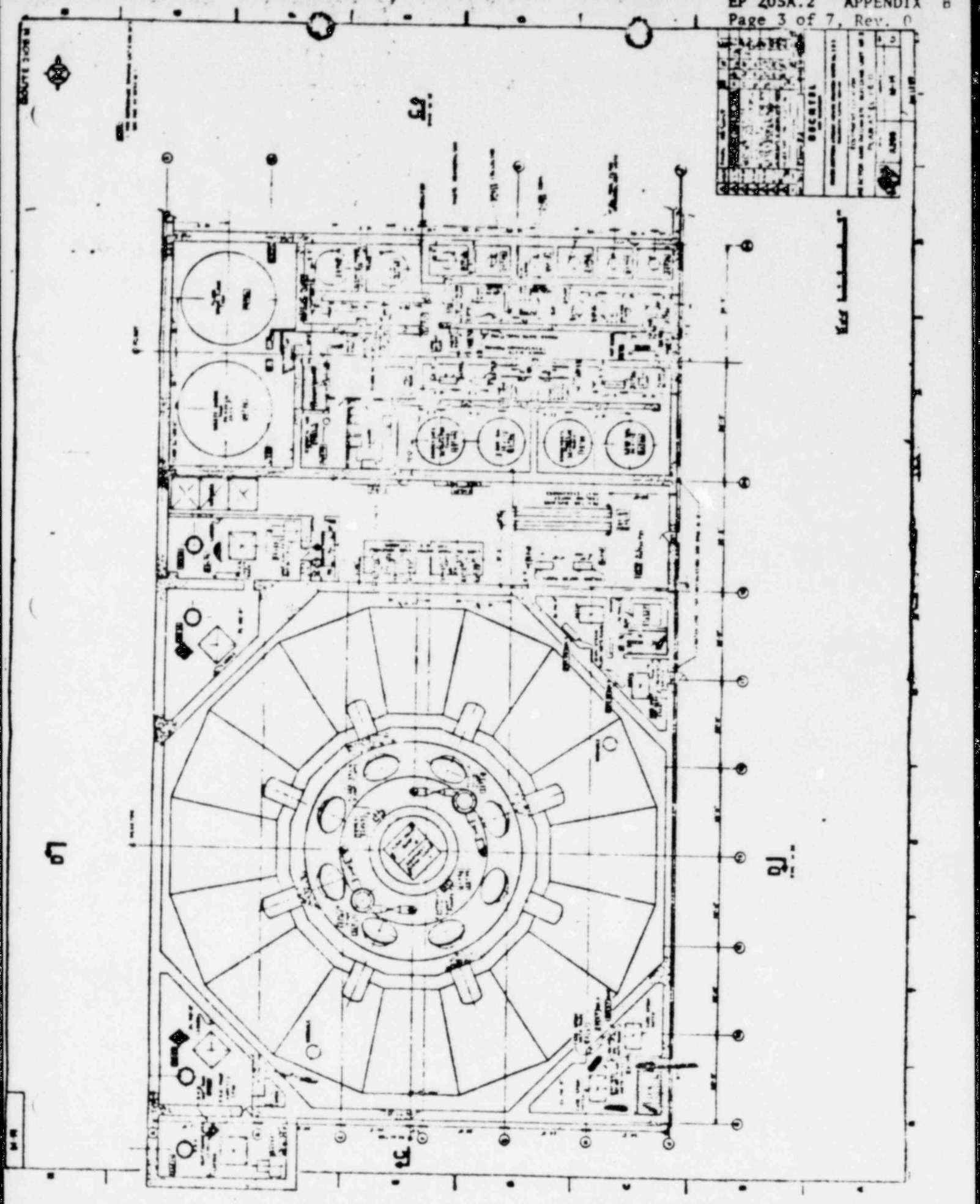
CAD CABINET
GENERAL PHOTOGRAPHS



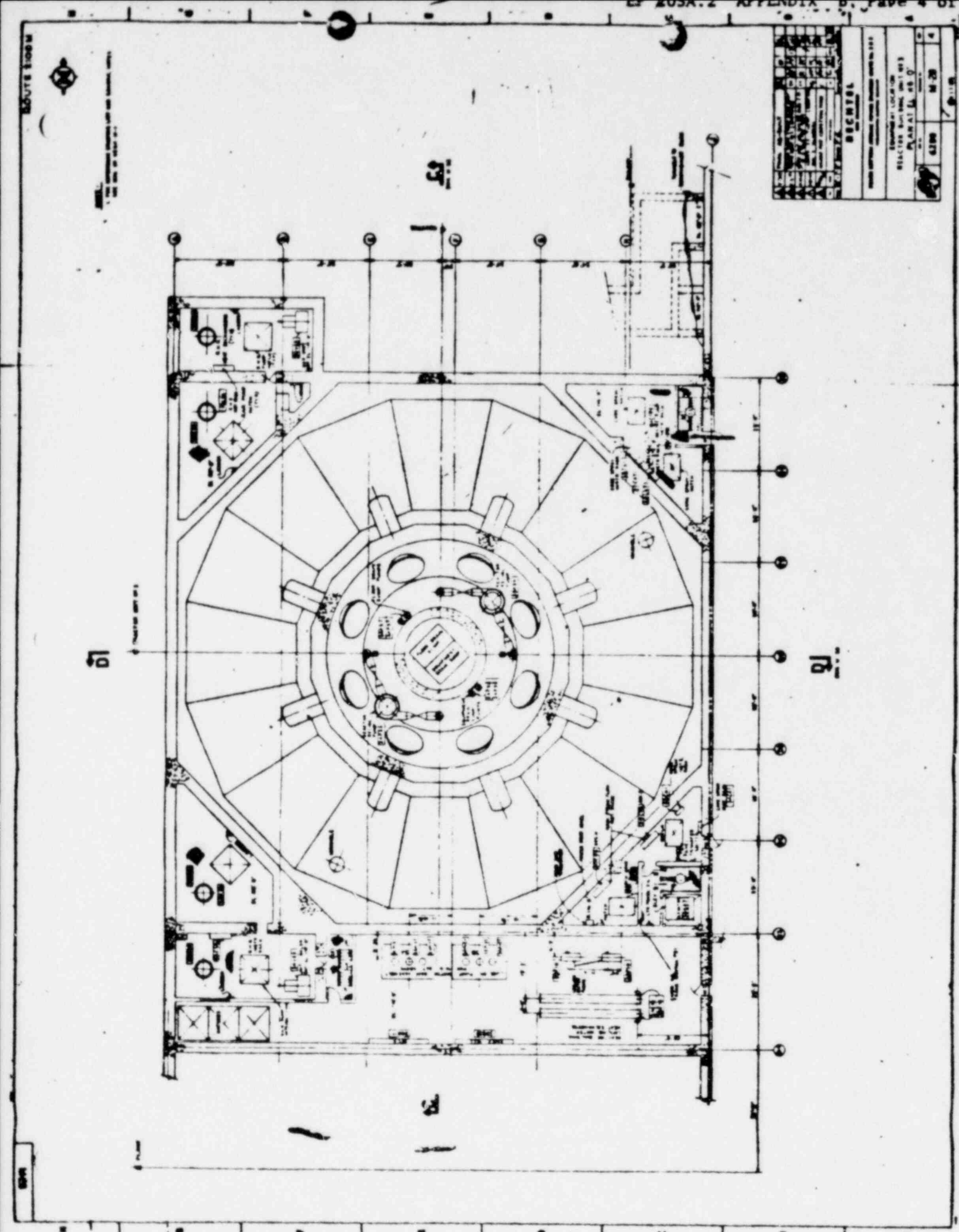
APPENDIX B



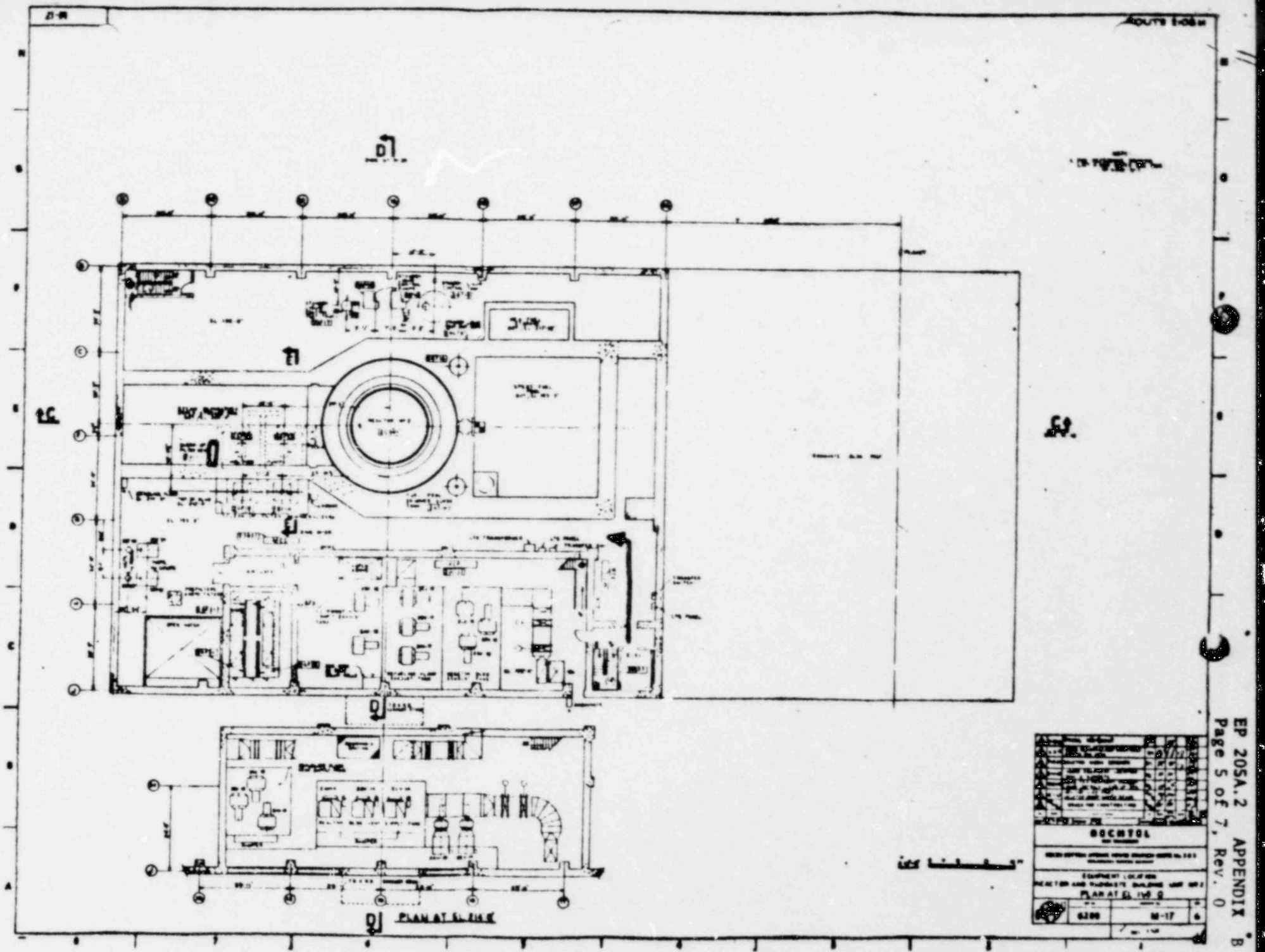
APPENDIX B



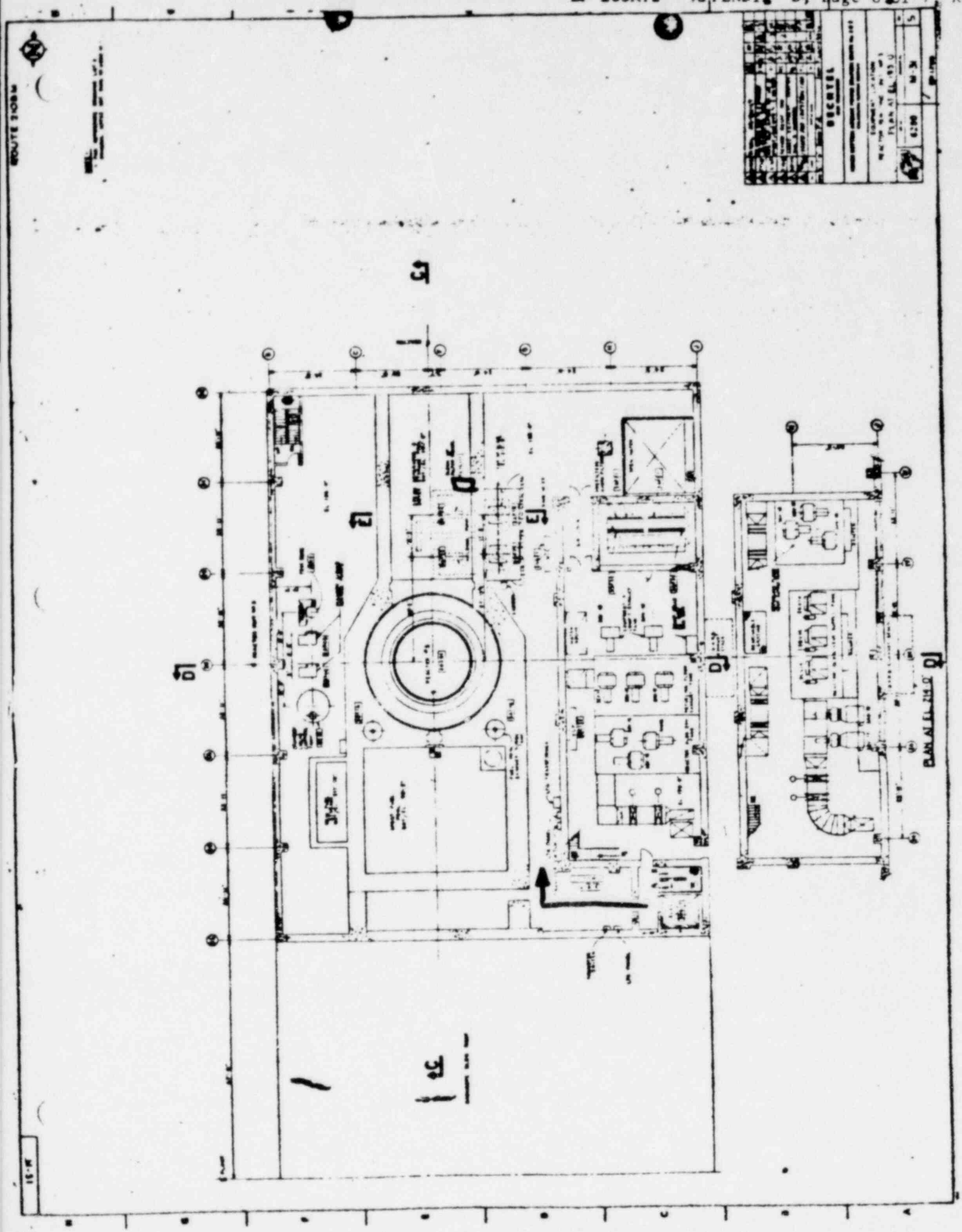
APPENDIX B

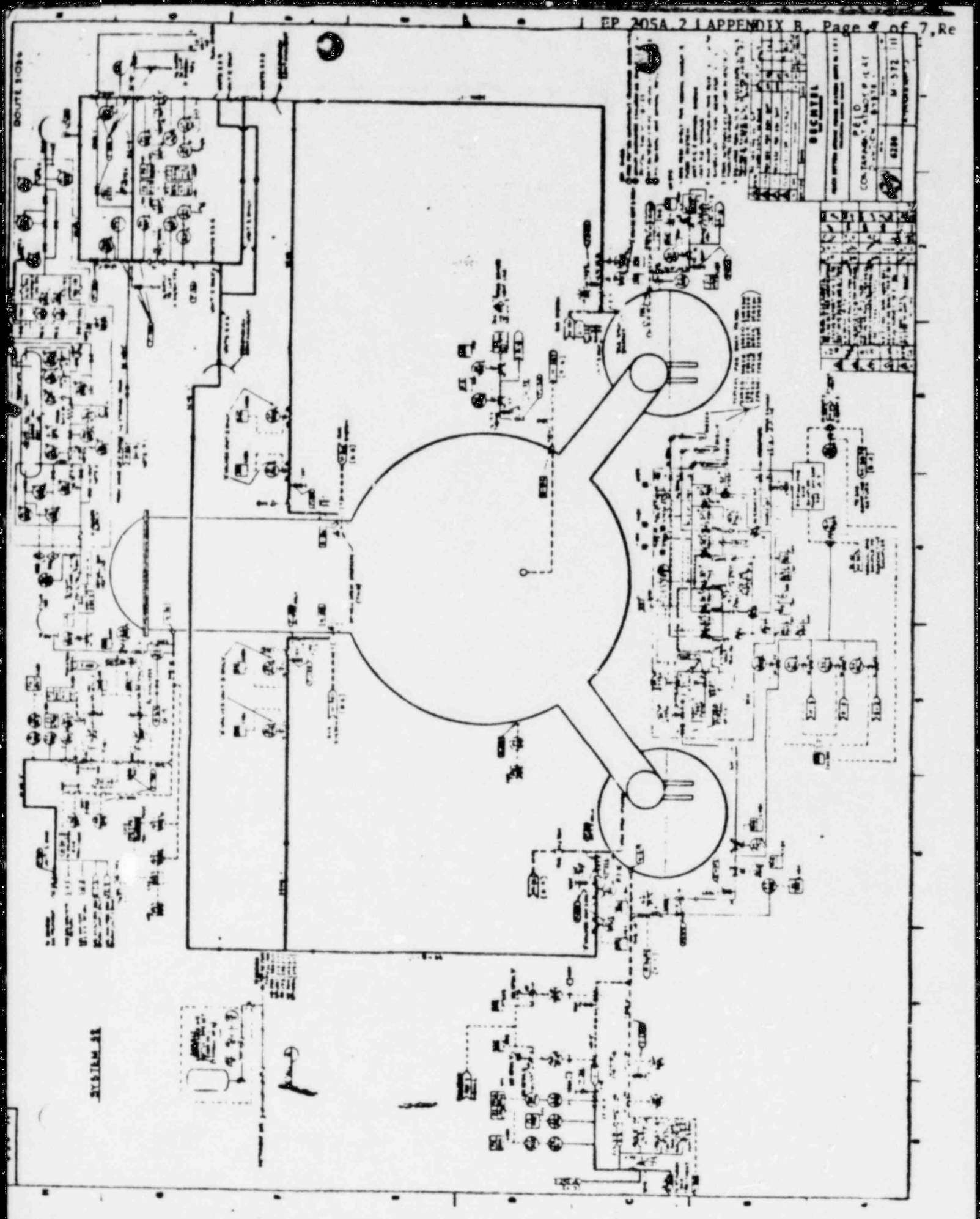


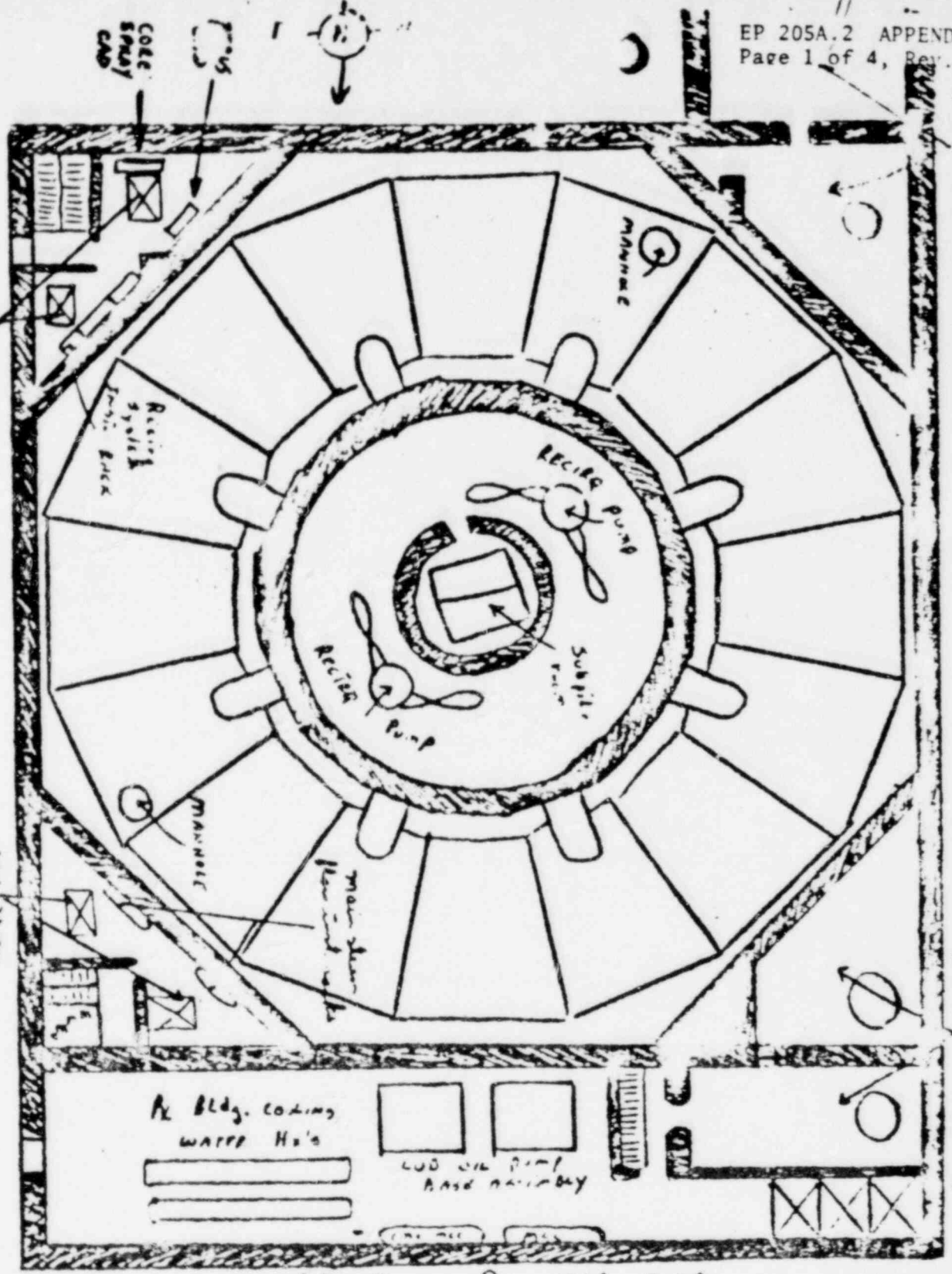
APPENDIX B



APPENDIX B







Unit # 2 Rx 116' ELEV.

DATE:
TECH:
TIME:
SIG:
Remarks:

□ Smear < 100 dpm/100 cm² unless otherwise ind.
□ Rad readings in mr/hr.

Map Code:
Δ smear sample
○ Rad readings >10 mr/hr
∂ Contact readings
** roped off areas

Remarks:

Date	Time
Time	

□ mrem < 100 dpm/100 cm² unless otherwise noted.

□ Rad. readings in mr/hr

Legend:

Δ smear sample

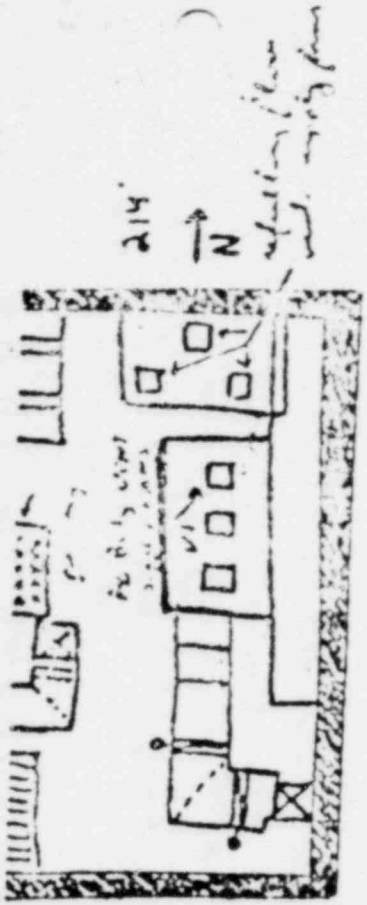
○ rad readings >1.0 mr/hr

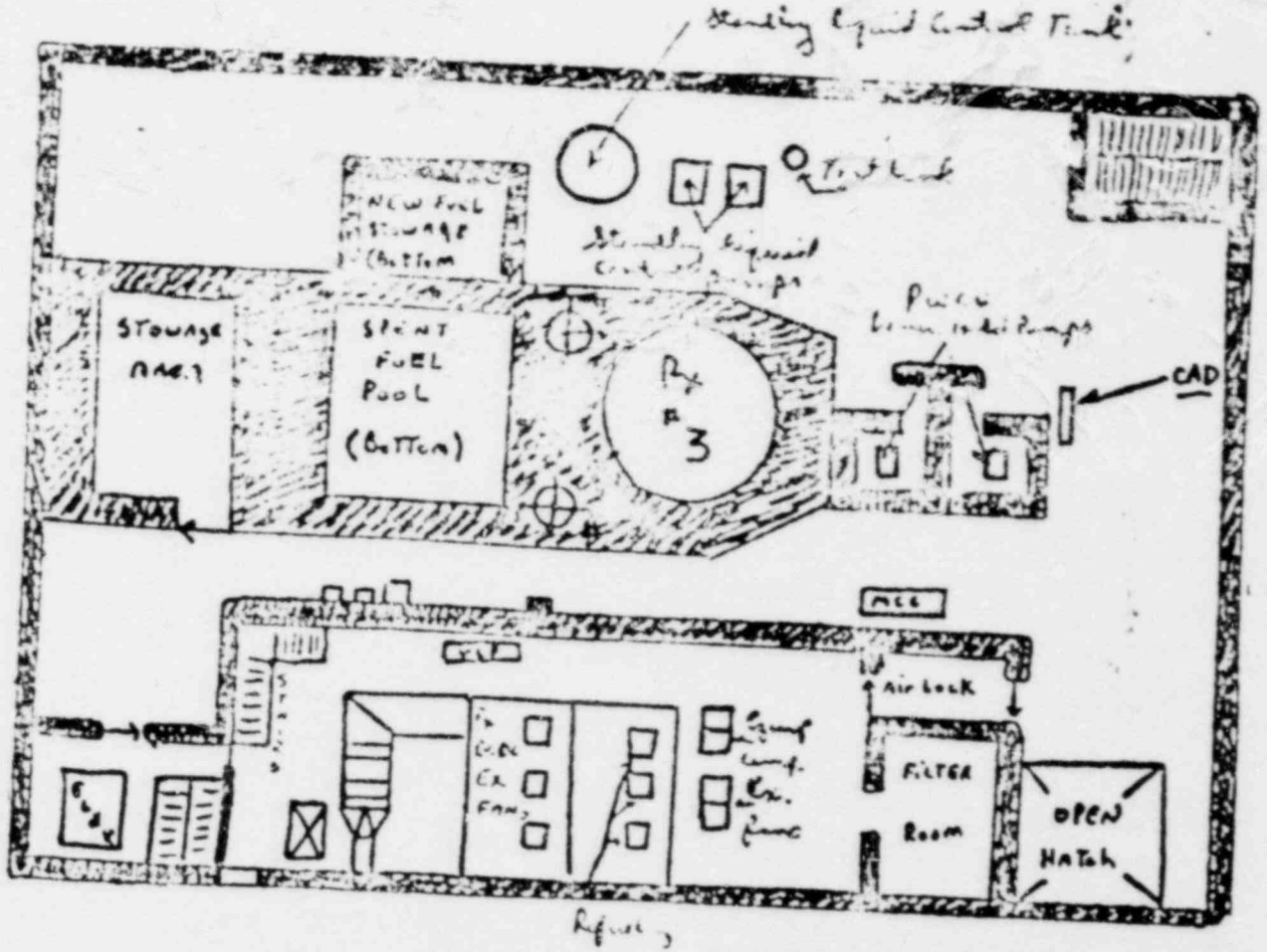
ℓ radiation reading

Unit # 3 Rx

116' elev

APPENDIX C





Rx # 3

195' Elev.

DATE:	TECH:
TIME:	SHIFT:
	SN:

remarks:

map code:

△ smear sample

○ rad reading > 1.0 mr/hr

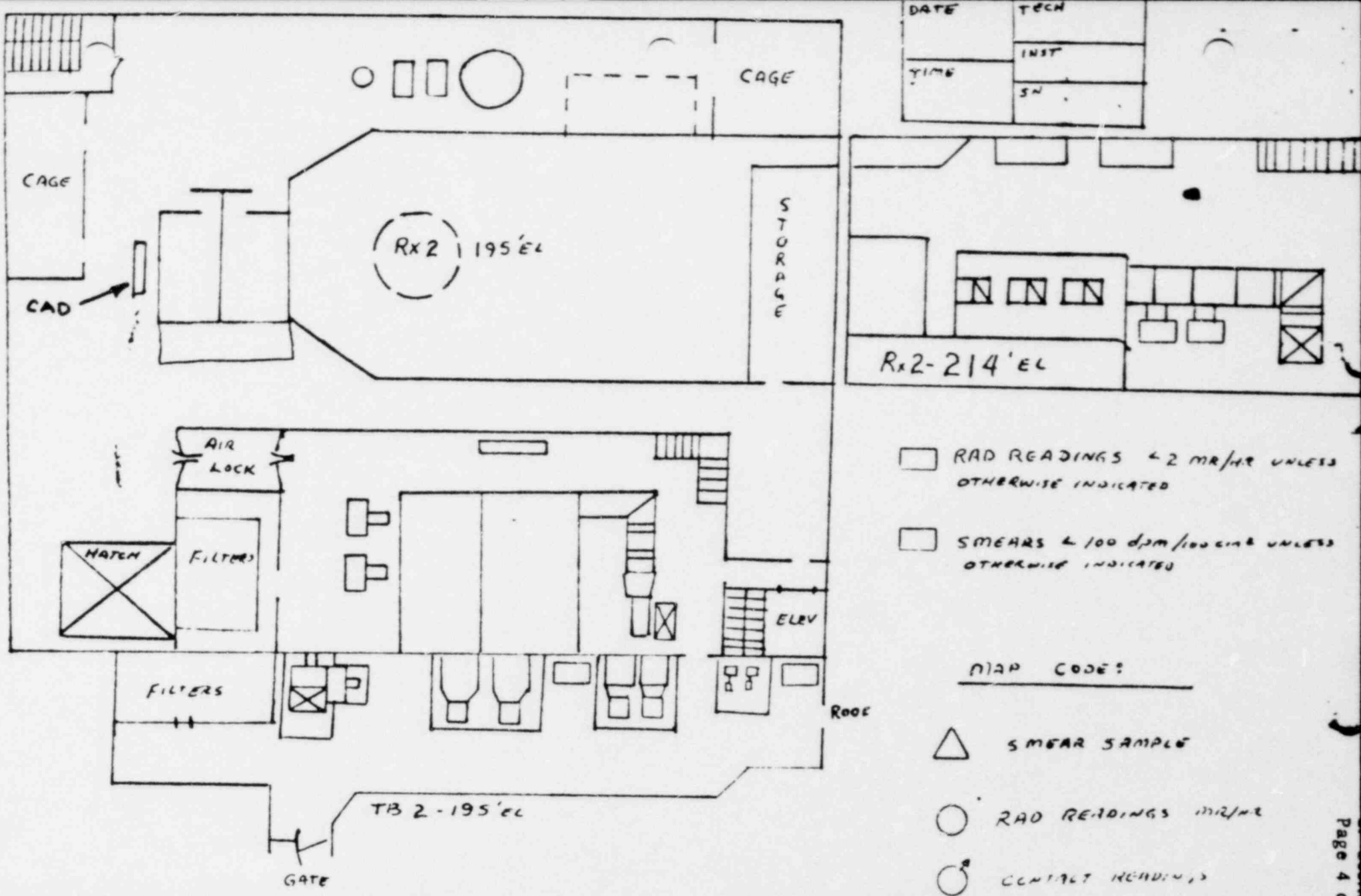
♂ contact reading

rope off area

□ smears < 1000 DPM /100 cm²
unless otherwise ind.

(rad readings in mr/hr

APPENDIX C



Rx & TB 2 195'EL

APPENDIX C

W J Knapp

PHILADELPHIA ELECTRIC COMPANY

PEACH BOTTOM UNITS 2 & 3

EP 205A.4 OBTAINING DRYWELL GAS SAMPLES FROM THE DRYWELL RADIATION MONITOR SAMPLING STATION

PURPOSE:

The purpose of this procedure is to provide some guidelines for consideration prior to, during and after obtaining a drywell gas sample following accident conditions with major fuel damage.

APPARATUS:

Appropriate Health Physics survey equipment
Air sampler (low volume)
Respiratory protective equipment
Anti-C clothing
Digital - alarming dosimeter
14.4 ml off-gas vial with septums
0-1 ml microsyringe
Septum valve
Sample tee with valve

PRECAUTIONS:

A. In all steps of this procedure, an ALARA concept is mandatory. This procedure provides some philosophy in pre-planning sampling evolutions for drywell gas samples during an accident. In addition to reviewing this procedure, an ALARA review of the sampling process should be performed prior to obtaining the sample. If the sample is not really needed, and lower dose methods to determine the gross data that the sample provides exist, the sample should not be obtained.

B. At no time may NRC exposure limits (either airborne of body dose) be exceeded during the surveying for sampling or obtaining the sample. If it appears that an overexposure could reasonably occur when obtaining the sample, do not proceed without written NRC approval.

PROCEDURE:

1. It has been determined that a drywell gas sample is required. The location to obtain the gas sample is at the drywell rad. Monitor located on the 135' elevation of the Reactor Building. (North end of both Units near Accumulators).

2. Area Radiation Monitors shall be checked and if monitors in the area of the Drywell Rad. Monitor are indicating greater than 10 R/hr, obtaining the sample should very possibly not be considered.

3. Have a health physics technician accompany the chemistry technician assigned to obtain samples in order to perform area surveys. Brief Health Physics personnel on the route to be taken and the time to get to the survey point. Attached as Appendices are the location of the sample point.

NOTE:

1. The time to travel from the 116' elevation entrance to the Turbine Building to the Drywell Rad. Monitor is approximately 4 minutes.

2. Other routes may be considered. The travel times expected for these routes would be 4 minutes, as well.

4. Health Physics personnel shall take appropriate survey and protective equipment (e.g. SCBA, Anti-Cs, lead carrying container, etc.) Prior to making entry to the Power Block, ensure survey equipment is turned on and calibrated.

5. Upon entering the Power Block, the surveyors will note trends in general radiation levels enroute to the Drywell Rad. Monitor. If dose rates exceed 10 R/hr gamma or 10 rad/hr beta prior to arriving at the door leading to RX-135 and upon further investigation, this dose rate remains stable or increases, exit immediately and report to Health Physics supervision. If dose rates exceed 5 R/hr at the door leading to RX-135, leave the area immediately and report to Health Physics supervision.

6. Survey the area concentrating especially on the sample lines and sample point located at the Drywell Rad. Monitor. Ensure that a low volume air sample is taken (in the "Breathing Zone"). Special note of window open readings must be made because of submersion air dose beta fields.

NOTE:

It will take approximately 4 minutes to sample to obtain a sample with a sample tee and approximately 10 minutes without a sample tee.

7. Suggested Sampling Method -(This procedure may be changed based on the ALARA review).

At least 2 dry runs of the sampling method shall be performed before the actual sampling. Based on these dry runs and ALARA review appropriate changes shall be made.

A. Install sampling tee (if not present) by the following:

(1) Place monitor in purge.

(2) Remove gas injection tee from in front of the gas monitor (middle lead pig).. See photos in the Appendix.

(3) Install sample tee and verify the sample valve is closed.

(4) Return monitor to normal operation allow readings to stabilize before sampling.

B. Obtain a sample by the following method:

(1) Verify the sample valve is closed.

(2) Remove the pipe plug from the sample valve (see figure HPO/CO 125-1).

(3) Install the septum valve with a 1/4" to 1/8" reducer into the sample valve.

(4) Open the sample valve.

(5) Open the septum valve.

(6) Install the microsyringe needle through the septum valve and sample valve into the sample tee.

(7) Flush the microsyringe by taking a 0.1 ml sample and returning the sample to the sample tee by pressing the plunger twice.

(8) Obtain a 0.1 ml sample from the sample in the microsyringe and remove the needle from the sample tee.

(9) Close the sample valve and the septum valve.

(10) Place the 0.1 ml sample into a evacuated 4.4 ml off-gas vial.

(11) Exit the area with the off-gas vial.

8. Consideration of expected dose rates from the sample, itself, must also be made. Review survey data for the sample inlet line as compared to general field for approximation of sample dose.

9. If the samples is too "hot" for gamma spectroscopy, it will be brought to the hot lab to await final disposition. Any shielding, remote handling, devices or other protective measure shall be in place and ready to accept the samples prior to its arrival.

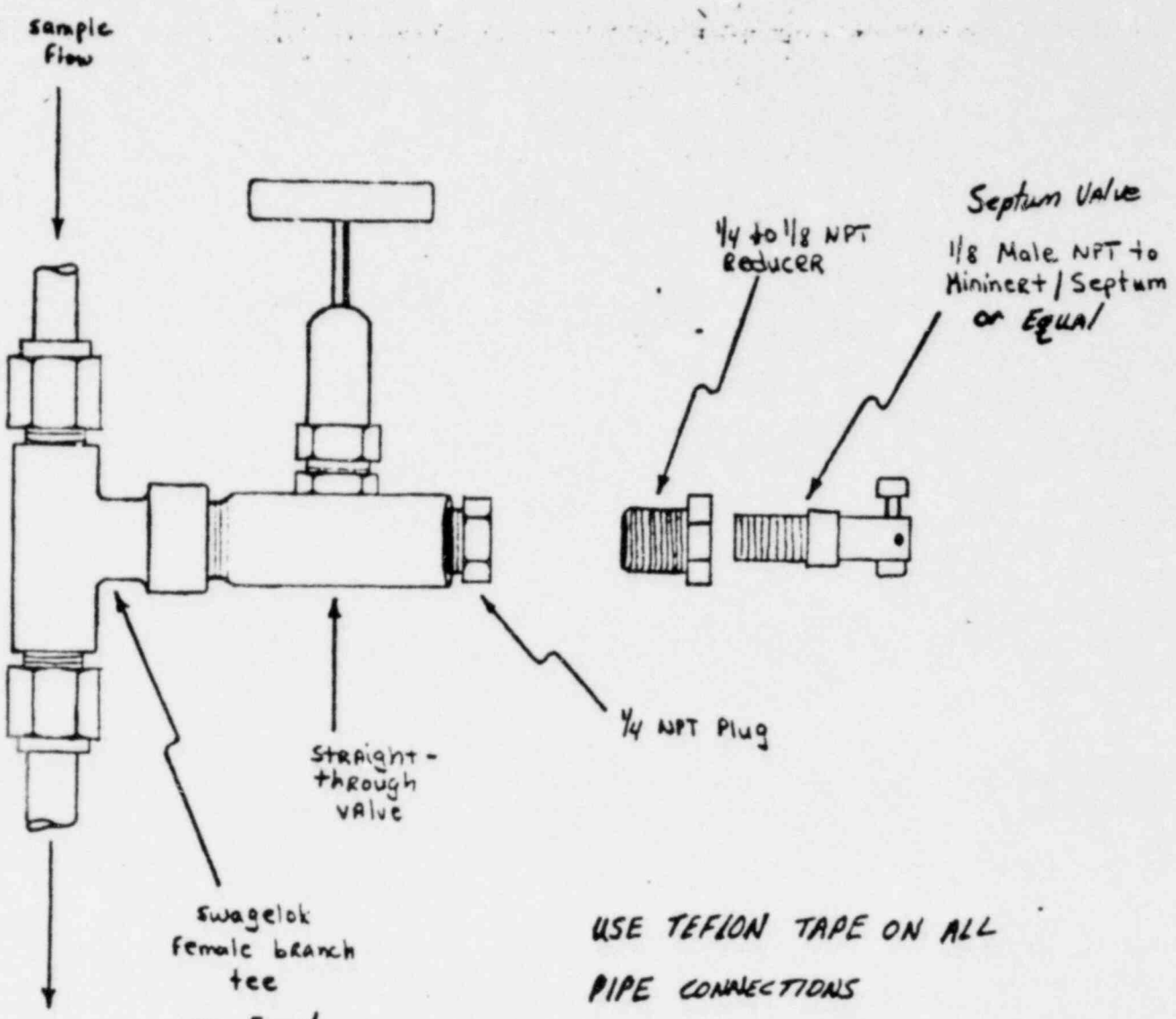
10. After the sample is properly stored, responsible supervision shall discuss and decide upon final disposition.

11. If the sample is able to be analyzed for gamma spectroscopy, the sample shall be processed in a manner such that the detector does not become contaminated.

12. Following final analysis of the sample, results shall be reported to appropriate supervision.

FIGURE HP01CO-125-1

GAS Sample tee



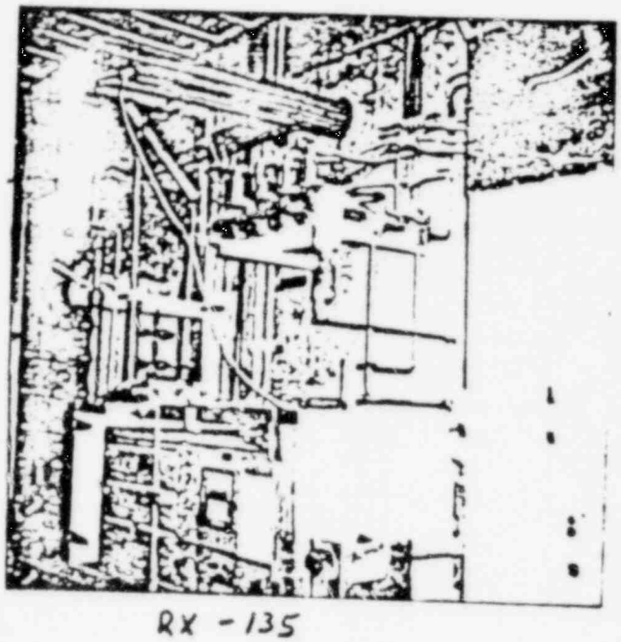
USE TEFLON TAPE ON ALL PIPE CONNECTIONS

EP 205A.4 APPENDICES

A. Photographs of sample points - Original photographs are kept on file with Health Physics supervision.

B. Plant layout maps.

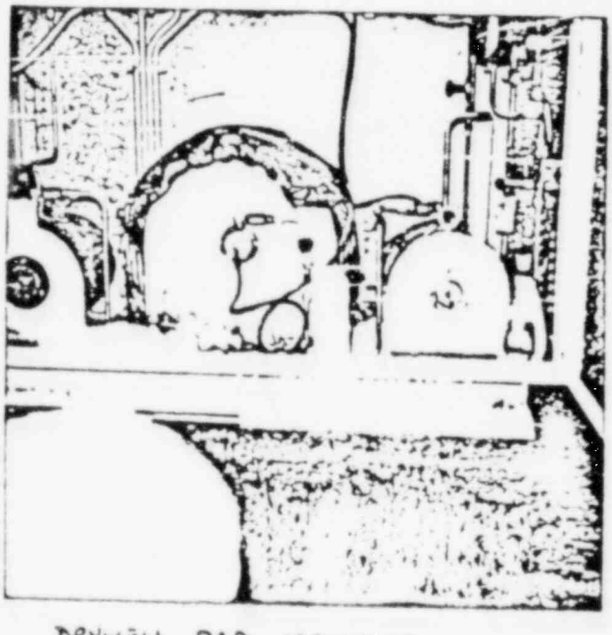
C. Survey maps.



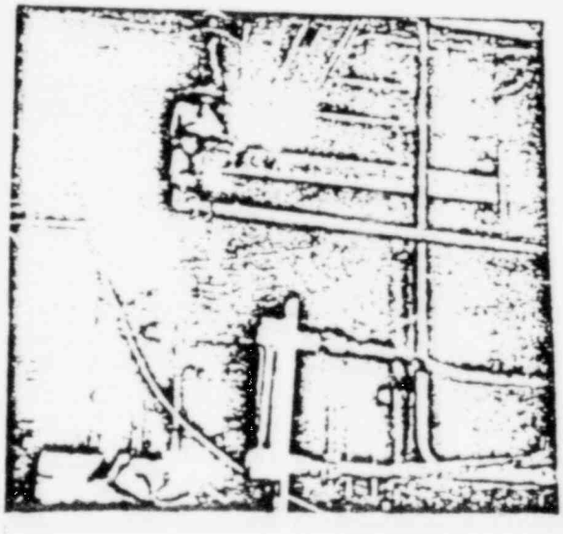
RX - 135

DRY WELL RAD. MONITOR

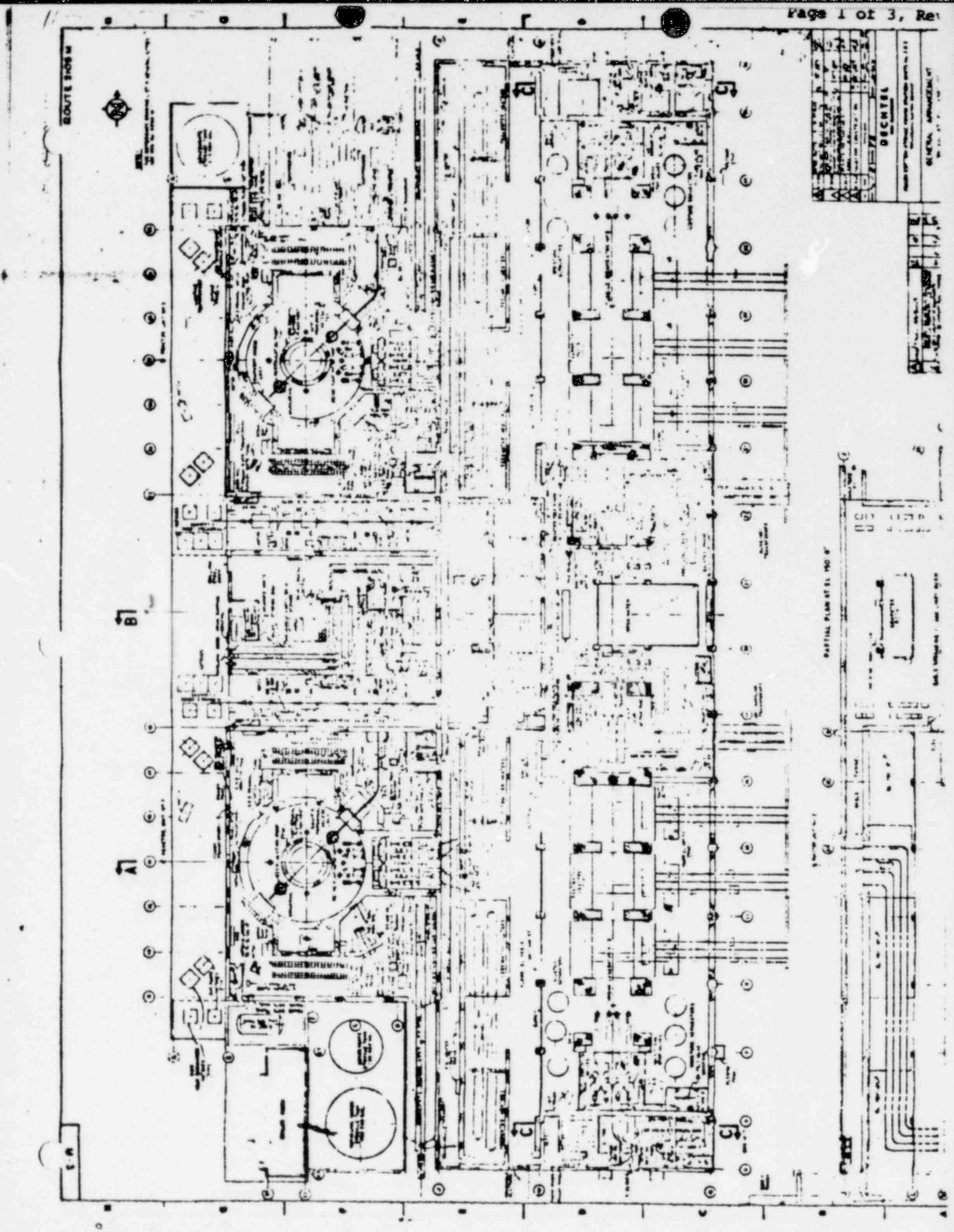
DRYWELL RAD. MONITOR



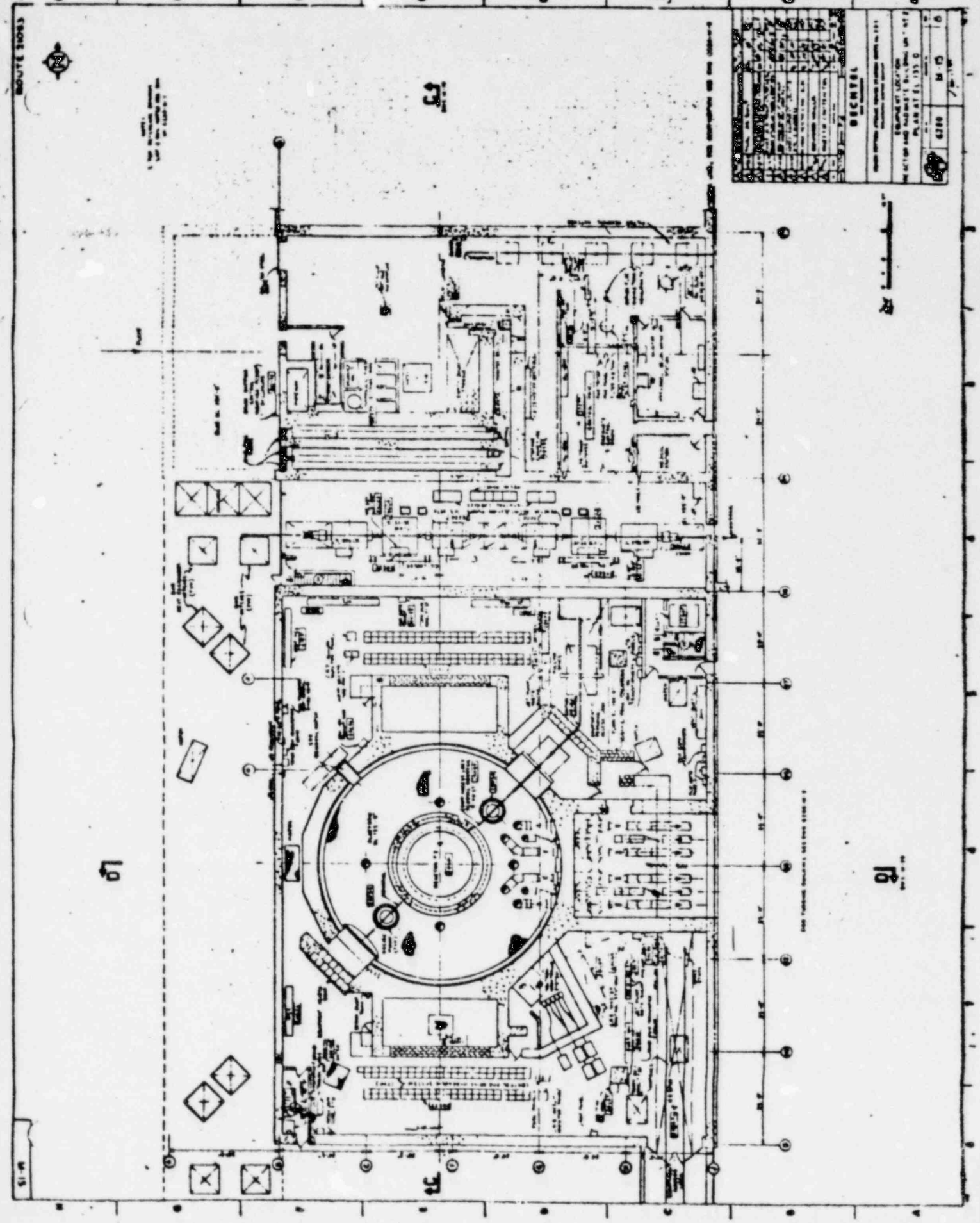
DRYWELL RAD. MONITOR



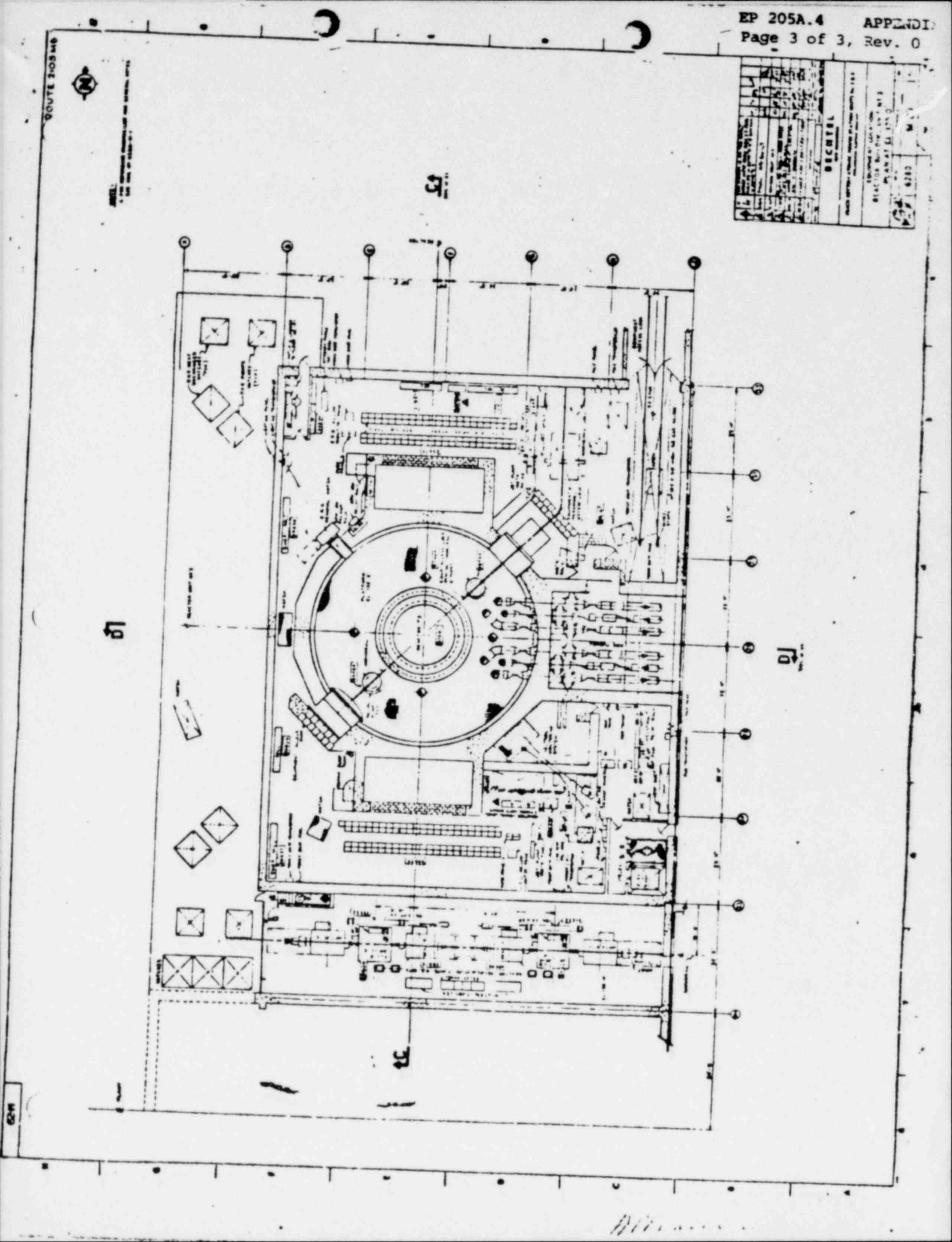
DRYWELL RAD. MONATOR

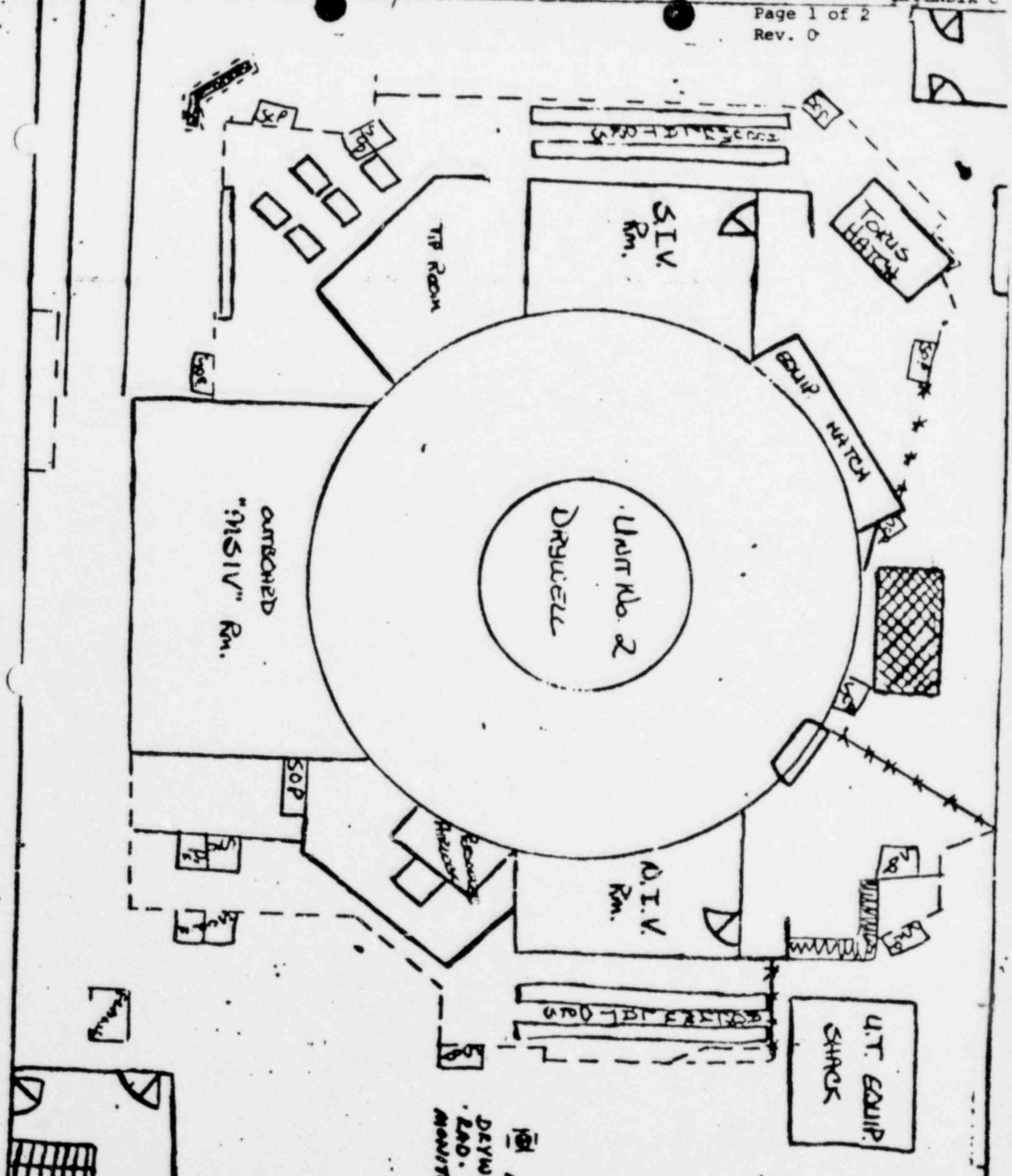


APPENDIX B



APPENDIX B




TORUS HATCH
S.I.V. Rm.
TIP ROOM
EQUIP. HATCH
UNIT No. 2 DRYWELL
OUTBOARD "MSIV" Rm.
SOP
O.I.V. Rm.
U.T. EQUIP. SHACK
DRYWELL RAD. MONITOR

APPENDIX C

Rx 3 135'EL

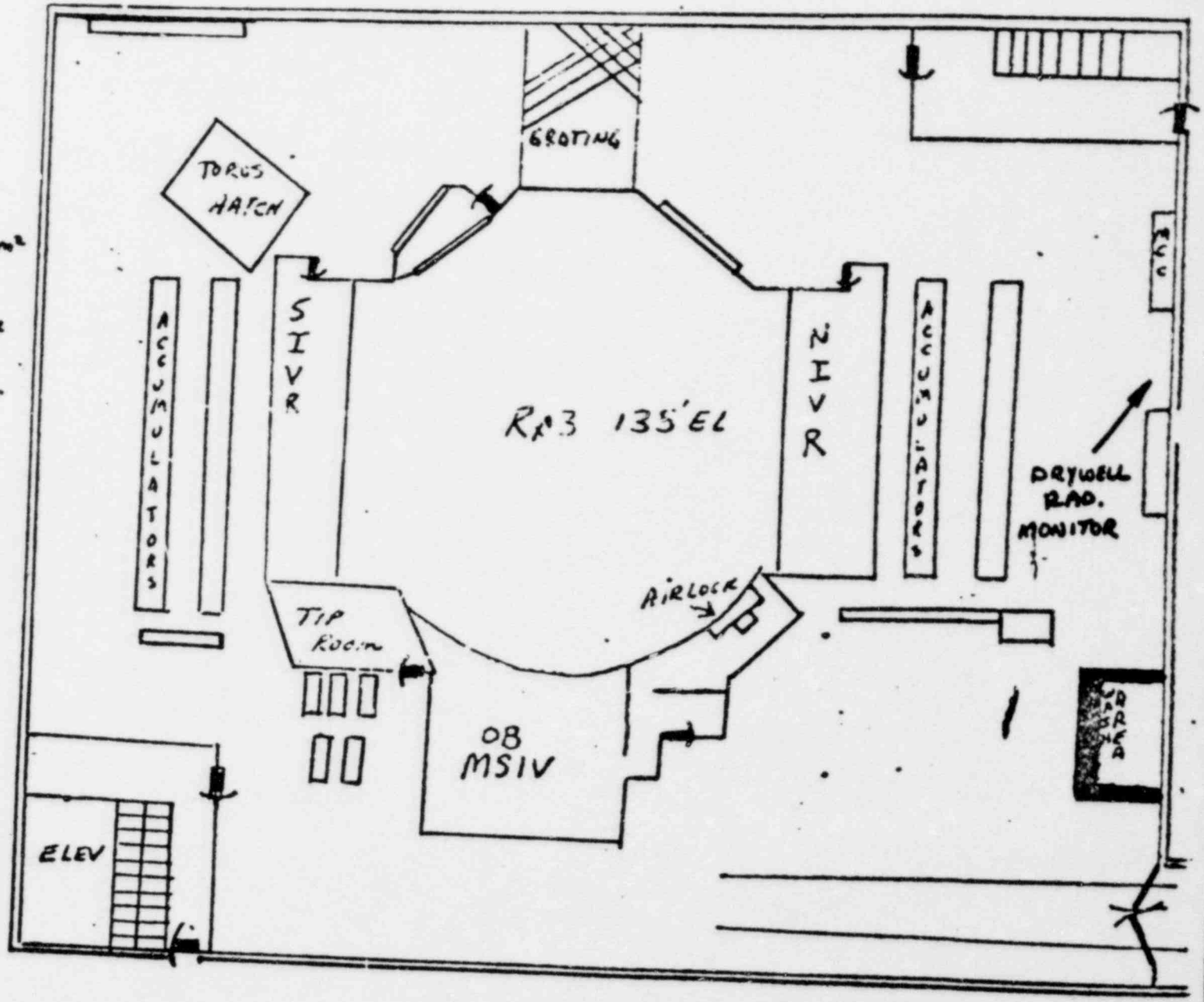
DATE:	TECH:
	INST:
TIME:	
	SNT

- SMEARS 1100 dpm/100 cm² UNLESS OTHERWISE INDICATED
- RAD READING IN MR/HR LESS THAN 2 MR/HR UNLESS OTHERWISE INDICATED

MAP CODE

- △ SMEAR SAMPLE
- ○ RAD READING IN MR/HR
- ○ CONTACT READINGS
- * * ROPED AREA'S
- — — TAPED AREAS

REMARKS:



MAY 25 1982

W. J. Knapp

PHILADELPHIA ELECTRIC COMPANY

PEACH BOTTOM UNITS 2 AND 3

EP 205A.6 OBTAINING CANAL DISCHARGE WATER SAMPLES FOLLOWING RADIOACTIVE LIQUID RELEASES AFTER ACCIDENT CONDITIONS

PURPOSE:

The purpose of this procedure is to provide some guidelines to obtain canal discharge water samples following radioactive liquid releases after accident conditions.

APPARATUS:

Appropriate Health Physics survey equipment
1 liter sample bottle with lid
plastic bags
tape

PROCEDURE:

1. As soon as possible after a radioactive liquid release (either planned or accidental) following accident conditions, a grab sample can be taken. Also daily composite samples can be taken following accident conditions.

2. To take a grab sample of canal discharge water, two locations are used:

   A. Take the sample from the chlorine analyzer sample pump discharge located in the gate control shack at the end of the canal.

   B. An alternate location would be to take the sample directly from canal by a dip sample.

3. To take a daily canal discharge composite sample:

   A. The composite canal discharge tank is located in the gate control shack at the end of the canal.

   B. Turn on the mixer in the tank to mix the liquid in the tank.

   C. Take a dip sample from this tank.

   D. Drain the tank to reset the daily canal discharge composite sample.

E. Flush the tank with the water hose to clean it out.

F. Make sure the drain is closed and verify that an appropriate sample flow is entering the tank from the composite sample pump.

4. Take the samples (canal discharge and/or canal composite discharge) to the appropriate counting room to scan for activity.