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**SECOND 10-YEAR INTERVAL LONG-TERM  
INSERVICE EXAMINATION AND TESTING PLAN  
FOR CLASS 1, 2, AND 3 SYSTEMS AND COMPONENTS  
FOR DONALD C. COOK NUCLEAR PLANT, UNIT 2**

**VOLUME III  
PUMP AND VALVE PLANS  
SwRI Project 17-8759**

Prepared by

**American Electric Power Service Corporation  
1 Riverside Plaza  
Columbus, Ohio 43216**

December 1985

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Q PDR

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FOR DONALD C. COOK NUMBER 1 PLANT UNIT  
FOR CLASS 1, 2, AND 3 SYSTEMS AND COMPONENTS  
INSIDE EXAMINATION AND TESTING PLAN  
SECOND 10-YEAR INTERVAL LONG-TERM

FOR DONALD C. COOK NUMBER 1 PLANT UNIT  
FOR CLASS 1, 2, AND 3 SYSTEMS AND COMPONENTS  
INSIDE EXAMINATION AND TESTING PLAN  
SECOND 10-YEAR INTERVAL LONG-TERM

1978

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1978

ASME B & PV CODE SECTION XI

Pump Inservice Test Program

- A. The pump test program shall be conducted in accordance with Section XI, Subsection IWP of the 1983 Edition of the ASME Boiler and Pressure Vessel Code through Summer 1983 Addenda, except for specific code relief, requested in accordance with 10 CFR 50.55a(g)(5)(iii). Exemptions or amendments are identified in Code Relief Requests I, II, and III
- B. This pump test program is for the 2nd ten year inspection/test interval commencing July 1, 1986 for both Unit 1 and Unit 2.
- C. The pump test program was developed employing the classification guidelines contained in Regulatory Guide 1.26, Revision 2 for Quality Groups B and C, and the definition of the reactor coolant system boundary contained in 10 CFR 50.2 (v) for Group A. (Quality Groups A, B, and C are the same as ASME Class 1, 2, and 3, respectively). Using these guidelines and IWP-1100, the pump list attached as Table A was developed. Table A identifies the following:
  - i. The pump number and service it performs along with the drawing identification number on which it is found.
  - ii. The applicable test parameters:
    - 1. Speed
    - 2. Inlet Pressure
    - 3. Differential Pressure  
Determined as the difference between measured discharge and suction pressures
    - 4. Flow Rate
    - 5. Vibration Amplitude
    - 6. Bearing Temperature
  - iii. The test frequency required.

REPORT OF THE  
COMMISSIONER OF THE  
GENERAL LAND OFFICE

1880

DONALD C. COOK NUCLEAR PLANT - UNITS NO. 1 AND 2  
PUMP INSERVICE TEST PROGRAM

TABLE A  
PROGRAM SUMMARY

| PUMP SERVICE<br>DWG. NO.                          | PUMP<br>NUMBER                                       | TEST PARAMETERS      |                                     |                               |  |                             |   |  | TEST<br>FREQUENCY |
|---|--|----------------------|-------------------------------------|-------------------------------|--|-----------------------------|---|--|-------------------|
|   |  | SPEED<br>N           | INLET<br>PRESSURE<br>P <sub>i</sub> | DIFFERENTIAL<br>PRESSURE<br>P | FLOW<br>RATE<br>Q                        | VIBRATION<br>AMPLITUDE<br>V | BEARING <sup>c</sup><br>TEMPERATURE<br>T <sub>b</sub> |  |                   |
| AUXILIARY <sup>a</sup><br>FEEDWATER<br>(5106A)    | PP-3W<br>PP-3E<br>PP-4                               | NO<br>NO<br>YES      | YES<br>YES<br>YES                   | YES<br>YES<br>YES             | YES<br>YES<br>YES                        | YES<br>YES<br>YES           | YES<br>YES<br>YES                                     | QUARTERLY<br>QUARTERLY<br>QUARTERLY              |                   |
| ESSENTIAL <sup>b</sup><br>SERVICE<br>WATER (5113) | PP-7W<br>PP-7E                                       | NO<br>NO             | YES<br>YES                          | YES<br>YES                    | YES<br>YES                               | YES<br>YES                  | YES<br>YES  | QUARTERLY<br>QUARTERLY                           |                   |
| CENTRIFUGAL<br>CHARGING<br>(5129)                 | PP-50W<br>PP-50E                                     | NO<br>NO             | YES<br>YES                          | YES<br>YES                    | YES<br>YES                               | YES<br>YES                  | YES<br>YES  | QUARTERLY<br>QUARTERLY                           |                   |
| BORIC ACID <sup>b</sup><br>TRANSFER<br>(5131)     | PP-46-1<br>PP-46-2<br>PP-46-3<br>PP-46-4             | NO<br>NO<br>NO<br>NO | YES<br>YES<br>YES<br>YES            | YES<br>YES<br>YES<br>YES      | YES<br>YES<br>YES<br>YES                 | YES<br>YES<br>YES<br>YES    | YES<br>YES<br>YES<br>YES                              | QUARTERLY<br>QUARTERLY<br>QUARTERLY<br>QUARTERLY |                   |
| COMPONENT<br>COOLING<br>WATER (5135A)             | PP-10W<br>PP-10E                                     | NO<br>NO             | YES<br>YES                          | YES<br>YES                    | YES<br>YES                               | YES<br>YES                  | YES<br>YES  | QUARTERLY<br>QUARTERLY                           |                   |
| SAFETY <sup>a</sup><br>INJECTION<br>(5142)        | PP-26N<br>PP-26S                                     | NO<br>NO             | YES<br>YES                          | YES<br>YES                    | YES<br>YES                               | YES<br>YES                  | YES<br>YES  | QUARTERLY<br>QUARTERLY                           |                   |
| RESIDUAL <sup>a</sup><br>HEAT REMOVAL<br>(5143)   | PP-35W<br>PP-35E                                     | NO<br>NO             | YES<br>YES                          | YES<br>YES                    | YES<br>YES                               | YES<br>YES                  | YES<br>YES  | QUARTERLY<br>QUARTERLY                           |                   |
| CONTAINMENT <sup>a</sup><br>SPRAY (5144)          | PP-9W<br>PP-9E                                       | NO<br>NO             | YES<br>YES                          | YES<br>YES                    | YES<br>YES                               | YES<br>YES                  | YES<br>YES  | QUARTERLY<br>QUARTERLY                           |                   |
| DIESEL FUEL OIL<br>TRANSFER<br>(5151A & 5151C)    | QT-106 AB1<br>QT-106 AB2<br>QT-106 CD1<br>QT-106 CD2 | NO<br>NO<br>NO<br>NO | YES<br>YES<br>YES<br>YES            | YES<br>YES<br>YES<br>YES      | YES (2)<br>YES (2)<br>YES (2)<br>YES (2) | YES<br>YES<br>YES<br>YES    | NO (1)<br>NO (1)<br>NO (1)<br>NO (1)                  | QUARTERLY<br>QUARTERLY<br>QUARTERLY<br>QUARTERLY |                   |
| SPENT FUEL PIT<br>COOLING (5136)                  | PP-31N<br>PP-31S                                     | NO<br>NO             | YES<br>YES                          | YES<br>YES                    | NO (3)<br>NO (3)                         | YES<br>YES                  | YES<br>YES  | QUARTERLY<br>QUARTERLY                           |                   |

a. These pumps are tested on test, bypass or minimum flow loops - per Section XI Subarticle IWP-1400.

b. Inlet pressure measurement is in head of liquid, ft.

c. Bearing temperatures will be measured annually, per Section XI IWP-3300 except as noted.

DONALD C. COOK NUCLEAR PLANT - UNITS NO. 1 AND 2  
PUMP INSERVICE TEST PROGRAM

TABLE A  
(CONTINUED)

PROGRAM SUMMARY

- (1) Refer to Code Relief Request I
- (2) Refer to Code Relief Request II
- (3) Refer to Code Relief Request III

DONALD C. COOK NUCLEAR PLANT - UNITS NO. 1 AND 2

PUMP INSERVICE TEST PROGRAM

CODE RELIEF REQUEST I ,

Bearing Temperature Measurement

We believe that the intent of Paragraph IWP-4310 is to exempt those pump bearings in the main flow path from temperature measurement requirements. However, if code relief is required, we request that the Diesel Fuel Oil Transfer Pumps be exempt from bearing temperature requirements as stated Section XI Subarticle IWP-3300.

The inboard and outboard sleeve bearings on these 2 HP gear pumps are lubricated and cooled by the pumped fluid. Temperature readings are therefore inconclusive since bearing measurement points are not responsive to the changes in bearing temperature.

Bearing problems on gear pumps can be more readily identified by degradation of pump capacity. Flow rate deterioration indicates the existence of excessive clearances due to bearing wear and problems.

In addition, the code required pump running time for yearly bearing temperature measurement can not be met due to the limited capacity of the diesel generator fuel oil day tank.

DONALD C. COOK NUCLEAR PLANT - UNITS NO. 1 AND 2

PUMP INSERVICE TEST PROGRAM

CODE RELIEF REQUEST II

Duration of Tests

Request that the duration of pump operation for testing, per Section XI Subarticle IWP-3500, be amended for the Diesel Fuel Oil Transfer Pumps.

These pumps supply the diesel generator fuel oil day tank. A conservative level is maintained in the tank to meet the minimum capacity per Technical Specification requirements. Due to the limited capacity of this tank, the pump operating test range is restricted. It is requested to record test parameters immediately after pump operation has stabilized.



DONALD C. COOK NUCLEAR PLANT - UNITS NO. 1 AND 2

PUMP INSERIVCE TEST PROGRAM

CODE RELIEF REQUEST III

Flow Measurement

Request that the Spent Fuel Pit Cooling Pumps be exempt from flow measurement requirements as stated in Section XI Subarticle IWP-3100 and Table IWP-3100-1.

The original design of the spent fuel pit cooling pumps, rated at 2300gpm, did not incorporate flow measuring devices in the main header or the individual pump discharge lines. A flow measuring instrument is installed in a 3" filtered clean-up line. However, the filter is sized for a maximum flow of 150 gpm which is significantly below the minimum pump flow. This line, therefore, cannot be used as a test circuit for the pumps.

In lieu of measuring the flowrate during the Section XI pump tests, the spent fuel pit cooling pumps are operated in a designated system configuration which establishes a fixed system resistance. Measurement of the differential pressure, along with the other pump performance parameters required by the code, provides adequate information to ascertain the operational readiness of the pump. Furthermore, analysis results presented in our FSAR indicate that without any cooling water flow there is a significant period of time before the pool temperature rises to 180°F under the most adverse heat generation conditions. Therefore, we contend that although the pump test results will be slightly less conservative by not measuring pump flowrate, the overall system performance is not significantly impacted.



ASME SECTION XI VALVE TEST PROGRAM

2ND TEN YEAR INSPECTION INTERVAL

FOR THE D. C. COOK NUCLEAR POWER STATION UNIT NO. 2

TABLE OF CONTENTS

1. INTRODUCTION - (FIGURE - 1)
2. LIST OF DRAWINGS - (FIGURE - 2)
3. NOMENCLATURE FOR TEST METHODS - (FIGURE - 3)
4. RELIEF REQUEST NOTES
5. ATTACHMENT-A
6. VALVE SUMMARY SHEETS
7. FLOW DIAGRAMS

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ASME SECTION XI VALVE TEST PROGRAM

2ND TEN YEAR INSPECTION INTERVAL

FOR THE D. C. COOK NUCLEAR POWER STATION UNIT NO. 2

INTRODUCTION

Revision No: 0

Figure - 1

Date: 12-13-85

Page 1 of 4

1. Valve Testing Program

A. The valve test program shall be conducted in accordance with Subsection IWV of Section XI of the 1983 edition of the ASME Boiler and Pressure Vessel Code through Summer 1983 Addenda, except for specific relief requested which is identified in the Valve Summary Sheet.

B. The valve test program is applicable, for the second 10 year inspection interval which commences on July 1, 1986.

C. The valve test program was developed employing the classification guidelines contained in 10 CFR 50.2(v) for Quality Group A and Regulatory Guide 1.26, Revision 3 for Quality Groups B and C. (Quality Group A is the same as ASME Class 1, Group B is 2, and Group C is 3). NRC staff guidance was provided by memorandum dated January 16, 1978.

D. Figure 2 identifies the systems flow diagrams which were used to develop this valve test program.

Valve Summary Sheets contain the following:

\* System Name: Name of the system (e.g., Main Steam)

\* Flow Diagram: Unit Number - Flow diagram number - Revision Number (e.g., 2-5105-33)

\* Valve Number: Unique valve number (e.g., 2-DCR-310)

\* Revision Number: Any change of valve description, function or test requirement.

THE UNITED STATES OF AMERICA  
DEPARTMENT OF JUSTICE  
WASHINGTON, D. C. 20535

IN RE: [Name of Defendant]  
[Address of Defendant]  
[City, State, ZIP]

CHARGE: [Description of Crime]

THE UNITED STATES OF AMERICA  
BY: [Name of Prosecutor]

VS.  
[Name of Defendant]

IN SENATE CHAMBERS  
WASHINGTON, D. C. 20540

DATE: [Date]

BY: [Signature]

U.S. DEPARTMENT OF JUSTICE  
WASHINGTON, D. C. 20535

D. C. Cook Nuclear Plant

Valve Test Program

Revision No: 0

Figure - 1

Date: 12-13-85

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\* Valve Type: Type of valve, one of the following:

REL - Relief and Safety  
CK - Check  
BF - Butterfly  
GA - Gate  
GL - Globe  
DA - Diaphragm  
3W - Three-Way  
ND - Needle  
AG - Angle  
BL - Ball  
VB - Vacuum Breaker (Reverse Check Valve)

\* Valve Size: Nominal valve size in inches

\* Valve Actuator Type: Type of actuator, one of the following:

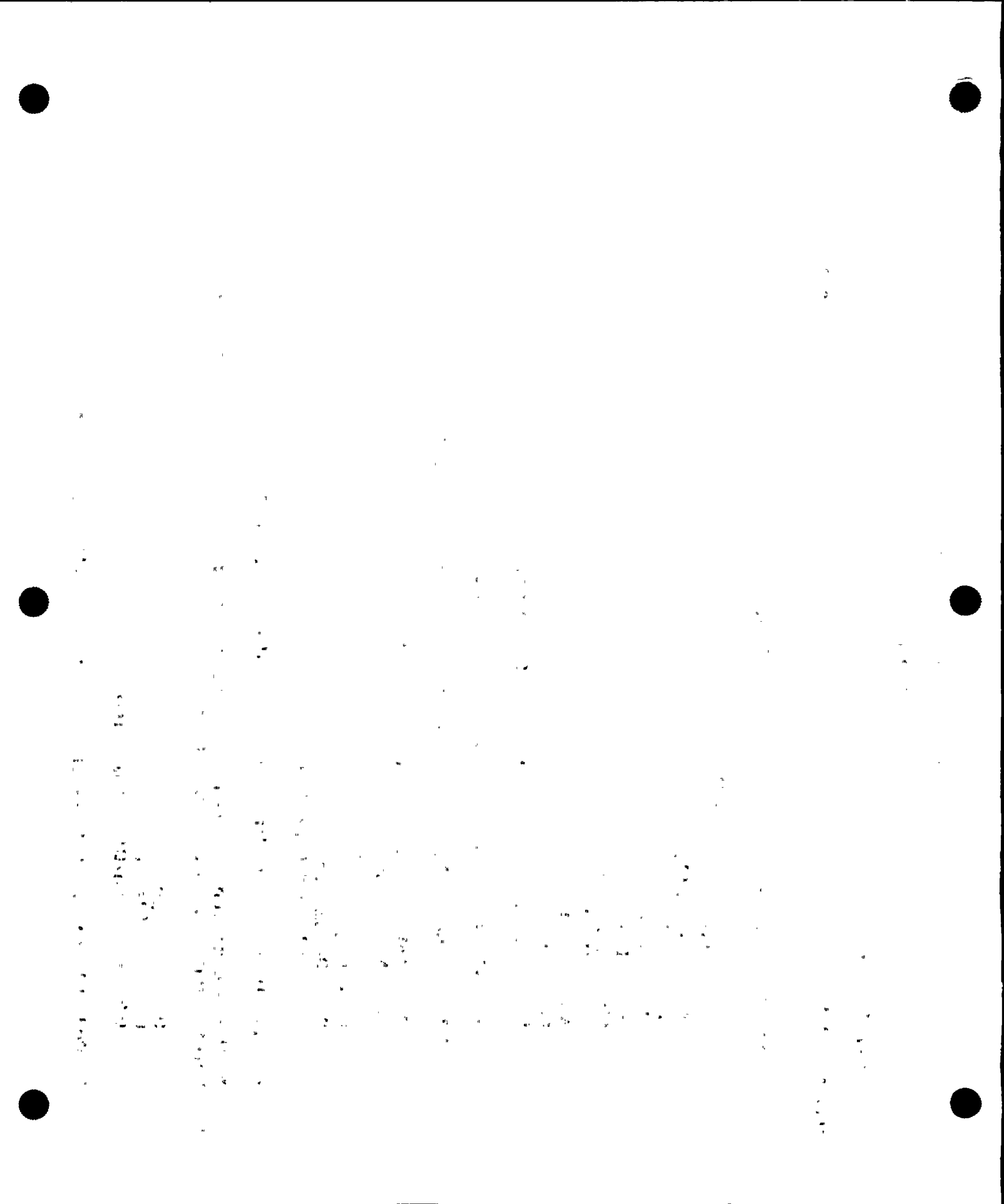
SA - Self Actuated (e.g., CK or REL)  
MO - Motor Operated  
A - Air Operated  
M - Manual  
PO - Pneumatic  
SO - Solenoid Operated

\* Flow Diagram Coordinates: Alpha/Numeric grid location of valve

\* Valve position during normal plant operation or during performance of its safety function, one of the following:

O - Open  
C - Closed  
O/C - Open/Closed or vice versa

\* Code Class: ASME Code class of valve, either 1, 2, or 3





D. C. Cook Nuclear Plant  
Valve Test Program

Revision No: 0

Figure - 1

Date: 12-13-85

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\* Valve Status-A/P: Active or passive

\* Category: Section XI, Category of valve, either A, B, C, or D, as defined in IWV-2200

NOTE: Combinations are possible (e.g., AC)

\* Primary Test Req'd: Test required per Section XI

\* Test Performed: Testing that will be performed

NOTE: Test nomenclature is explained in Figure 3

\* Test Mode: One of the following:

P - Power Operation (Every 3 months when unit is at power)

C - Cold Shutdown (Testing will be performed at cold shutdown frequency) See Note "F"

R - Refueling (Testing will be performed at refueling outage frequency)

\* Code Relief: Whether or not a code relief is being requested; will be one of the following:

NO - Valve is to be tested per code, no comments

NO, NOTE X - Valve is to be tested per code, but there are comments

YES, NOTE Y - Code relief is requested. Alternate testing is proposed in lieu of that required by code, the note explains why the code relief is requested.

E. Where alternative testing is to be performed by disassembly or radiography, as indicated by valve summary sheet notes, it will be accomplished by selecting one representative valve from each group of valves during refueling outages. If the inspection results are unacceptable, then all the valves in that group will be inspected.

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D. C. Cook Nuclear Plant

Valve Test Program

Revision No: 0

Figure - 1

Date: 12-13-85

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F. Conditions for Valve Testing During Cold Shutdowns

Cold shutdown testing of valves identified in the IST Program is acceptable when the following conditions are met:

1. Valve exercising need not be done more often than once every 3 months in case of frequent cold shutdowns.

2. The testing shall commence as soon as the cold shutdown condition is achieved, but not later than 48 hours after shutdown, and continue until complete or the plant is ready to return to power.

3. Completion of all valve testing is not a prerequisite to return to power. Any testing not completed during one cold shutdown should be performed during any subsequent cold shutdowns starting from the last test performed at the previous cold shutdown.

4. For planned cold shutdowns, where ample time is available and testing all the valves identified for the cold shutdown test frequency in the IST Program will be accomplished, exceptions to the 48 hours commencement of testing is allowed.

6. Code relief is requested for timing tolerance and trending per paragraphs IWV-3413(b) and IWV-3417(a) for fast acting valves (those with the maximum limiting stroke times of two seconds or less). The major influence in the stroke time testing of fast acting valves is the operator's response. Therefore, timing tolerances are influenced by operator action and trending is not indicative of valve performance. The fast acting valves have been identified as "ETF" and acceptance criteria has been defined in the program.

1. The first part of the document discusses the importance of maintaining accurate records.

2. It is essential for all departments to ensure that their data is up-to-date and consistent.

3. Regular audits should be conducted to verify the integrity of the information stored.

4. Any discrepancies found during these audits should be reported immediately to the relevant authority.

5. The second part of the document outlines the procedures for handling sensitive information.

6. All staff members must be trained on the proper handling and storage of confidential data.

7. Access to sensitive information should be restricted to only those individuals who have a legitimate need.

8. The document concludes with a summary of the key points and a call to action for all staff.

9. It is the responsibility of every employee to adhere to these guidelines and maintain the highest standards of data security.

DONALD C. COOK NUCLEAR PLANT  
2ND TEN YEAR INSPECTION INTERVAL OF  
VALVE TEST PROGRAM FOR UNIT - 2

LIST OF DRAWINGS

Revision: 0

Figure 2

Date: 12-13-85

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| SYSTEM                                      | FLOW DIAGRAM NO. | REVISION NO. |
|---|------------------|--------------|
| Main Steam                                  | 2-5105           | 33           |
| Main Steam                                  | 2-5105B          | 39           |
| Steam Generating System                     | 2-5105D          | 0            |
| Feedwater                                   | 2-5106           | 32           |
| Feedwater (Auxiliary)                       | 2-5106A          | 33           |
| Essential Service Water                     | 2-5113           | 32           |
| Non-Essential Service Water                 | 2-5114A          | 25           |
| Station Drainage Containment                | 2-5124           | 19           |
| Reactor Coolant                             | 2-5128           | 18           |
| Reactor Coolant                             | 2-5128A          | 32           |
| CVCS-Reactor Letdown & Charging             | 2-5129           | 28           |
|   | 2-5129A          | 18           |
| Component Cooling                           | 2-5135           | 31           |
| Component Cooling                           | 2-5135A          | 25           |
| Component Cooling                           | 2-5135B          | 12           |
| Nuclear Sampling                            | 2-5141           | 23           |
| Nuclear Sampling                            | 2-5141A          | 27           |
| Post Accident Sampling-Containment Hydrogen | 2-5141D          | 7            |
| Emergency Core Cooling (SIS)                | 2-5142           | 26           |

MEMORANDUM FOR THE DIRECTOR

DATE: 10/15/54

SUBJECT: [Illegible]

1. [Illegible]

2. [Illegible]

3. [Illegible]

4. [Illegible]

5. [Illegible]

6. [Illegible]

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15. [Illegible]

15. [Illegible]

16. [Illegible]

16. [Illegible]

17. [Illegible]

## DONALD C. COOK NUCLEAR PLANT

## 2ND TEN YEAR INSPECTION INTERVAL OF

## VALVE TEST PROGRAM FOR UNIT - 2

## LIST OF DRAWINGS

Revision: 0

Figure 2

Date: 12-13-85

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| SYSTEM   | FLOW DIAGRAM NO. | REVISION NO. |
|--|------------------|--------------|
| Emergency Core Cooling (RHR)                             | 2-5143           | 29           |
| Containment Spray  | 2-5144           | 27           |
| Containment Penetration &<br>Weld Channel Pressurization | 2-5145           | 17           |
| Ice Condenser Refrigeration                              | 2-5146B          | 21           |
| Containment Ventilation                                  | 2-5147A          | 32           |
| Control Room Ventilation                                 | 2-5149           | 18           |
| Emergency Diesel Generator                               | 2-5151A          | 24           |
| Emergency Diesel Generator                               | 2-5151B          | 26           |
| Emergency Diesel Generator                               | 2-5151C          | 24           |
| Emergency Diesel Generator                               | 2-5151D          | 26           |
| Make-Up Water & Primary Water System                     | 12-5115A         | 37           |
| Compressed Air System                                    | 12-5120B         | 21           |
| Spent Fuel Pit Cooling & Clean-Up                        | 12-5136          | 22           |
| WDS Vents & Drains                                       | 12-5137A         | 20           |
| Post Accident Liquid & Gas Sampling                      | 12-5141C         | 7            |
| Post Accident Liquid Sampling Inst. Panels               | 12-5141F         | 3            |

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DONALD C. COOK NUCLEAR PLANT  
NOMENCLATURE FOR TEST METHOD  
USED IN COLUMNS FOR PRIMARY TEST REQUIRED AND  
TEST PERFORMED UNDER ASME SECTION XI

Revision No. 0

Figure 3

Date: 12-13-85

Page 1 of 2

1) CATEGORY A-B VALVES

- EF-1 Exercise valve (full stroke) for operability every 3 months.
- EF-2 Exercise valve (full stroke) for operability at a cold shutdown or refueling outage frequency as indicated
- EF-3 Exercise valve (part stroke) for operability during operation; Exercise (full stroke) at a cold shutdown or refueling outage frequency as indicated.
- EF-4 Exercise valve (full stroke) for operability prior to return to service
- EF-5 Valves with remote position indicator shall be observed (locally) at least once every 2 years to verify that valve operation is accurately indicated.
- EF-6 This note was intentionally deleted.
- EF-7 Exercise valve (with fail-safe actuators) to observe failure mode every 3 months
- EF-8 Exercise valve (with fail-safe actuators) to observe failure mode at a cold shutdown frequency.
- ET-XXX Exercise valve - power operated (full stroke) and measure time. (E.G., ET-015 means maximum stroke time 15 seconds)
- ETF-YYY Exercise valve - power operated (full stroke) and measure time for fast acting valves. (E.G., ETF-002 means maximum stroke time is 2 seconds)

UNITED STATES DEPARTMENT OF JUSTICE  
FEDERAL BUREAU OF INVESTIGATION  
WASHINGTON, D. C. 20535

TO : SAC, NEW YORK (100-100000)

FROM : SAC, NEW YORK (100-100000)

SUBJECT: [REDACTED]

RE: [REDACTED]

DATE: [REDACTED]

CLASSIFICATION: [REDACTED]

APPROVAL: [REDACTED]

SPECIAL AGENT IN CHARGE

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

DONALD C. COOK NUCLEAR PLANT  
NOMENCLATURE FOR TEST METHOD  
USED IN COLUMNS FOR PRIMARY TEST REQUIRED AND  
TEST PERFORMED UNDER ASME SECTION XI

Revision No. 0  
Date: 12-13-85

Figure 3  
Page 2 of 2

2) CATEGORY C VALVES

- CF-1 Exercise valve (full stroke) for operability every 3 months.
- CF-2 Exercise valve (full stroke) for operability at a cold shutdown or refueling outage frequency as indicated.
- CF-3 Exercise valve partial stroke during plant operation and full stroke for operability at a cold shutdown or refueling outage frequency as indicated.
- CF-4 Exercise valve (full stroke) for operability prior to return to service
- TF-1 Safety and relief valve tests (setpoint) to Section XI, Table IWV-3510-1.

3) CATEGORY A or AC VALVES

- SLT-1 Seat leakage test valve at refueling outage frequency but not less than once every 2 years. Permissible leakage values for each category A or AC valve are listed in Attachment-"A".
- SLT-2 Seat leakage test valve in accordance with 10CFR 50, Appendix J, in lieu of ASME Code Section XI except for paragraphs IWV-3426 and IWV-3427 which are applicable. Permissible leakage values for each category A or AC valve are listed in Attachment-"A".
- SLT-2A Seat leakage test valve in accordance with Testing Procedure No. 12THP-4030-STP-237 in lieu of ASME Code Section XI, except for paragraphs IWV-3426 and IWV-3427 which are applicable. Permissible leakage values for each category AC valve are listed in Attachment-"A".

MEMORANDUM FOR THE DIRECTOR, FBI  
FROM: SAC, NEW YORK (100-100000)  
SUBJECT: [REDACTED]

On 10/15/54, [REDACTED] advised that [REDACTED] had been observed at [REDACTED] on 10/14/54.

[REDACTED] advised that [REDACTED] had been observed at [REDACTED] on 10/14/54.

Very truly yours,  
[REDACTED]

100-100000-100

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

100-100000-100

DONALD C. COOK NUCLEAR PLANT

VALVE TEST PROGRAM

RELIEF REQUEST NOTES

Flow Diagram No: 2-5105D-0

Revision No: 0

Date: 12-13-85

NOTE 1: FW-118-1 thru -4: The function of these valves is to provide feedwater flow from the main feedwater pumps to the steam generators. These valves cannot be exercised during power operation because closing of these valves would require securing feed flow to the steam generator and partial stroking may cause instability of steam generator water level which could result in reactor trip. Further three loop operation is not allowed per D. C. Cook Nuclear Plant Technical Specification 3.4.1.1. These valves will be confirmed closed by disassembly on a sampling basis during refueling outages.

NOTE 2: MRV-210, -220, -230 and -240: These steam generator stop valves cannot be full stroke exercised during power operation because this would require securing steam from a steam generator which could result in a reactor trip. Three loop operation is not allowed for D. C. Cook per Technical Specification 3.4.1.1. Valves MRV-211, -221, -231, -241, -212, -222, -232, and -242 which activate MRV-210, -220, -230, and -240 are tested quarterly in accordance with IWV-3410. MRV-210, -220, -230 and -240 are part stroke tested quarterly by use of external hydraulics and full stroke tested during hot standby (Mode 3) at cold shutdown frequency.

1. The first part of the document is a letter from the Secretary of the State Department to the Secretary of the War Department, dated 10/10/40. The letter discusses the transfer of certain personnel from the War Department to the State Department.

2. The second part of the document is a letter from the Secretary of the War Department to the Secretary of the State Department, dated 10/10/40. This letter provides details regarding the personnel being transferred and the reasons for the transfer.

3. The third part of the document is a letter from the Secretary of the State Department to the Secretary of the War Department, dated 10/10/40. This letter addresses the administrative aspects of the transfer, including the need for necessary documentation and approvals.

4. The fourth part of the document is a letter from the Secretary of the War Department to the Secretary of the State Department, dated 10/10/40. This letter provides further information regarding the transfer and any outstanding issues.

5. The fifth part of the document is a letter from the Secretary of the State Department to the Secretary of the War Department, dated 10/10/40. This letter concludes the discussion and provides final instructions regarding the transfer.

6. The sixth part of the document is a letter from the Secretary of the War Department to the Secretary of the State Department, dated 10/10/40. This letter provides additional details regarding the transfer and any outstanding issues.

7. The seventh part of the document is a letter from the Secretary of the State Department to the Secretary of the War Department, dated 10/10/40. This letter addresses the administrative aspects of the transfer, including the need for necessary documentation and approvals.

8. The eighth part of the document is a letter from the Secretary of the War Department to the Secretary of the State Department, dated 10/10/40. This letter provides further information regarding the transfer and any outstanding issues.

9. The ninth part of the document is a letter from the Secretary of the State Department to the Secretary of the War Department, dated 10/10/40. This letter concludes the discussion and provides final instructions regarding the transfer.

10. The tenth part of the document is a letter from the Secretary of the War Department to the Secretary of the State Department, dated 10/10/40. This letter provides additional details regarding the transfer and any outstanding issues.

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DONALD C. COOK NUCLEAR PLANT

VALVE TEST PROGRAM

RELIEF REQUEST NOTES

Flow Diagram No: 2-5105D-0

Revision No: 0

Date: 12-13-85

NOTE 3: MS-108-2 and 108-3: These check valves are located in the steam supply lines to the Auxiliary Feedwater Pump Turbine. These valves operate during normal IST feedwater pump testing. The valves are stroked to the extent that they pass enough steam to cause the turbine driven auxiliary feed pump to pump approximately 700 GPM. Normal design flowrate for this pump is 900 GPM. We consider this sufficient to be defined as full stroke. The valves will be verified closed by radiography or disassembly on a sampling basis during refueling outages.



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DONALD C. COOK NUCLEAR PLANT

VALVE TEST PROGRAM

RELIEF REQUEST NOTES

Flow Diagram No: 2-5106-32

Revision No: 0

Date: 12-13-85

NOTE 1: FMD-201, -202, -203, -204 & FRV-210, -220, -230, -240: The function of these valves is to provide feedwater flow from the feedwater pumps to the steam generators. These valves cannot be exercised during power operation because closing these valves would require securing feed flow to the steam generator and partial stroking may cause instability of steam generator water level which could result in reactor trip. Further, three loop operation is not allowed per D. C. Cook Nuclear Plant Technical Specification 3.4.1.1. These valves will be full stroke exercised during unit start-up or shutdown.

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DONALD C. COOK NUCLEAR PLANT

VALVE TEST PROGRAM

RELIEF REQUEST NOTES

Flow Diagram No: 2-5106A-33

Revision No: 0

Date: 12-13-85

NOTE 1: FW-132-1, -2, -3, -4: These auxiliary feedwater (AFW) check valves function to supply AFW to the steam generators whenever the AFW System is caused to operate. These check valves cannot be full or partial stroke exercised during power operation without energizing the AFW System and delivering cold water to the steam generators. These valves are full stroke exercised during startups.

NOTE 2: FW-134 & FW-135: These valves are located on the suction and discharge lines of the Turbine Driven Auxiliary Feedpump. The flow rate through the Turbine Driven Auxiliary Feedpump during IST is approximately 700 gpm using the pump test line. The design flow rate is 900 gpm. We consider this sufficient to demonstrate full stroke operability. In addition, these valves are full stroke tested with flow rate of 900 GPM at a refueling outage frequency.

NOTE 3: FW-138-1, -2, -3, -4: These auxiliary feedwater (AFW) check valves function to supply AFW to the steam generators whenever the AFW System is caused to operate. These check valves cannot be full or partial stroke exercised during power operation without energizing the AFW System and delivering cold water to the steam generators. These valves are full stroke exercised when the plant is returned to power after cold shutdown.

NOTE 4: FW-149 and 150: The required full stroking of these check valves is satisfied when Turbine Driven Auxiliary Feedpump completes its required testing.

THE UNIVERSITY OF CHICAGO  
DEPARTMENT OF CHEMISTRY  
5708 SOUTH CAMPUS DRIVE  
CHICAGO, ILLINOIS 60637

TO: THE DIRECTOR, NATIONAL BUREAU OF STANDARDS  
4300 RESISTANCE AVENUE  
GAITHERSBURG, MARYLAND 20899

FROM: DR. J. H. GOLDSTEIN, CHIEF, CHEMISTRY DIVISION  
NATIONAL BUREAU OF STANDARDS  
4300 RESISTANCE AVENUE  
GAITHERSBURG, MARYLAND 20899

RE: [Illegible text]

DATE: [Illegible text]

BY: [Illegible text]

DONALD C. COOK NUCLEAR PLANT

VALVE TEST PROGRAM

RELIEF REQUEST NOTES

Flow Diagram No: 2-5113-32

Revision No: 0

Date: 12-13-85

NOTE 1: ESW-141, -142, -143, -144: These valves will be disassembled and inspected internally per procedure no. 12MHP-5021.032.00IL during every refueling outage.

NOTE 2: ESW-145, -240, -243: These valves are normally closed and are required to be open when the condensate storage tank is exhausted. Exercising the valves could cause lake water contamination of the steam generators. Lake water chemistry can potentially impact steam generator tube integrity. We believe that testing at a refueling outage frequency is sufficient to demonstrate operability of this long term valve. The valves will be full stroke tested during refueling outages. Since the valves are manual, stroke timing is not required.

NOTE 3: WRV-722, -724, -726, -728: These valves are located in the essential service water supply lines to the emergency diesel generators air after coolers. These three-way valves regulate water flow to maintain the temperature at which the after cooler air discharge thermostatic controller has been set. Water flow is regulated by passing a portion of the flow through the air coolers and bypassing the excess flow around the air after coolers. We are requesting code relief from the testing requirements since (1), these valves function only as regulating valves and not open/closed valves (2), these valves are demonstrated operable during diesel generator testing. Diesel generators are tested on a staggered basis, every 31 days per Technical Specification 4.8.1.1.2; and (3), these valves are demonstrated operable during diesel generator 24 hour runs performed each refueling outage. The valves will be "fail-safe" tested during refueling outages. The valves cannot be stroke timed because they are thermostatic valves whose position is controlled by process fluid temperature. There is no external control available.

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DONALD C. COOK NUCLEAR PLANT

VALVE TEST PROGRAM

RELIEF REQUEST NOTES

Flow Diagram No: 2-5114A-25

Revision No: 0

Date: 12-13-85

NOTE 1: See "Attachment-A" for permissible seat leakage values.

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DONALD C. COOK NUCLEAR PLANT

VALVE TEST PROGRAM

RELIEF REQUEST NOTES

Flow Diagram No: 2-5124-19

Revision No: 0

Date: 12-13-85

NOTE 1: See "Attachment-A" for permissible seat leakage values.

NOTE-2: NS-357: This check valve is located on the return line of the post accident sampling system inside the containment. Since the line is open-ended inside the containment and the check valve is not equipped with the position indication, the valve will be full stroke exercised in the open position by performing a flow test quarterly and will be confirmed closed during refueling outages.

THE  
FEDERAL  
BUREAU OF  
INVESTIGATION  
UNITED STATES DEPARTMENT OF JUSTICE  
WASHINGTON, D. C. 20535

MEMORANDUM FOR THE DIRECTOR  
FROM THE SAC, NEW YORK  
SUBJECT: [Illegible]

DONALD C. COOK NUCLEAR PLANT

VALVE TEST PROGRAM

RELIEF REQUEST NOTES

Flow Diagram No: 2-5128-18

Revision No: 0

Date: 12-13-85

NOTE 1: NSD-021, -022, -023, & -024: These one-inch solenoid operated isolation valves are located in the reactor head vent. These valves cannot be tested during power operation, hot standby, hot shutdown, or cold shutdown without creating a loss of coolant and release of radioactivity in containment and due to ALARA consideration and personnel protection. Technical Specification Section 3.4.12.1 requires these valves be closed in Modes 1 through 4. These valves will be tested per Technical Specification Item 4.4.12.1.

NOTE 2: Exercising the solenoid operated valves for verification of valve position (valve stem movement) will be performed during each refueling outage by performing a flow test through each valve because the valve stem is completely enclosed and cannot be observed.

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DONALD C. COOK NUCLEAR PLANT

VALVE TEST PROGRAM

RELIEF REQUEST NOTES

Flow Diagram No: 2-5128A-32

Revision No: 0

Date: 12-13-85

NOTE 1: CS-442-1 thru 4: These containment isolation check valves are on the seal water supply line to the RC pumps. These valves cannot be part or full stroke exercised to the closed position during power operation because cooling flow is required to the RCP seals. During cold shutdown, seal water must be maintained to prevent backflow through the seals with possible damage from dirt. The valves will be full stroke exercised at refueling outage frequency.

NOTE 2: See Attachment-"A" for permissible seat leakage values.

NOTE 3: NRV-151, -152, -153: These pressurizer power operated relief valves are normally closed during power operation (passive valves). The system is considered out of service (as defined per IWV-3416) during power operation. The valves will be full stroke exercised prior to placing them into service for RCS cold overpressurization protection.

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DONALD C. COOK NUCLEAR PLANT

VALVE TEST PROGRAM

RELIEF REQUEST NOTES

Flow Diagram No: 2-S128A-32

Revision No: 0

Date: 12-13-85

NOTE 4: NS0-061, -062, -063, -064: These one-inch solenoid operated isolation valves are located in the pressurizer vent. These valves cannot be tested during power operation, hot standby, hot shutdown, or cold shutdown without creating a loss of coolant and release of radioactivity into the containment and due to ALARA considerations. Technical Specification 3.4.12.2 requires these valves be closed in Modes 1 through 4. These valves will be tested per Technical Specification 4.4.12.2. Exercising these solenoid operated valves for verification of the valve position will be performed during each refueling outage by performing a flow test through each valve because the valve stem is completely enclosed and cannot be observed.

NOTE 5: SI-189: This check valve is located in the safety valves discharge (Emergency Core Cooling SVs, RHR, SVs, centrifugal charging pump SVs, etc.) collection header leading to the pressurizer relief tank. Isolating this valve for testing would result in dead heading all safety valves in the above systems. This would result in loss of overpressurization protection and could put the plant in an unsafe condition. Test will be run at a refueling frequency when there is not potential for overpressurization.

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DONALD C. COOK NUCLEAR PLANT

VALVE TEST PROGRAM

RELIEF REQUEST NOTES

Flow Diagram No: 2-5129-28

Page 1 of 3

Revision No: 0

Date: 12-13-85

NOTE 1: CS-292: This valve is in emergency boration path. This valve is not normally operated at power because of resultant large reactivity insertion. The valve will be full stroke exercised open at a cold shutdown frequency. The valve will be confirmed closed either by radiography or internal inspection during refueling outages.

NOTE 2: CS-299E, -299W: These check valves located on the discharge lines of the 'E' and 'W' charging pumps function as pressure isolation valves to protect the low pressure charging pump suction lines. These valves cannot be full-stroke exercised during: (1) power operation because the charging pumps cannot achieve maximum flow rate with the reactor at full pressure, and (2) cold shutdown because the flow required could cause a low temperature overpressure condition. The valves will be part-stroke exercised quarterly and full stroke exercised during refueling outages.

NOTE 3: See Attachment-"A" for permissible seat leakage values.

NOTE 4: CS-321: This containment isolation check valve's function is to supply borated water from the volume control tank to the regenerative heat exchanger through the charging pumps for chemical shim control and reactor coolant system makeup. Isolation of this system would result in loss of control of pressurizer level which could result in reactor trip. This valve is tested in the open direction quarterly and confirmed closed during refueling outages in deference to ALARA consideration.

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DONALD C. COOK NUCLEAR PLANT

VALVE TEST PROGRAM

RELIEF REQUEST NOTES

Flow Diagram No: 2-5129-28

Page 2 of 3

Revision No: 0

Date: 12-13-85

NOTE 5: CS-328L1, -329L1, -328L4, -329L4: These check valve's function is to provide the interface point between the RCS and the CVCS. Since the discharge piping of the CVCS is designed to a pressure rating higher than the RCS, these valves do not perform a pressure isolation function. The higher pressure (RCS) to low pressure (CVCS Suction) isolation is accomplished by other valves which are tested to category "A" requirement. The valves will be full stroke exercised to open position quarterly.

NOTE 6: QCR-300, -301: These air operated containment isolation valves are located on the letdown return line. Exercising these valves during power operation would result in letdown isolation which could result in loss of pressurizer level control which could result in a plant shutdown. The valves will be full stroke exercised and fail safe tested at a cold shutdown frequency and seat leakage tested during refueling outages.

NOTE 7: QMD-200, -201: These motor operated gate valves function to supply borated water from the volume control tank to the charging pumps for RCS chemical shim control and reactor coolant system makeup. Isolation of this system would result in loss of control of pressurizer level which could result in reactor trip. The valves will be tested at a cold shutdown frequency.

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DONALD C. COOK NUCLEAR PLANT

VALVE TEST PROGRAM

RELIEF REQUEST NOTES

Flow Diagram No: 2-5129-29

Page 3 of 3

Revision No: 0

Date: 12-13-85

NOTE 8: QRV-200: This control valve is normally open to permit charging flow. This valve cannot be full stroke tested during power operation because it would interrupt charging flow which could lose the pressurizer level. The valve will be part stroke exercised during power operation and will be full stroke exercised at cold shutdown frequency. The valve cannot be "fail safe" tested nor stroke timed since no control switches are installed to perform those tests.

NOTE 9: QRV-251: This control valve is normally open to permit charging flow when the centrifugal charging pumps are running. The valve cannot be full stroke tested during power operation because it would interrupt both charging and seal water flow which could lose the pressurizer level and damage the reactor coolant pump seals. The valve will be part stroke exercised during power operation and full stroke exercised at cold shutdown frequency. This valve cannot be "fail safe" tested nor stroke timed since no control switches are installed to perform those tests.

NOTE 10: SI-185: This normally closed valve functions to transfer the suction source of the charging pumps to the refueling water storage tanks. This valve cannot be full stroke exercised during: (1) power operation without introducing a high concentration of boric acid in the RCS, and (2) cold shutdown because the only full flow path available is into the reactor coolant system and the system does not have sufficient volume to accommodate that flow without a possible low temperature overpressure condition. The valve will be full stroke exercised during refueling outages.

THE UNITED STATES OF AMERICA  
DEPARTMENT OF JUSTICE  
WASHINGTON, D. C. 20535  
OFFICE OF THE ATTORNEY GENERAL  
DIVISION OF INVESTIGATION  
MEMORANDUM FOR THE ATTORNEY GENERAL  
SUBJECT: [Illegible]

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DONALD C. COOK NUCLEAR PLANT

VALVE TEST PROGRAM

RELIEF REQUEST NOTES

Flow Diagram No: 2-5129A-18

Revision No: 0

Date: 12-13-85

NOTE 1: QCM-250, -350: These motor-operated reactor coolant pump seal water return isolation valves cannot be exercised during power operation because it would interrupt reactor coolant pump seal water flow and could cause damage to the seals. Therefore, the valves are full stroke exercised at cold shutdown frequency.

NOTE 2: See "Attachment-A" for permissible seat leakage values.

NOTE 3: QMD-451, -452: These motor-operated gate valves function as volume control tank isolation valves. Exercising these valves during power operation could result in a loss of pressurizer level control which could cause a reactor trip. These valves are full stroke exercised at cold shutdown frequency.

1945

1. The first part of the report deals with the general situation of the country and the progress of the war.

2. The second part deals with the economic situation and the measures taken to improve it.

3. The third part deals with the social situation and the measures taken to improve it.

4. The fourth part deals with the political situation and the measures taken to improve it.

5. The fifth part deals with the cultural situation and the measures taken to improve it.

6. The sixth part deals with the military situation and the measures taken to improve it.

7. The seventh part deals with the international situation and the measures taken to improve it.

8. The eighth part deals with the future of the country and the measures taken to improve it.



DONALD C. COOK NUCLEAR PLANT

VALVE TEST PROGRAM

RELIEF REQUEST NOTES

Flow Diagram No: 2-5135-31

Revision No: 0

Date: 12-13-85

NOTE 1: CCM-451, -452, -453, -454, -458 and -459: These valves cannot be tested during power operation without securing cooling water to the RC pump. Isolation of these valves could cause failure of the RCP. Valves to be tested at cold shutdown frequency.

NOTE 2: See "Attachment-A" for permissible seat leakage values.

NOTE 3: CCR-455, -456, and -457: These valves cannot be tested during power operation without securing cooling water to reactor the support coolers. These valves must remain open to prevent overheating of the concrete around the reactor supports during the normal operation. Valves to be tested at a cold shutdown frequency.

NOTE 4: CCW-135: This check valve cannot be tested during power operation without securing cooling water to the reactor support coolers. The valve must remain open to prevent overheating of the concrete around the reactor supports during the normal operation. The valve will be verified closed by seat leakage testing during refueling outages.

NOTE 5: CRV-470: This air-operated valve is located in the Component Cooling Water (CCW) return from the letdown heat exchanger and controls the temperature of the letdown flow leaving the heat exchanger. The position of this valve is set by QTC-302. The valve cannot be "fail safe" tested nor stroke timed since no control switches are installed to perform those tests. The valve will be full stroke exercised quarterly.

MEMORANDUM FOR THE DIRECTOR, FBI  
FROM: SAC, NEW YORK (100-100000)  
SUBJECT: [Illegible]

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DONALD C. COOK NUCLEAR PLANT

VALVE TEST PROGRAM

RELIEF REQUEST NOTES

Flow Diagram No: 2-5135A-25

Revision No: 0

Date: 12-13-85

NOTE 1: CMD-411, -412, -413, -414, -415 & -416: These valves remain open during initial safety injection, but may be closed during recirculation phase or passive failure. Therefore, the valve time will be recorded from open to close position.

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DONALD C. COOK NUCLEAR PLANT

VALVE TEST PROGRAM

RELIEF REQUEST NOTES

Flow Diagram No: 2-51358-12

Revision No: 0

Date: 12-13-85

NOTE 1: See "Attachment-A" for permissible seat leakage values.

NOTE 2: CCW-243-25, CCW-243-72, CCW-244-25 and CCW-244-72: These check valves are located in the penetration cooling supply headers of the CCW System inside the containment. The valves are open during normal operation to provide cooling water to the main steam penetrations. The valves are confirmed closed by seat leakage testing in accordance with Appendix "J" during refueling outage.



*[Faint, illegible text or markings, possibly bleed-through from the reverse side of the page.]*

DONALD C. COOK NUCLEAR PLANT

VALVE TEST PROGRAM

RELIEF REQUEST NOTES

Flow Diagram No: 2-S141-23

Revision No: 0

Date: 12-13-85

NOTE 1: See "Attachment-A" for permissible seat leakage values.

1. The first part of the document is a list of names and addresses.

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DONALD C. COOK NUCLEAR PLANT

VALVE TEST PROGRAM

RELIEF REQUEST NOTES

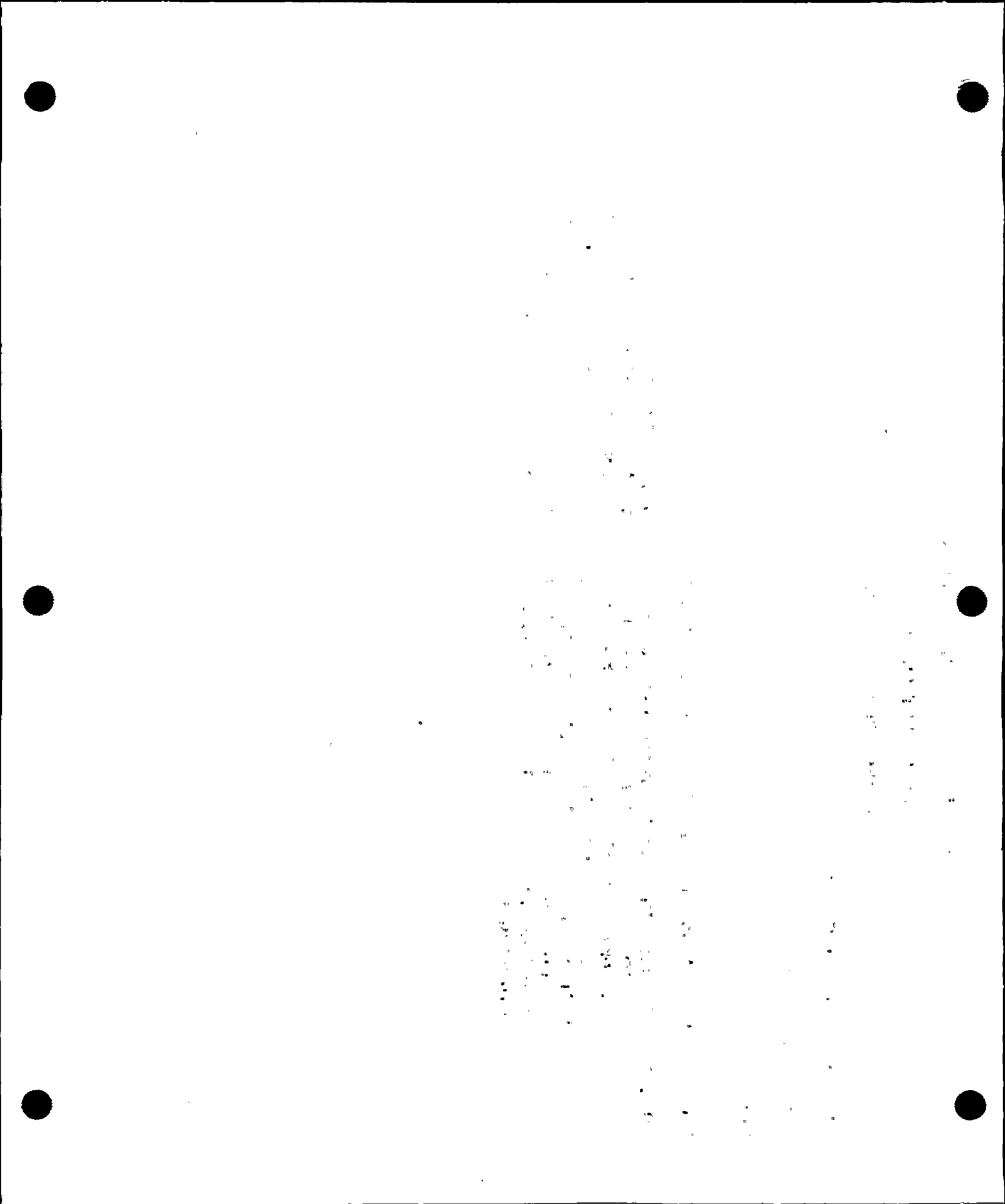
Flow Diagram No: 2-5141D-7

Revision No: 0

Date: 12-13-85

NOTE 1: See "Attachment-A" for permissible seat leakage values.

NOTE 2: NS-283: This containment isolation check valve is located in the sample return line of the Post-Accident Containment Hydrogen Monitoring System. Since the line is open-ended inside the containment and the check valve is not equipped with the position indication, the valve will be full stroke exercised in the open position by performing a flow test quarterly and will be confirmed closed during seat leakage testing per Appendix "J" program at refueling frequency.



DONALD C. COOK NUCLEAR PLANT

VALVE TEST PROGRAM

RELIEF REQUEST NOTES

Flow Diagram No: 2-S142-26

Page 1 of 2

Revision No: 0

Date: 12-13-85

NOTE 1: ICM-250 and ICM-251: These normally closed valves cannot be operated during normal plant operation without introducing Boron into a non-heat traced line. Boron could crystalize and plug the line. Valves will be tested at cold shutdown frequency.

NOTE 2: See "Attachment-A" for permissible seat leakage values.

NOTE 3: IMO-261: This valve cannot be tested when SI pumps are required to be operable. Testing would result in isolation of both pumps. This valve will be tested at cold shutdown frequency.

NOTE 4: IMO-262 and -263: These motor operated valves are located in series in the re-circulation line of the Safety Injection pumps. Exercising any of these valves will make the SI pumps inoperable. These valves will be full-stroke exercised at cold shutdown frequency.

NOTE 5: SI-110N, SI-110S and SI-101: Safety Injection (SI) pump discharge valves, SI-110N and -110S, cannot be exercised during power operation because SI pumps cannot overcome reactor pressure. Therefore, no flow path exists and, because minimum flow lines branch off upstream of these valves, they cannot be part-stroke tested during pump testing. The common (SI pumps) suction check valve, SI-101 is part-stroke exercised at power operation during pump testing. These valves cannot be exercised during cold shutdowns because SI pumps are required to be inoperable by Technical Specification 3.5.3 to protect against low temperature overpressurization of the Reactor Coolant System. These valves will be full-stroke exercised at refueling frequency in conjunction with the full flow test.

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TEL: 773-936-3700  
FAX: 773-936-3700

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JAN 23 1991  
10:30 AM

PROF. J. H. ...  
DEPT. OF CHEMISTRY  
UNIVERSITY OF CHICAGO  
5708 S. CAMPUS DR.  
CHICAGO, IL 60637

RE: ...  
DATE: ...

...  
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DONALD C. COOK NUCLEAR PLANT

VALVE TEST PROGRAM

RELIEF REQUEST NOTES

Flow Diagram No: 2-5142-26

Page 2 of 2

Revision No: 0

Date: 12-13-85

NOTE 6: SI-142 L1, L2, L3, and L4: These check valves are located in the supply lines from the Boron Injection Tank to the reactor coolant cold legs (loop 1 through 4). These valves cannot be tested during power operation because this would require injecting highly concentrated boric acid solution from the Boron Injection Tank into the Reactor Coolant System resulting in probable plant shutdown.

These valves cannot be partially-stroke exercised using the BIT bypass line because this could result in bypassing the BIT, thereby not achieving design flow through the BIT if an accident occurred.

These valves cannot be full-stroked exercised during cold shutdown because this would require injecting the BIT into the RCS which could significantly delay startup from cold shutdown condition (the BIT would have to be brought to the proper Boron concentration and the RCS would have to be diluted sufficiently to allow startup). These valves will be full stroke exercised during refueling outages.

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CHICAGO, ILLINOIS 60637

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JAN 10 1964

PROFESSOR  
J. H. GOLDSTEIN  
UNIVERSITY OF CHICAGO  
5708 SOUTH CAMPUS DRIVE  
CHICAGO, ILLINOIS 60637

Dear Professor Goldstein:  
I am pleased to hear from you and  
thank you for your letter of  
January 8, 1964. I am sorry  
that I cannot give you a more  
definite answer at this time,  
but I will try to get back  
to you as soon as possible.  
Very truly yours,  
R. F. W. W. W.

DONALD C. COOK NUCLEAR PLANT

VALVE TEST PROGRAM

RELIEF REQUEST NOTES

Flow Diagram No: 2-5143-29

Page 1 of 4

Flow Diagram No

Revision No: 0

Date: 12-13-85

NOTE 1: See "Attachment-A" for permissible seat leakage values.

NOTE 2: IMO-128 and ICM-129: These valves function as the normal return from the RCS to the RHR for heatup, cooldown, Mode 5 and Mode 6 operation. These valves are normally closed and cannot be operated during normal plant operation because they are interlocked to remain closed at RCS pressure above 450 psig. The system is considered out of service (as defined per IWV-3416) during power operation. The valves will be full stroke exercised prior to placing them into service.

NOTE 3: IMO-310, -320, -314, -324: These valves remain open during injection phase of a safety injection, but will be closed during re-circulation phase. Therefore, stroke timing will be from open to close position.

NOTE 4: IMO-315, -316, -325, -326: Valves IMO-315 and -325 are normally closed valves, located in the RHR and SI Supply Header to RCS hot legs. Valves IMO-316 and -326 are normally open valves located in the RHR and SI Supply Header to RCS cold legs. These valves should not be exercised during power operation because failure in a non-conservative position would result in less than minimum number of injection flow path as required by the FSAR. The valves will be full stroke tested at cold shutdown frequency.

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DONALD C. COOK NUCLEAR PLANT

VALVE TEST PROGRAM

RELIEF REQUEST NOTES

Flow Diagram No: 2-5143-29

Page 2 of 4

Revision No: 0

Date: 12-13-85

NOTE 5: SI-166 L1, L2, L3, L4: These check valves function to prevent backflow from the RCS into the accumulators during normal operation. These valves function to supply flow from the accumulators to the RCS during an accident condition. These valves cannot be exercised during power operation because the accumulators do not have sufficient head to overcome RCS pressure.

These valves cannot be exercised during cold shutdown because this would result in a possible low temperature overpressurization of the RCS. Full stroke testing during refueling outages is not possible because of the resulting water surge into the reactor and the potential for high airborne radiation contamination. These valves will be partially-stroke exercised during refueling outages and disassembled for internal inspection on a sampling basis.

NOTE 6: SI-161, L1, L2, L3, L4: These check valves are located in the supply lines from the Residual Heat Removal and Safety Injection Pumps to the RCS cold legs (loop 1 through 4). These valves cannot be exercised during power operation because the RHR pumps and SI pumps do not develop sufficient head to overcome RCS pressure. These valves will be part stroke exercised at a cold shutdown frequency and will be full stroke exercised at the refueling frequency.

SI-170 L1, L2, L3, and L4: These valves will be part-stroke exercised during refueling outages. The valves will also be disassembled on a sampling basis during refueling outages to verify the full stroke exercising.

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DONALD C. COOK NUCLEAR PLANT

VALVE TEST PROGRAM

RELIEF REQUEST NOTES

Flow Diagram No: 2-5143-29

Page 3 of 4

Revision No: 0

Date: 12-13-85

NOTE 7: RH-108E and RH-108W: These valves cannot be full stroke exercised quarterly because no full flow path exists. The valves will be full stroke exercised at cold shutdown frequency (during RHR operation).

NOTE 8: RH-133, -134: These check valves function to circulate water from the RHR pumps to the RCS cold legs when the RHR system is aligned for heat removal operation. These valves cannot be exercised during power operation because the RHR pumps do not develop sufficient head to overcome RCS pressure. These valves will be exercised during start up pursuant to Technical Specification 3.4.6.2.

NOTE 9: SI-148: This valve cannot be full stroke exercised during power operation or cold shutdown because design flow may not be attainable without flowing to the core. Additionally, a large flow rate through the RHR return line to the RWST may increase the probability of air being swept into the Safety Injection suction header. The valve will be part stroke exercised during power operation and full stroke exercised during the full flow test at the refueling frequency.

NOTE 10: SI-151 E, W: These check valves are located in the RHR supply lines to either the hot or cold legs. These valves cannot be exercised during power operation because the RHR pumps do not develop sufficient head to overcome RCS pressure. These valves will be exercised at a cold shutdown frequency.

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DONALD C. COOK NUCLEAR PLANT

VALVE TEST PROGRAM

RELIEF REQUEST NOTES

Flow Diagram No: 2-5143-29

Page 4 of 4

Revision No: 0

Date: 12-13-85

NOTE 11: SI-152 N, S: These check valves function to provide Safety Injection pump discharge to either the hot or cold legs. These valves cannot be exercised during power operation because the SI pumps do not develop sufficient pressure to overcome RCS pressure. These valves cannot be exercised during cold shutdown because the safety injection pumps are required to be inoperable by Technical Specification Section 3.5.3, to protect against low temperature overpressurization of the RCS. Also, during cold shutdown, there may not be sufficient volume in the RCS to accommodate the amount of water needed to full stroke. These valves will be full stroke exercised at refueling frequency in conjunction with full flow test.

NOTE 12: SI-158 L1, L2, L3, L4: Check valves SI-158 are located in the supply lines from the Residual Heat Removal and Safety Injection Pumps to the RCS hot legs (loop 1 through 4). These valves cannot be exercised during power operation because the RHR and SI pumps do not develop sufficient head to overcome RCS pressure. These valves will be part stroke exercised at a cold shutdown frequency and will be full stroke exercised at the refueling frequency.



DONALD C. COOK NUCLEAR PLANT

VALVE TEST PROGRAM

RELIEF REQUEST NOTES

Flow Diagram No: 2-5144-27

Revision No: 0

Date: 12-13-85

NOTE 1: CTS-138E & W, CTS-103E & W: These check valves function to supply water from the RWST to the Containment Spray Pumps suction (CTS-138E & W) and to supply water from the Containment Spray Pumps (CTS-103E & W) to the ring header in containment. These valves are partial stroked during Containment Spray Pump Testing. Valves will be disassembled during refueling on a sample basis.

NOTE 2: CTS-131E & W, CTS-127E & W, RH-141, RH-142: These check valves function to supply spray water to the containment ring headers. In the closed position, they provide a containment isolation function. These valves cannot be exercised during power operation, cold shutdown, or refueling because flow through these valves would result in spraying the containment. This could cause problems with wet lagging, corrosion of components inside containment, etc. The only practical method of verifying operability of these check valves is by disassembly. These valves will be disassembled on a sample basis during refueling outages.

NOTE 3: CTS-127E & W, CTS-131E & W, RH-141, RH-142: These valves are to be seat leakage tested in accordance with the special testing procedure because of the configuration at D. C. Cook Plant. The permissible seat leakage values of these valves are listed in Attachment-"A".

THE UNIVERSITY OF CHICAGO  
DEPARTMENT OF CHEMISTRY  
58 CHEMISTRY BUILDING  
CHICAGO, ILLINOIS 60637

TO THE EDITOR:  
I am writing to you regarding the  
results of the experiment I conducted  
on the reaction of hydrogen peroxide  
with various metal ions. The  
data shows that the rate of  
decomposition of hydrogen peroxide  
is significantly increased in the  
presence of certain metal ions,  
particularly iron(II) and copper(II).  
I have attached a copy of the  
report for your review.

Very truly yours,  
[Signature]  
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RECEIVED  
[Date]  
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[Address]



DONALD C. COOK NUCLEAR PLANT

VALVE TEST PROGRAM

RELIEF REQUEST NOTES

Flow Diagram No: 2-5145-17

Revision No: 0

Date: 12-13-85

NOTE 1: See "Attachment-A" for permissible seat leakage values.

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VALVE TEST PROGRAM

RELIEF REQUEST NOTES

Flow Diagram No: 2-51468-21

Revision No: 0

Date: 12-13-85

NOTE 1: R-156 and R-157: These valves are full stroke exercised in the open direction quarterly and verified closed by seat leakage testing per Appendix "J" during refueling outages. These check valves are not equipped with position indicators.

NOTE 2: See "Attachment-A" for permissible seat leakage values.

1. The first part of the document discusses the importance of maintaining accurate records of all transactions. It emphasizes that this is essential for the proper management of the organization's finances and for ensuring compliance with applicable laws and regulations.

2. The second part of the document provides a detailed overview of the current financial status of the organization. It includes a summary of the income statement, the balance sheet, and the cash flow statement. This information is presented in a clear and concise manner, allowing stakeholders to quickly understand the organization's financial health.

3. The third part of the document outlines the organization's financial goals and objectives for the upcoming period. It details the strategies and initiatives that will be implemented to achieve these goals, including measures to improve operational efficiency, reduce costs, and increase revenue.

4. The fourth part of the document discusses the organization's risk management strategy. It identifies the key risks that could impact the organization's financial performance and outlines the measures that will be taken to mitigate these risks. This includes a focus on diversification, hedging, and other risk management techniques.

5. The fifth part of the document provides a summary of the organization's financial performance over the past period. It highlights the key achievements and challenges, and provides a comparison of the organization's performance against its targets and industry benchmarks.

6. The sixth part of the document discusses the organization's future outlook and provides a forecast of its financial performance for the next several years. This forecast is based on a number of assumptions, including market conditions, industry trends, and the organization's own performance.

7. The seventh part of the document provides a detailed analysis of the organization's capital structure and debt obligations. It discusses the terms and conditions of the organization's debt, and provides a breakdown of the organization's debt by maturity and interest rate.

8. The eighth part of the document discusses the organization's dividend policy and provides information on the organization's dividend history. It also outlines the organization's plans for future dividend payments, and provides a breakdown of the organization's dividend payments by type and amount.

9. The ninth part of the document provides a summary of the organization's financial performance over the past period, and provides a comparison of the organization's performance against its targets and industry benchmarks. This information is presented in a clear and concise manner, allowing stakeholders to quickly understand the organization's financial health.

10. The tenth part of the document provides a detailed overview of the organization's financial status, including a summary of the income statement, the balance sheet, and the cash flow statement. This information is presented in a clear and concise manner, allowing stakeholders to quickly understand the organization's financial health.

DONALD C. COOK NUCLEAR PLANT

VALVE TEST PROGRAM

RELIEF REQUEST NOTES

Flow Diagram No: 2-5147A-32

Revision No: 0

Date: 12-13-85

NOTE 1: See "Attachment-A" for permissible leakage values.

THE NATIONAL ARCHIVES COLLEGE PARK, MARYLAND

REF ID: A66000

DATE: 10/10/2001

TIME: 10:00 AM

BY: J. B. ...

FOR: ...

RE: ...

DONALD C. COOK NUCLEAR PLANT

VALVE TEST PROGRAM

RELIEF REQUEST NOTES

Flow Diagram No: 2-5149-18

Revision No: 0

Date: 12-13-85

NOTE 1: VRV-325, -315: These valves are located at the outlet of the control room air conditioner water pump. These three-way valves function to modulate water flow through the air handler package based on cooling requirements. These valves are demonstrated operable during normal control room air conditioning operation. The valves cannot be stroked timed because they are not equipped with position indicator and stroke times are not repeatable.

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DONALD C. COOK NUCLEAR PLANT

VALVE TEST PROGRAM

RELIEF REQUEST NOTES

Flow Diagram No: 2-5151A-24

Revision No: 0

Date: 12-13-85

NOTE 1: The required full stroking of the check valves is satisfied when the diesel generator successfully completes its required testing per Technical Specification 4.8.1.1.2.

NOTE 2: QT-114-2AB: This valve is located at the discharge of the engine driven lube oil pump (diesel-generator). This three-way thermostatic valve functions to maintain the correct lube oil temperature by maintaining the correct proportion of oil flowing through the lube oil cooler and bypassing the lube oil cooler to maintain a preset lube oil temperature. We are requesting exemption from testing requirements since (1) this valve functions only as a regulating valve and not opened/closed; (2) this valve is demonstrated operable during diesel generator testing. Diesel generators are tested every 31 days on a staggered basis per Technical Specification 4.8.1.1.2. The valves will be verified operable by observing proper temperatures during diesel testing.

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DONALD C. COOK NUCLEAR PLANT

VALVE TEST PROGRAM

RELIEF REQUEST NOTES

Flow Diagram No: 2-5151B-26

Revision No: 0

Date: 12-13-85

NOTE 1: The required full stroking of the check valves is satisfied when the diesel generator successfully completes its required testing per Technical Specification 4.8.1.1.2.

NOTE 2: QT-132-2AB: This valve is located at the discharge of the emergency diesel engine jacket water pump. This three-way thermostatic valve functions to maintain the correct proportion of water flowing through the diesel engine water cooler and bypassing the diesel engine jacket water cooler to maintain a preset jacket water temperature. We are requesting exemption from the testing requirements since (1) this valve functions only as regulating valve and not open/closed valve; (2) this valve is demonstrated operable during diesel generator testing. Diesel generators are tested on a staggered basis, every 31 days per Technical Specification 4.8.1.1.2. The valve will be verified operable by observing proper temperatures during diesel testing.

NOTE 3: XRV-220, -221 and -222: The operability of these valves will be based on obtaining Technical Specification acceptance Diesel Generator Start times (less than or equal to 10 seconds) because these valves are not equipped with position indication devices to measure the stroke times.

THE UNIVERSITY OF CHICAGO  
DEPARTMENT OF CHEMISTRY  
5700 SOUTH CAMPUS DRIVE  
CHICAGO, ILLINOIS 60637

RECEIVED  
JUL 10 1964  
FROM  
DR. J. H. GOLDSTEIN  
SUBJECT  
POLYMERIZATION OF VINYL  
ACRYLATE  
BY CATIONIC MECHANISM  
IN THE PRESENCE OF  
SOLVENT

TO  
DR. J. H. GOLDSTEIN  
DEPARTMENT OF CHEMISTRY  
UNIVERSITY OF CHICAGO  
5700 SOUTH CAMPUS DRIVE  
CHICAGO, ILLINOIS 60637

1964

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DONALD C. COOK NUCLEAR PLANT

VALVE TEST PROGRAM

RELIEF REQUEST NOTES

Flow Diagram No: 2-5151C-24

Revision No: 0

Date: 12-13-85

NOTE 1: The required full stroking of the check valves is satisfied when the diesel generator successfully completes its required testing per Technical Specification 4.8.1.1.2.

NOTE 2: QT-114-2CD: This valve is located at the discharge of the engine driven lube oil pump (diesel-generator). This three-way thermostatic valve functions to maintain the correct lube oil temperature by maintaining the correct proportion of oil flowing through the lube oil cooler and bypassing the lube oil cooler to maintain a preset lube oil temperature. We are requesting exemption from testing requirements since (1) this valve functions only as a regulating valve and not opened/closed valve; (2) this valve is demonstrated operable during diesel generator testing. Diesel generators are tested every 31 days on a staggered basis per Technical Specification 4.8.1.1.2. The valves will be verified operable by observing proper temperatures during diesel testing.

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DONALD C. COOK NUCLEAR PLANT

VALVE TEST PROGRAM

RELIEF REQUEST NOTES

Flow Diagram No: 2-51510-26

Revision No: 0

Date: 12-13-85

NOTE 1: The required full stroking of the check valves is satisfied when the diesel generator successfully completes its required testing per Technical Specification 4.8.1.1.2.

NOTE 2: QT-132-2CD: This valve is located at the discharge of the emergency diesel engine jacket water pump. This three-way thermostatic valve functions to maintain the correct proportion of water flowing through the diesel engine water cooler and bypassing the diesel engine jacket water cooler to maintain a preset jacket water temperature. We are requesting exemption from the testing requirements since (1) this valve functions only as a regulating valve and not open/closed valve; (2) this valve is demonstrated operable during diesel generator testing. Diesel generators are tested on a staggered basis, every 31 days per Technical Specification 4.8.1.1.2. The valve will be verified operable by observing proper temperatures during diesel testing.

NOTE 3: XRV-225, -226 and -227: The operability of these valves will be based on obtaining Technical Specification acceptance Diesel Generator start times (less than or equal to 10 seconds) because these valves are not equipped with position indication devices to measure the stroke times.

MEMORANDUM FOR THE DIRECTOR

DATE: 10/15/54

FROM: SAC, [illegible]

SUBJECT: [illegible]

[illegible]

[illegible text]

[illegible text]

[illegible text]



DONALD C. COOK NUCLEAR PLANT

VALVE TEST PROGRAM

RELIEF REQUEST NOTES

Flow Diagram No: 12-S115A-37 - Unit-2

Revision No: 0

Date: 12-13-85

NOTE 1: See "Attachment-A" for permissible seat leakage values.

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DONALD C. COOK NUCLEAR PLANT

VALVE TEST PROGRAM

RELIEF REQUEST NOTES

Flow Diagram No: 12-5120B-21 - Unit-2

Revision No: 0

Date: 12-13-85

NOTE 1: Check valve PA-342 and gate valve PCR-40 are located in the maintenance air supply line into each containment. This line is isolated during power operation by removing a spool piece and inserting blind flanges. Therefore, the system is considered out of service during power operation (as defined per IWV-3416). The valves will be tested prior to placing them into service.

NOTE 2: See "Attachment-A" for permissible seat leakage values.

NOTE 3: XCR-101, -102, -103, -104: These air operated globe valves function to supply control air to containment. These valves cannot be full stroke tested without causing a loss of containment control air. Testing will be performed at cold shutdown frequency.

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2024-2025

DONALD C. COOK NUCLEAR PLANT

VALVE TEST PROGRAM

RELIEF REQUEST NOTES

Flow Diagram No: 12-5136-22

Revision No: 0

Date: 12-13-85

NOTE 1: See "Attachment-A" for permissible seat leakage values.



DONALD C. COOK NUCLEAR PLANT

VALVE TEST PROGRAM

RELIEF REQUEST NOTES

Flow Diagram No: 12-S137A-20

Revision No: 0

Date: 12-13-85

NOTE 1: See "Attachment-A" for permissible seat leakage values.

NOTE 2: N-160: This containment isolation check valve is located in the Nitrogen Supply line to Reactor Coolant Drain Tank. This valve cannot be part or full stroke exercised due to lack of sufficient differential pressure to back seat the valve during power operation. This valve will be tested during seat leakage testing per Appendix "J" during refueling outages.





DONALD C. COOK NUCLEAR PLANT

VALVE TEST PROGRAM

RELIEF REQUEST NOTES

Flow Diagram No: 12-5141C-7

Revision No: 0

Date: 12-13-85

NOTE 1: See "Attachment-A" for permissible seat leakage values.

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DONALD C. COOK NUCLEAR PLANT

VALVE TEST PROGRAM

RELIEF REQUEST NOTES

Flow Diagram No: 12-S141F-3

Revision No: 0

Date: 12-13-85

NOTE 1: ECR-31, -32, -33, -35 and -36: These valves are in the sample inlet and outlet lines of the lower containment radiation monitors (ERS-1300, ERS-1400). Both of these radiation monitors are required to be operable (Technical Specification Table 3.3-6) during power operation (Modes 1 through 4) and refueling (Mode 6). These valves will be tested at cold shutdown (Mode 5) frequency.

NOTE 2: See "Attachment-A" for permissible leakage values.

NOTE 3: SM-1: This Containment Isolation Check Valve for the Containment Radiation Monitors' sample return cannot be full or part stroke exercised during power operation because these monitors are required to be operable in Modes 1, 2, 3, 4 and 6. The valve will be tested during cold shutdown (Mode 5) at refueling frequency.

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## DONALD C. COOK NUCLEAR PLANT

## ASME SECTION XI VALVE TEST PROGRAM FOR UNIT #2

## ATTACHMENT-A

Revision No: 0

Date: 12-13-85

## 1. CONTAINMENT ISOLATION VALVES (Category A or AC)

Testing Method: (SLT-2) Seat leakage test the valve in accordance with 10CFR50, Appendix J, in lieu of ASME Code Section XI except for paragraphs IWV-3426 and IWV-3427.

| Valve No     | Flow Diagram | Size | Type | Permissible Leakage Values (SCCM) |
|--------------|--------------|------|------|-----------------------------------|
| WCR-920,-922 | 5114A        | 3    | DA   | 900                               |
| WCR-921,-923 | 5114A        | 3    | DA   | 900                               |
| WCR-932,-934 | 5114A        | 3    | DA   | 900                               |
| WCR-933,-935 | 5114A        | 3    | DA   | 900                               |
| WCR-941,-945 | 5114A        | 3    | DA   | 900                               |
| WCR-944,-948 | 5114A        | 3    | DA   | 900                               |
| WCR-951,-955 | 5114A        | 3    | DA   | 900                               |
| WCR-954,-958 | 5114A        | 3    | DA   | 900                               |
| WCR-924,-926 | 5114A        | 3    | DA   | 900                               |
| WCR-925,-927 | 5114A        | 3    | DA   | 900                               |
| WCR-928,-930 | 5114A        | 3    | DA   | 900                               |

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## DONALD C. COOK NUCLEAR PLANT

## ASME SECTION XI VALVE TEST PROGRAM FOR UNIT #2

## ATTACHMENT-A

Revision No: 0

Date: 12-13-85

| Valve No.    | Flow Diagram | Size | Type | Permissible Leakage Values (SCCM) |
|--------------|--------------|------|------|-----------------------------------|
| WCR-929,-931 | 5114A        | 3    | DA   | 900                               |
| WCR-942,-946 | 5114A        | 3    | DA   | 900                               |
| WCR-952,-956 | 5114A        | 3    | DA   | 900                               |
| WCR-943,-947 | 5114A        | 3    | DA   | 900                               |
| WCR-953,-957 | 5114A        | 3    | DA   | 900                               |
| WCR-960,-962 | 5114A        | 2    | DA   | 750                               |
| WCR-961,-963 | 5114A        | 2    | DA   | 750                               |
| WCR-964,-966 | 5114A        | 2    | DA   | 750                               |
| WCR-965,-967 | 5114A        | 2    | DA   | 750                               |
| ECR-10,-20   | 5141B        | 0.50 | GL   | 750                               |
| ECR-11,-21   | 5141B        | 0.50 | GL   | 750                               |
| ECR-12,-22   | 5141B        | 0.50 | GL   | 750                               |
| ECR-13,-23   | 5141B        | 0.50 | GL   | 750                               |
| ECR-14,-24   | 5141B        | 0.50 | GL   | 750                               |
| ECR-15,-25   | 5141B        | 0.50 | GL   | 750                               |





## DONALD C. COOK NUCLEAR PLANT

## ASME SECTION XI VALVE TEST PROGRAM FOR UNIT #2

## ATTACHMENT-A

Revision No: 0

Date: 12-13-85

| Valve No.  | Flow Diagram | Size | Type | Permissible Leakage Values (SCCM) |
|------------|--------------|------|------|-----------------------------------|
| ECR-16,-26 | 5141B        | 0.50 | GL   | 750                               |
| ECR-17,-27 | 5141B        | 0.50 | GL   | 750                               |
| ECR-18,-28 | 5141B        | 0.50 | GL   | 750                               |
| ECR-19,-29 | 5141B        | 0.50 | GL   | 750                               |
| CS-442-1   | 5128A        | 2    | CK   | 750                               |
| CS-442-2   | 5128A        | 2    | CK   | 750                               |
| CS-442-3   | 5128A        | 2    | CK   | 750                               |
| CS-442-4   | 5128A        | 2    | CK   | 750                               |
| SI-189     | 5128A        | 4    | CK   | 1200                              |
| SM-1       | 5141F        | 1    | CK   | 750                               |
| N-102      | 5143         | 1    | CK   | 750                               |
| N-159      | 5128A        | 0.75 | CK   | 750                               |
| PW-275     | 5128A        | 3    | CK   | 900                               |
| CS-321     | 5129         | 3    | CK   | 1800                              |
| VCR-10,-11 | 5146B        | 4    | DA   | 1200                              |

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## DONALD C. COOK NUCLEAR PLANT

## ASME SECTION XI VALVE TEST PROGRAM FOR UNIT #2

## ATTACHMENT-A

Revision No: 0

Date: 12-13-85

| Valve No.      | Flow Diagram | Size | Type   | Permissible Leakage Values (SCCM) |
|----------------|--------------|------|--------|-----------------------------------|
| VCR-20,-21     | 5146B        | 4    | DA     | 1200                              |
| DCR-203,-207   | 5137A        | 1    | DA, GL | 750                               |
| N-160, DCR-201 | 5137A        | 1    | CK, DA | 1125                              |
| DCR-610,-611   | 5137A        | 2.50 | DA     | 750                               |
| DCR-620,-621   | 5137A        | 1    | DA     | 750                               |
| DCR-205,-206   | 5137A        | 4    | DA     | 1200                              |
| DCR-600,-601   | 5124         | 3    | DA     | 900                               |
| QCR-300,-301   | 5129         | 2    | GL     | 750                               |
| QCM-250,-350   | 5129A        | 4    | GA     | 1200                              |
| QCR-919,-920   | 5115A        | 2    | DA     | 750                               |
| SF-152,-154    | 5136         | 2.50 | DA, GL | 750                               |
| SF-159,-160    | 5137A        | 3    | DA     | 900                               |

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## DONALD C. COOK NUCLEAR PLANT

## ASME SECTION XI VALVE TEST PROGRAM FOR UNIT #2

## ATTACHMENT-A

Revision No: 0

Date: 12-13-85

| Valve No.    | Flow Diagram | Size   | Type   | Permissible Leakage Values (SCCM) |
|--------------|--------------|--------|--------|-----------------------------------|
| NCR-105,-106 | 5141         | 0.50   | GL     | 750                               |
| NCR-107,-108 | 5141         | 0.50   | GL     | 750                               |
| NCR-109,-110 | 5141         | 0.50   | GL     | 750                               |
| RCR-100,-101 | 5128A        | 0.375  | GL     | 750                               |
| DCR-202,-204 | 5137A        | 0.75   | DA     | 750                               |
| ICR-5,-6     | 5141         | 0.50   | GL     | 750                               |
| ECR-33,-35   | 5141F        | 0.75,2 | GL,DA  | 750                               |
| ICM-260      | 5142         | 4      | GA(DD) | 600                               |
| ICM-265      | 5142         | 4      | GA(DD) | 600                               |
| ECR-31,-32   | 5141F        | 1      | GL     | 750                               |
| XCR-100,-101 | 5120B        | 1      | GL     | 750                               |
| XCR-102,-103 | 5120B        | 1      | GL     | 750                               |
| GCR-301      | 5128A        | 0.75   | DA     | 375                               |
| GCR-314      | 5143         | 1      | GL     | 375                               |

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## DONALD C. COOK NUCLEAR PLANT

## ASME SECTION XI VALVE TEST PROGRAM FOR UNIT #2

## ATTACHMENT-A

Revision No: 0

Date: 12-13-85

| Valve No.        | Flow Diagram | Size   | Type   | Permissible Leakage Values (SCCM) |
|------------------|--------------|--------|--------|-----------------------------------|
| SI-171,-172,-194 | 5143         | 0.75   | GL     | 1125                              |
| NCR-252          | 5128A        | 3      | GL     | 450                               |
| CCR-460,-462     | 5135         | 3      | GL     | 900                               |
| CCR-457,CCW-135  | 5135         | 2,2.50 | GL,CK  | 1125                              |
| CCR-455,-456     | 5135         | 2      | GL     | 750                               |
| SM-4,-6          | 5147A        | 0.50   | GL     | 750                               |
| ICM-251          | 5142         | 4      | GA(DD) | 600                               |
| ICM-250          | 5142         | 4      | GA(DD) | 600                               |
| CA-181S          | 5145         | 0.50   | CK     | 750                               |
| CA-181N          | 5145         | 0.50   | CK     | 750                               |
| SM-8,-10         | 5147A        | 0.50   | ND     | 750                               |
| CCW-243-25       | 5135B        | 1      | CK     | 750                               |
| CCW-244-25       | 5135B        | 1      | CK     | 750                               |

1. The first part of the document discusses the importance of maintaining accurate records of all transactions. It emphasizes that proper record-keeping is essential for the integrity of the financial system and for the ability to detect and prevent fraud.

2. The second part of the document outlines the specific procedures that must be followed when recording transactions. It details the steps from the initial receipt of funds to the final posting to the general ledger, ensuring that every entry is supported by appropriate documentation.

3. The third part of the document addresses the role of internal controls in the recording process. It describes how internal controls are designed to minimize the risk of errors and to ensure that all transactions are recorded in a timely and accurate manner.

4. The fourth part of the document discusses the importance of regular audits in the recording process. It explains how audits help to identify and correct errors, and to ensure that the recording process is being followed consistently and accurately.

5. The fifth part of the document concludes by emphasizing the overall importance of the recording process in the financial system. It states that a well-maintained and accurate record of all transactions is the foundation of sound financial management and is essential for the success of any organization.

Page 1 of 1

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## DONALD C. COOK NUCLEAR PLANT

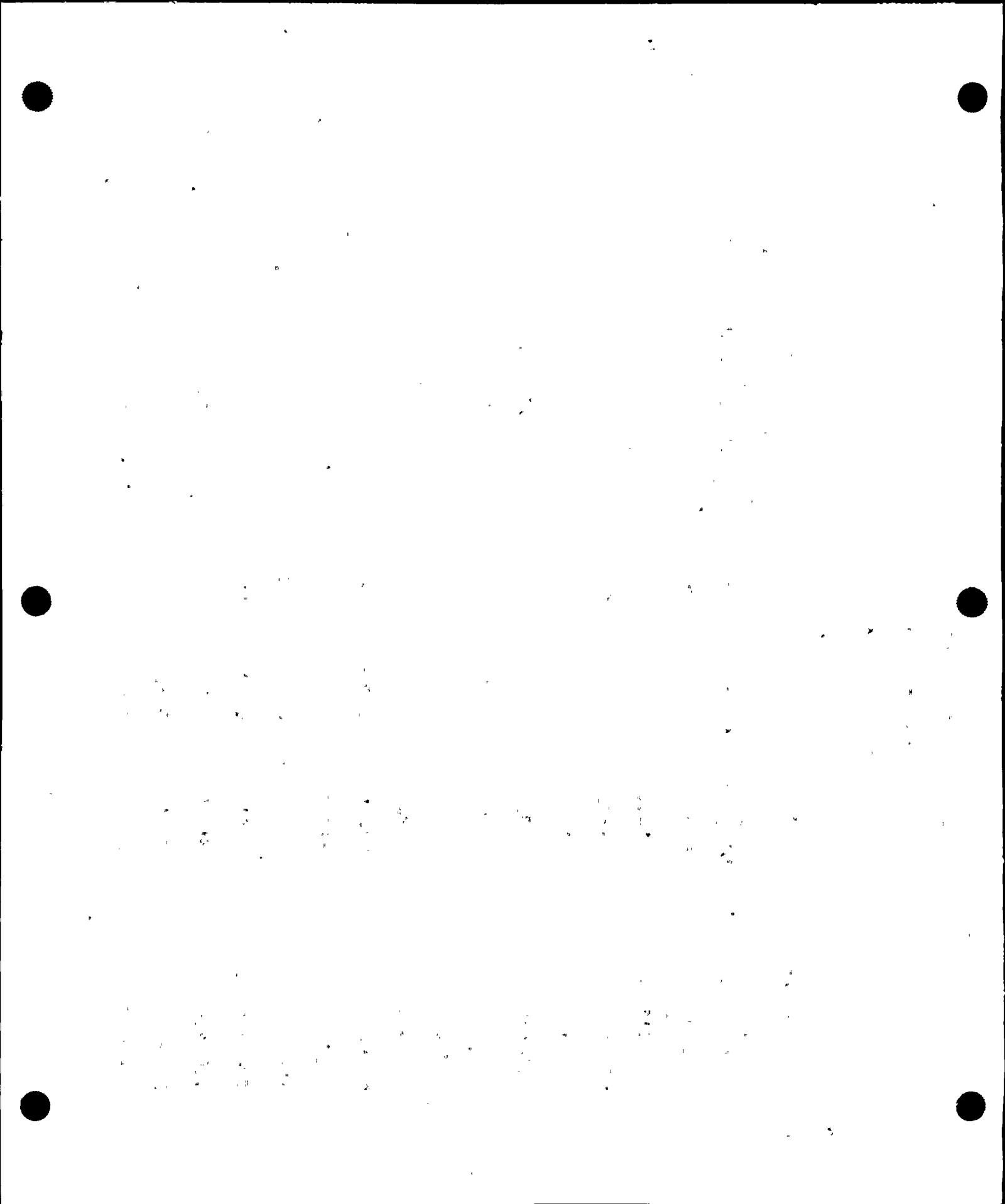
## ASME SECTION XI VALVE TEST PROGRAM FOR UNIT #2

## ATTACHMENT-A

Revision No: 0

Date: 12-13-85

| Valve No.     | Flow Diagram | Size  | Type | Permissible Leakage Values (SCCM) |
|---------------|--------------|-------|------|-----------------------------------|
| CCW-243-72    | 5135B        | 1     | CK   | 750                               |
| CCW-244-72    | 5135B        | 1     | CK   | 750                               |
| CCM-430       | 5135B        | 1.50  | GL   | 375                               |
| CCM-431       | 5135B        | 1.50  | GL   | 375                               |
| CCR-440       | 513B         | 1.50  | GL   | 375                               |
| CCR-441       | 5135B        | 1.50  | GL   | 375                               |
| CCM-432       | 5135B        | 1.50  | GL   | 375                               |
| CCM-433       | 5135B        | 1.50  | GL   | 375                               |
| R-156         | 5146B        | 0.375 | CK   | 750                               |
| R-157         | 5146B        | 0.375 | CK   | 750                               |
| NS-357        | 5124         | 0.50  | CK   | 750                               |
| ECR-496, -497 | 5141C        | 0.50  | GL   | 750                               |
| ECR-416       | 5141C        | 0.50  | GL   | 375                               |
| ECR-417       | 5141C        | 0.50  | GL   | 375                               |
| ECR-535       | 5141C        | 0.50  | GL   | 375                               |



## DONALD C. COOK NUCLEAR PLANT

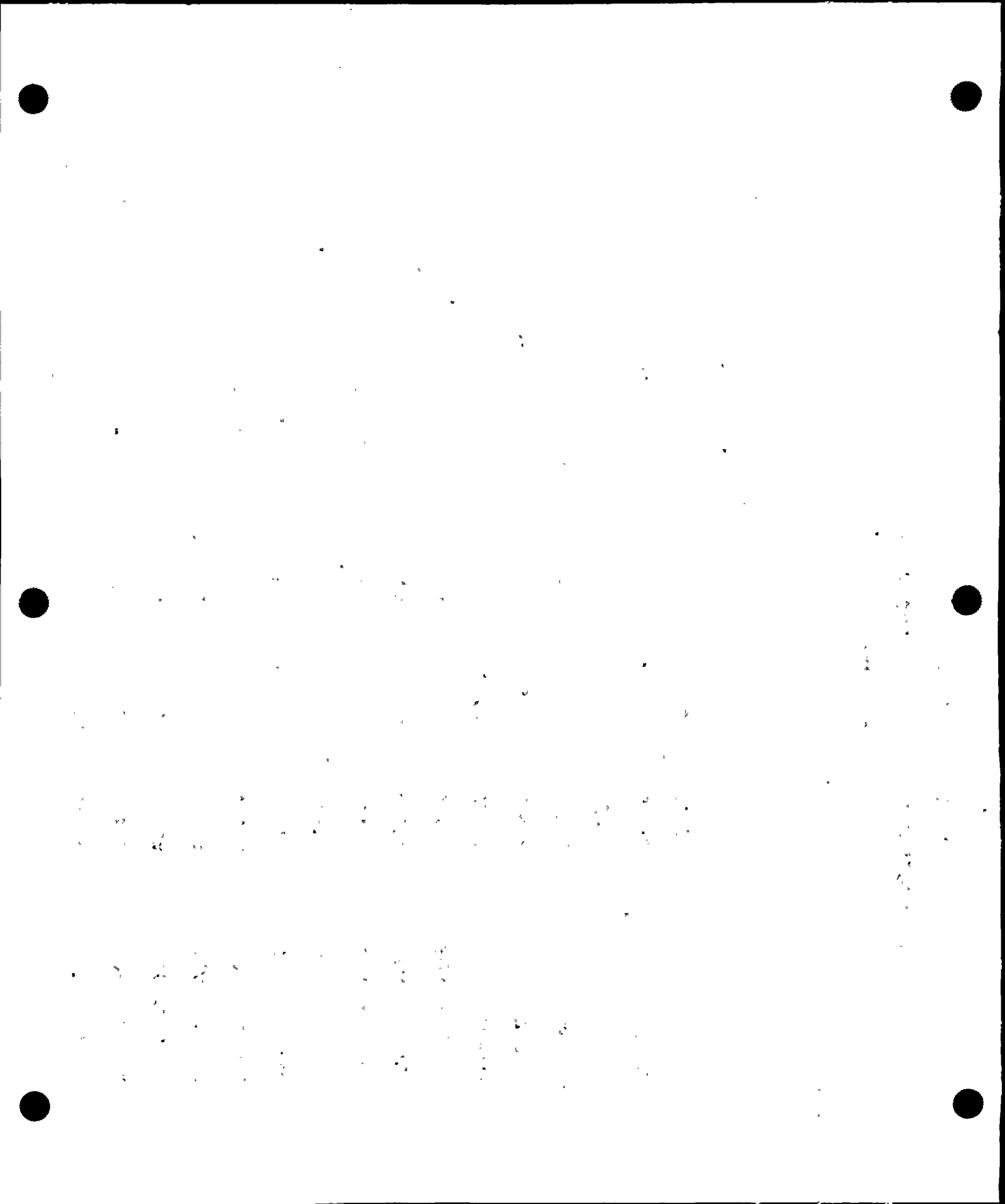
## ASME SECTION XI VALVE TEST PROGRAM FOR UNIT #2

## ATTACHMENT-A

Revision No: 0

Date: 12-13-85

| Valve No.    | Flow Diagram | Size | Type | Permissible Leakage Values (SCCM) |
|--------------|--------------|------|------|-----------------------------------|
| ECR-536      | 5141C        | 0.50 | GL   | 375                               |
| ECR-36       | 5141F        | 2    | DA   | 375                               |
| PCR-40       | 5120B        | 2    | GA   | 375                               |
| PA-342       | 5120B        | 2    | CK   | 750                               |
| NS-283       | 5141D        | 0.50 | CK   | 750                               |
| NPX-151      | 5128A        | 0.50 | GL   | 375                               |
| WCR-900,-902 | 5114A        | 6    | DA   | 1800                              |
| WCR-901,-903 | 5114A        | 6    | DA   | 1800                              |
| WCR-912,-914 | 5114A        | 6    | DA   | 1800                              |
| WCR-913,-915 | 5114A        | 6    | DA   | 1800                              |
| WCR-904,-906 | 5114A        | 6    | DA   | 1800                              |
| WCR-905,-907 | 5114A        | 6    | DA   | 1800                              |
| WCR-908,-910 | 5114A        | 6    | DA   | 1800                              |
| WCR-909,-911 | 5114A        | 6    | DA   | 1800                              |
| VCR-101,-201 | 5147A        | 14   | BF   | 4200                              |
| VCR-102,-202 | 5147A        | 14   | BF   | 4200                              |



## DONALD C. COOK NUCLEAR PLANT

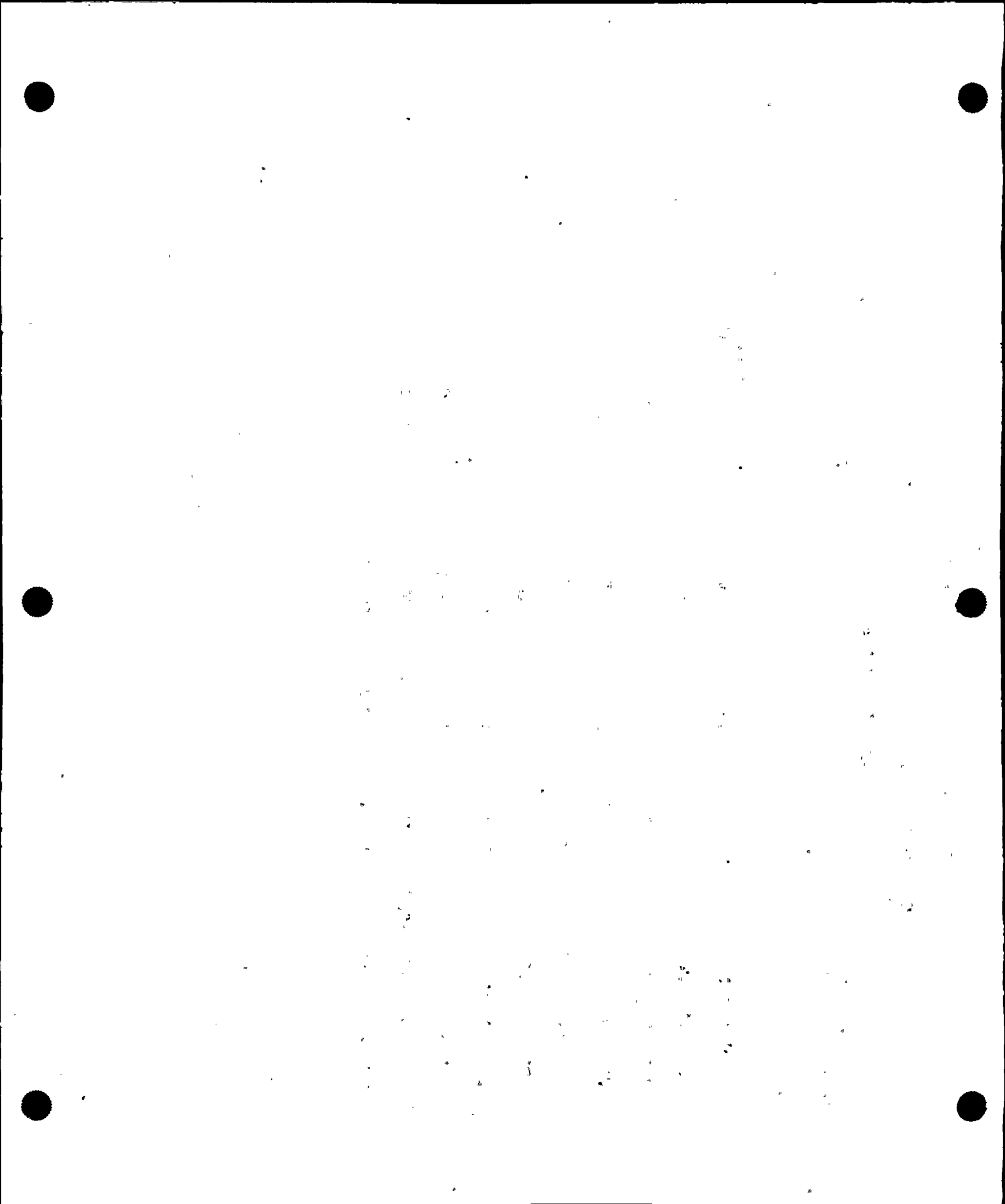
## ASME SECTION XI VALVE TEST PROGRAM FOR UNIT #2

## ATTACHMENT-A

Revision No: 0

Date: 12-13-85

| Valve No.         | Flow Diagram | Size  | Type       | Permissible Leakage Values (SCCM) |
|-------------------|--------------|-------|------------|-----------------------------------|
| VCR-103,-203      | 5147A        | 24    | BF         | 7200                              |
| VCR-104,-204      | 5147A        | 30    | BF         | 9000                              |
| VCR-105,-205      | 5147A        | 30    | BF         | 9000                              |
| VCR-106,-206      | 5147A        | 24    | BF         | 7200                              |
| VCR-107,-207      | 5147A        | 14    | BF         | 4200                              |
| ICM-305           | 5143         | 18    | GA(DD)     | 2700                              |
| ICM-306           | 5143         | 18    | GA(DD)     | 2700                              |
| CCM-452,-454,-458 | 5135         | 8,4,8 | BF, GL, BF | 3000                              |
| CCM-451,-453,-459 | 5135         | 8,4,8 | BF, GL, BF | 3000                              |



DONALD C. COOK NUCLEAR PLANT

ASME SECTION XI VALVE TEST PROGRAM FOR UNIT #2

ATTACHMENT-A

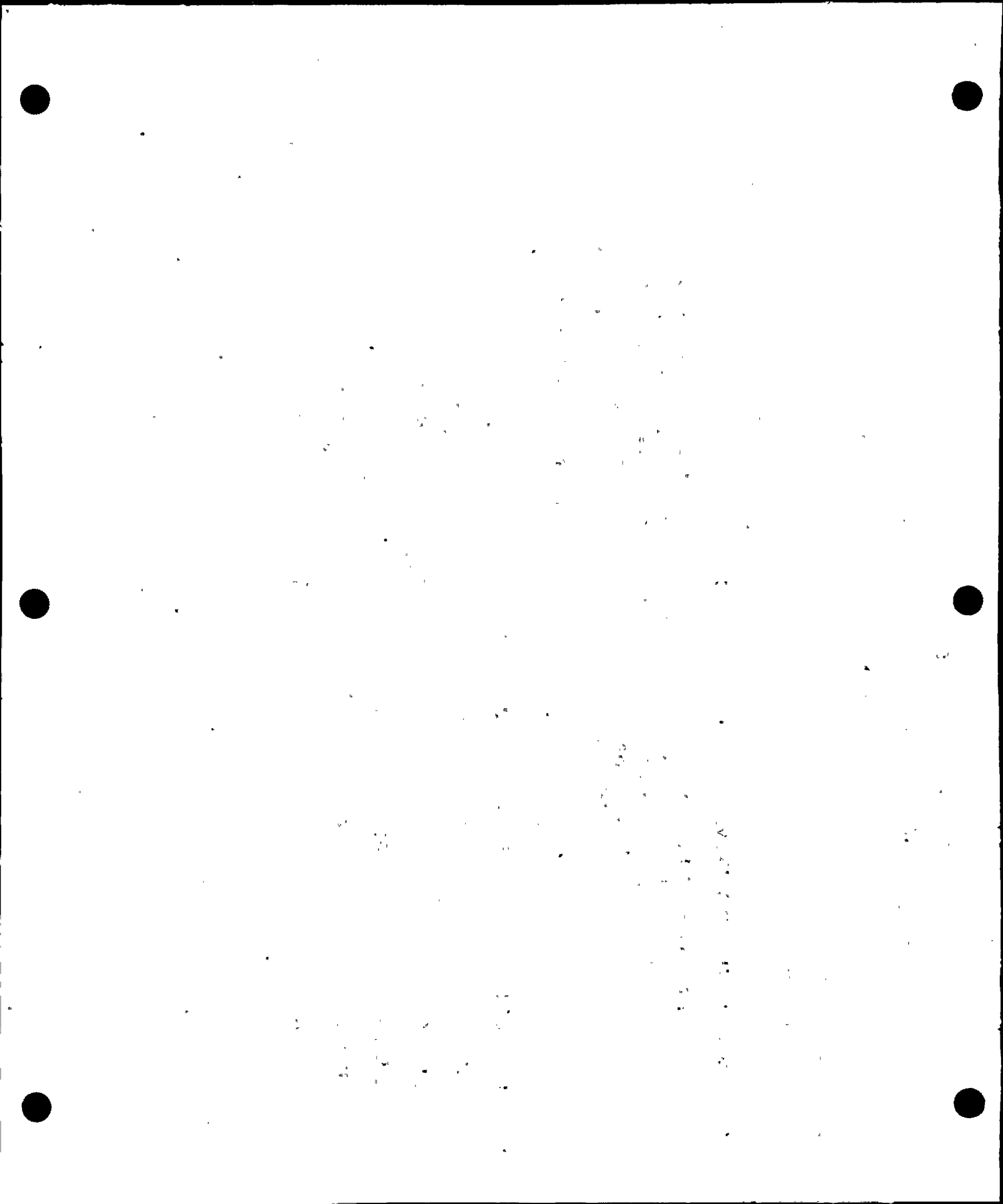
Revision No: 0

Date: 12-13-85

2. CONTAINMENT SPRAY VALVES (Category A or AC)

Testing Method: (SLT-2A) Seat leakage test the valve in accordance with Testing Procedure No. 12THP-4030 STP 237 because of the configuration at D. C. Cook Plant in lieu of ASME Code Section XI, except for paragraphs IWV-3426 and IWV-3427.

| Valve No. | Flow Diagram | Size | Type | Permissible Leakage Values (CCM) |
|-----------|--------------|------|------|----------------------------------|
| CTS-131W  | 5144         | 8    | CK   | 3.73                             |
| CTS-131E  | 5144         | 8    | CK   | 3.00                             |
| CTS-127W  | 5144         | 6    | CK   | 22.55                            |
| CTS-127E  | 5144         | 6    | CK   | 21.21                            |
| RH-141    | 5144         | 8    | CK   | 2.20                             |
| RH-142    | 5144         | 8    | CK   | 4.00                             |





## DONALD C. COOK NUCLEAR PLANT

## ASME SECTION XI VALVE TEST PROGRAM FOR UNIT #2

## ATTACHMENT-A

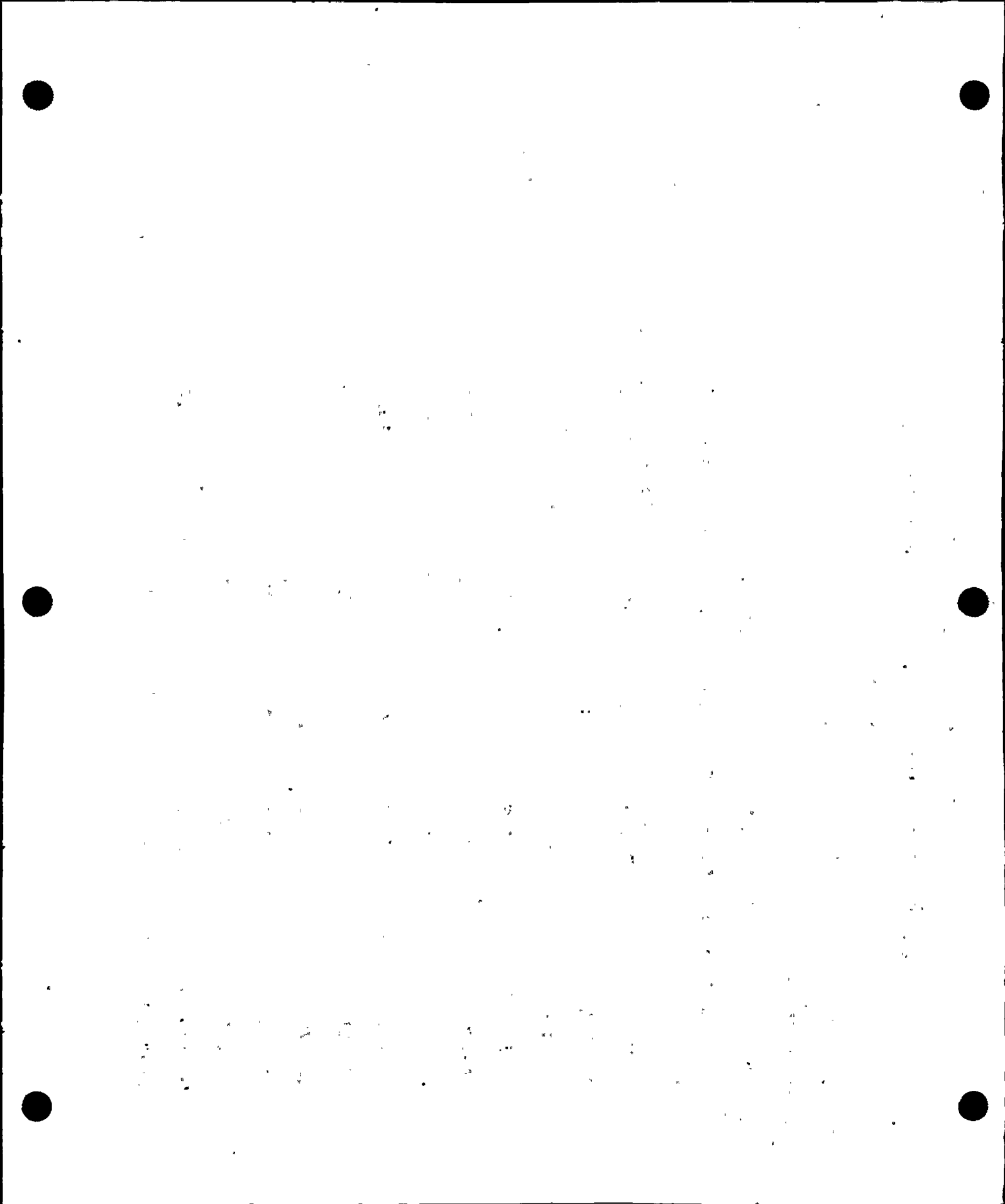
Revision No: 0

Date: 12-13-85

## 3. PRESSURE ISOLATION VALVES (Category A or AC)

Testing Method: (SLT-1) Seat leakage test the valve per ASME Code Section XI.

| Valve No.     | Flow Diagram | Size | Type   | Permissible Leakage Values (GPM) |
|---------------|--------------|------|--------|----------------------------------|
| CS-299E       | 5129         | 4    | CK     | 2.0                              |
| CS-299W       | 5129         | 4    | CK     | 2.0                              |
| SI-152-N      | 5143         | 4    | CK     | 5.0                              |
| SI-152-S      | 5143         | 4    | CK     | 5.0                              |
| ICM-129       | 5143         | 14   | GA(DD) | 10.0                             |
| SI-161-L1,-L4 | 5143         | 6    | CK     | 10.0                             |
| SI-161-L2,-L3 | 5143         | 6    | CK     | 10.0                             |
| SI-170-L1     | 5143         | 10   | CK     | 5.0                              |
| SI-170-L2     | 5143         | 10   | CK     | 1.0                              |
| SI-170-L3     | 5143         | 10   | CK     | 1.0                              |
| SI-170-L4     | 5143         | 10   | CK     | 5.0                              |
| SI-158-L1,-L4 | 5143         | 6    | CK     | 10.0                             |



## DONALD C. COOK NUCLEAR PLANT

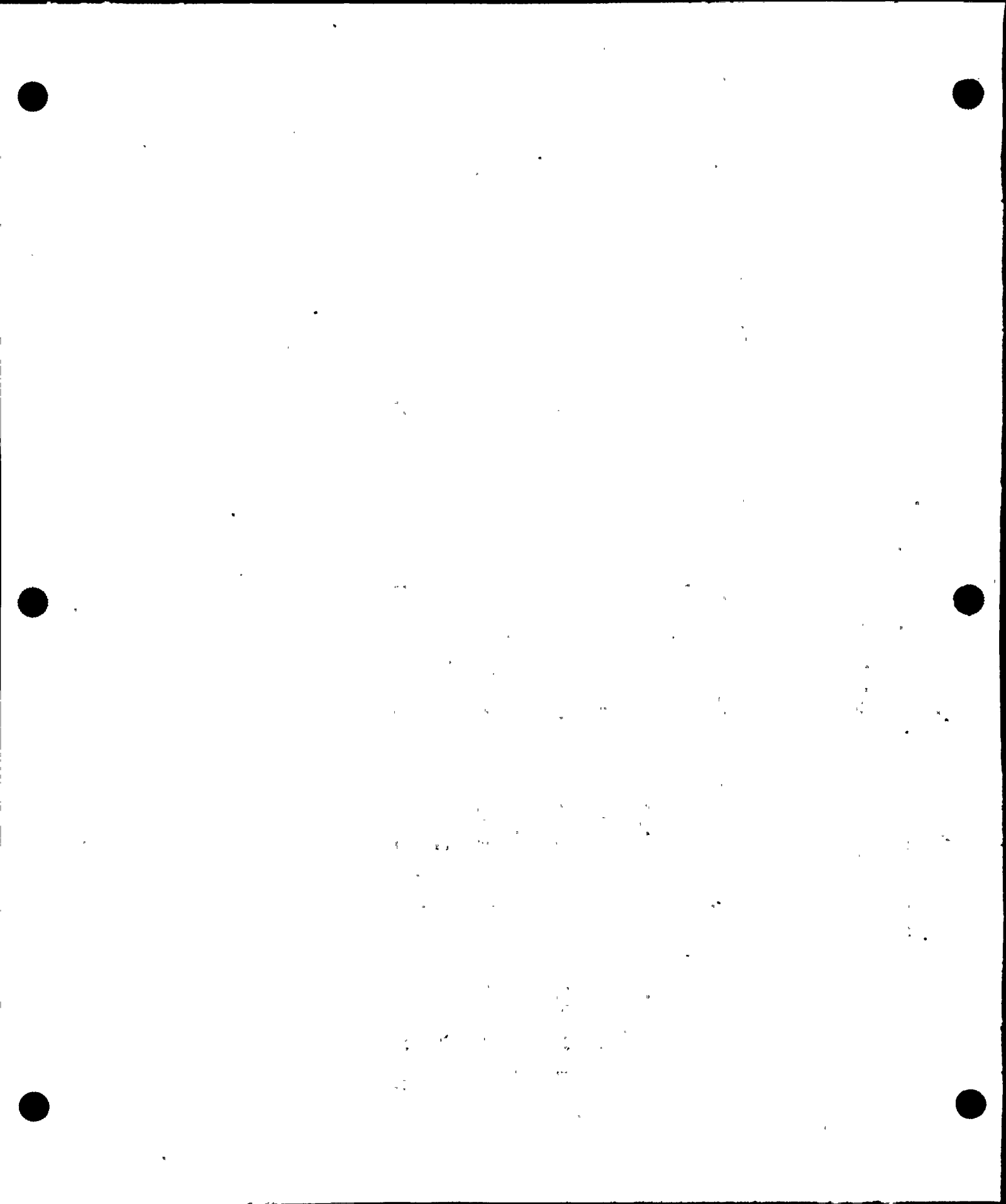
## ASME SECTION XI VALVE TEST PROGRAM FOR UNIT #2

## ATTACHMENT-A

Revision No: 0

Date: 12-13-85

| Valve No.     | Flow Diagram | Size | Type | Permissible Leakage Values (GPM) |
|---------------|--------------|------|------|----------------------------------|
| SI-158-L2,-L3 | 5143         | 6    | CK   | 10.0                             |
| SI-151-E      | 5143         | 8    | CK   | 5.0                              |
| SI-151-W      | 5143         | 8    | CK   | 5.0                              |
| SI-166-L1     | 5143         | 10   | CK   | 5.0                              |
| SI-166-L2     | 5143         | 10   | CK   | 5.0                              |
| SI-166-L3     | 5143         | 10   | CK   | 5.0                              |
| SI-166-L4     | 5143         | 10   | CK   | 5.0                              |
| RH-133,-134   | 5143         | 8    | CK   | 2.0                              |

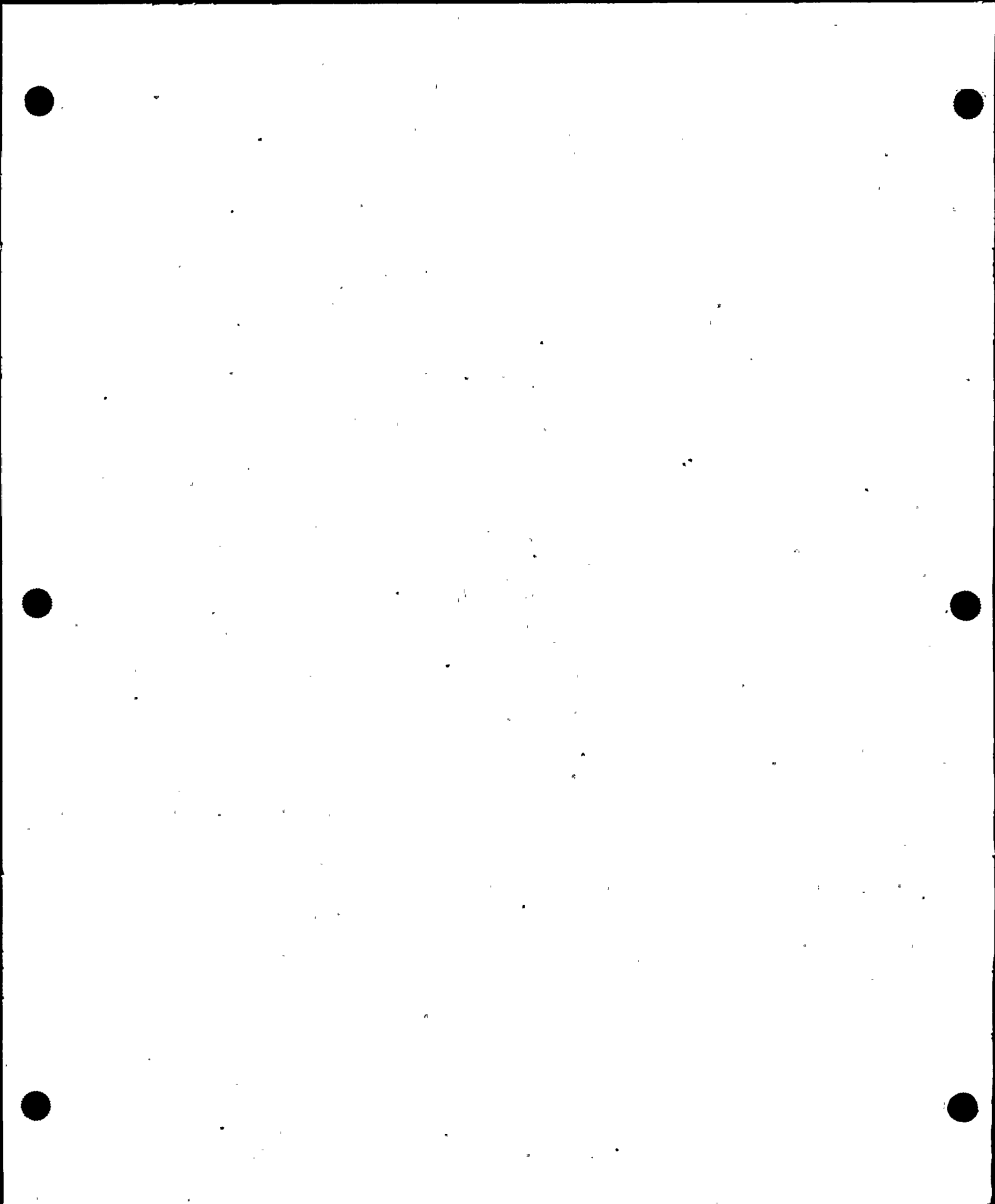


DONALD C. COOK NUCLEAR PLANT  
 SECOND TEN YEAR INTERVAL  
 VALVE SUMMARY SHEET - UNIT 2  
 FLOW DIAGRAM: 2-5105-33

RUN DATE AND TIME: 18DEC85:09:14

SYSTEM NAME: MAIN STEAM

| VALVE     |     |      |      | VALVE POSITION |               |               |                 | ASME SECTION_XT |     |     |                       |                   |              |                   |
|-----------|-----|------|------|----------------|---------------|---------------|-----------------|-----------------|-----|-----|-----------------------|-------------------|--------------|-------------------|
| NUMBER    | REV | TYPE | SIZE | ACT<br>TYPE    | F.D.<br>COORD | POWER<br>OPER | SAFETY<br>FUNCT | ICD<br>ICL      | A/P | CAT | PRIM TEST<br>REQUIRED | TEST<br>PERFORMED | TEST<br>MODE | RELIEF REQUEST(S) |
| 2-DCR-310 | 0   | GL   | 2    | A              | K/6           | 0             | C               | 2               | A   | B   | EF-1                  | EF-1              | P            | NO                |
|           |     |      |      |                |               |               |                 |                 |     |     | EF-5                  | EF-5              | -            | NO                |
|           |     |      |      |                |               |               |                 |                 |     |     | EF-7                  | EF-7              | P            | NO                |
|           |     |      |      |                |               |               |                 |                 |     |     | ET-006                | ET-006            | P            | NO                |
| 2-DCR-320 | 0   | GL   | 2    | A              | K/5           | 0             | C               | 2               | A   | B   | EF-1                  | EF-1              | P            | NO                |
|           |     |      |      |                |               |               |                 |                 |     |     | EF-5                  | EF-5              | -            | NO                |
|           |     |      |      |                |               |               |                 |                 |     |     | EF-7                  | EF-7              | P            | NO                |
|           |     |      |      |                |               |               |                 |                 |     |     | ET-006                | ET-006            | P            | NO                |
| 2-DCR-330 | 0   | GL   | 2    | A              | K/5           | 0             | C               | 2               | A   | B   | EF-1                  | EF-1              | P            | NO                |
|           |     |      |      |                |               |               |                 |                 |     |     | EF-5                  | EF-5              | -            | NO                |
|           |     |      |      |                |               |               |                 |                 |     |     | EF-7                  | EF-7              | P            | NO                |
|           |     |      |      |                |               |               |                 |                 |     |     | ET-008                | ET-008            | P            | NO                |
| 2-DCR-340 | 0   | GL   | 2    | A              | K/6           | 0             | C               | 2               | A   | B   | EF-1                  | EF-1              | P            | NO                |
|           |     |      |      |                |               |               |                 |                 |     |     | EF-5                  | EF-5              | -            | NO                |
|           |     |      |      |                |               |               |                 |                 |     |     | EF-7                  | EF-7              | P            | NO                |
|           |     |      |      |                |               |               |                 |                 |     |     | ET-009                | ET-009            | P            | NO                |

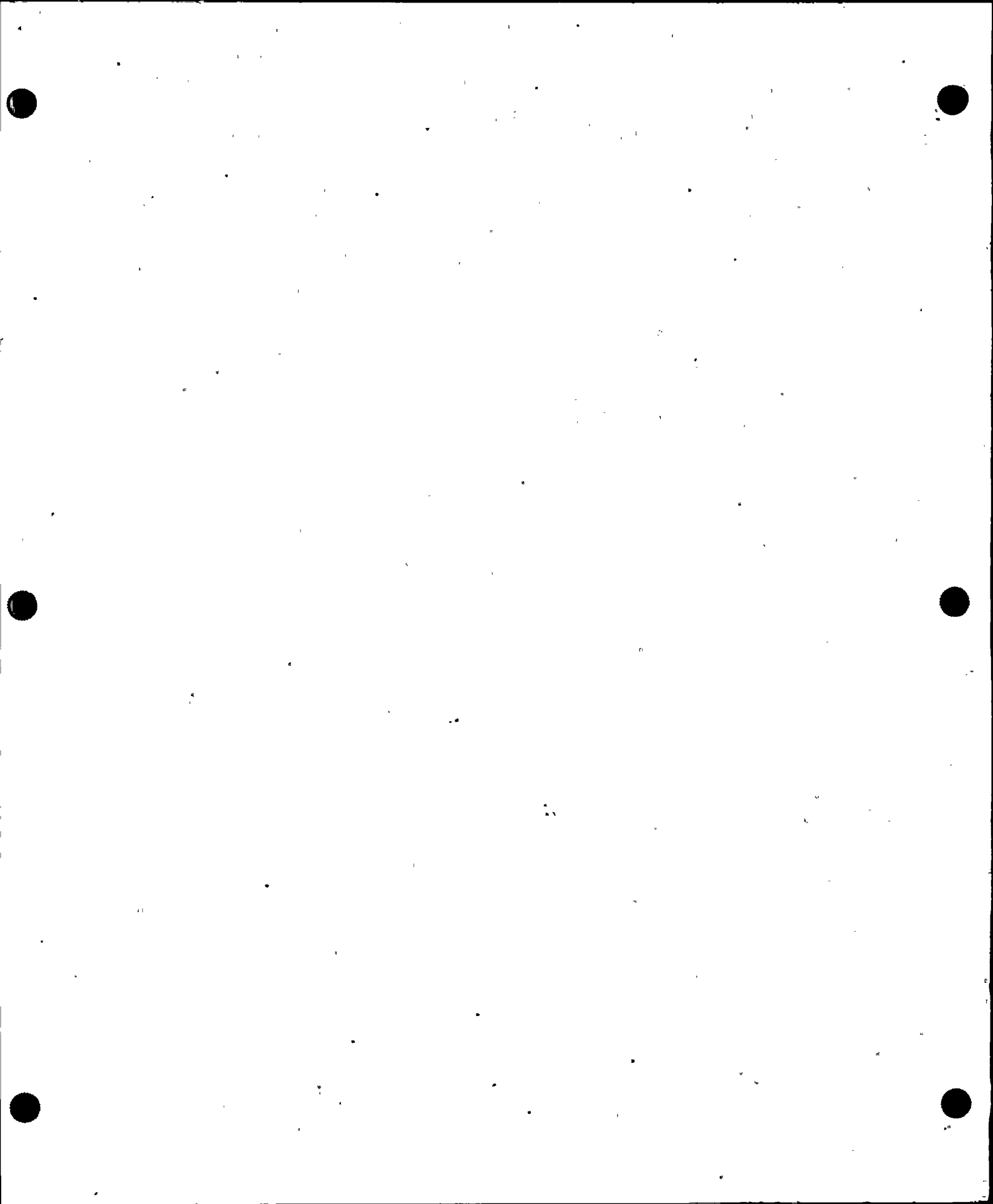


DONALD C. COOK NUCLEAR PLANT  
 SECOND TEN YEAR INTERVAL  
 VALVE SUMMARY SHEET - UNIT 2  
 FLOW DIAGRAM: 2-5105B-39

RUN DATE AND TIME: 18DEC85:09:14

SYSTEM NAME: MAIN STEAM

| VALVE    |     |      |      | VALVE POSITION |            |            |              | ASME SECTION XT |     |     |                        | RELIEF REQUEST(S)      |             |                   |
|----------|-----|------|------|----------------|------------|------------|--------------|-----------------|-----|-----|------------------------|------------------------|-------------|-------------------|
| NUMBER   | REV | TYPE | SIZE | ACT TYPE       | F.D. COORD | POWER OPER | SAFETY FUNCT | CD ICL          | A/P | CAT | PRIM TEST REQUIRED     | TEST PERFORMED         | TEST MODE   | RELIEF REQUEST(S) |
| 2-QT-506 | 0   | GL   | 4    | MO             | A/B        | C          | 0            | 3               | A   | B   | EF-1<br>EF-5<br>ET-023 | EF-1<br>EF-5<br>ET-023 | P<br>-<br>P | NO<br>NO<br>NO    |



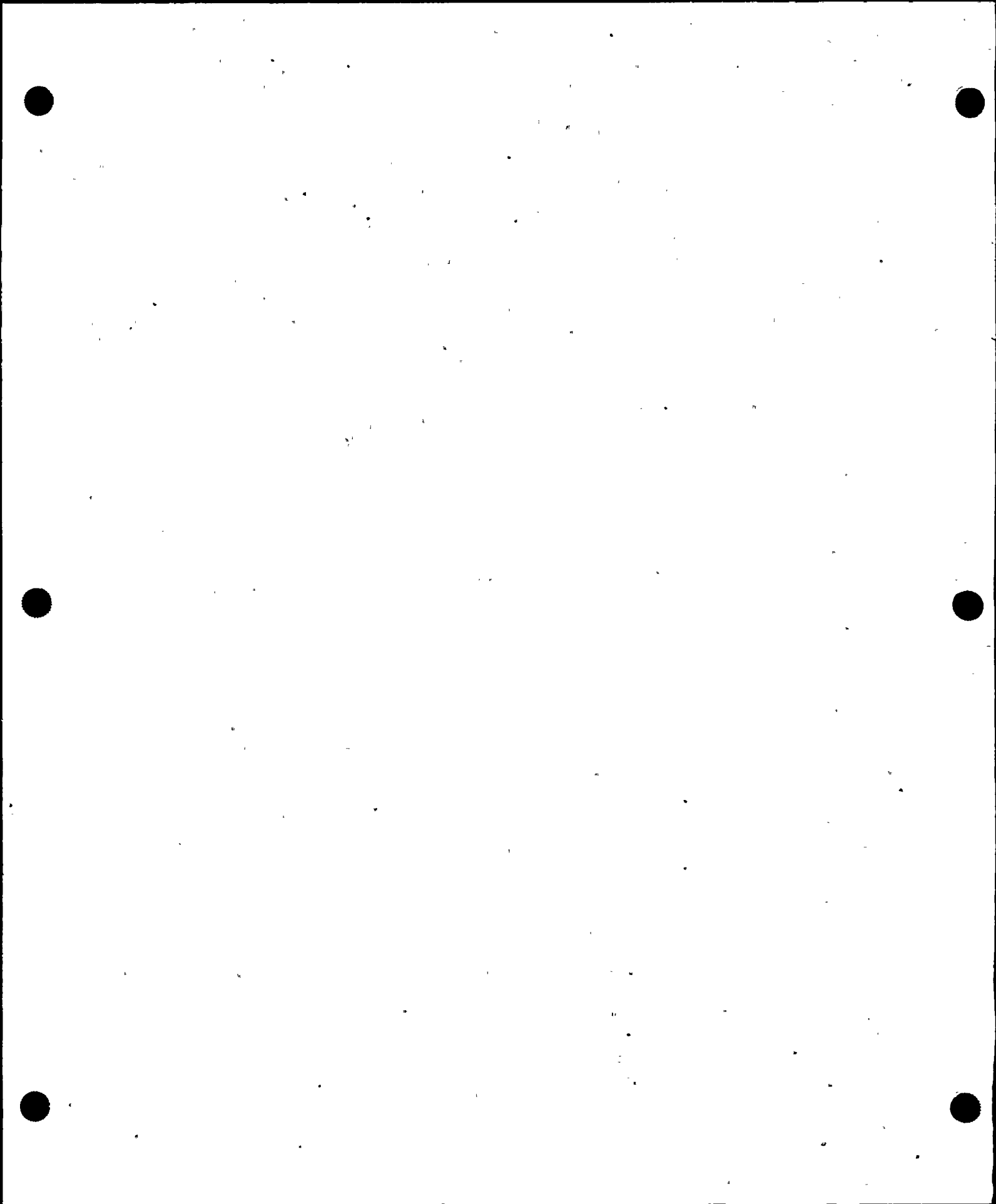


DONALD C. COOK NUCLEAR PLANT  
 SECOND TEN YEAR INTERVAL  
 VALVE SUMMARY SHEET - UNIT 2  
 FLCH DIAGRAM: 2-5105D-0

RUN DATE AND TIME: 18DEC85:09:14

SYSTEM NAME: STEAM GENERATING SYSTEM

| VALVE      |     |      |      | VALVE POSITION |            |            |              | ASME SECTION XI |     |     |                                |                                |                  |                                      |
|------------|-----|------|------|----------------|------------|------------|--------------|-----------------|-----|-----|--------------------------------|--------------------------------|------------------|--------------------------------------|
| NUMBER     | REV | TYPE | SIZE | ACT TYPE       | F.D. COORD | POWER OPER | SAFETY FUNCT | CD ICL          | A/P | CAT | PRIM TEST REQUIRED             | TEST PERFORMED                 | TEST MODE        | RELIEF REQUEST(S)                    |
| 2-FW-118-1 | 0   | CK   | 14   | SA             | B/9        | 0          | C            | 2               | A   | C   | CF-1                           | CF-2                           | R                | YES, NOTE 1                          |
| 2-FW-118-2 | 0   | CK   | 14   | SA             | L/8        | 0          | C            | 2               | A   | C   | CF-1                           | CF-2                           | R                | YES, NOTE 1                          |
| 2-FW-118-3 | 0   | CK   | 14   | SA             | J/3        | 0          | C            | 2               | A   | C   | CF-1                           | CF-2                           | R                | YES, NOTE 1                          |
| 2-FW-118-4 | 0   | CK   | 14   | SA             | C/3        | 0          | C            | 2               | A   | C   | CF-1                           | CF-2                           | R                | YES, NOTE 1                          |
| 2-MCM-221  | 0   | GL   | 4    | NO             | K/4        | 0          | O/C          | 2               | A   | B   | EF-1<br>EF-5<br>ET-049         | EF-1<br>EF-5<br>ET-049         | P<br>-<br>P      | NO<br>NO<br>NO                       |
| 2-MCM-231  | 0   | GL   | 4    | NO             | K/4        | 0          | O/C          | 2               | A   | B   | EF-1<br>EF-5<br>ET-050         | EF-1<br>EF-5<br>ET-050         | P<br>-<br>P      | NO<br>NO<br>NO                       |
| 2-MRV-210  | 0   | GA   | 28   | PO             | B/7        | 0          | C            | 2               | A   | B   | EF-1<br>EF-5<br>EF-7<br>ET-005 | EF-3<br>EF-5<br>EF-8<br>ET-005 | P<br>-<br>C<br>C | NO, NOTE 2<br>NO<br>NO, NOTE 2<br>NO |
| 2-MRV-211  | 0   | AG   | 2    | A              | A/5        | C          | 0            | 2               | A   | B   | EF-1<br>EF-5<br>EF-7<br>ET-003 | EF-1<br>EF-5<br>EF-7<br>ET-003 | P<br>-<br>P<br>P | NO<br>NO<br>NO<br>NO                 |
| 2-MRV-212  | 0   | AG   | 2    | A              | A/5        | C          | 0            | 2               | A   | B   | EF-1<br>EF-5<br>EF-7<br>ET-004 | EF-1<br>EF-5<br>EF-7<br>ET-004 | P<br>-<br>P<br>P | NO<br>NO<br>NO<br>NO                 |

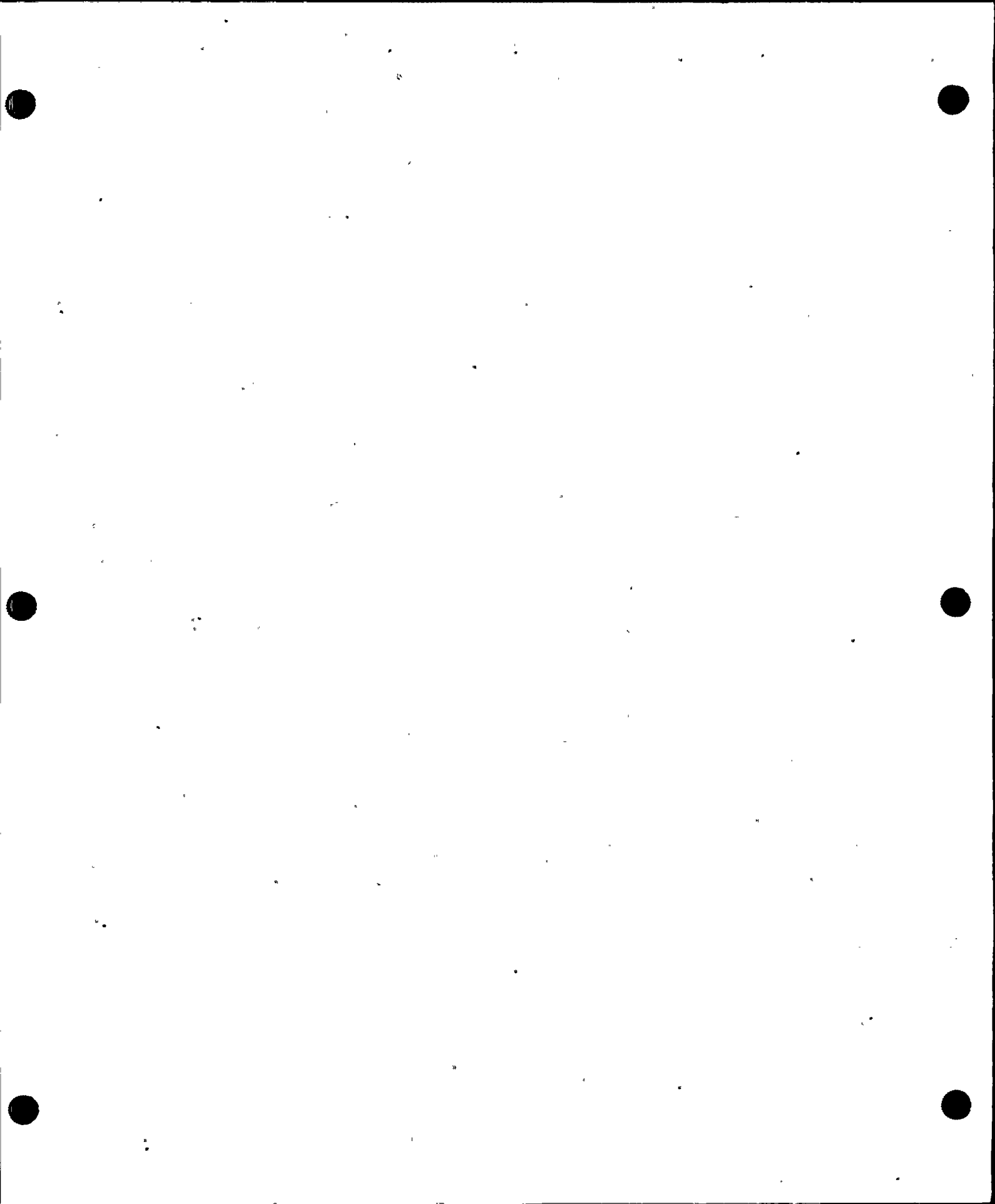


DONALD C. COOK, NUCLEAR PLANT  
 SECOND TEN YEAR INTERVAL  
 VALVE SUMMARY SHEET - UNIT 2  
 FLOW DIAGRAM: 2-5105D-0

RUN DATE AND TIME: 18DEC85:09:14

SYSTEM NAME: STEAM GENERATING SYSTEM

| VALVE     |     |      |      | VALVE POSITION |            |            |              | ASME SECTION XI |     |     |                    |                |           |                   |
|-----------|-----|------|------|----------------|------------|------------|--------------|-----------------|-----|-----|--------------------|----------------|-----------|-------------------|
| NUMBER    | REV | TYPE | SIZE | ACT TYPE       | F.D. COORD | POWER OPER | SAFETY FUNCT | CD CL           | A/P | CAT | PRIM TEST REQUIRED | TEST PERFORMED | TEST MODE | RELIEF REQUEST(S) |
| 2-MRV-220 | 0   | GA   | 28   | PO             | L/7        | O          | C            | 2               | A   | B   | EF-1               | EF-3           | P         | NO, NOTE 2        |
|           |     |      |      |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | EF-7               | EF-8           | C         | NO, NOTE 2        |
|           |     |      |      |                |            |            |              |                 |     |     | ET-005             | ET-005         | C         | NO                |
| 2-MRV-221 | 0   | AG   | 2    | A              | M/5        | C          | O            | 2               | A   | B   | EF-1               | EF-1           | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | EF-7               | EF-7           | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | ET-003             | ET-003         | P         | NO                |
| 2-MRV-222 | 0   | AG   | 2    | A              | M/5        | C          | O            | 2               | A   | B   | EF-1               | EF-1           | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | EF-7               | EF-7           | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | ET-003             | ET-003         | P         | NO                |
| 2-MRV-230 | 0   | GA   | 28   | PO             | M/3        | O          | C            | 2               | A   | B   | EF-1               | EF-3           | P         | NO, NOTE 2        |
|           |     |      |      |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | EF-7               | EF-8           | C         | NO, NOTE 2        |
|           |     |      |      |                |            |            |              |                 |     |     | ET-005             | ET-005         | C         | NO                |
| 2-MRV-231 | 0   | AG   | 2    | A              | M/1        | C          | O            | 2               | A   | B   | EF-1               | EF-1           | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | EF-7               | EF-7           | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | ETF-002            | ETF-002        | P         | NO                |
| 2-MRV-232 | 0   | AG   | 2    | A              | M/1        | C          | O            | 2               | A   | B   | EF-1               | EF-1           | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | EF-7               | EF-7           | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | ET-003             | ET-003         | P         | NO                |

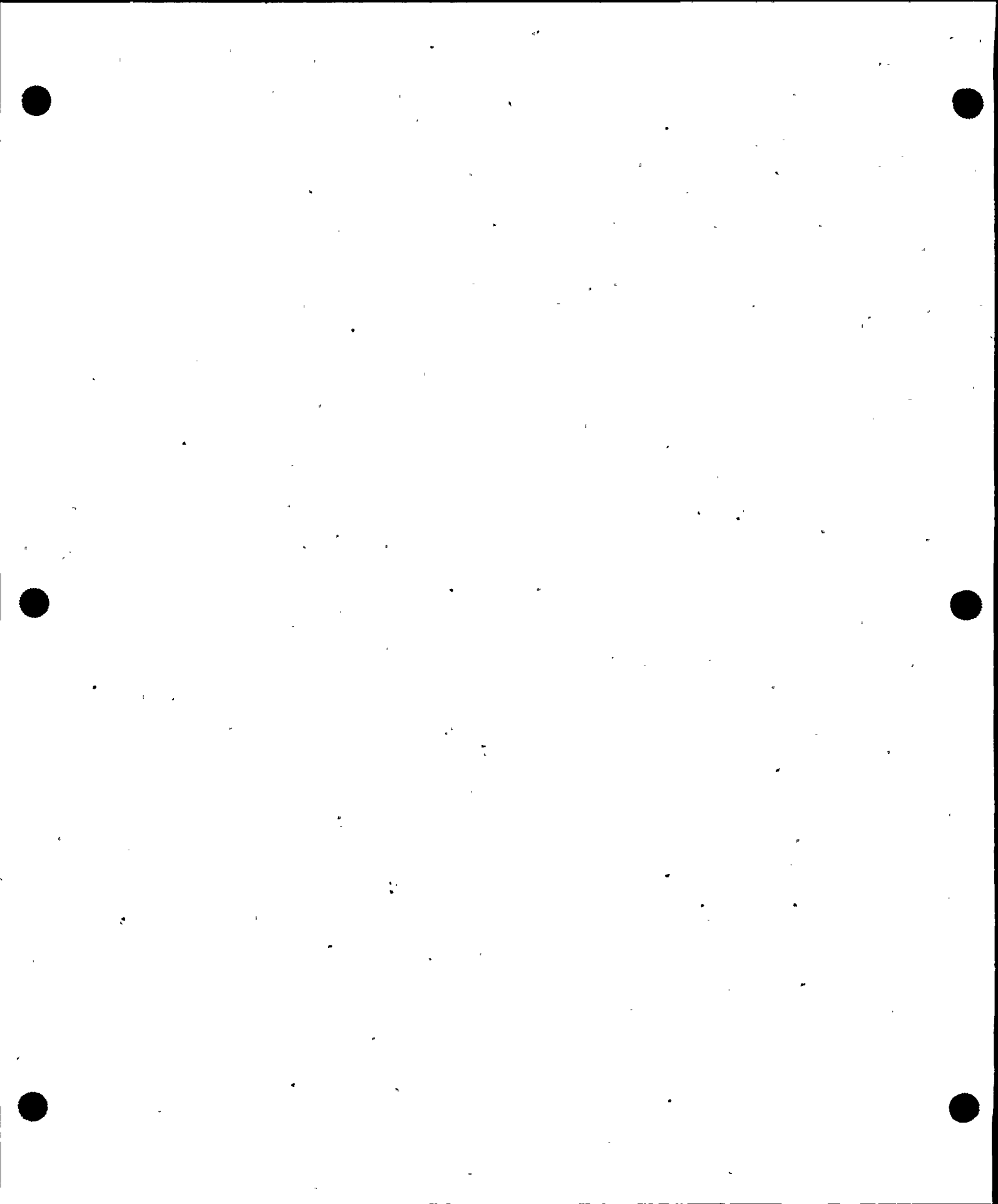


DONALD C. COOK NUCLEAR PLANT  
 SECOND TEN YEAR INTERVAL  
 VALVE SUMMARY SHEET - UNIT 2  
 FLOW DIAGRAM: 2-5105D-0

RUN DATE AND TIME: 18DEC85:09:14

SYSTEM NAME: STEAM GENERATING SYSTEM

| VALVE      |     |      |      | VALVE POSITION |            |            |              | ASME_SECTION_XT |     |     |                    |                |           |                   |
|------------|-----|------|------|----------------|------------|------------|--------------|-----------------|-----|-----|--------------------|----------------|-----------|-------------------|
| NUMBER     | REV | TYPE | SIZE | ACT TYPE       | F.D. COORD | PCHER OPER | SAFETY FUNCT | CD ICL          | A/P | CAT | PRIM TEST REQUIRED | TEST PERFORMED | TEST MODE | RELIEF REQUEST(S) |
| 2-MRV-240  | 0   | GA   | 28   | PO             | B/3        | O          | C            | 2               | A   | B   | EF-1               | EF-3           | P         | NO, NOTE 2        |
|            |     |      |      |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO                |
|            |     |      |      |                |            |            |              |                 |     |     | EF-7               | EF-7           | C         | NO, NOTE 2        |
|            |     |      |      |                |            |            |              |                 |     |     | ET-005             | ET-005         | C         | NO                |
| 2-MRV-241  | 0   | AG   | 2    | A              | A/1        | C          | O            | 2               | A   | B   | EF-1               | EF-1           | P         | NO                |
|            |     |      |      |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO                |
|            |     |      |      |                |            |            |              |                 |     |     | EF-7               | EF-7           | P         | NO                |
|            |     |      |      |                |            |            |              |                 |     |     | ETF-002            | ETF-002        | P         | NO                |
| 2-MRV-242  | 0   | AG   | 2    | A              | A/1        | C          | O            | 2               | A   | B   | EF-1               | EF-1           | P         | NO                |
|            |     |      |      |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO                |
|            |     |      |      |                |            |            |              |                 |     |     | EF-7               | EF-7           | P         | NO                |
|            |     |      |      |                |            |            |              |                 |     |     | ETF-002            | ETF-002        | P         | NO                |
| 2-MS-108-2 | 0   | CK   | 4    | SA             | K/4        | C          | O/C          | 3               | A   | C   | CF-1               | CF-1           | P         | NO, NOTE 3        |
| 2-MS-108-3 | 0   | CK   | 4    | SA             | K/4        | C          | O/C          | 3               | A   | C   | CF-1               | CF-1           | P         | NO, NOTE 3        |
| 2-SV-1A-1  | 0   | REL  | 6    | SA             | C/5        | C          | O            | 2               | A   | C   | TF-1               | TF-1           | R         | NO                |
| 2-SV-1A-2  | 0   | REL  | 6    | SA             | K/5        | C          | O            | 2               | A   | C   | TF-1               | TF-1           | R         | NO                |
| 2-SV-1A-3  | 0   | REL  | 6    | SA             | K/1        | C          | O            | 2               | A   | C   | TF-1               | TF-1           | R         | NO                |
| 2-SV-1A-4  | 0   | REL  | 6    | SA             | C/1        | C          | O            | 2               | A   | C   | TF-1               | TF-1           | R         | NO                |

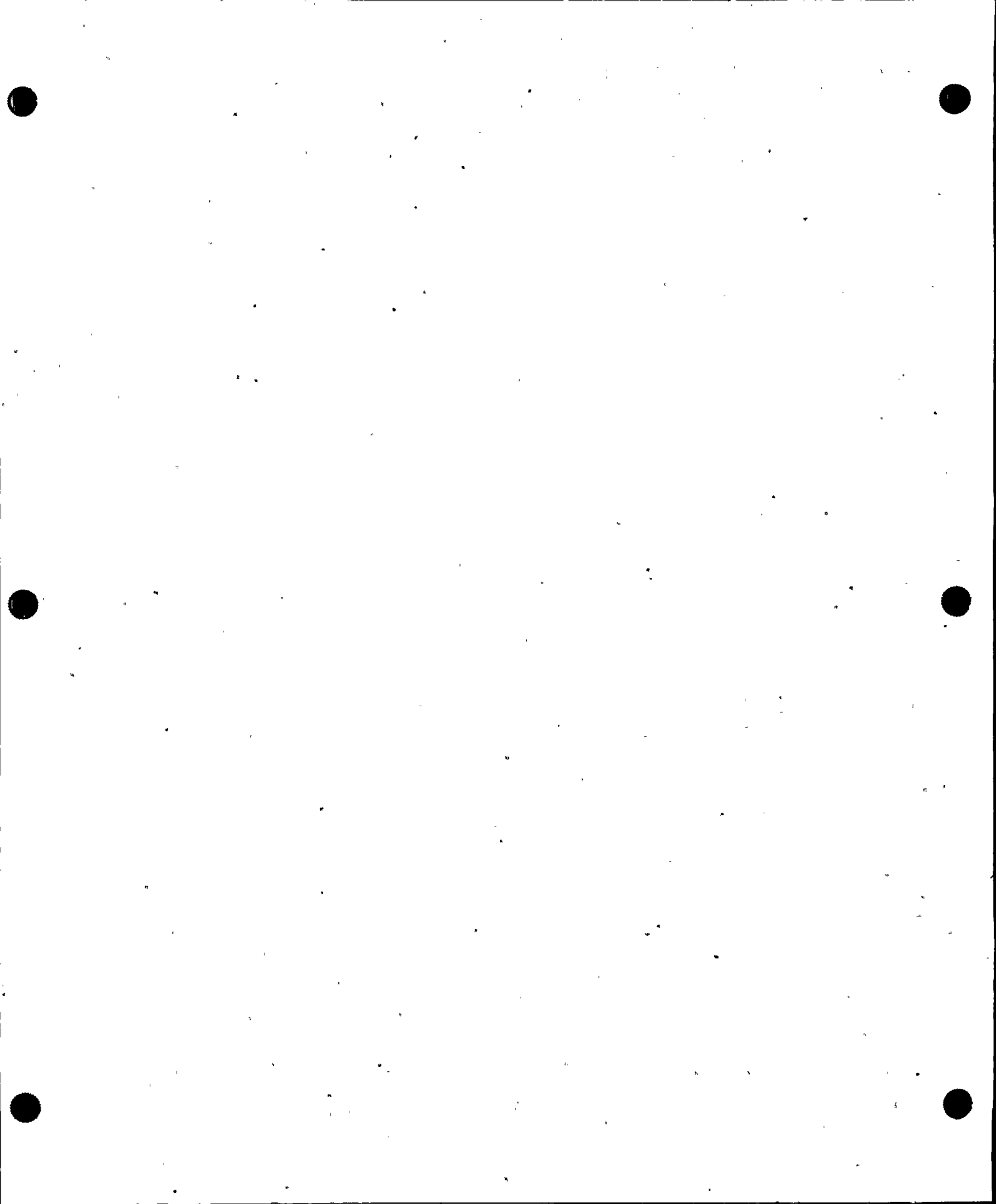


DONALD C. COCK NUCLEAR PLANT  
 SECOND TEN YEAR INTERVAL  
 VALVE SUMMARY SHEET - UNIT 2  
 FLOW DIAGRAM: 2-5105D-0

RUN DATE AND TIME: 18DEC85:09:14

SYSTEM NAME: STEAM GENERATING SYSTEM

| VALVE     |     |      |      | VALVE POSITION |            |            |              | ASME SECTION XI |     |     |                    |                |           |                   |
|-----------|-----|------|------|----------------|------------|------------|--------------|-----------------|-----|-----|--------------------|----------------|-----------|-------------------|
| NUMBER    | REV | TYPE | SIZE | ACT TYPE       | F.D. COORD | POWER OPER | SAFETY FUNCT | CD ICL          | A/P | CAT | PRIM TEST REQUIRED | TEST PERFORMED | TEST MODE | RELIEF REQUEST(S) |
| 2-SV-1B-1 | 0   | REL  | 6    | SA             | B/5        | C          | 0            | 2               | A   | C   | TF-1               | TF-1           | R         | NO                |
| 2-SV-1B-2 | 0   | REL  | 6    | SA             | L/5        | C          | 0            | 2               | A   | C   | TF-1               | TF-1           | R         | NO                |
| 2-SV-1B-3 | 0   | REL  | 6    | SA             | L/1        | C          | 0            | 2               | A   | C   | TF-1               | TF-1           | R         | NO                |
| 2-SV-1B-4 | 0   | REL  | 6    | SA             | B/1        | C          | 0            | 2               | A   | C   | TF-1               | TF-1           | R         | NO                |
| 2-SV-2A-1 | 0   | REL  | 6    | SA             | B/5        | C          | 0            | 2               | A   | C   | TF-1               | TF-1           | R         | NO                |
| 2-SV-2A-2 | 0   | REL  | 6    | SA             | L/5        | C          | 0            | 2               | A   | C   | TF-1               | TF-1           | R         | NO                |
| 2-SV-2A-3 | 0   | REL  | 6    | SA             | L/1        | C          | 0            | 2               | A   | C   | TF-1               | TF-1           | R         | NO                |
| 2-SV-2A-4 | 0   | REL  | 6    | SA             | B/1        | C          | 0            | 2               | A   | C   | TF-1               | TF-1           | R         | NO                |
| 2-SV-2B-1 | 0   | REL  | 6    | SA             | B/5        | C          | 0            | 2               | A   | C   | TF-1               | TF-1           | R         | NO                |
| 2-SV-2B-2 | 0   | REL  | 6    | SA             | L/5        | C          | 0            | 2               | A   | C   | TF-1               | TF-1           | R         | NO                |
| 2-SV-2B-3 | 0   | REL  | 6    | SA             | L/1        | C          | 0            | 2               | A   | C   | TF-1               | TF-1           | R         | NO                |
| 2-SV-2B-4 | 0   | REL  | 6    | SA             | B/1        | C          | 0            | 2               | A   | C   | TF-1               | TF-1           | R         | NO                |



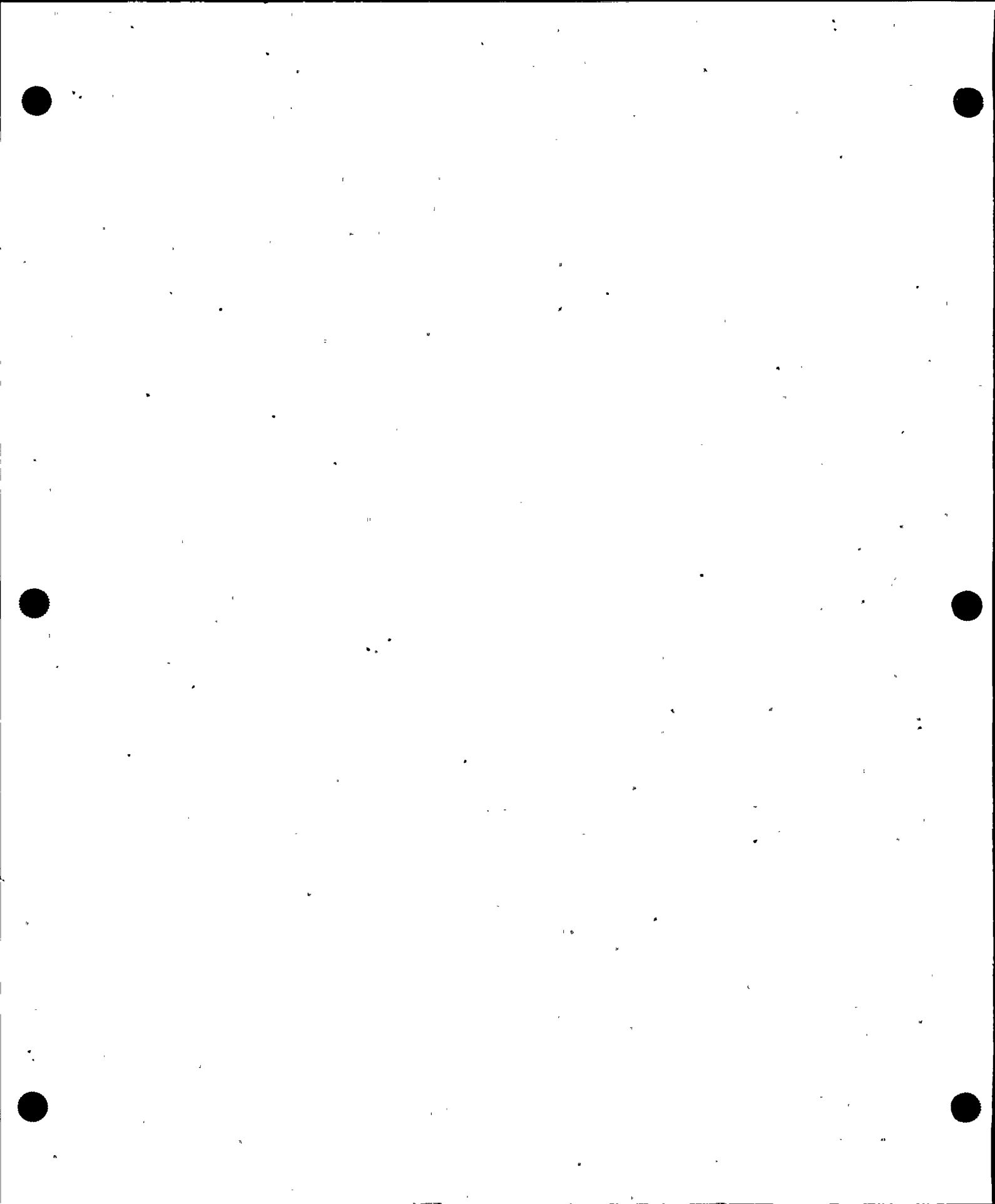


DONALD C. COOK NUCLEAR PLANT  
 SECOND TEN YEAR INTERVAL  
 VALVE SUMMARY SHEET - UNIT 2  
 FLOW DIAGRAM: 2-5105D-0

RUN DATE AND TIME: 18DEC85:09:14

SYSTEM NAME: STEAM GENERATING SYSTEM

| VALVE    |     |      |      | VALVE POSITION |            |            |              | ASME SECTION XI |     |     |                    |                |           |                   |
|----------|-----|------|------|----------------|------------|------------|--------------|-----------------|-----|-----|--------------------|----------------|-----------|-------------------|
| NUMBER   | REV | TYPE | SIZE | ACT TYPE       | F.D. COORD | POWER OPER | SAFETY FUNCT | CD ICL          | A/P | CAT | PRIM TEST REQUIRED | TEST PERFORMED | TEST MODE | RELIEF REQUEST(S) |
| 2-SV-3-1 | 0   | REL  | 6    | SA             | B/5        | C          | 0            | 2               | A   | C   | TF-1               | TF-1           | R         | NO                |
| 2-SV-3-2 | 0   | REL  | 6    | SA             | M/5        | C          | 0            | 2               | A   | C   | TF-1               | TF-1           | R         | NO                |
| 2-SV-3-3 | 0   | REL  | 6    | SA             | M/1        | C          | 0            | 2               | A   | C   | TF-1               | TF-1           | R         | NO                |
| 2-SV-3-4 | 0   | REL  | 6    | SA             | B/1        | C          | 0            | 2               | A   | C   | TF-1               | TF-1           | R         | NO                |

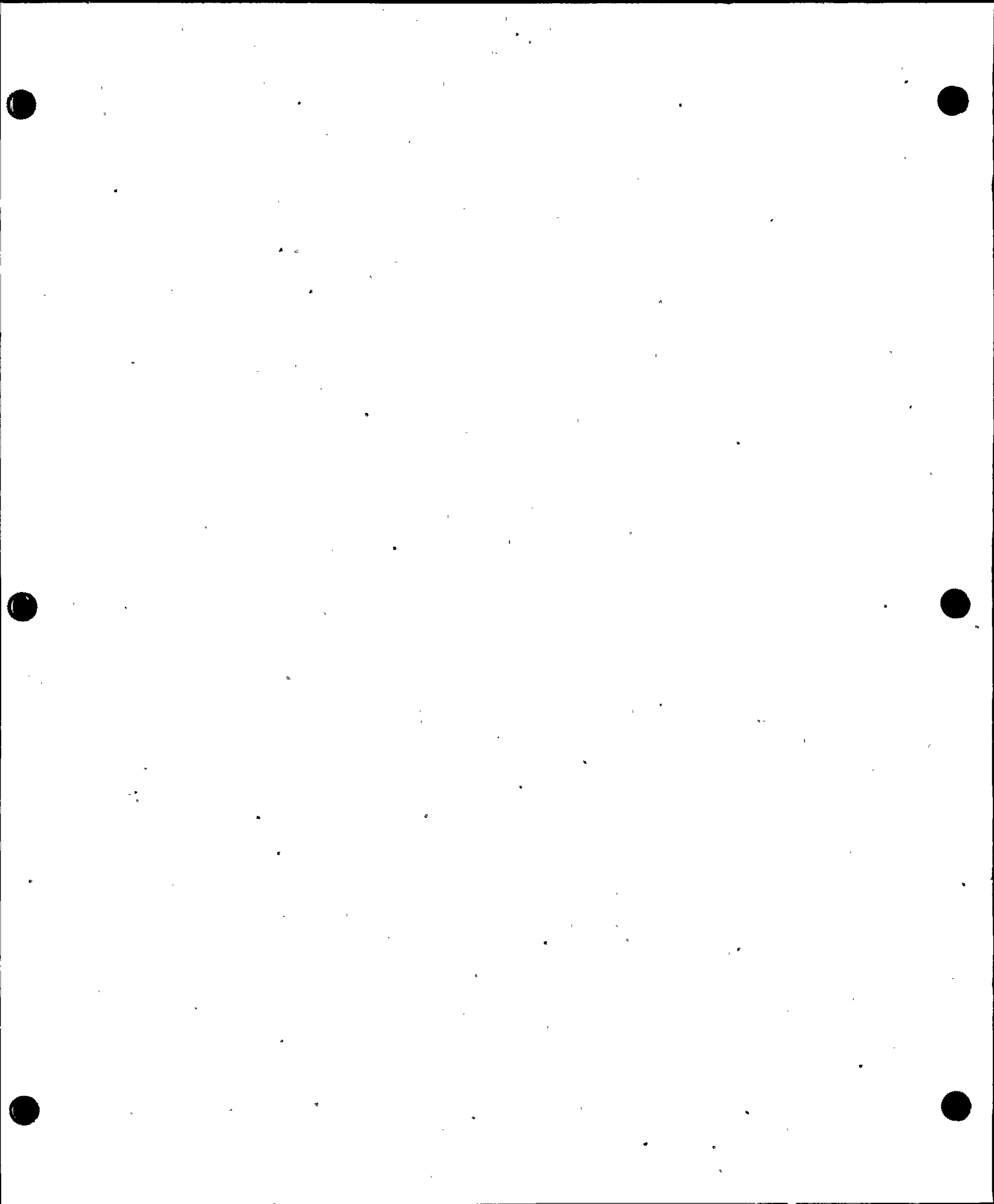


DONALD C. COCK NUCLEAR PLANT  
 SECOND TEN YEAR INTERVAL  
 VALVE SUMMARY SHEET - UNIT 2  
 FLOW DIAGRAM: 2-5106-32

RUN DATE AND TIME: 18DEC85:09:14

SYSTEM NAME: FEEDWATER

| VALVE     |     |      |      | VALVE POSITION |            |            |              | ASME SECTION XT |     |     |                                |                                |                  |                                       |
|-----------|-----|------|------|----------------|------------|------------|--------------|-----------------|-----|-----|--------------------------------|--------------------------------|------------------|---------------------------------------|
| NUMBER    | REV | TYPE | SIZE | ACT TYPE       | F.D. COORD | POWER OPER | SAFETY FUNCT | CD CL           | A/P | CAT | PRIM TEST REQUIRED             | TEST PERFORMED                 | TEST MODE        | RELIEF REQUEST(S)                     |
| 2-FMO-201 | 0   | GA   | 14   | NO             | G/5        | 0          | C            | 2               | A   | B   | EF-1<br>EF-5<br>ET-020         | EF-2<br>EF-5<br>ET-020         | C<br>-<br>C      | YES, NOTE 1<br>NO<br>NO               |
| 2-FMO-202 | 0   | GA   | 14   | NO             | E/9        | 0          | C            | 2               | A   | B   | EF-1<br>EF-5<br>ET-018         | EF-2<br>EF-5<br>ET-018         | C<br>-<br>C      | YES, NOTE 1<br>NO<br>NO               |
| 2-FMO-203 | 0   | GA   | 14   | NO             | F/9        | 0          | C            | 2               | A   | B   | EF-1<br>EF-5<br>ET-019         | EF-2<br>EF-5<br>ET-019         | C<br>-<br>C      | YES, NOTE 1<br>NO<br>NO               |
| 2-FMO-204 | 0   | GA   | 14   | NO             | H/5        | 0          | C            | 2               | A   | B   | EF-1<br>EF-5<br>ET-019         | EF-2<br>EF-5<br>ET-019         | C<br>-<br>C      | YES, NOTE 1<br>NO<br>NO               |
| 2-FRV-210 | 0   | AG   | 14   | A              | G/5        | 0          | C            | 2               | A   | B   | EF-1<br>EF-5<br>EF-7<br>ET-005 | EF-2<br>EF-5<br>EF-8<br>ET-005 | C<br>-<br>C<br>C | YES, NOTE 1<br>NO<br>NO, NOTE 1<br>NO |
| 2-FRV-220 | 0   | AG   | 14   | A              | E/9        | 0          | C            | 2               | A   | B   | EF-1<br>EF-5<br>EF-7<br>ET-005 | EF-2<br>EF-5<br>EF-8<br>ET-005 | C<br>-<br>C<br>C | YES, NOTE 1<br>NO<br>NO, NOTE 1<br>NO |
| 2-FRV-230 | 0   | AG   | 14   | A              | F/9        | 0          | C            | 2               | A   | B   | EF-1<br>EF-5<br>EF-7<br>ET-005 | EF-2<br>EF-5<br>EF-8<br>ET-005 | C<br>-<br>C<br>C | YES, NOTE 1<br>NO<br>NO, NOTE 1<br>NO |



DONALD C. COOK NUCLEAR PLANT  
 SECOND TEN YEAR INTERVAL  
 VALVE SUMMARY SHEET - UNIT 2  
 FLOW DIAGRAM: 2-5106-32

RUN DATE AND TIME: 18DEC85:09:14

SYSTEM NAME: FEEDWATER

| VALVE     |     |      |      | VALVE POSITION |            |            |              | ASME SECTION XI |     |     |                                | RELIEF REQUEST(S)              |                  |                                       |
|-----------|-----|------|------|----------------|------------|------------|--------------|-----------------|-----|-----|--------------------------------|--------------------------------|------------------|---------------------------------------|
| NUMBER    | REV | TYPE | SIZE | ACT TYPE       | F.D. COORD | POWER OPER | SAFETY FUNCT | CD ICL          | A/P | CAT | PRIM TEST REQUIRED             | TEST PERFORMED                 | TEST MODE        | RELIEF REQUEST(S)                     |
| 2-FRV-240 | 0   | AG   | 14   | A              | H/5        | O          | C            | 2               | A   | B   | EF-1<br>EF-5<br>EF-7<br>ET-005 | EF-2<br>EF-5<br>EF-8<br>ET-005 | C<br>-<br>C<br>C | YES, NOTE 1<br>NO<br>NO, NOTE 1<br>NO |

DONALD C. COOK NUCLEAR PLANT  
 SECOND TEN YEAR INTERVAL  
 VALVE SUMMARY SHEET - UNIT 2  
 FLOW DIAGRAM: 2-5106A-33

RUN DATE AND TIME: 18DEC85:09:14

SYSTEM NAME: FEEDWATER

| VALVE     |     |      |      | VALVE POSITION |            |            |              | ASME SECTION XI |     |     |                        |                        |             |                   |
|-----------|-----|------|------|----------------|------------|------------|--------------|-----------------|-----|-----|------------------------|------------------------|-------------|-------------------|
| NUMBER    | REV | TYPE | SIZE | ACT TYPE       | F.D. COORD | POWER OPER | SAFETY FUNCT | CD ICL          | A/P | CAT | PRIM TEST REQUIRED     | TEST PERFORMED         | TEST MODE   | RELIEF REQUEST(S) |
| 2-FMO-211 | 0   | GL   | 4    | MO             | B/4        | 0          | 0            | 3               | A   | B   | EF-1<br>EF-5<br>ET-025 | EF-1<br>EF-5<br>ET-025 | P<br>-<br>P | NO<br>NO<br>NO    |
| 2-FMO-212 | 0   | GL   | 4    | MO             | B/4        | 0          | 0            | 3               | A   | B   | EF-1<br>EF-5<br>ET-031 | EF-1<br>EF-5<br>ET-031 | P<br>-<br>P | NO<br>NO<br>NO    |
| 2-FMO-221 | 0   | GL   | 4    | MO             | C/5        | 0          | 0            | 3               | A   | B   | EF-1<br>EF-5<br>ET-021 | EF-1<br>EF-5<br>ET-021 | P<br>-<br>P | NO<br>NO<br>NO    |
| 2-FMO-222 | 0   | GL   | 4    | MO             | C/5        | 0          | 0            | 3               | A   | B   | EF-1<br>EF-5<br>ET-036 | EF-1<br>EF-5<br>ET-036 | P<br>-<br>P | NO<br>NO<br>NO    |
| 2-FMO-231 | 0   | GL   | 4    | MO             | C/5        | 0          | 0            | 3               | A   | B   | EF-1<br>EF-5<br>ET-026 | EF-1<br>EF-5<br>ET-026 | P<br>-<br>P | NO<br>NO<br>NO    |
| 2-FMO-232 | 0   | GL   | 4    | MO             | C/5        | 0          | 0            | 3               | A   | B   | EF-1<br>EF-5<br>ET-034 | EF-1<br>EF-5<br>ET-034 | P<br>-<br>P | NO<br>NO<br>NO    |
| 2-FMO-241 | 0   | GL   | 4    | MO             | B/4        | 0          | 0            | 3               | A   | B   | EF-1<br>EF-5<br>ET-024 | EF-1<br>EF-5<br>ET-024 | P<br>-<br>P | NO<br>NO<br>NO    |

DONALD C. COCK NUCLEAR PLANT  
 SECOND TEN YEAR INTERVAL  
 VALVE SUMMARY SHEET - UNIT 2  
 FLOW DIAGRAM: 2-5106A-33

RUN DATE AND TIME: 18DEC85:09:14

SYSTEM NAME: FEEDWATER

| VALVE     |     |      |      | VALVE POSITION |            |            |              | ASME SECTION XI |     |     |                                |                                |                  |                      |
|-----------|-----|------|------|----------------|------------|------------|--------------|-----------------|-----|-----|--------------------------------|--------------------------------|------------------|----------------------|
| NUMBER    | REV | TYPE | SIZE | ACT TYPE       | F.D. COORD | POWER OPER | SAFETY FUNCT | CD ICL          | A/P | CAT | PRIM TEST REQUIRED             | TEST PERFORMED                 | TEST MODE        | RELIEF REQUEST(S)    |
| 2-FW-242  | 0   | GL   | 4    | MO             | B/4        | O          | O            | 3               | A   | B   | EF-1<br>EF-5<br>ET-030         | EF-1<br>EF-5<br>ET-030         | P<br>-<br>P      | NO<br>NO<br>NO       |
| 2-FRV-245 | 0   | GL   | 2    | A              | M/9        | O          | C            | 3               | A   | B   | EF-1<br>EF-5<br>EF-7<br>ET-025 | EF-1<br>EF-5<br>EF-7<br>ET-025 | P<br>-<br>P<br>P | NO<br>NO<br>NO<br>NO |
| 2-FRV-247 | 0   | GL   | 1    | A              | M/9        | C          | C/O          | 3               | A   | B   | EF-1<br>EF-5<br>EF-7<br>ET-008 | EF-1<br>EF-5<br>EF-7<br>ET-008 | P<br>-<br>P<br>P | NO<br>NO<br>NO<br>NO |
| 2-FRV-255 | 0   | GL   | 2    | A              | H/9        | O/C        | C            | 3               | A   | B   | EF-1<br>EF-5<br>EF-7<br>ET-021 | EF-1<br>EF-5<br>EF-7<br>ET-021 | P<br>-<br>P<br>P | NO<br>NO<br>NO<br>NO |
| 2-FRV-256 | 0   | GL   | 2    | A              | E/9        | O/C        | C            | 3               | A   | B   | EF-1<br>EF-5<br>EF-7<br>ET-019 | EF-1<br>EF-5<br>EF-7<br>ET-019 | P<br>-<br>P<br>P | NO<br>NO<br>NO<br>NO |
| 2-FRV-257 | 0   | GL   | 1    | A              | H/9        | C          | C/O          | 3               | A   | B   | EF-1<br>EF-5<br>EF-7<br>ET-005 | EF-1<br>EF-5<br>EF-7<br>ET-005 | P<br>-<br>P<br>P | NO<br>NO<br>NO<br>NO |

DONALD C. COOK NUCLEAR PLANT  
 SECOND TEN YEAR INTERVAL  
 VALVE SUMMARY SHEET - UNIT 2  
 FLOW DIAGRAM: 2-5106A-33

RUN DATE AND TIME: 18DEC85:09:14

SYSTEM NAME: FEEDWATER

| VALVE      |     |      |      | VALVE POSITION |            |            |              | ASME SECTION XI |     |     |                                |                                |                  |                      |
|------------|-----|------|------|----------------|------------|------------|--------------|-----------------|-----|-----|--------------------------------|--------------------------------|------------------|----------------------|
| NUMBER     | REV | TYPE | SIZE | ACT TYPE       | F.D. COORD | POWER OPER | SAFETY FUNCT | CD ICL          | A/P | CAT | PRIM TEST REQUIRED             | TEST PERFORMED                 | TEST MODE        | RELIEF REQUEST(S)    |
| 2-FRV-258  | 0   | GL   | 1    | A              | E/9        | C          | C/O          | 3               | A   | B   | EF-1<br>EF-5<br>EF-7<br>ET-005 | EF-1<br>EF-5<br>EF-7<br>ET-005 | P<br>-<br>P<br>P | NO<br>NO<br>NO<br>NO |
| 2-FW-124   | 0   | CK   | 8    | SA             | F/7        | C          | 0            | 3               | A   | C   | CF-1                           | CF-1                           | P                | NO                   |
| 2-FW-128   | 0   | CK   | 6    | SA             | H/7        | C          | 0            | 3               | A   | C   | CF-1                           | CF-1                           | P                | NO                   |
| 2-FW-132-1 | 0   | CK   | 4    | SA             | C/4        | C          | 0            | 2               | A   | C   | CF-1                           | NOTE 1                         | C                | YES, NOTE 1          |
| 2-FW-132-2 | 0   | CK   | 4    | SA             | D/5        | C          | 0            | 2               | A   | C   | CF-1                           | NOTE 1                         | C                | YES, NOTE 1          |
| 2-FW-132-3 | 0   | CK   | 4    | SA             | D/5        | C          | 0            | 2               | A   | C   | CF-1                           | NOTE 1                         | C                | YES, NOTE 1          |
| 2-FW-132-4 | 0   | CK   | 4    | SA             | C/4        | C          | 0            | 2               | A   | C   | CF-1                           | NOTE 1                         | C                | YES, NOTE 1          |
| 2-FW-134   | 0   | CK   | 10   | SA             | B/9        | C          | 0            | 3               | A   | C   | CF-1                           | CF-1                           | P                | NO, NOTE 2           |
| 2-FW-135   | 0   | CK   | 8    | SA             | E/8        | C          | 0            | 3               | A   | C   | CF-1                           | CF-1                           | P                | NO, NOTE 2           |
| 2-FW-138-1 | 0   | CK   | 4    | SA             | C/4        | C          | 0            | 2               | A   | C   | CF-1                           | NOTE 3                         | C                | YES, NOTE 3          |
| 2-FW-138-2 | 0   | CK   | 4    | SA             | D/5        | C          | 0            | 2               | A   | C   | CF-1                           | NOTE 3                         | C                | YES, NOTE 3          |



DONALD C. COOK NUCLEAR PLANT  
 SECOND TEN YEAR INTERVAL  
 VALVE SUMMARY SHEET - UNIT 2  
 FLOW DIAGRAM: 2-5106A-33

RUN DATE AND TIME: 18DEC85:09:14

SYSTEM NAME: FEEDWATER

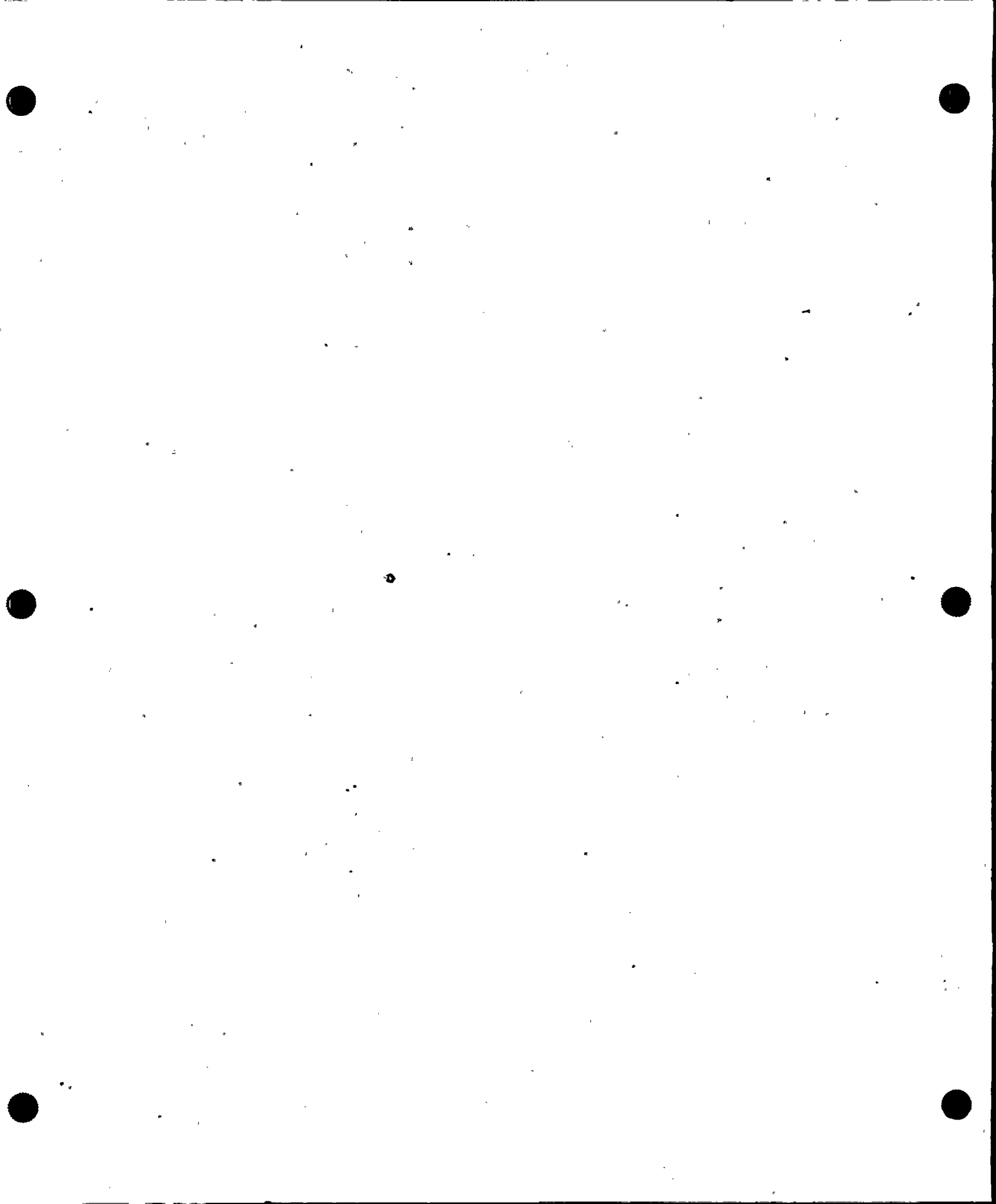
| VALVE      |     |      |      | VALVE POSITION |            |            |              | ASME SECTION XI |     |     |                    |                |           |                   |
|------------|-----|------|------|----------------|------------|------------|--------------|-----------------|-----|-----|--------------------|----------------|-----------|-------------------|
| NUMBER     | REV | TYPE | SIZE | ACT TYPE       | F.D. COORD | POWER OPER | SAFETY FUNCT | CD ICL          | A/P | CAT | PRIM TEST REQUIRED | TEST PERFORMED | TEST MODE | RELIEF REQUEST(S) |
| 2-FW-138-3 | 0   | CK   | 4    | SA             | D/5        | C          | 0            | 2               | A   | C   | CF-1               | NOTE 3         | C         | YES, NOTE 3       |
| 2-FW-138-4 | 0   | CK   | 4    | SA             | C/4        | C          | 0            | 2               | A   | C   | CF-1               | NOTE 3         | C         | YES, NOTE 3       |
| 2-FW-149   | 0   | CK   | 0.75 | SA             | D/2        | C          | 0            | 3               | A   | C   | CF-1               | CF-1           | P         | NO, NOTE 4        |
| 2-FW-150   | 0   | CK   | 0.75 | SA             | D/3        | C          | 0            | 3               | A   | C   | CF-1               | CF-1           | P         | NO, NOTE 4        |
| 2-FW-153   | 0   | CK   | 1    | SA             | H/9        | C          | O/C          | 3               | A   | C   | CF-1               | CF-1           | P         | NO                |
| 2-FW-159   | 0   | CK   | 6    | SA             | L/7        | C          | 0            | 3               | A   | C   | CF-1               | CF-1           | P         | NO                |
| 2-FW-160   | 0   | CK   | 1    | SA             | M/9        | C          | O/C          | 3               | A   | C   | CF-1               | CF-1           | P         | NO                |
| 2-FW-161   | 0   | CK   | 8    | SA             | J/7        | C          | 0            | 3               | A   | C   | CF-1               | CF-1           | P         | NO                |
| 2-SV-140-1 | 0   | REL  | 0.75 | SA             | E/1        | C          | 0            | 3               | A   | C   | TF-1               | TF-1           | R         | NO                |
| 2-SV-140-2 | 0   | REL  | 0.75 | SA             | D/1        | C          | 0            | 3               | A   | C   | TF-1               | TF-1           | R         | NO                |
| 2-SV-169-A | 0   | REL  | 0.75 | SA             | K/9        | C          | 0            | 3               | A   | C   | TF-1               | TF-1           | R         | NO                |
| 2-SV-169-B | 0   | REL  | 0.75 | SA             | G/9        | C          | 0            | 3               | A   | C   | TF-1               | TF-1           | R         | NO                |

DONALD C. COOK NUCLEAR PLANT  
 SECOND TEN YEAR INTERVAL  
 VALVE SUMMARY SHEET - UNIT 2  
 FLOW DIAGRAM: 2-5113-32

RUN DATE AND TIME: 18DEC85:09:14

SYSTEM NAME: ESSENTIAL SERVICE WATER

| VALVE        |     |      |      | VALVE POSITION |            |            |              | ASME SECTION XI |     |                    |                |           |                   |             |
|--------------|-----|------|------|----------------|------------|------------|--------------|-----------------|-----|--------------------|----------------|-----------|-------------------|-------------|
| NUMBER       | REV | TYPE | SIZE | ACT TYPE       | F.D. COORD | POWER OPER | SAFETY FUNCT | CD A/P CL       | CAT | PRIM TEST REQUIRED | TEST PERFORMED | TEST MODE | RELIEF REQUEST(S) |             |
| 2-ESW-102-2E | 0   | CK   | 20   | SA             | H/8        | C          | 0            | 3               | A   | C                  | CF-1           | CF-1      | P                 | NO          |
| 2-ESW-102-2H | 0   | CK   | 20   | SA             | H/8        | C          | 0            | 3               | A   | C                  | CF-1           | CF-1      | P                 | NO          |
| 2-ESW-141    | 0   | CK   | 6    | SA             | K/6        | C          | 0            | 3               | A   | C                  | CF-1           | CF-1      | P                 | NO, NOTE 1  |
| 2-ESW-142    | 0   | CK   | 6    | SA             | L/6        | C          | 0            | 3               | A   | C                  | CF-1           | CF-1      | P                 | NO, NOTE 1  |
| 2-ESW-143    | 0   | CK   | 6    | SA             | M/6        | C          | 0            | 3               | A   | C                  | CF-1           | CF-1      | P                 | NO, NOTE 1  |
| 2-ESW-144    | 0   | CK   | 6    | SA             | M/6        | C          | 0            | 3               | A   | C                  | CF-1           | CF-1      | P                 | NO, NOTE 1  |
| 2-ESW-145    | 0   | BF   | 4    | M              | J/6        | C          | 0            | 3               | A   | B                  | EF-1           | EF-2      | R                 | YES, NOTE 2 |
| 2-ESW-168-N  | 0   | BF   | 3    | M              | H/1        | C          | 0            | 3               | A   | B                  | EF-1           | EF-1      | P                 | NO          |
| 2-ESW-168-S  | 0   | BF   | 3    | M              | H/1        | C          | 0            | 3               | A   | B                  | EF-1           | EF-1      | P                 | NO          |
| 2-ESW-169-N  | 0   | BF   | 3    | M              | G/1        | O          | C            | 3               | A   | B                  | EF-1           | EF-1      | P                 | NO          |
| 2-ESW-169-S  | 0   | BF   | 3    | M              | G/1        | O          | C            | 3               | A   | B                  | EF-1           | EF-1      | P                 | NO          |
| 2-ESW-170-N  | 0   | BF   | 3    | M              | F/1        | O          | C            | 3               | A   | B                  | EF-1           | EF-1      | P                 | NO          |

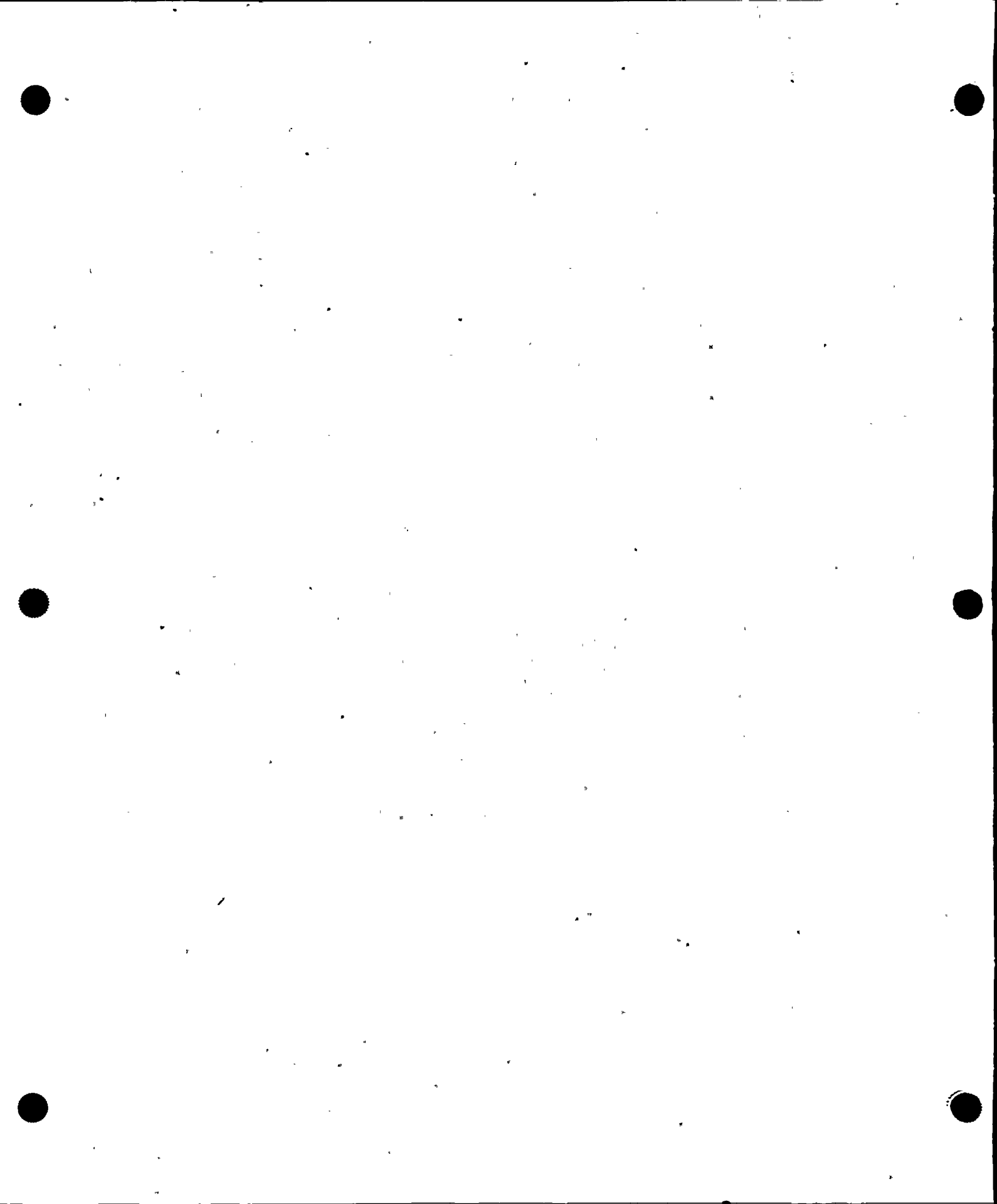


DONALD C. COOK NUCLEAR PLANT  
 SECOND TEN YEAR INTERVAL  
 VALVE SUMMARY SHEET - UNIT 2  
 FLOW DIAGRAM: 2-5113-32

RUN DATE AND TIME: 18DEC85:09:14

SYSTEM NAME: ESSENTIAL SERVICE WATER

| VALVE        |     |      |      | VALVE POSITION |            |            |              | ASME SECTION XI |     |     |                        |                        |             |                   |
|--------------|-----|------|------|----------------|------------|------------|--------------|-----------------|-----|-----|------------------------|------------------------|-------------|-------------------|
| NUMBER       | REV | TYPE | SIZE | ACT TYPE       | F.D. COORD | POWER OPER | SAFETY FUNCT | CD ICL          | A/P | CAT | PRIM TEST REQUIRED     | TEST PERFORMED         | TEST MODE   | RELIEF REQUEST(S) |
| 2-ESW-170-S  | 0   | BF   | 3    | M              | F/1        | O          | C            | 3               | A   | B   | EF-1                   | EF-1                   | P           | NO                |
| 2-ESW-171-N  | 0   | BF   | 3    | M              | F/1        | C          | O            | 3               | A   | B   | EF-1                   | EF-1                   | P           | NO                |
| 2-ESW-171-S  | 0   | BF   | 3    | M              | F/1        | C          | O            | 3               | A   | B   | EF-1                   | EF-1                   | P           | NO                |
| 2-ESW-240    | 0   | BF   | 6    | M              | M/5        | C          | O            | 3               | A   | B   | EF-1                   | EF-2                   | R           | YES, NOTE 2       |
| 2-ESW-243    | 0   | BF   | 4    | M              | J/7        | C          | O            | 3               | A   | B   | EF-1                   | EF-2                   | R           | YES, NOTE 2       |
| 2-SV-14-2E   | 0   | REL  | 1    | SA             | L/1        | C          | O            | 3               | A   | C   | TF-1                   | TF-1                   | R           | NO                |
| 2-SV-14-2M   | 0   | REL  | 1    | SA             | M/1        | C          | O            | 3               | A   | C   | TF-1                   | TF-1                   | R           | NO                |
| 2-SV-15-2E   | 0   | REL  | 0.75 | SA             | G/3        | C          | O            | 3               | A   | C   | TF-1                   | TF-1                   | R           | NO                |
| 2-SV-15-2M   | 0   | REL  | 0.75 | SA             | J/4        | C          | O            | 3               | A   | C   | TF-1                   | TF-1                   | R           | NO                |
| 2-SV-16-AB   | 0   | REL  | 1    | SA             | L/8        | C          | O            | 3               | A   | C   | TF-1                   | TF-1                   | R           | NO                |
| 2-SV-16-CD   | 0   | REL  | 1    | SA             | L/8        | C          | O            | 3               | A   | C   | TF-1                   | TF-1                   | R           | NO                |
| 2-ANO-703-2E | 0   | BF   | 20   | MO             | H/8        | C          | O            | 3               | A   | B   | EF-1<br>EF-5<br>ET-053 | EF-1<br>EF-5<br>ET-053 | P<br>-<br>P | NO<br>NO<br>NO    |

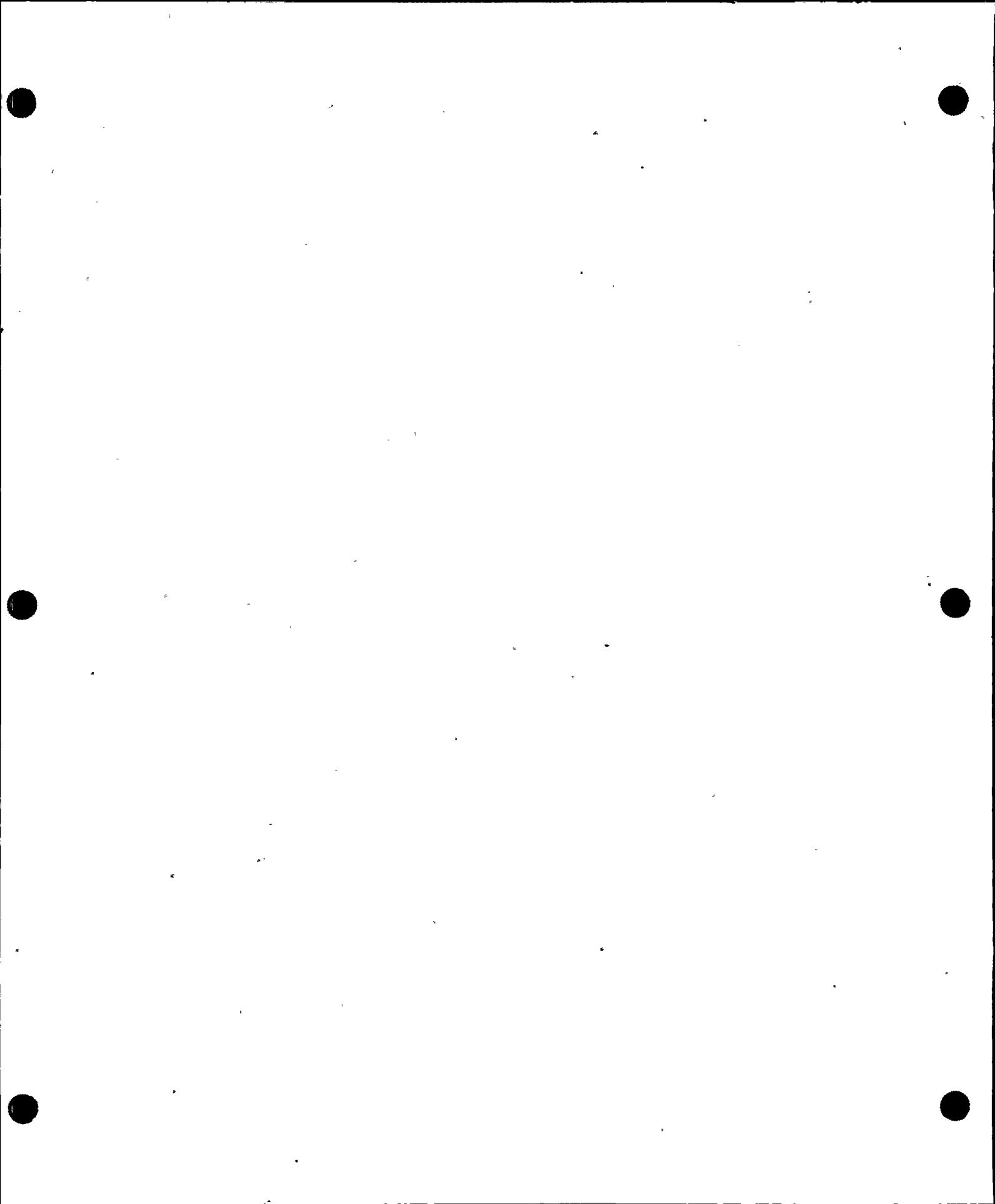


DONALD C. COOK NUCLEAR PLANT  
 SECOND TEN YEAR INTERVAL  
 VALVE SUMMARY SHEET - UNIT 2  
 FLOW DIAGRAM: 2-5113-32

RUN DATE AND TIME: 18DEC85:09:14

SYSTEM NAME: ESSENTIAL SERVICE WATER

| VALVE        |     |      |      | VALVE POSITION |            |            |              | ASME SECTION XI |     |     |                        |                        |             |                   |
|--------------|-----|------|------|----------------|------------|------------|--------------|-----------------|-----|-----|------------------------|------------------------|-------------|-------------------|
| NUMBER       | REV | TYPE | SIZE | ACT TYPE       | F.D. COORD | POWER OPER | SAFETY FUNCT | CD ICL          | A/P | CAT | PRIM TEST REQUIRED     | TEST PERFORMED         | TEST MODE   | RELIEF REQUEST(S) |
| 2-KVO-704-2H | 0   | BF   | 20   | MO             | H/8        | C          | 0            | 3               | A   | B   | EF-1<br>EF-5<br>ET-054 | EF-1<br>EF-5<br>ET-054 | P<br>-<br>P | NO<br>NO<br>NO    |
| 2-KVO-706    | 0   | BF   | 20   | MO             | G/8        | 0          | 0/C          | 3               | A   | B   | EF-1<br>EF-5<br>ET-055 | EF-1<br>EF-5<br>ET-056 | P<br>-<br>P | NO<br>NO<br>NO    |
| 2-KVO-708    | 0   | BF   | 20   | MO             | G/6        | 0          | 0/C          | 3               | A   | B   | EF-1<br>EF-5<br>ET-055 | EF-1<br>EF-5<br>ET-055 | P<br>-<br>P | NO<br>NO<br>NO    |
| 2-KVO-714    | 0   | BF   | 12   | MO             | M/5        | C          | 0            | 3               | A   | B   | EF-1<br>EF-5<br>ET-034 | EF-1<br>EF-5<br>ET-034 | P<br>-<br>P | NO<br>NO<br>NO    |
| 2-KVO-718    | 0   | BF   | 12   | MO             | N/5        | C          | 0            | 3               | A   | B   | EF-1<br>EF-5<br>ET-036 | EF-1<br>EF-5<br>ET-036 | P<br>-<br>P | NO<br>NO<br>NO    |
| 2-KVO-722    | 0   | BF   | 6    | MO             | M/6        | C          | 0            | 3               | A   | B   | EF-1<br>EF-5<br>ET-023 | EF-1<br>EF-5<br>ET-023 | P<br>-<br>P | NO<br>NO<br>NO    |
| 2-KVO-724    | 0   | BF   | 6    | MO             | M/6        | C          | 0            | 3               | A   | B   | EF-1<br>EF-5<br>ET-020 | EF-1<br>EF-5<br>ET-020 | P<br>-<br>P | NO<br>NO<br>NO    |



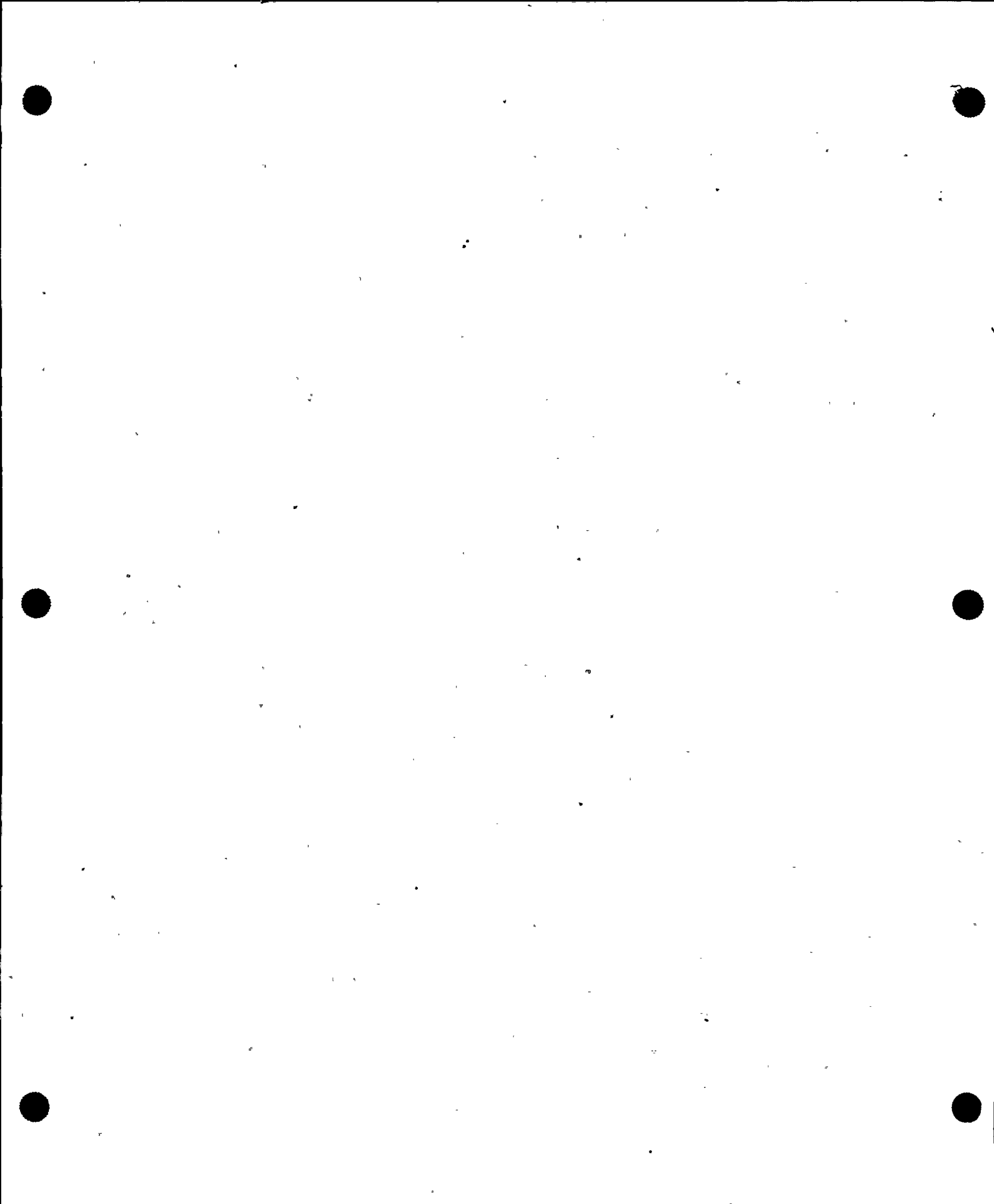
DONALD C. COOK NUCLEAR PLANT  
 SECOND TEN YEAR INTERVAL  
 VALVE SUMMARY SHEET - UNIT 2  
 FLOW DIAGRAM: 2-5113-32

RUN DATE AND TIME: 18DEC85:09:14

SYSTEM NAME: ESSENTIAL SERVICE WATER

| VALVE     |     |      |      | VALVE POSITION |            |            |              | ASME SECTION XT |     |     |                        |                        |             |                   |
|-----------|-----|------|------|----------------|------------|------------|--------------|-----------------|-----|-----|------------------------|------------------------|-------------|-------------------|
| NUMBER    | REV | TYPE | SIZE | ACT TYPE       | F.D. COORD | POWER OPER | SAFETY FUNCT | CD ICL          | A/P | CAT | PRIM TEST REQUIRED     | TEST PERFORMED         | TEST MODE   | RELIEF REQUEST(S) |
| 2-KM0-726 | 0   | BF   | 6    | MO             | K/6        | C          | 0            | 3               | A   | B   | EF-1<br>EF-5<br>ET-023 | EF-1<br>EF-5<br>ET-023 | P<br>-<br>P | NO<br>NO<br>NO    |
| 2-KM0-728 | 0   | BF   | 6    | MO             | L/6        | C          | 0            | 3               | A   | B   | EF-1<br>EF-5<br>ET-024 | EF-1<br>EF-5<br>ET-024 | P<br>-<br>P | NO<br>NO<br>NO    |
| 2-KM0-734 | 0   | BF   | 16   | MO             | H/3        | O/C        | 0            | 3               | A   | B   | EF-1<br>EF-5<br>ET-054 | EF-1<br>EF-5<br>ET-054 | P<br>-<br>P | NO<br>NO<br>NO    |
| 2-KM0-738 | 0   | BF   | 16   | MO             | K/3        | O/C        | 0            | 3               | A   | B   | EF-1<br>EF-5<br>ET-055 | EF-1<br>EF-5<br>ET-055 | P<br>-<br>P | NO<br>NO<br>NO    |
| 2-KM0-744 | 0   | BF   | 4    | MO             | J/6        | C          | 0            | 3               | A   | B   | EF-1<br>EF-5<br>ET-036 | EF-1<br>EF-5<br>ET-036 | P<br>-<br>P | NO<br>NO<br>NO    |
| 2-KM0-753 | 0   | BF   | 6    | MO             | M/5        | C          | 0            | 3               | A   | B   | EF-1<br>EF-5<br>ET-024 | EF-1<br>EF-5<br>ET-024 | P<br>-<br>P | NO<br>NO<br>NO    |
| 2-KM0-754 | 0   | BF   | 4    | MO             | K/6        | C          | 0            | 3               | A   | B   | EF-1<br>EF-5<br>ET-026 | EF-1<br>EF-5<br>ET-026 | P<br>-<br>P | NO<br>NO<br>NO    |



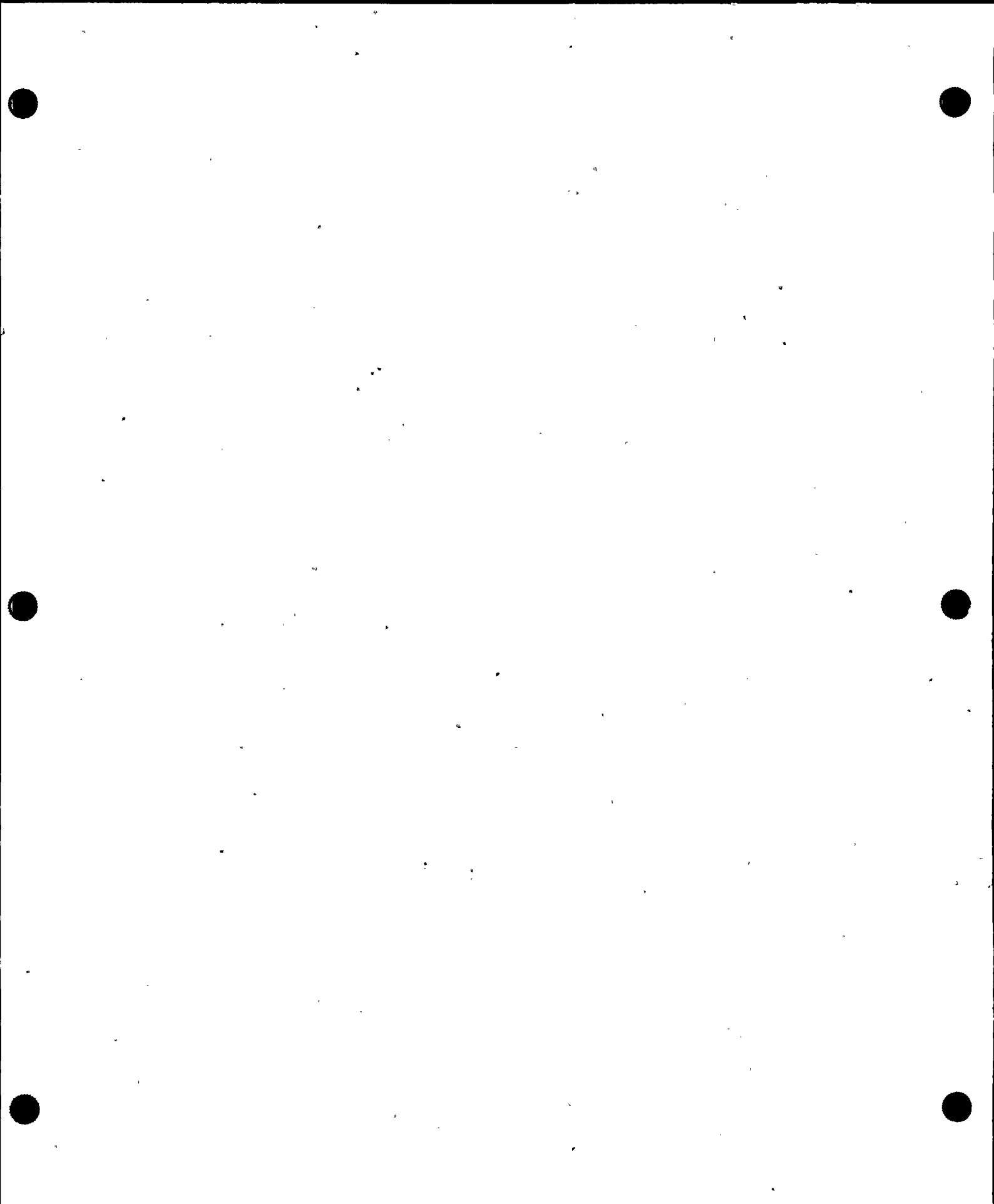


DONALD C. COOK, NUCLEAR PLANT  
 SECOND TEN YEAR INTERVAL  
 VALVE SUMMARY SHEET - UNIT 2  
 FLOW DIAGRAM: 2-5113-32

RUN DATE AND TIME: 18DEC85:09:14

SYSTEM NAME: ESSENTIAL SERVICE WATER

| VALVE        |     |      |      | VALVE POSITION |            |            |              | ASME_SECTION XI |     |                       |                          |             |   |
|--------------|-----|------|------|----------------|------------|------------|--------------|-----------------|-----|-----------------------|--------------------------|-------------|---|
| NUMBER       | REV | TYPE | SIZE | ACT TYPE       | F.D. COORD | POWER OPER | SAFETY FUNCT | CD   A/P   CL   | CAT | PRIM TEST REQUIRED    | TEST PERFORMED           | TEST MODE   | RELIEF REQUEST(S)                         |
| 2-NRV-722-CD | 0   | 3W   | 4    | A              | K/8        | 0          | 0            | 3 A B           |     | EF-1<br>EF-7<br>ET-NA | NOTE 3<br>EF-8<br>NOTE 3 | P<br>R<br>- | YES, NOTE 3<br>YES, NOTE 3<br>YES, NOTE 3 |
| 2-NRV-724-CD | 0   | 3W   | 4    | A              | M/8        | 0          | 0            | 3 A B           |     | EF-1<br>EF-7<br>ET-NA | NOTE 3<br>EF-8<br>NOTE 3 | P<br>R<br>- | YES, NOTE 3<br>YES, NOTE 3<br>YES, NOTE 3 |
| 2-NRV-726-AB | 0   | 3W   | 4    | A              | K/8        | 0          | 0            | 3 A B           |     | EF-1<br>EF-7<br>ET-NA | NOTE 3<br>EF-8<br>NOTE 3 | P<br>R<br>- | YES, NOTE 3<br>YES, NOTE 3<br>YES, NOTE 3 |
| 2-NRV-728-AB | 0   | 3W   | 4    | A              | M/8        | 0          | 0            | 3 A B           |     | EF-1<br>EF-7<br>ET-NA | NOTE 3<br>EF-8<br>NOTE 1 | P<br>R<br>- | YES, NOTE 3<br>YES, NOTE 3<br>YES, NOTE 3 |



DONALD C. COCK NUCLEAR PLANT  
 SECOND TEN YEAR INTERVAL  
 VALVE SUMMARY SHEET - UNIT 2  
 FLOW DIAGRAM: 2-5114A-25

RUN DATE AND TIME: 18DEC85:09:14

SYSTEM NAME: NON-ESSENTIAL SERVICE WATER

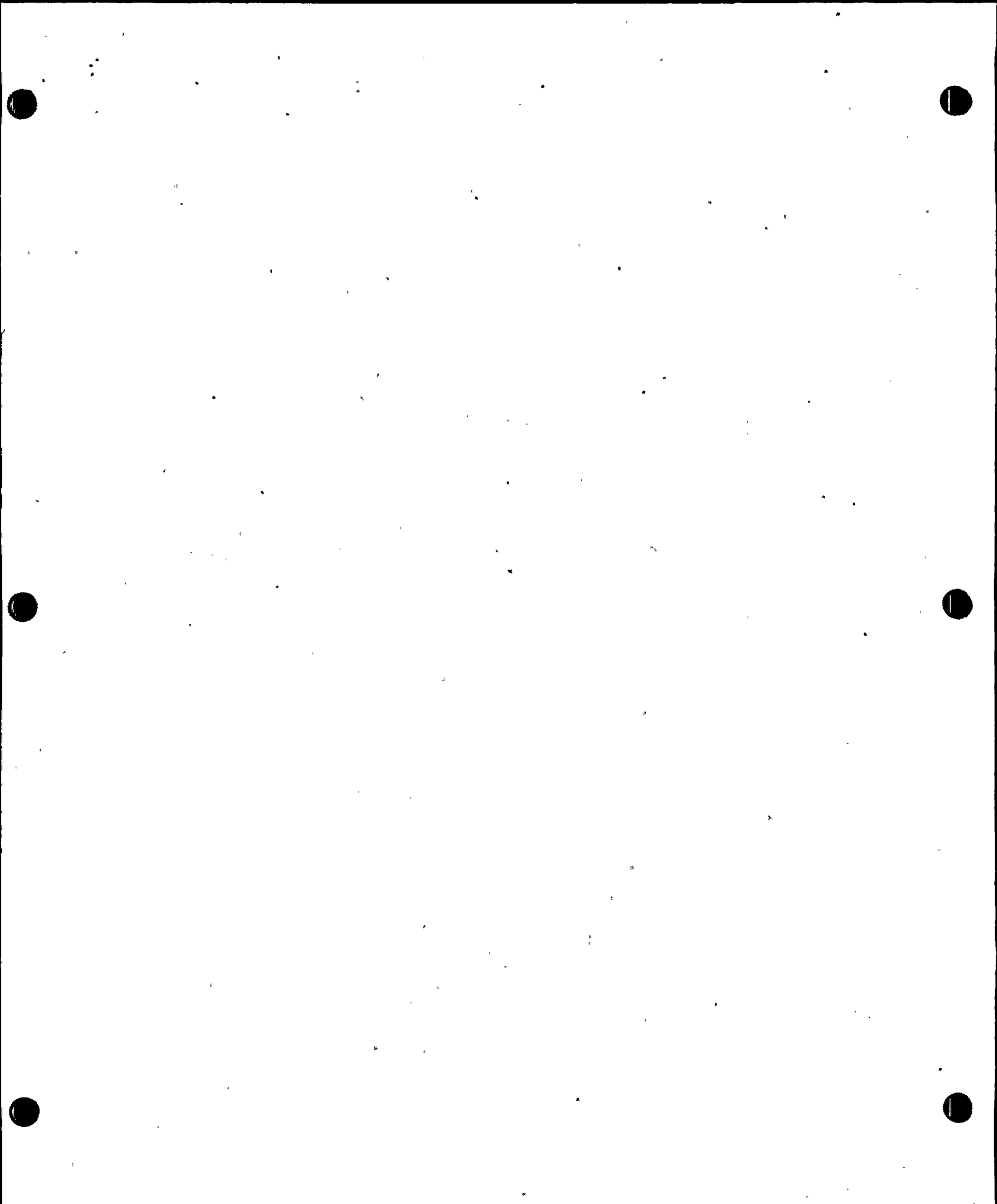
| VALVE       |     |      |      | VALVE POSITION |            |            |              | ASME SECTION XI |     |     |                    |                |           |                   |
|-------------|-----|------|------|----------------|------------|------------|--------------|-----------------|-----|-----|--------------------|----------------|-----------|-------------------|
| NUMBER      | REV | TYPE | SIZE | ACT TYPE       | F.D. COORD | POWER OPER | SAFETY FUNCT | CD ICL          | A/P | CAT | PRIM TEST REQUIRED | TEST PERFORMED | TEST MODE | RELIEF REQUEST(S) |
| 2-MCR-900-1 | 0   | DA   | 6    | A              | J/9        | O          | C            | 2               | A   | A   | EF-1               | EF-1           | P         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | EF-7               | EF-7           | P         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | ET-008             | ET-008         | P         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | SLT-1              | SLT-2          | R         | YES, NOTE 1       |
| 2-MCR-901-1 | 0   | DA   | 6    | A              | K/9        | O          | C            | 2               | A   | A   | EF-1               | EF-1           | P         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | EF-7               | EF-7           | P         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | ET-008             | ET-008         | P         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | SLT-1              | SLT-2          | R         | YES, NOTE 1       |
| 2-MCR-902-1 | 0   | DA   | 6    | A              | J/4        | O          | C            | 2               | A   | A   | EF-1               | EF-1           | P         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | EF-7               | EF-7           | P         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | ET-005             | ET-005         | P         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | SLT-1              | SLT-2          | R         | YES, NOTE 1       |
| 2-MCR-903-1 | 0   | DA   | 6    | A              | K/4        | O          | C            | 2               | A   | A   | EF-1               | EF-1           | P         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | EF-7               | EF-7           | P         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | ET-006             | ET-006         | P         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | SLT-1              | SLT-2          | R         | YES, NOTE 1       |
| 2-MCR-904-2 | 0   | DA   | 6    | A              | J/9        | O          | C            | 2               | A   | A   | EF-1               | EF-1           | P         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | EF-7               | EF-7           | P         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | ET-008             | ET-008         | P         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | SLT-1              | SLT-2          | R         | YES, NOTE 1       |

DONALD C. COOK NUCLEAR PLANT  
 SECOND TEN YEAR INTERVAL  
 VALVE SUMMARY SHEET - UNIT 2  
 FLOW DIAGRAM: 2-5114A-25

RUN DATE AND TIME: 18DEC85:09:14

SYSTEM NAME: NON-ESSENTIAL SERVICE WATER

| VALVE       |     |      |      | VALVE POSITION |            |            |              | ASME SECTION XT |     |                    |                |           |                   |             |
|-------------|-----|------|------|----------------|------------|------------|--------------|-----------------|-----|--------------------|----------------|-----------|-------------------|-------------|
| NUMBER      | REV | TYPE | SIZE | ACT TYPE       | F.D. COORD | POWER OPER | SAFETY FUNCT | CD A/P CL       | CAT | PRIM TEST REQUIRED | TEST PERFORMED | TEST MODE | RELIEF REQUEST(S) |             |
| 2-KCR-905-2 | 0   | DA   | 6    | A              | K/9        | 0          | C            | 2               | A   | A                  | EF-1           | EF-1      | P                 | NO          |
|             |     |      |      |                |            |            |              |                 |     |                    | EF-5           | EF-5      | -                 | NO          |
|             |     |      |      |                |            |            |              |                 |     |                    | EF-7           | EF-7      | P                 | NO          |
|             |     |      |      |                |            |            |              |                 |     |                    | ET-006         | ET-006    | P                 | NO          |
|             |     |      |      |                |            |            |              |                 |     |                    | SLT-1          | SLT-2     | R                 | YES, NOTE 1 |
| 2-KCR-906-2 | 0   | DA   | 6    | A              | J/4        | 0          | C            | 2               | A   | A                  | EF-1           | EF-1      | P                 | NO          |
|             |     |      |      |                |            |            |              |                 |     |                    | EF-5           | EF-5      | -                 | NO          |
|             |     |      |      |                |            |            |              |                 |     |                    | EF-7           | EF-7      | P                 | NO          |
|             |     |      |      |                |            |            |              |                 |     |                    | ET-006         | ET-006    | P                 | NO          |
|             |     |      |      |                |            |            |              |                 |     |                    | SLT-1          | SLT-2     | R                 | YES, NOTE 1 |
| 2-KCR-907   | 0   | DA   | 6    | A              | K/4        | 0          | C            | 2               | A   | A                  | EF-1           | EF-1      | P                 | NO          |
|             |     |      |      |                |            |            |              |                 |     |                    | EF-5           | EF-5      | -                 | NO          |
|             |     |      |      |                |            |            |              |                 |     |                    | EF-7           | EF-7      | P                 | NO          |
|             |     |      |      |                |            |            |              |                 |     |                    | ET-005         | ET-005    | P                 | NO          |
|             |     |      |      |                |            |            |              |                 |     |                    | SLT-1          | SLT-2     | R                 | YES, NOTE 1 |
| 2-KCR-908-3 | 0   | DA   | 6    | A              | J/9        | 0          | C            | 2               | A   | A                  | EF-1           | EF-1      | P                 | NO          |
|             |     |      |      |                |            |            |              |                 |     |                    | EF-5           | EF-5      | -                 | NO          |
|             |     |      |      |                |            |            |              |                 |     |                    | EF-7           | EF-7      | P                 | NO          |
|             |     |      |      |                |            |            |              |                 |     |                    | ET-008         | ET-008    | P                 | NO          |
|             |     |      |      |                |            |            |              |                 |     |                    | SLT-1          | SLT-2     | R                 | YES, NOTE 1 |
| 2-KCR-909-3 | 0   | DA   | 6    | A              | K/9        | 0          | C            | 2               | A   | A                  | EF-1           | EF-1      | P                 | NO          |
|             |     |      |      |                |            |            |              |                 |     |                    | EF-5           | EF-5      | -                 | NO          |
|             |     |      |      |                |            |            |              |                 |     |                    | EF-7           | EF-7      | P                 | NO          |
|             |     |      |      |                |            |            |              |                 |     |                    | ET-006         | ET-006    | P                 | NO          |
|             |     |      |      |                |            |            |              |                 |     |                    | SLT-1          | SLT-2     | R                 | YES, NOTE 1 |

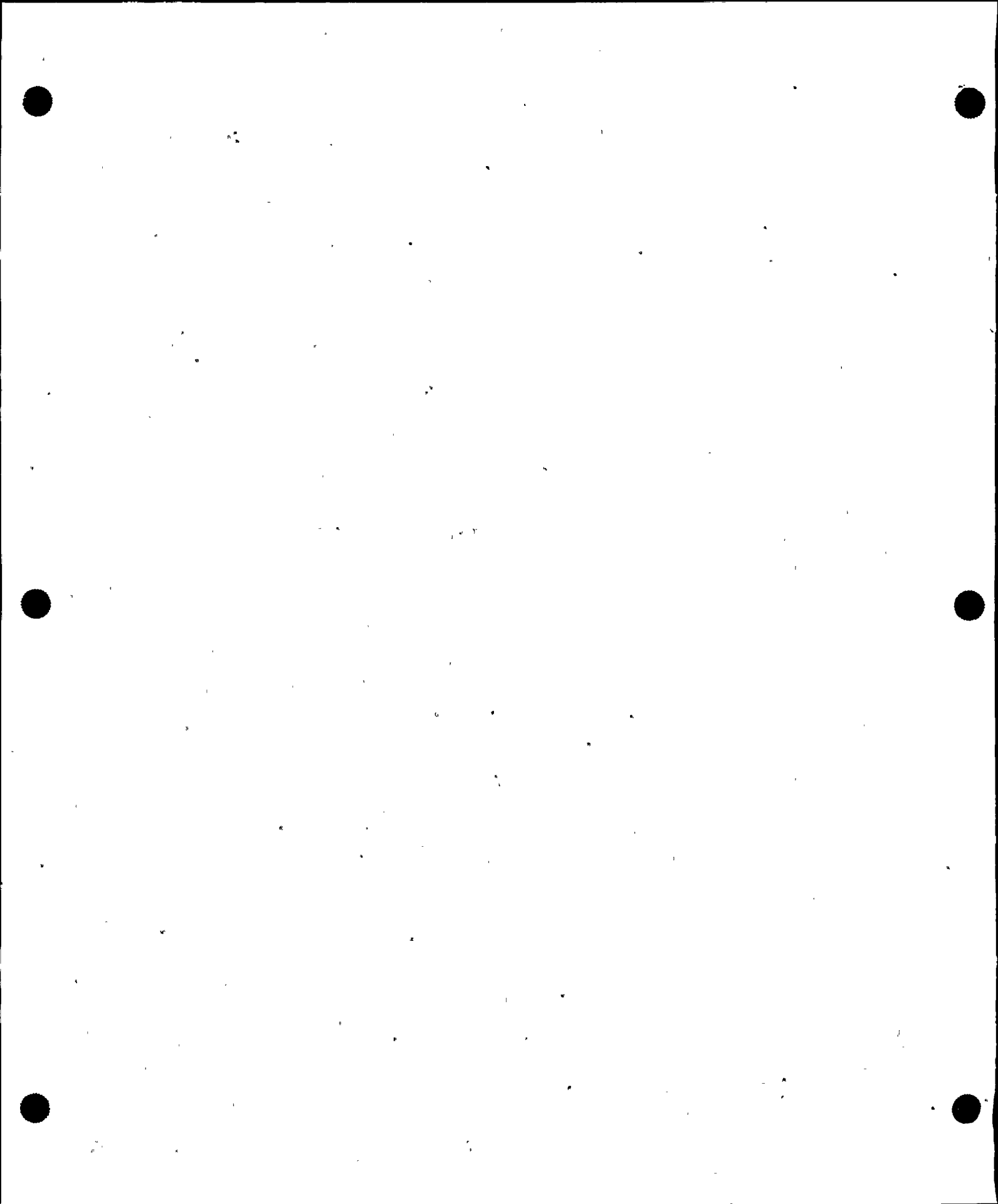


DONALD C. COOK NUCLEAR PLANT  
 SECOND TEN YEAR INTERVAL  
 VALVE SUMMARY SHEET - UNIT 2  
 FLOW DIAGRAM: 2-5114A-25

RUN DATE AND TIME: 18DEC85:09:14

SYSTEM NAME: NON-ESSENTIAL SERVICE WATER

| VALVE       |     |      |      | VALVE POSITION |            |            |              | ASME SECTION XI |     |     |                    |                |           |                   |
|-------------|-----|------|------|----------------|------------|------------|--------------|-----------------|-----|-----|--------------------|----------------|-----------|-------------------|
| NUMBER      | REV | TYPE | SIZE | ACT TYPE       | F.D. COORD | POWER OPER | SAFETY FUNCT | CD ICL          | A/P | CAT | PRIM TEST REQUIRED | TEST PERFORMED | TEST MODE | RELIEF REQUEST(S) |
| 2-WCR-910-3 | 0   | DA   | 6    | A              | J/4        | O          | C            | 2               | A   | A   | EF-1               | EF-1           | P         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | EF-7               | EF-7           | P         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | ET-006             | ET-006         | P         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | SLT-1              | SLT-2          | R         | YES, NOTE 1       |
| 2-WCR-911-3 | 0   | DA   | 6    | A              | K/4        | O          | C            | 2               | A   | A   | EF-1               | EF-1           | P         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | EF-7               | EF-7           | P         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | ET-005             | ET-005         | P         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | SLT-1              | SLT-2          | R         | YES, NOTE 1       |
| 2-WCR-912-4 | 0   | DA   | 6    | A              | J/9        | O          | C            | 2               | A   | A   | EF-1               | EF-1           | P         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | EF-7               | EF-7           | P         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | ET-009             | ET-009         | P         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | SLT-1              | SLT-2          | R         | YES, NOTE 1       |
| 2-WCR-913-4 | 0   | DA   | 6    | A              | K/9        | O          | C            | 2               | A   | A   | EF-1               | EF-1           | P         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | EF-7               | EF-7           | P         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | ET-008             | ET-008         | P         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | SLT-1              | SLT-2          | R         | YES, NOTE 1       |
| 2-WCR-914-4 | 0   | DA   | 6    | A              | J/4        | O          | C            | 2               | A   | A   | EF-1               | EF-1           | P         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | EF-7               | EF-7           | P         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | ET-005             | ET-005         | P         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | SLT-1              | SLT-2          | R         | YES, NOTE 1       |



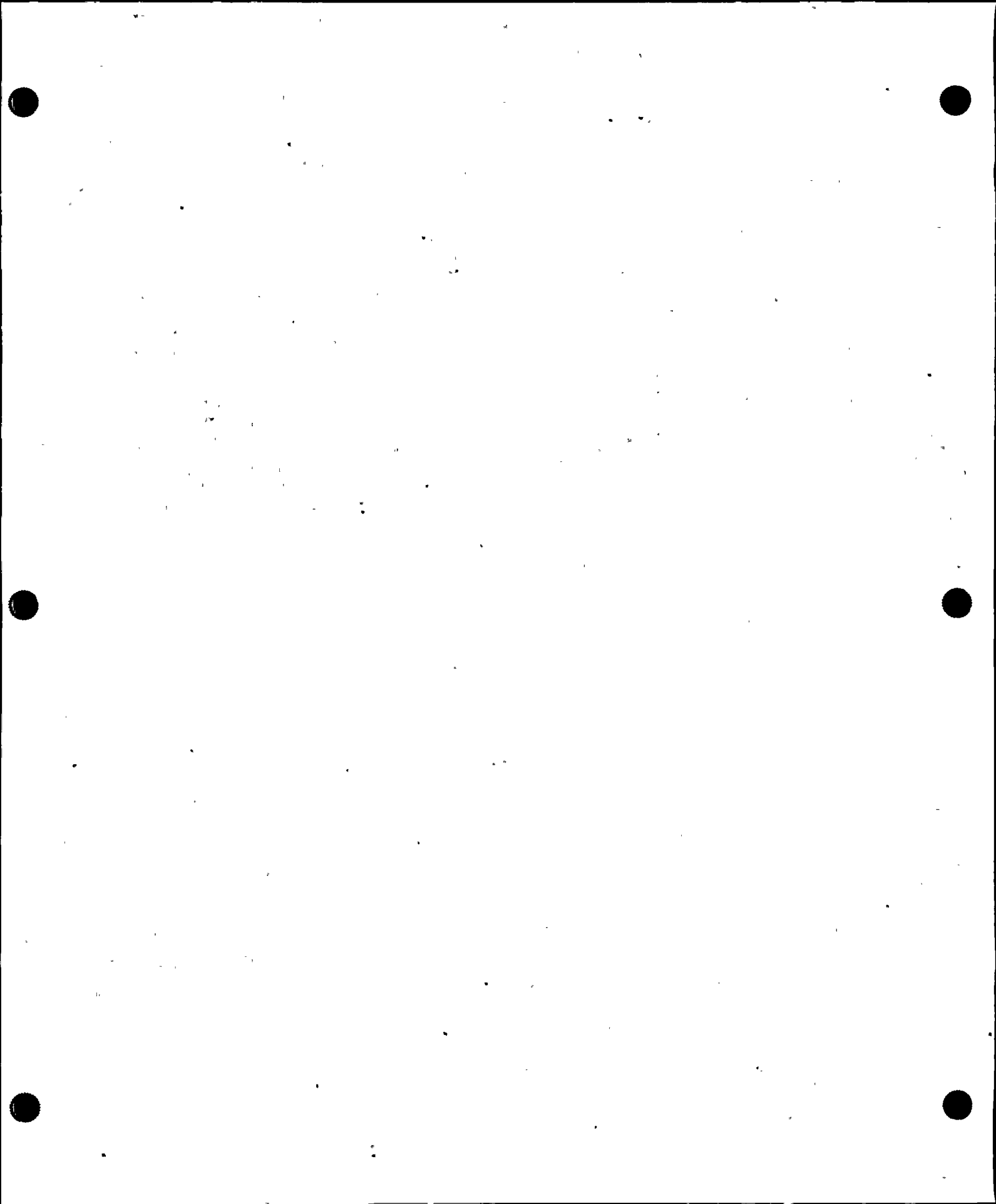


DONALD C. COOK NUCLEAR PLANT  
 SECOND TEN YEAR INTERVAL  
 VALVE SUMMARY SHEET - UNIT 2  
 FLOW DIAGRAM: 2-5114A-25

RUN DATE AND TIME: 18DEC85:09:14

SYSTEM NAME: NON-ESSENTIAL SERVICE WATER

| VALVE       |     |      |      | VALVE POSITION |            |            |              | ASME SECTION XI |     |                    |                |           |                   |             |
|-------------|-----|------|------|----------------|------------|------------|--------------|-----------------|-----|--------------------|----------------|-----------|-------------------|-------------|
| NUMBER      | REV | TYPE | SIZE | ACT TYPE       | F.D. COORD | POWER OPER | SAFETY FUNCT | CD A/P CL       | CAT | PRIM TEST REQUIRED | TEST PERFORMED | TEST MODE | RELIEF REQUEST(S) |             |
| 2-KCR-915-4 | 0   | DA   | 6    | A              | K/4        | 0          | C            | 2               | A   | A                  | EF-1           | EF-1      | P                 | NO          |
|             |     |      |      |                |            |            |              |                 |     |                    | EF-5           | EF-5      | -                 | NO          |
|             |     |      |      |                |            |            |              |                 |     |                    | EF-7           | EF-7      | P                 | NO          |
|             |     |      |      |                |            |            |              |                 |     |                    | ET-006         | ET-006    | P                 | NO          |
|             |     |      |      |                |            |            |              |                 |     |                    | SLT-1          | SLT-2     | R                 | YES, NOTE 1 |
| 2-KCR-920-1 | 0   | DA   | 3    | A              | J/6        | 0          | C            | 2               | A   | A                  | EF-1           | EF-1      | P                 | NO          |
|             |     |      |      |                |            |            |              |                 |     |                    | EF-5           | EF-5      | -                 | NO          |
|             |     |      |      |                |            |            |              |                 |     |                    | EF-7           | EF-7      | P                 | NO          |
|             |     |      |      |                |            |            |              |                 |     |                    | ET-005         | ET-005    | P                 | NO          |
|             |     |      |      |                |            |            |              |                 |     |                    | SLT-1          | SLT-2     | R                 | YES, NOTE 1 |
| 2-KCR-921-1 | 0   | DA   | 3    | A              | K/6        | 0          | C            | 2               | A   | A                  | EF-1           | EF-1      | P                 | NO          |
|             |     |      |      |                |            |            |              |                 |     |                    | EF-5           | EF-5      | -                 | NO          |
|             |     |      |      |                |            |            |              |                 |     |                    | EF-7           | EF-7      | P                 | NO          |
|             |     |      |      |                |            |            |              |                 |     |                    | ET-005         | ET-005    | P                 | NO          |
|             |     |      |      |                |            |            |              |                 |     |                    | SLT-1          | SLT-2     | R                 | YES, NOTE 1 |
| 2-KCR-922-1 | 0   | DA   | 3    | A              | K/2        | 0          | C            | 2               | A   | A                  | EF-1           | EF-1      | P                 | NO          |
|             |     |      |      |                |            |            |              |                 |     |                    | EF-5           | EF-5      | -                 | NO          |
|             |     |      |      |                |            |            |              |                 |     |                    | EF-7           | EF-7      | P                 | NO          |
|             |     |      |      |                |            |            |              |                 |     |                    | ET-005         | ET-005    | P                 | NO          |
|             |     |      |      |                |            |            |              |                 |     |                    | SLT-1          | SLT-2     | R                 | YES, NOTE 1 |
| 2-KCR-923-1 | 0   | DA   | 3    | A              | J/2        | 0          | C            | 2               | A   | A                  | EF-1           | EF-1      | P                 | NO          |
|             |     |      |      |                |            |            |              |                 |     |                    | EF-5           | EF-5      | -                 | NO          |
|             |     |      |      |                |            |            |              |                 |     |                    | EF-7           | EF-7      | P                 | NO          |
|             |     |      |      |                |            |            |              |                 |     |                    | ET-006         | ET-006    | P                 | NO          |
|             |     |      |      |                |            |            |              |                 |     |                    | SLT-1          | SLT-2     | R                 | YES, NOTE 1 |

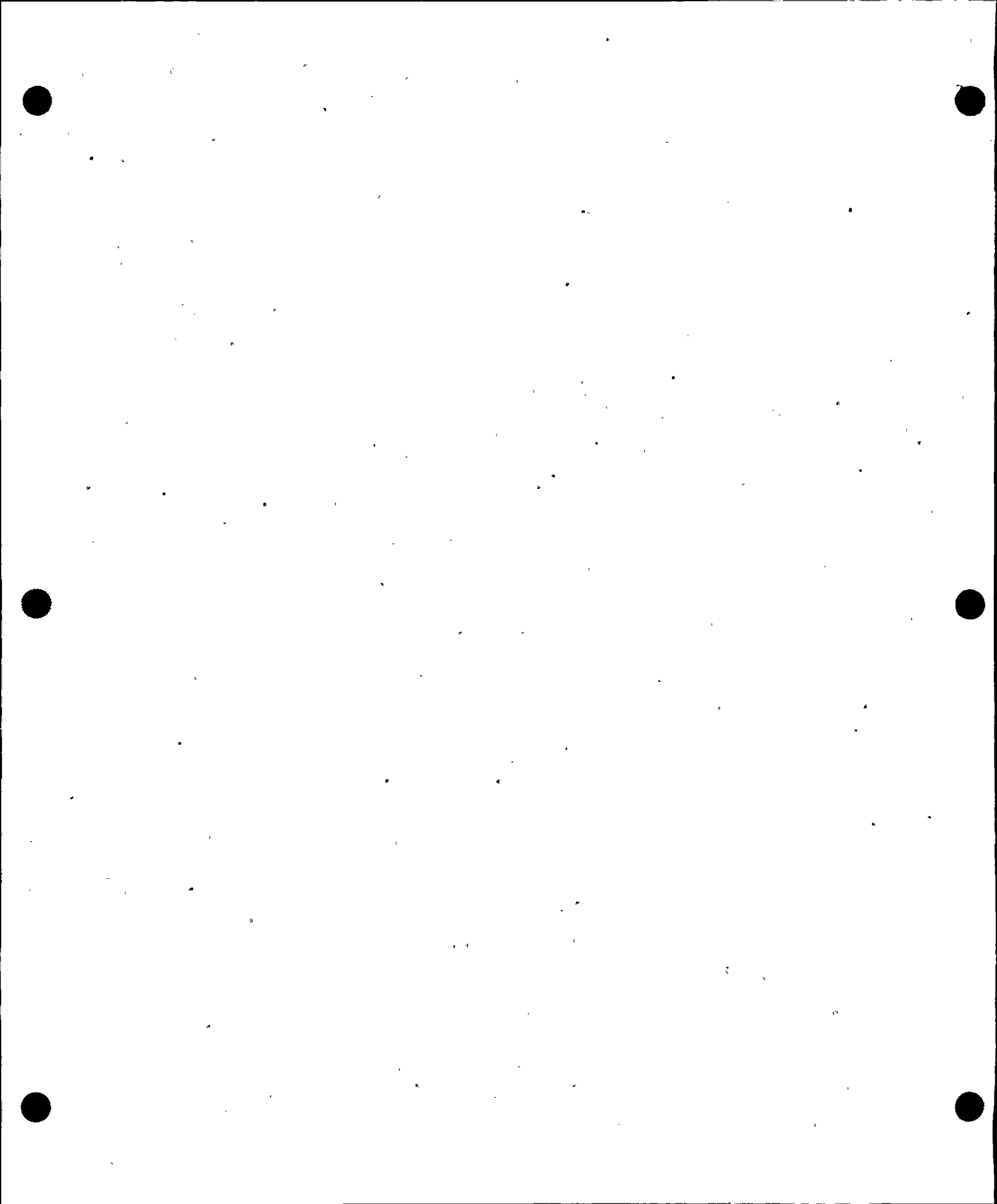


DONALD C. COCK NUCLEAR PLANT  
 SECOND TEN YEAR INTERVAL  
 VALVE SUMMARY SHEET - UNIT 2  
 FLOW DIAGRAM: 2-5114A-25

RUN DATE AND TIME: 18DEC85:09:14

SYSTEM NAME: NON-ESSENTIAL SERVICE WATER

| VALVE       |     |      |      | VALVE POSITION |            |            |              | ASME SECTION XI |     |     |                    |                |           |                   |
|-------------|-----|------|------|----------------|------------|------------|--------------|-----------------|-----|-----|--------------------|----------------|-----------|-------------------|
| NUMBER      | REV | TYPE | SIZE | ACT TYPE       | F.D. COORD | POWER OPER | SAFETY FUNCT | CD [CL          | A/P | CAT | PRIM TEST REQUIRED | TEST PERFORMED | TEST MODE | RELIEF REQUEST(S) |
| 2-KCR-924-2 | 0   | DA   | 3    | A              | J/6        | 0          | C            | 2               | A   | A   | EF-1               | EF-1           | P         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | EF-7               | EF-7           | P         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | ET-005             | ET-005         | P         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | SLT-1              | SLT-2          | R         | YES, NOTE 1       |
| 2-KCR-925-2 | 0   | DA   | 3    | A              | K/6        | 0          | C            | 2               | A   | A   | EF-1               | EF-1           | P         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | EF-7               | EF-7           | P         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | ET-005             | ET-005         | P         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | SLT-1              | SLT-2          | R         | YES, NOTE 1       |
| 2-KCR-926-2 | 0   | DA   | 3    | A              | K/2        | 0          | C            | 2               | A   | A   | EF-1               | EF-1           | P         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | EF-7               | EF-7           | P         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | ET-005             | ET-005         | P         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | SLT-1              | SLT-2          | R         | YES, NOTE 1       |
| 2-KCR-927-2 | 0   | DA   | 3    | A              | J/2        | 0          | C            | 2               | A   | A   | EF-1               | EF-1           | P         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | EF-7               | EF-7           | P         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | ET-005             | ET-005         | P         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | SLT-1              | SLT-2          | R         | YES, NOTE 1       |
| 2-KCR-928-3 | 0   | DA   | 3    | A              | J/6        | 0          | C            | 2               | A   | A   | EF-1               | EF-1           | P         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | EF-7               | EF-7           | P         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | ET-005             | ET-005         | P         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | SLT-1              | SLT-2          | R         | YES, NOTE 1       |

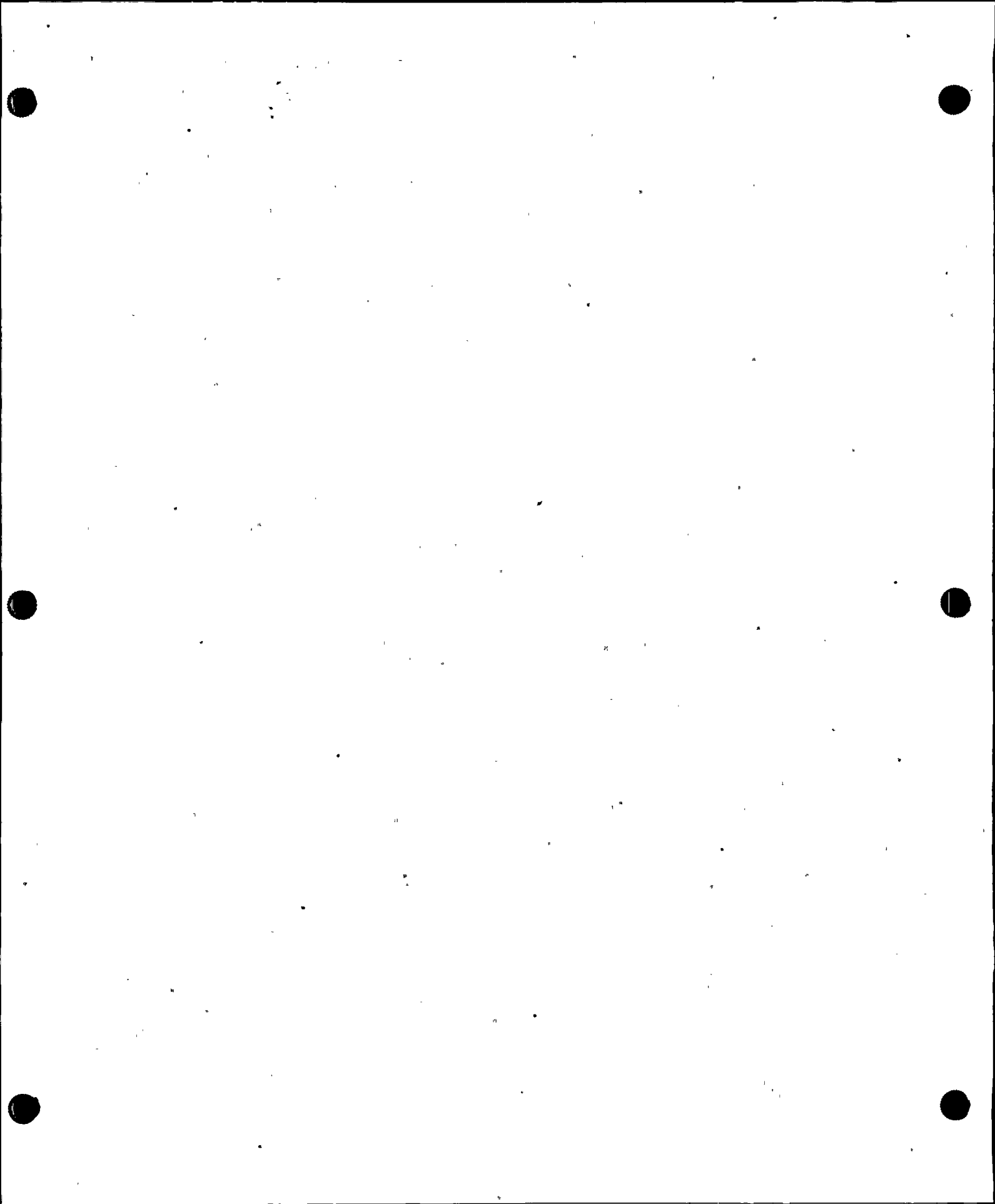


DONALD C. COOK, NUCLEAR PLANT  
 SECOND TEN YEAR INTERVAL  
 VALVE SUMMARY SHEET - UNIT 2  
 FLOW DIAGRAM: 2-5114A-25

RUN DATE AND TIME: 18DEC85:09:14

SYSTEM NAME: NON-ESSENTIAL SERVICE WATER

| VALVE       |     |      |      | VALVE POSITION |            |            |              | ASME SECTION XI |     |     |                    |                |           |                   |
|-------------|-----|------|------|----------------|------------|------------|--------------|-----------------|-----|-----|--------------------|----------------|-----------|-------------------|
| NUMBER      | REV | TYPE | SIZE | ACT TYPE       | F.D. COORD | POWER OPER | SAFETY FUNCT | CD ICL          | A/P | CAT | PRIM TEST REQUIRED | TEST PERFORMED | TEST MODE | RELIEF REQUEST(S) |
| 2-KCR-929-3 | 0   | DA   | 3    | A              | K/6        | 0          | C            | 2               | A   | A   | EF-1               | EF-1           | P         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | EF-7               | EF-7           | P         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | ET-005             | ET-005         | P         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | SLT-1              | SLT-2          | R         | YES, NOTE 1       |
| 2-KCR-930-3 | 0   | DA   | 3    | A              | K/2        | 0          | C            | 2               | A   | A   | EF-1               | EF-1           | P         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | EF-7               | EF-7           | P         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | ET-004             | ET-004         | P         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | SLT-1              | SLT-2          | R         | YES, NOTE 1       |
| 2-KCR-931-3 | 0   | DA   | 3    | A              | J/2        | 0          | C            | 2               | A   | A   | EF-1               | EF-1           | P         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | EF-7               | EF-7           | P         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | ET-004             | ET-004         | P         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | SLT-1              | SLT-2          | R         | YES, NOTE 1       |
| 2-KCR-932-4 | 0   | DA   | 3    | A              | J/6        | 0          | C            | 2               | A   | A   | EF-1               | EF-1           | P         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | EF-7               | EF-7           | P         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | ET-004             | ET-004         | P         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | SLT-1              | SLT-2          | R         | YES, NOTE 1       |
| 2-KCR-933   | 0   | DA   | 3    | A              | K/6        | 0          | C            | 2               | A   | A   | EF-1               | EF-1           | P         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | EF-7               | EF-7           | P         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | ET-005             | ET-005         | P         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | SLT-1              | SLT-2          | R         | YES, NOTE 1       |

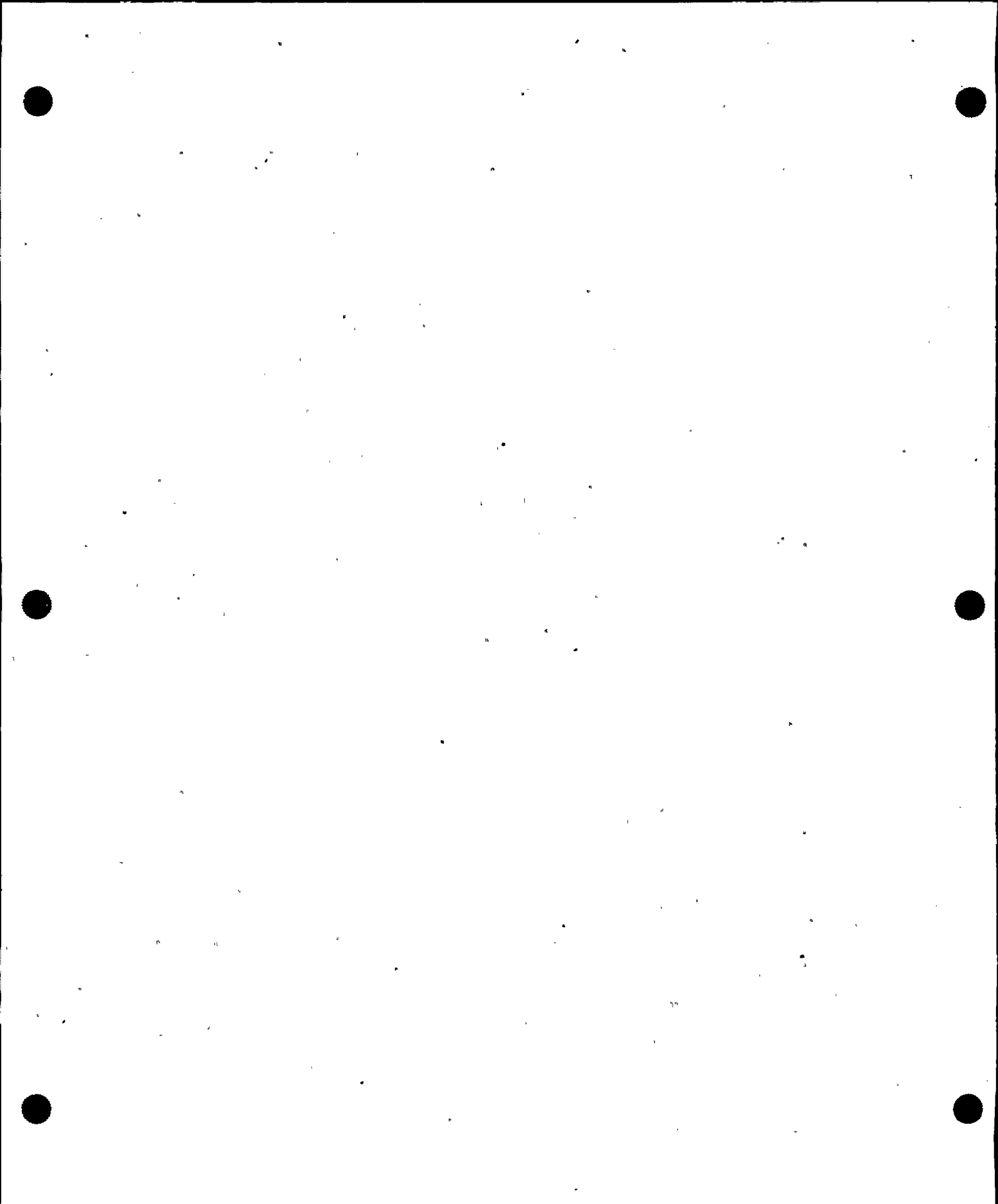


DONALD C. COOK NUCLEAR PLANT  
 SECOND TEN YEAR INTERVAL  
 VALVE SUMMARY SHEET - UNIT 2  
 FLOW DIAGRAM: 2-5114A-25

RUN DATE AND TIME: 18DEC85:09:14

SYSTEM NAME: NON-ESSENTIAL SERVICE WATER

| VALVE       |     |      |      | VALVE POSITION |            |            |              | ASME SECTION XI |     |     |                    |                |           |                   |
|-------------|-----|------|------|----------------|------------|------------|--------------|-----------------|-----|-----|--------------------|----------------|-----------|-------------------|
| NUMBER      | REV | TYPE | SIZE | ACT TYPE       | F.D. COORD | POWER OPER | SAFETY FUNCT | CD ICL          | A/P | CAT | PRIM TEST REQUIRED | TEST PERFORMED | TEST MODE | RELIEF REQUEST(S) |
| 2-WCR-934   | 0   | DA   | 3    | A              | K/2        | 0          | C            | 2               | A   | A   | EF-1               | EF-1           | P         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | EF-7               | EF-7           | P         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | ET-005             | ET-005         | P         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | SLT-1              | SLT-2          | R         | YES, NOTE 1       |
| 2-WCR-935   | 0   | DA   | 3    | A              | J/2        | 0          | C            | 2               | A   | A   | EF-1               | EF-1           | P         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | EF-7               | EF-7           | P         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | ET-005             | ET-005         | P         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | SLT-1              | SLT-2          | R         | YES, NOTE 1       |
| 2-WCR-941-1 | 0   | DA   | 3    | A              | J/6        | 0          | C            | 2               | A   | A   | EF-1               | EF-1           | P         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | EF-7               | EF-7           | P         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | ET-005             | ET-005         | P         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | SLT-1              | SLT-2          | R         | YES, NOTE 1       |
| 2-WCR-942-2 | 0   | DA   | 3    | A              | J/6        | 0          | C            | 2               | A   | A   | EF-1               | EF-1           | P         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | EF-7               | EF-7           | P         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | ET-004             | ET-004         | P         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | SLT-1              | SLT-2          | R         | YES, NOTE 1       |
| 2-WCR-943-3 | 0   | DA   | 3    | A              | J/6        | 0          | C            | 2               | A   | A   | EF-1               | EF-1           | P         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | EF-7               | EF-7           | P         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | ET-004             | ET-004         | P         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | SLT-1              | SLT-2          | R         | YES, NOTE 1       |





DONALD C. COOK NUCLEAR PLANT  
 SECOND TEN YEAR INTERVAL  
 VALVE SUMMARY SHEET - UNIT 2  
 FLOW DIAGRAM: 2-5114A-25

RUN DATE AND TIME: 18DEC85:09:14

SYSTEM NAME: NON-ESSENTIAL SERVICE WATER

| VALVE       |     |      |      | VALVE POSITION |            |            |              | ASME SECTION XI |     |                    |                |           |                   |             |
|-------------|-----|------|------|----------------|------------|------------|--------------|-----------------|-----|--------------------|----------------|-----------|-------------------|-------------|
| NUMBER      | REV | TYPE | SIZE | ACT TYPE       | F.D. COORD | POWER OPER | SAFETY FUNCT | CD A/P ICL      | CAT | PRIM TEST REQUIRED | TEST PERFORMED | TEST MODE | RELIEF REQUEST(S) |             |
| 2-NCR-944-4 | 0   | DA   | 3    | A              | J/6        | 0          | C            | 2               | A   | A                  | EF-1           | EF-1      | P                 | NO          |
|             |     |      |      |                |            |            |              |                 |     |                    | EF-5           | EF-5      | -                 | NO          |
|             |     |      |      |                |            |            |              |                 |     |                    | EF-7           | EF-7      | P                 | NO          |
|             |     |      |      |                |            |            |              |                 |     |                    | ET-004         | ET-004    | P                 | NO          |
|             |     |      |      |                |            |            |              |                 |     |                    | SLT-1          | SLT-2     | R                 | YES, NOTE 1 |
| 2-NCR-945   | 0   | DA   | 3    | A              | J/3        | 0          | C            | 2               | A   | A                  | EF-1           | EF-1      | P                 | NO          |
|             |     |      |      |                |            |            |              |                 |     |                    | EF-5           | EF-5      | -                 | NO          |
|             |     |      |      |                |            |            |              |                 |     |                    | EF-7           | EF-7      | P                 | NO          |
|             |     |      |      |                |            |            |              |                 |     |                    | ET-005         | ET-005    | P                 | NO          |
|             |     |      |      |                |            |            |              |                 |     |                    | SLT-1          | SLT-2     | R                 | YES, NOTE 1 |
| 2-NCR-946-2 | 0   | DA   | 3    | A              | J/3        | 0          | C            | 2               | A   | A                  | EF-1           | EF-1      | P                 | NO          |
|             |     |      |      |                |            |            |              |                 |     |                    | EF-5           | EF-5      | -                 | NO          |
|             |     |      |      |                |            |            |              |                 |     |                    | EF-7           | EF-7      | P                 | NO          |
|             |     |      |      |                |            |            |              |                 |     |                    | ET-004         | ET-004    | P                 | NO          |
|             |     |      |      |                |            |            |              |                 |     |                    | SLT-1          | SLT-2     | R                 | YES, NOTE 1 |
| 2-NCR-947-3 | 0   | DA   | 3    | A              | J/3        | 0          | C            | 2               | A   | A                  | EF-1           | EF-1      | P                 | NO          |
|             |     |      |      |                |            |            |              |                 |     |                    | EF-5           | EF-5      | -                 | NO          |
|             |     |      |      |                |            |            |              |                 |     |                    | EF-7           | EF-7      | P                 | NO          |
|             |     |      |      |                |            |            |              |                 |     |                    | ET-005         | ET-005    | P                 | NO          |
|             |     |      |      |                |            |            |              |                 |     |                    | SLT-1          | SLT-2     | R                 | YES, NOTE 1 |
| 2-NCR-948-4 | 0   | DA   | 3    | A              | J/3        | 0          | C            | 2               | A   | A                  | EF-1           | EF-1      | P                 | NO          |
|             |     |      |      |                |            |            |              |                 |     |                    | EF-5           | EF-5      | -                 | NO          |
|             |     |      |      |                |            |            |              |                 |     |                    | EF-7           | EF-7      | P                 | NO          |
|             |     |      |      |                |            |            |              |                 |     |                    | ET-005         | ET-005    | P                 | NO          |
|             |     |      |      |                |            |            |              |                 |     |                    | SLT-1          | SLT-2     | R                 | YES, NOTE 1 |

DONALD C. COOK NUCLEAR PLANT  
 SECOND TEN YEAR INTERVAL  
 VALVE SUMMARY SHEET - UNIT 2  
 FLCH DIAGRAM: 2-5114A-25

RUN DATE AND TIME: 18DEC85:09:14

SYSTEM NAME: NON-ESSENTIAL SERVICE WATER

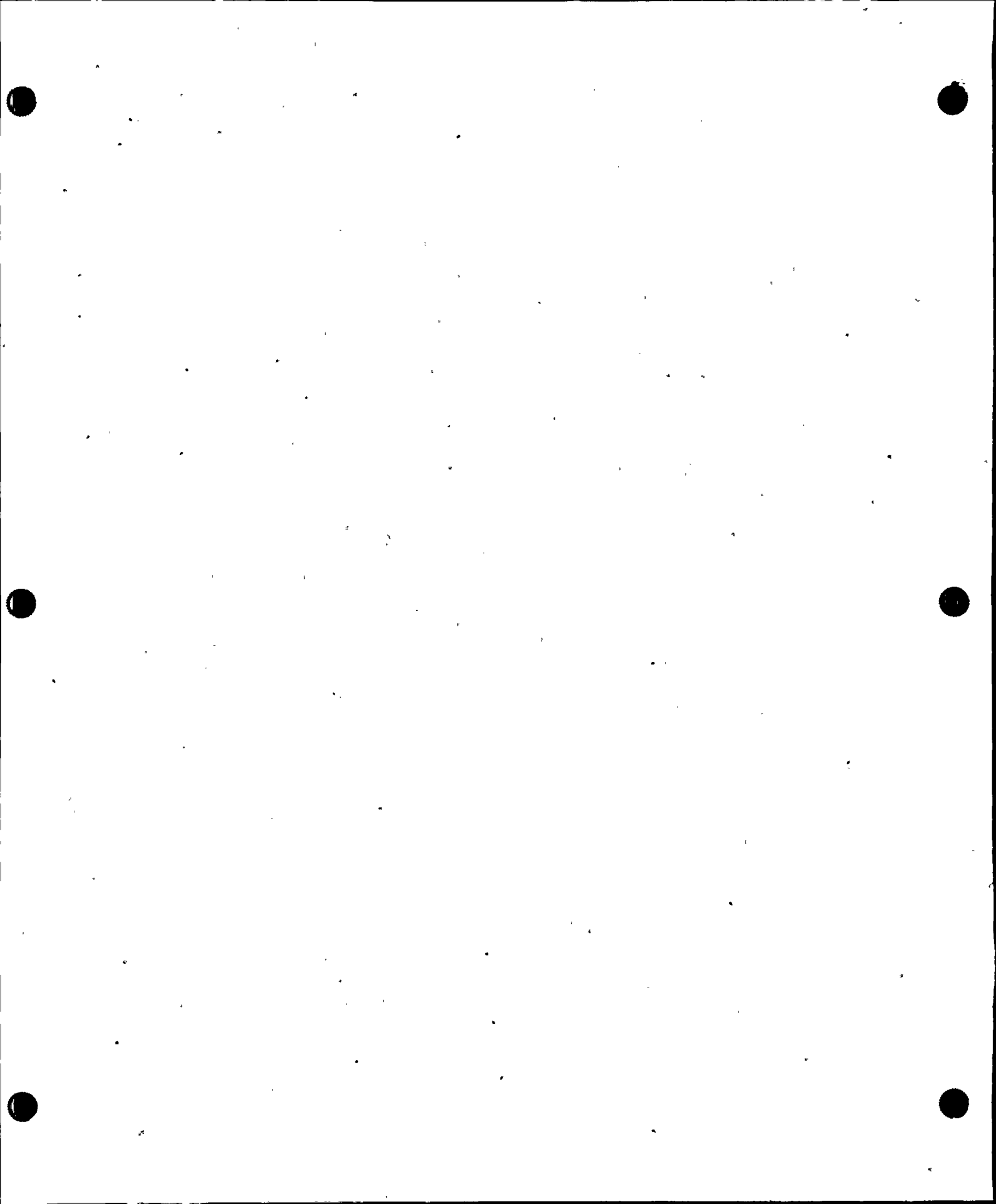
| VALVE       |     |      |      | VALVE POSITION |            |            |              | ASME SECTION XI |     |     |                    |                |           |                   |
|-------------|-----|------|------|----------------|------------|------------|--------------|-----------------|-----|-----|--------------------|----------------|-----------|-------------------|
| NUMBER      | REV | TYPE | SIZE | ACT TYPE       | F.D. COORD | POWER OPER | SAFETY FUNCT | CD ICL          | A/P | CAT | PRIM TEST REQUIRED | TEST PERFORMED | TEST MODE | RELIEF REQUEST(S) |
| 2-KCR-951   | 0   | DA   | 3    | A              | K/6        | 0          | C            | 2               | A   | A   | EF-1               | EF-1           | P         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | EF-7               | EF-7           | P         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | ET-005             | ET-005         | P         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | SLT-1              | SLT-2          | R         | YES, NOTE 1       |
| 2-KCR-952-2 | 0   | DA   | 3    | A              | K/6        | 0          | C            | 2               | A   | A   | EF-1               | EF-1           | P         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | EF-7               | EF-7           | P         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | ET-004             | ET-004         | P         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | SLT-1              | SLT-2          | R         | YES, NOTE 1       |
| 2-KCR-953-3 | 0   | DA   | 3    | A              | K/6        | 0          | C            | 2               | A   | A   | EF-1               | EF-1           | P         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | EF-7               | EF-7           | P         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | ET-005             | ET-005         | P         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | SLT-1              | SLT-2          | R         | YES, NOTE 1       |
| 2-KCR-954-4 | 0   | DA   | 3    | A              | K/6        | 0          | C            | 2               | A   | A   | EF-1               | EF-1           | P         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | EF-7               | EF-7           | P         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | ET-005             | ET-005         | P         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | SLT-1              | SLT-2          | R         | YES, NOTE 1       |
| 2-KCR-955   | 0   | DA   | 3    | A              | J/3        | 0          | C            | 2               | A   | A   | EF-1               | EF-1           | P         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | EF-7               | EF-7           | P         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | ET-005             | ET-005         | P         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | SLT-1              | SLT-2          | R         | YES, NOTE 1       |

DONALD C. COOK NUCLEAR PLANT  
 SECOND TEN YEAR INTERVAL  
 VALVE SUMMARY SHEET - UNIT 2  
 FLOW DIAGRAM: 2-5114A-25

RUN DATE AND TIME: 18DEC85:09:14

SYSTEM NAME: NON-ESSENTIAL SERVICE WATER

| VALVE       |     |      |      | VALVE POSITION |            |            |              | ASME_SECTION_XI |     |     |                    |                |           |                   |
|-------------|-----|------|------|----------------|------------|------------|--------------|-----------------|-----|-----|--------------------|----------------|-----------|-------------------|
| NUMBER      | REV | TYPE | SIZE | ACT TYPE       | F.D. COORD | POWER OPER | SAFETY FUNCT | CD ICL          | A/P | CAT | PRIM TEST REQUIRED | TEST PERFORMED | TEST MODE | RELIEF REQUEST(S) |
| 2-KCR-956-2 | 0   | DA   | 3    | A              | J/3        | 0          | C            | 2               | A   | A   | EF-1               | EF-1           | P         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | EF-7               | EF-7           | P         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | ET-004             | ET-004         | P         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | SLT-1              | SLT-2          | R         | YES, NOTE 1       |
| 2-KCR-957-3 | 0   | DA   | 3    | A              | J/3        | 0          | C            | 2               | A   | A   | EF-1               | EF-1           | P         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | EF-7               | EF-7           | P         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | ET-003             | ET-003         | P         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | SLT-1              | SLT-2          | R         | YES, NOTE 1       |
| 2-KCR-958-4 | 0   | DA   | 3    | A              | J/3        | 0          | C            | 2               | A   | A   | EF-1               | EF-1           | P         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | EF-7               | EF-7           | P         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | ET-005             | ET-005         | P         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | SLT-1              | SLT-2          | R         | YES, NOTE 1       |
| 2-KCR-960   | 0   | DA   | 2    | A              | J/7        | 0          | C            | 2               | A   | A   | EF-1               | EF-1           | P         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | EF-7               | EF-7           | P         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | ET-005             | ET-005         | P         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | SLT-1              | SLT-2          | R         | YES, NOTE 1       |
| 2-KCR-961   | 0   | DA   | 2    | A              | J/7        | 0          | C            | 2               | A   | A   | EF-1               | EF-1           | P         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | EF-7               | EF-7           | P         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | ET-005             | ET-005         | P         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | SLT-1              | SLT-2          | R         | YES, NOTE 1       |

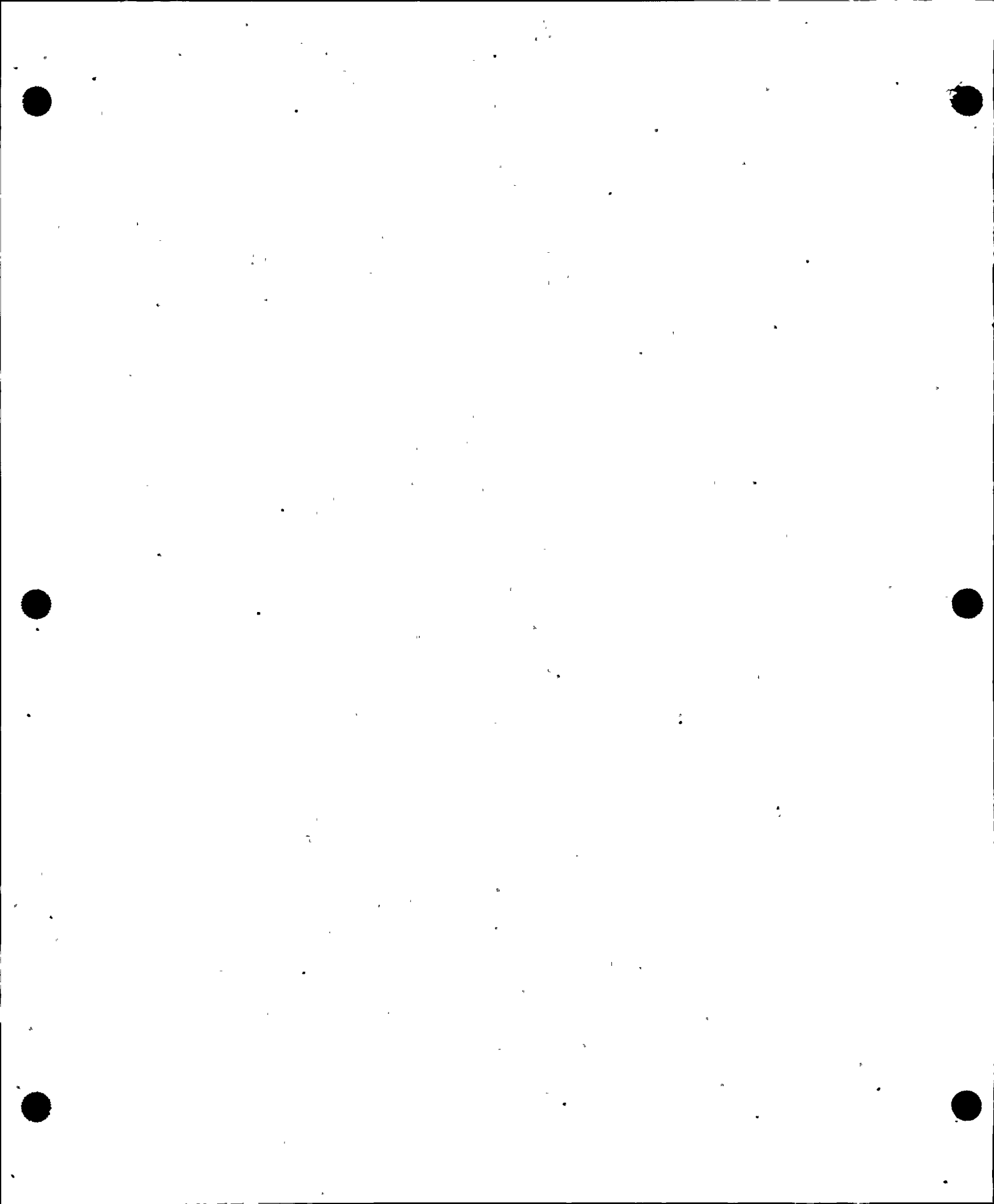


DONALD C. COOK NUCLEAR PLANT  
 SECOND TEN YEAR INTERVAL  
 VALVE SUMMARY SHEET - UNIT 2  
 FLOW DIAGRAM: 2-5114A-25

RUN DATE AND TIME: 18DEC85:09:14

SYSTEM NAME: NON-ESSENTIAL SERVICE WATER

| VALVE       |     |      |      | VALVE POSITION |            |            |              | ASME SECTION XI |     |     |                    |                |           |                   |
|-------------|-----|------|------|----------------|------------|------------|--------------|-----------------|-----|-----|--------------------|----------------|-----------|-------------------|
| NUMBER      | REV | TYPE | SIZE | ACT TYPE       | F.D. COORD | POWER OPER | SAFETY FUNCT | ICD ICL         | A/P | CAT | PRIM TEST REQUIRED | TEST PERFORMED | TEST MODE | RELIEF REQUEST(S) |
| 2-KCR-962   | 0   | DA   | 2    | A              | J/3        | 0          | C            | 2               | A   | A   | EF-1               | EF-1           | P         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | EF-7               | EF-7           | P         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | ET-004             | ET-004         | P         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | SLT-1              | SLT-2          | R         | YES, NOTE 1       |
| 2-KCR-963   | 0   | DA   | 2    | A              | J/3        | 0          | C            | 2               | A   | A   | EF-1               | EF-1           | P         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | EF-7               | EF-7           | P         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | ET-004             | ET-004         | P         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | SLT-1              | SLT-2          | R         | YES, NOTE 1       |
| 2-KCR-964-3 | 0   | DA   | 2    | A              | J/7        | 0          | C            | 2               | A   | A   | EF-1               | EF-1           | P         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | EF-7               | EF-7           | P         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | ET-005             | ET-005         | P         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | SLT-1              | SLT-2          | R         | YES, NOTE 1       |
| 2-KCR-965-3 | 0   | DA   | 2    | A              | J/7        | 0          | C            | 2               | A   | A   | EF-1               | EF-1           | P         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | EF-7               | EF-7           | P         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | ET-005             | ET-005         | P         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | SLT-1              | SLT-2          | R         | YES, NOTE 1       |
| 2-KCR-966-3 | 0   | DA   | 2    | A              | J/3        | 0          | C            | 2               | A   | A   | EF-1               | EF-1           | P         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | EF-7               | EF-7           | P         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | ET-005             | ET-005         | P         | NO                |
|             |     |      |      |                |            |            |              |                 |     |     | SLT-1              | SLT-2          | R         | YES, NOTE 1       |

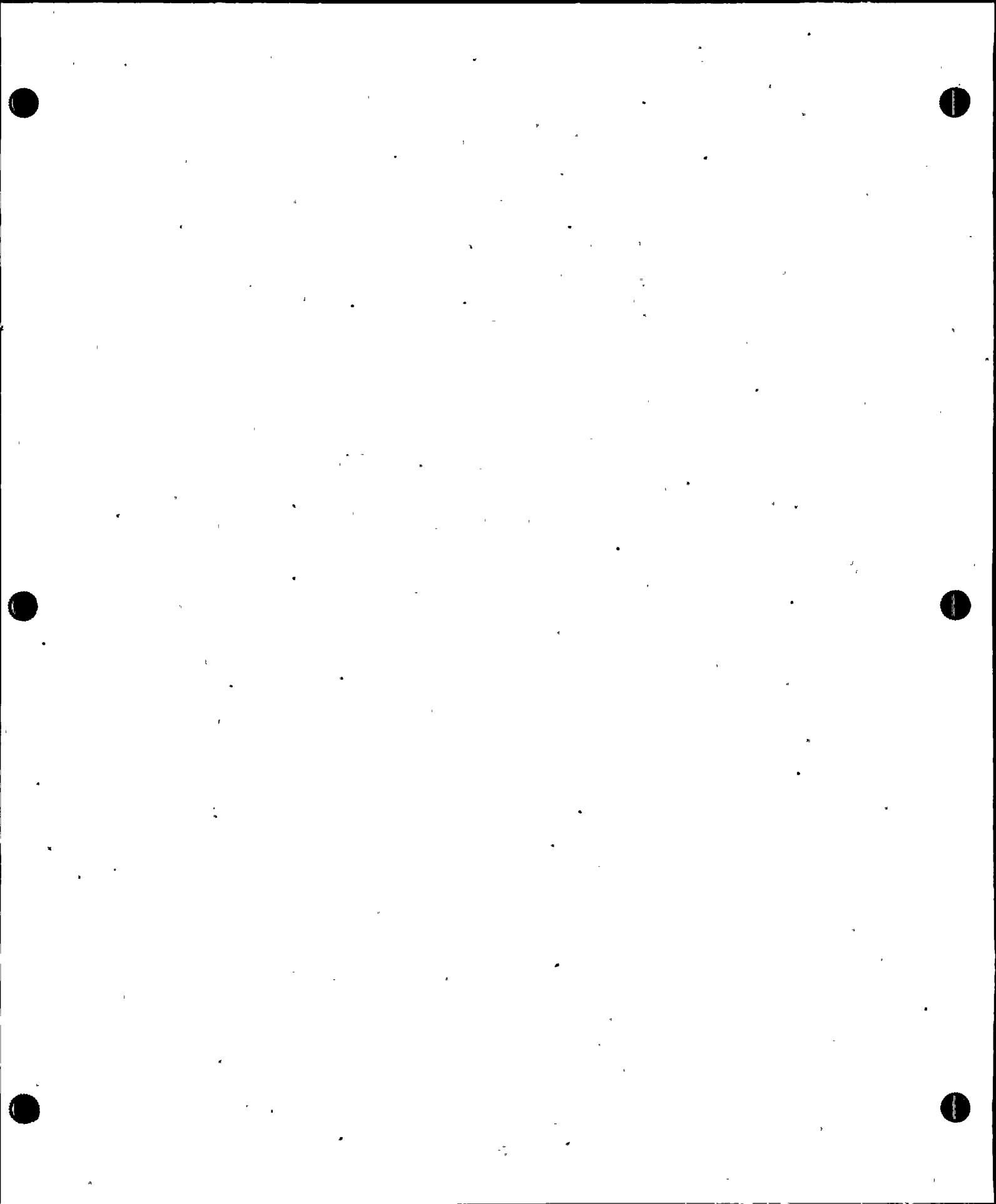


DONALD C. COOK-NUCLEAR PLANT  
 SECOND TEN YEAR INTERVAL  
 VALVE SUMMARY SHEET - UNIT 2  
 FLOW DIAGRAM: 2-5114A-25

RUN DATE AND TIME: 18DEC85:09:14

SYSTEM NAME: NON-ESSENTIAL SERVICE WATER

| VALVE       |     |      |      | VALVE POSITION |            |            |              | ASME SECTION XI |     |     |   | RELIEF REQUEST(S)                       |                       |                                     |
|-------------|-----|------|------|----------------|------------|------------|--------------|-----------------|-----|-----|---|---|-----------------------|-------------------------------------|
| NUMBER      | REV | TYPE | SIZE | ACT TYPE       | F.D. COORD | POWER OPER | SAFETY FUNCT | CD ICL          | A/P | CAT | PRIM TEST REQUIRED                      | TEST PERFORMED                          | TEST MODE             | RELIEF REQUEST(S)                   |
| 2-NCR-967-3 | 0   | DA   | 2    | A              | J/3        | 0          | C            | 2               | A   | A   | EF-1<br>EF-5<br>EF-7<br>ET-005<br>SLT-1 | EF-1<br>EF-5<br>EF-7<br>ET-005<br>SLT-2 | P<br>-<br>P<br>P<br>R | NO<br>NO<br>NO<br>NO<br>YES, NOTE 1 |



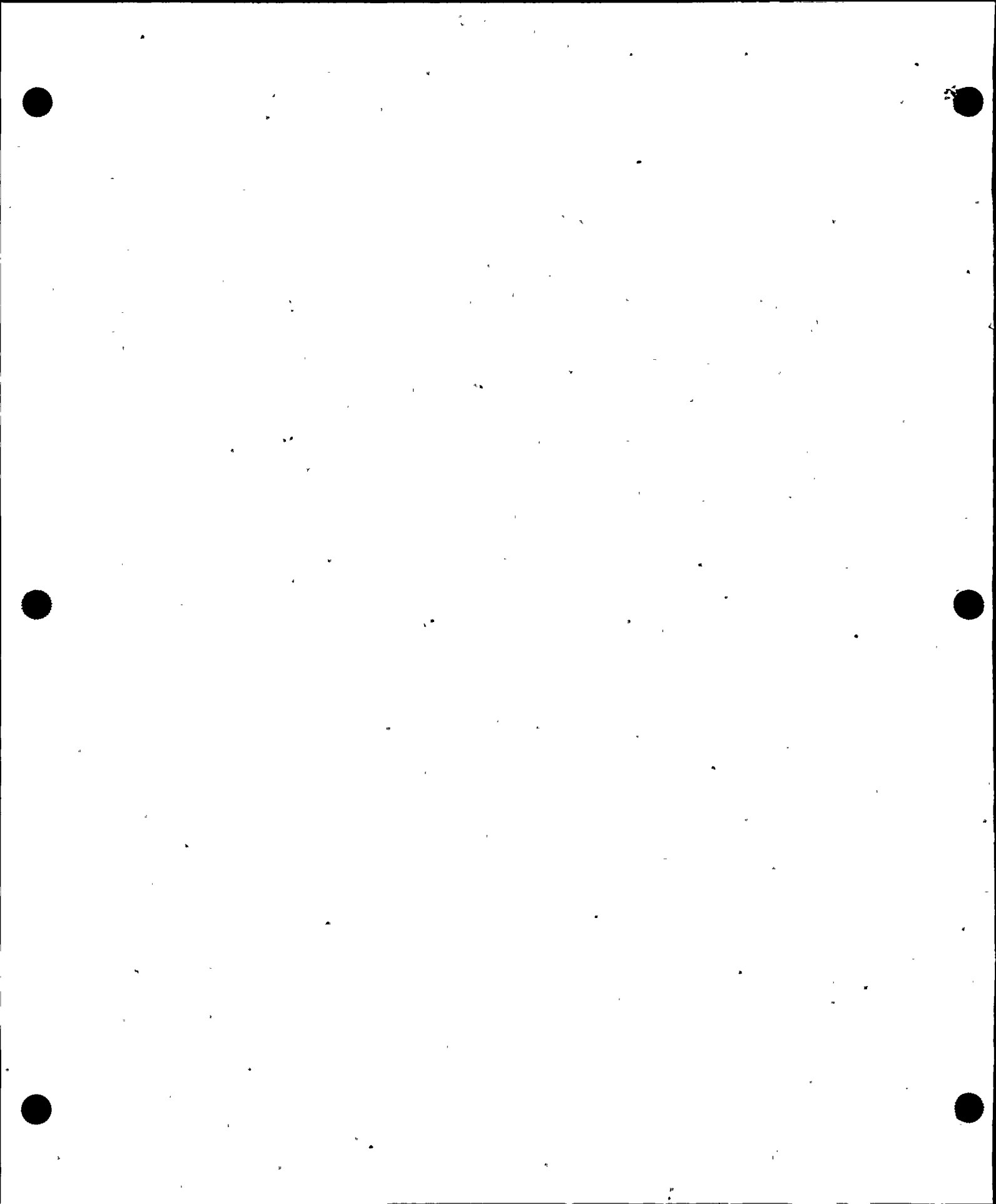


DONALD C. COOK NUCLEAR PLANT  
 SECOND TEN YEAR INTERVAL  
 VALVE SUMMARY SHEET - UNIT 2  
 FLOW DIAGRAM: 2-5124-19

RUN DATE AND TIME: 18DEC85:09:14

SYSTEM NAME: STATION DRAINAGE - CONTAINMENT

| VALVE     |     |      |      | VALVE POSITION |            |            |              | ASME SECTION XI |     |     |                    |                |           |                   |
|-----------|-----|------|------|----------------|------------|------------|--------------|-----------------|-----|-----|--------------------|----------------|-----------|-------------------|
| NUMBER    | REV | TYPE | SIZE | ACT TYPE       | F.D. COORD | POWER OPER | SAFETY FUNCT | CD ICL          | A/P | CAT | PRIM TEST REQUIRED | TEST PERFORMED | TEST MODE | RELIEF REQUEST(S) |
| 2-DCR-600 | 0   | DA   | 3    | A              | N/6        | O          | C            | 2               | A   | A   | EF-1               | EF-1           | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | EF-7               | EF-7           | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | ET-004             | ET-004         | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | SLT-1              | SLT-2          | R         | YES, NOTE 1       |
| 2-DCR-601 | 0   | DA   | 3    | A              | N/6        | O          | C            | 2               | A   | A   | EF-1               | EF-1           | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | EF-7               | EF-7           | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | ET-004             | ET-004         | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | SLT-1              | SLT-2          | R         | YES, NOTE 1       |
| 2-NS-357  | 0   | CK   | 0.5  | SA             | K/9        | C          | O/C          | 2               | A   | AC  | CF-1               | CF-1           | P         | NO, NOTE 2        |
|           |     |      |      |                |            |            |              |                 |     |     | SLT-1              | SLT-2          | R         | YES, NOTE 1       |

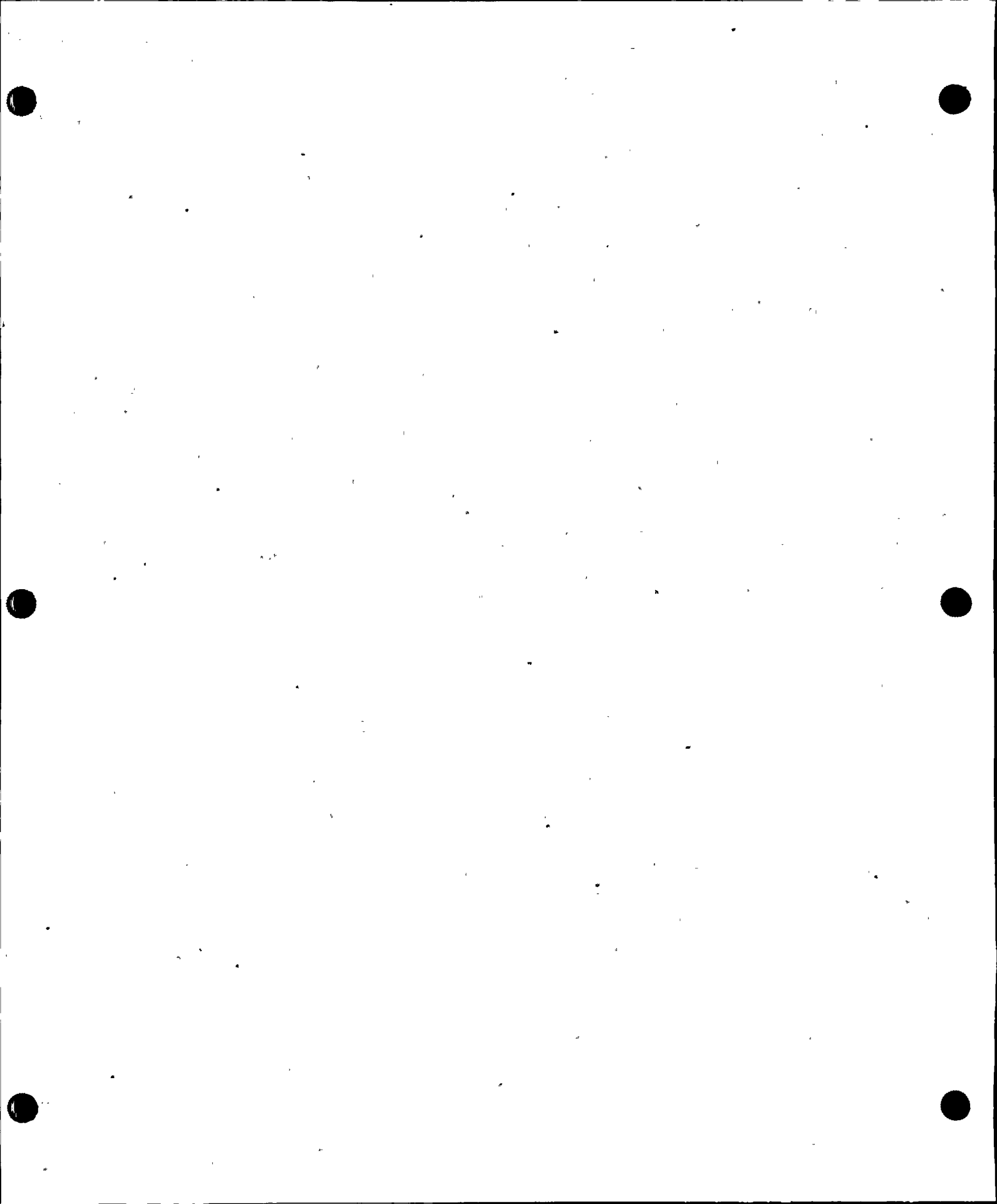


DONALD C. COOK NUCLEAR PLANT  
 SECOND TEN YEAR INTERVAL  
 VALVE SUMMARY SHEET - UNIT 2  
 FLOW DIAGRAM: 2-5128-18

RUN DATE AND TIME: 18DEC85:09:14

SYSTEM NAME: REACTOR COOLANT

| VALVE     |     |      |      | VALVE POSITION |            |            |              | ASME SECTION XI |     |     |                    |                |           |                   |
|-----------|-----|------|------|----------------|------------|------------|--------------|-----------------|-----|-----|--------------------|----------------|-----------|-------------------|
| NUMBER    | REV | TYPE | SIZE | ACT TYPE       | F.D. COORD | POWER OPER | SAFETY FUNCT | CD ICL          | A/P | CAT | PRIM TEST REQUIRED | TEST PERFORMED | TEST MODE | RELIEF REQUEST(S) |
| 2-NSO-021 | 0   | GL   | 1    | SO             | J/6        | C          | O/C          | 2               | A   | B   | EF-1               | EF-2           | R         | YES, NOTE 1       |
|           |     |      |      |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO, NOTE 2        |
|           |     |      |      |                |            |            |              |                 |     |     | EF-7               | EF-8           | R         | YES, NOTE 1       |
|           |     |      |      |                |            |            |              |                 |     |     | ETF-002            | ETF-002        | R         | NO                |
| 2-NSO-022 | 0   | GL   | 1    | SO             | J/6        | C          | O/C          | 2               | A   | B   | EF-1               | EF-2           | R         | YES, NOTE 1       |
|           |     |      |      |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO, NOTE 2        |
|           |     |      |      |                |            |            |              |                 |     |     | EF-7               | EF-8           | R         | YES, NOTE 1       |
|           |     |      |      |                |            |            |              |                 |     |     | ETF-002            | ETF-002        | R         | NO                |
| 2-NSO-023 | 0   | GL   | 1    | SO             | J/6        | C          | O/C          | 2               | A   | B   | EF-1               | EF-2           | R         | YES, NOTE 1       |
|           |     |      |      |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO, NOTE 2        |
|           |     |      |      |                |            |            |              |                 |     |     | EF-7               | EF-8           | R         | YES, NOTE 1       |
|           |     |      |      |                |            |            |              |                 |     |     | ETF-002            | ETF-002        | R         | NO                |
| 2-NSO-024 | 0   | GL   | 1    | SO             | J/6        | C          | O/C          | 2               | A   | B   | EF-1               | EF-2           | R         | YES, NOTE 1       |
|           |     |      |      |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO, NOTE 2        |
|           |     |      |      |                |            |            |              |                 |     |     | EF-7               | EF-8           | R         | YES, NOTE 1       |
|           |     |      |      |                |            |            |              |                 |     |     | ETF-002            | ETF-002        | R         | NO                |



DONALD C. COOK NUCLEAR PLANT  
 SECOND TEN YEAR INTERVAL  
 VALVE SUMMARY SHEET - UNIT 2  
 FLOW DIAGRAM: 2-5123A-32

RUN DATE AND TIME: 18DEC85:09:14

SYSTEM NAME: REACTOR COOLANT

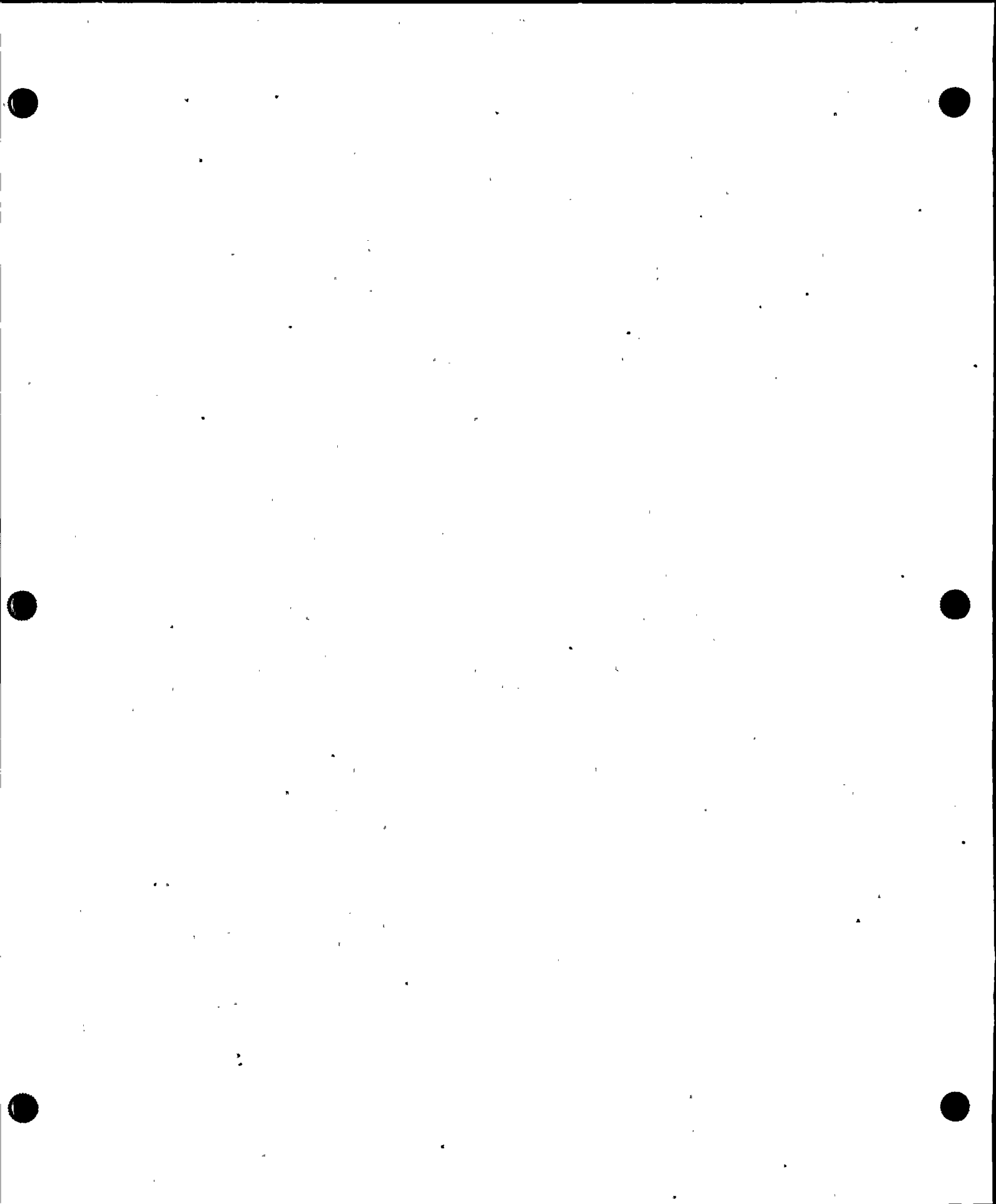
| VALVE      |     |      |      | VALVE POSITION |            |            |              | ASME_SECTION_XI |     |     |  |  |                       |                                     |
|------------|-----|------|------|----------------|------------|------------|--------------|-----------------|-----|-----|--|--|-----------------------|-------------------------------------|
| NUMBER     | REV | TYPE | SIZE | ACT TYPE       | F.D. COORD | POWER OPER | SAFETY FUNCT | CD ICL          | A/P | CAT | PRIM TEST REQUIRED                       | TEST PERFORMED                           | TEST MODE             | RELIEF REQUEST(S)                   |
| 2-CS-442-1 | 0   | CK   | 2    | SA             | B/4        | 0          | C            | 2               | A   | AC  | CF-1<br>SLT-1                            | CF-2<br>SLT-2                            | R<br>R                | YES, NOTE 1<br>YES, NOTE 2          |
| 2-CS-442-2 | 0   | CK   | 2    | SA             | B/4        | 0          | C            | 2               | A   | AC  | CF-1<br>SLT-1                            | CF-2<br>SLT-2                            | R<br>R                | YES, NOTE 1<br>YES, NOTE 2          |
| 2-CS-442-3 | 0   | CK   | 2    | SA             | B/4        | 0          | C            | 2               | A   | AC  | CF-1<br>SLT-1                            | CF-2<br>SLT-2                            | R<br>R                | YES, NOTE 1<br>YES, NOTE 2          |
| 2-CS-442-4 | 0   | CK   | 2    | SA             | B/4        | 0          | C            | 2               | A   | AC  | CF-1<br>SLT-1                            | CF-2<br>SLT-2                            | R<br>R                | YES, NOTE 1<br>YES, NOTE 2          |
| 2-GCR-301  | 0   | DA   | 0.75 | A              | B/8        | 0          | C            | 2               | A   | A   | EF-1<br>EF-5<br>EF-7<br>ETF-002<br>SLT-1 | EF-1<br>EF-5<br>EF-7<br>ETF-002<br>SLT-2 | P<br>-<br>P<br>P<br>R | NO<br>NO<br>NO<br>NO<br>YES, NOTE 2 |
| 2-N-159    | 0   | CK   | 0.75 | SA             | C/8        | C          | C            | 2               | P   | AC  | SLT-1                                    | SLT-2                                    | R                     | YES, NOTE 2                         |
| 2-NCR-252  | 0   | GL   | 3    | A              | B/9        | C          | C            | 2               | P   | A   | EF-1<br>EF-5<br>EF-7<br>ET-004<br>SLT-1  | EF-1<br>EF-5<br>EF-7<br>ET-004<br>SLT-2  | P<br>-<br>P<br>P<br>R | NO<br>NO<br>NO<br>NO<br>YES, NOTE 2 |
| 2-NM0-151  | 0   | GA   | 3    | MO             | K/7        | 0          | C            | 1               | A   | B   | EF-1<br>EF-5<br>ET-015                   | EF-1<br>EF-5<br>ET-015                   | P<br>-<br>P           | NO<br>NO<br>NO                      |

DONALD C. COOK NUCLEAR PLANT  
 SECOND TEN YEAR INTERVAL  
 VALVE SUMMARY SHEET - UNIT 2  
 FLOW DIAGRAM: 2-5128A-32

RUN DATE AND TIME: 18DEC85:09:14

SYSTEM NAME: REACTOR COOLANT

| VALVE     |     |      |      | VALVE POSITION |            |            |              | ASME_SECTION_XI |     |                                 |                                 |                  |  |
|-----------|-----|------|------|----------------|------------|------------|--------------|-----------------|-----|---------------------------------|---------------------------------|------------------|--|
| NUMBER    | REV | TYPE | SIZE | ACT TYPE       | F.D. COORD | POWER OPER | SAFETY FUNCT | CD A/P CL       | CAT | PRIM TEST REQUIRED              | TEST PERFORMED                  | TEST MODE        | RELIEF REQUEST(S)                              |
| 2-NM0-152 | 0   | GA   | 3    | MO             | K/7        | 0          | C            | 1               | A B | EF-1<br>EF-5<br>ET-014          | EF-1<br>EF-5<br>ET-014          | P<br>-<br>P      | NO<br>NO<br>NO                                 |
| 2-NM0-153 | 0   | GA   | 3    | MO             | K/6        | 0          | C            | 1               | A B | EF-1<br>EF-5<br>ET-014          | EF-1<br>EF-5<br>ET-014          | P<br>-<br>P      | NO<br>NO<br>NO                                 |
| 2-NPX-151 | 0   | GL   | 0.5  | M              | N/8        | C          | C            | 2               | P A | SLT-1                           | SLT-2                           | R                | YES, NOTE 2                                    |
| 2-NRV-151 | 0   | GL   | 3    | A              | K/7        | C          | C/O          | 1               | A B | EF-1<br>EF-5<br>EF-7<br>ET-008  | EF-4<br>EF-5<br>EF-8<br>ET-008  | -<br>-<br>-<br>- | NO, NOTE 3<br>NO<br>NO, NOTE 3<br>NO           |
| 2-NRV-152 | 0   | GL   | 3    | A              | K/7        | C          | C/O          | 1               | A B | EF-1<br>EF-5<br>EF-7<br>ET-008  | EF-4<br>EF-5<br>EF-8<br>ET-008  | -<br>-<br>-<br>- | NO, NOTE 3<br>NO<br>NO, NOTE 3<br>NO           |
| 2-NRV-153 | 0   | GL   | 3    | A              | K/6        | C          | C/O          | 1               | A B | EF-1<br>EF-5<br>EF-7<br>ET-008  | EF-4<br>EF-5<br>EF-8<br>ET-008  | -<br>-<br>-<br>- | NO, NOTE 3<br>NO<br>NO, NOTE 3<br>NO           |
| 2-NS0-061 | 0   | GL   | 1    | SO             | M/6        | C          | O/C          | 2               | A B | EF-1<br>EF-5<br>EF-7<br>ETF-002 | EF-2<br>EF-5<br>EF-8<br>ETF-002 | R<br>-<br>R<br>R | YES, NOTE 4<br>NO, NOTE 4<br>YES, NOTE 4<br>NO |



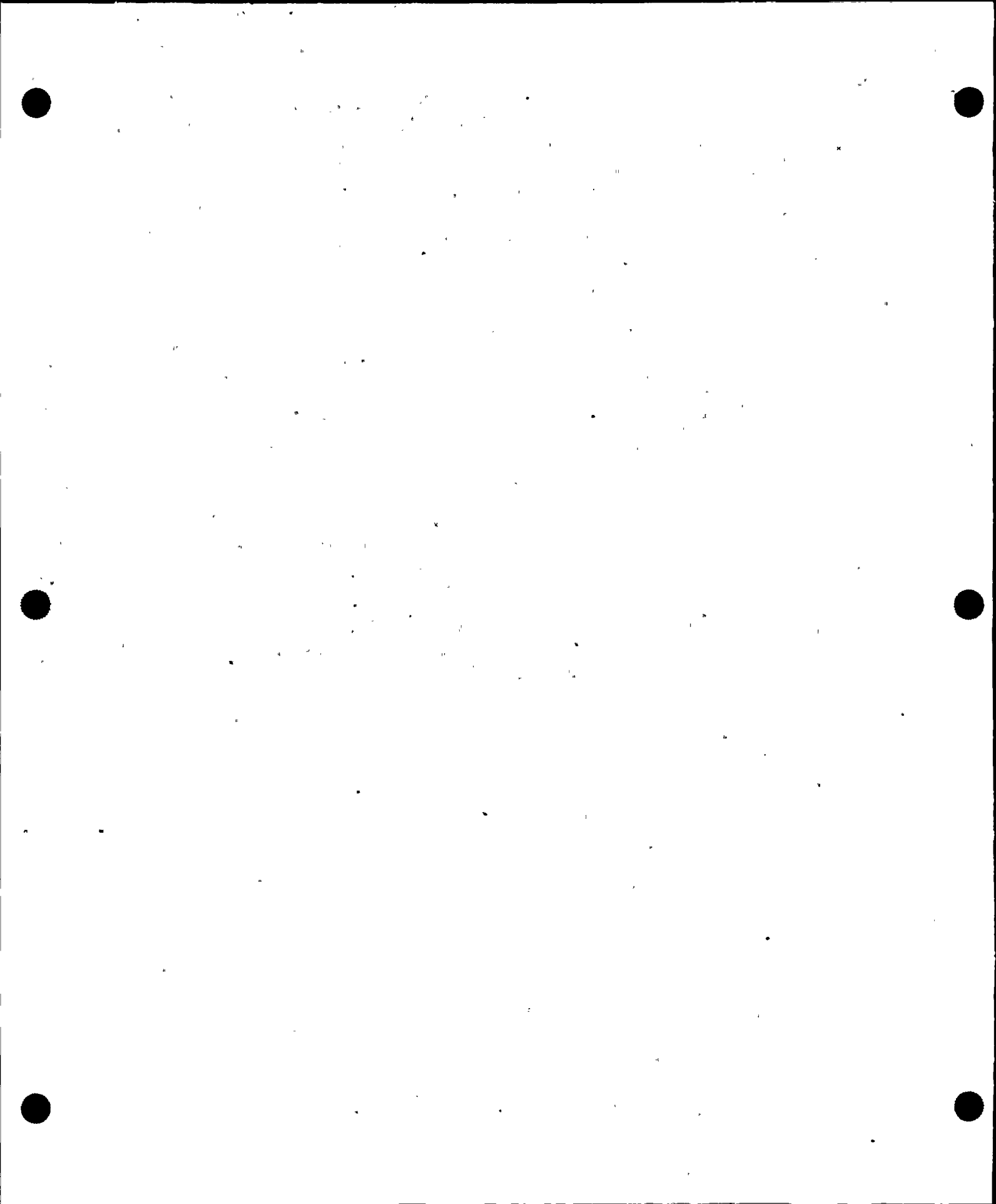
DONALD C. COOK NUCLEAR PLANT  
 SECOND TEN YEAR INTERVAL  
 VALVE SUMMARY SHEET - UNIT 2  
 FLOW DIAGRAM: 2-5128A-32

RUN DATE AND TIME: 18DEC85:09:14

SYSTEM NAME: REACTOR COOLANT

| VALVE     |     |      |       | VALVE POSITION |            |            |              | ASME SECTION XI |     |     |                    |                |           |                   |
|-----------|-----|------|-------|----------------|------------|------------|--------------|-----------------|-----|-----|--------------------|----------------|-----------|-------------------|
| NUMBER    | REV | TYPE | SIZE  | ACT TYPE       | F.D. COORD | POWER OPER | SAFETY FUNCT | CD ICL          | A/P | CAT | PRIM TEST REQUIRED | TEST PERFORMED | TEST MODE | RELIEF REQUEST(S) |
| 2-NSO-062 | 0   | GL   | 1     | SO             | M/6        | C          | O/C          | 2               | A   | B   | EF-1               | EF-2           | R         | YES, NOTE 4       |
|           |     |      |       |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO, NOTE 4        |
|           |     |      |       |                |            |            |              |                 |     |     | EF-7               | EF-8           | R         | YES, NOTE 4       |
|           |     |      |       |                |            |            |              |                 |     |     | ETF-002            | ETF-002        | R         | NO                |
| 2-NSO-063 | 0   | GL   | 1     | SO             | M/6        | C          | O/C          | 2               | A   | B   | EF-1               | EF-2           | R         | YES, NOTE 4       |
|           |     |      |       |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO, NOTE 4        |
|           |     |      |       |                |            |            |              |                 |     |     | EF-7               | EF-8           | R         | YES, NOTE 4       |
|           |     |      |       |                |            |            |              |                 |     |     | ETF-002            | ETF-002        | R         | NO                |
| 2-NSO-064 | 0   | GL   | 1     | SO             | M/6        | C          | O/C          | 2               | A   | B   | EF-1               | EF-2           | R         | YES, NOTE 4       |
|           |     |      |       |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO, NOTE 4        |
|           |     |      |       |                |            |            |              |                 |     |     | EF-7               | EF-8           | R         | YES, NOTE 4       |
|           |     |      |       |                |            |            |              |                 |     |     | ETF-002            | ETF-002        | R         | NO                |
| 2-PN-275  | 0   | CK   | 3     | SA             | B/9        | C          | C            | 2               | P   | AC  | SLT-1              | SLT-2          | R         | YES, NOTE 2       |
| 2-RCR-100 | 0   | GL   | 0.375 | A              | B/7        | D          | C            | 2               | A   | A   | EF-1               | EF-1           | P         | NO                |
|           |     |      |       |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO                |
|           |     |      |       |                |            |            |              |                 |     |     | EF-7               | EF-7           | P         | NO                |
|           |     |      |       |                |            |            |              |                 |     |     | ETF-002            | ETF-002        | P         | NO                |
|           |     |      |       |                |            |            |              |                 |     |     | SLT-1              | SLT-2          | R         | YES, NOTE 2       |
| 2-RCR-101 | 0   | GL   | 0.375 | A              | B/7        | D          | C            | 2               | A   | A   | EF-1               | EF-1           | P         | NO                |
|           |     |      |       |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO                |
|           |     |      |       |                |            |            |              |                 |     |     | EF-7               | EF-7           | P         | NO                |
|           |     |      |       |                |            |            |              |                 |     |     | ETF-002            | ETF-002        | P         | NO                |
|           |     |      |       |                |            |            |              |                 |     |     | SLT-1              | SLT-2          | R         | YES, NOTE 2       |



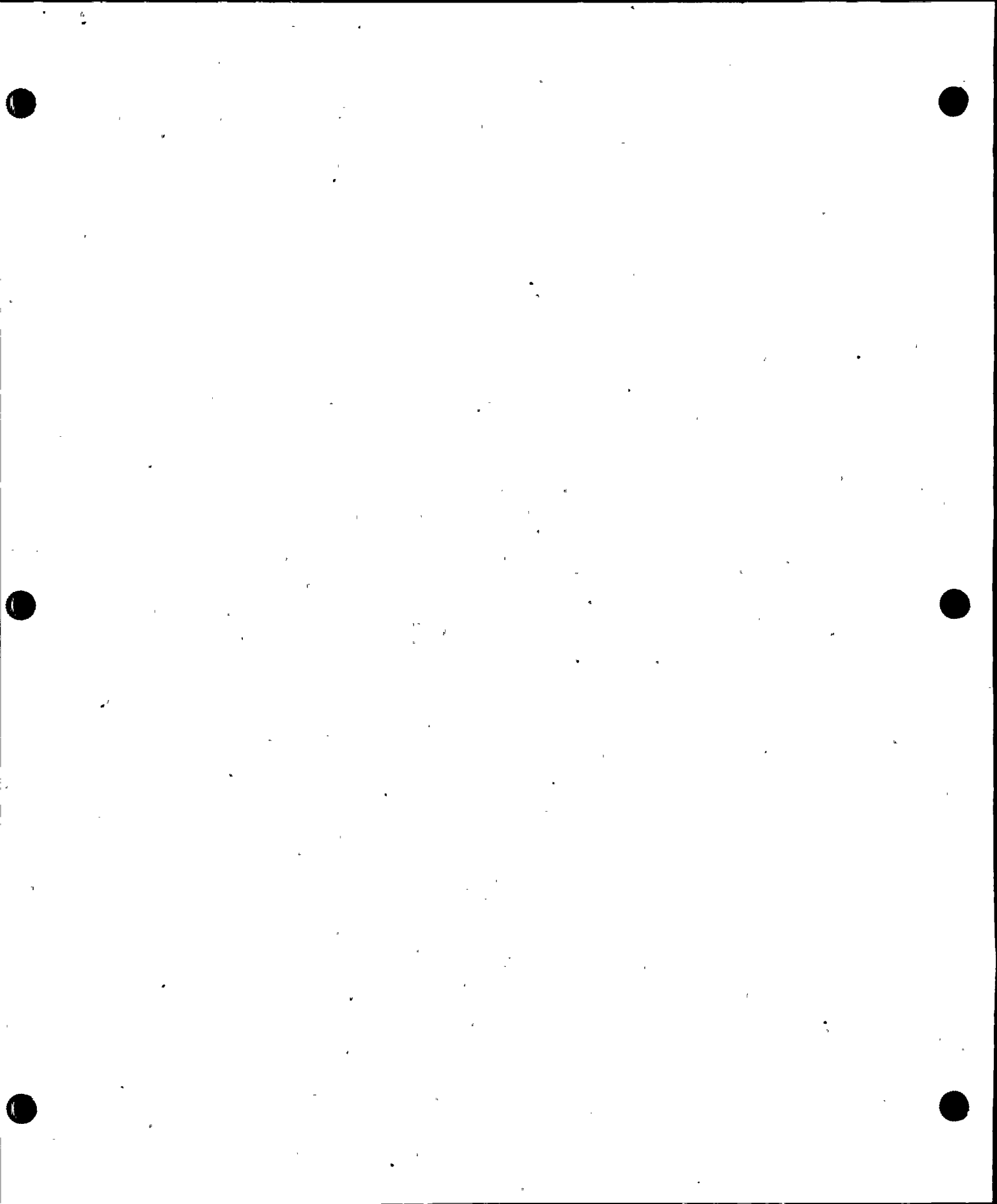


DONALD C. COOK NUCLEAR PLANT  
 SECOND TEN YEAR INTERVAL  
 VALVE SUMMARY SHEET - UNIT 2  
 FLOW DIAGRAM: 2-5128A-32

RUN DATE AND TIME: 18DEC85:09:14

SYSTEM NAME: REACTOR COOLANT

| VALVE    |     |      |      | VALVE POSITION |            |            |              | ASME SECTION XI |      |                    |                |           |                            |
|----------|-----|------|------|----------------|------------|------------|--------------|-----------------|------|--------------------|----------------|-----------|----------------------------|
| NUMBER   | REV | TYPE | SIZE | ACT TYPE       | F.D. COORD | POWER OPER | SAFETY FUNCT | CD A/P CL       | CAT  | PRIM TEST REQUIRED | TEST PERFORMED | TEST MODE | RELIEF REQUEST(S)          |
| 2-SI-189 | 0   | CK   | 4    | SA             | D/7        | C          | O/C          | 2               | A AC | CF-1<br>SLT-1      | CF-2<br>SLT-2  | R<br>R    | YES, NOTE 5<br>YES, NOTE 2 |
| 2-SV-45A | 0   | REL  | 6    | SA             | K/6        | C          | 0            | 1               | A C  | TF-1               | TF-1           | R         | NO                         |
| 2-SV-45B | 0   | REL  | 6    | SA             | J/6        | C          | 0            | 1               | A C  | TF-1               | TF-1           | R         | NO                         |
| 2-SV-45C | 0   | REL  | 6    | SA             | H/6        | C          | 0            | 1               | A C  | TF-1               | TF-1           | R         | NO                         |
| 2-SV-50  | 0   | REL  | 2    | SA             | G/3        | C          | 0            | 3               | A C  | TF-1               | TF-1           | R         | NO                         |

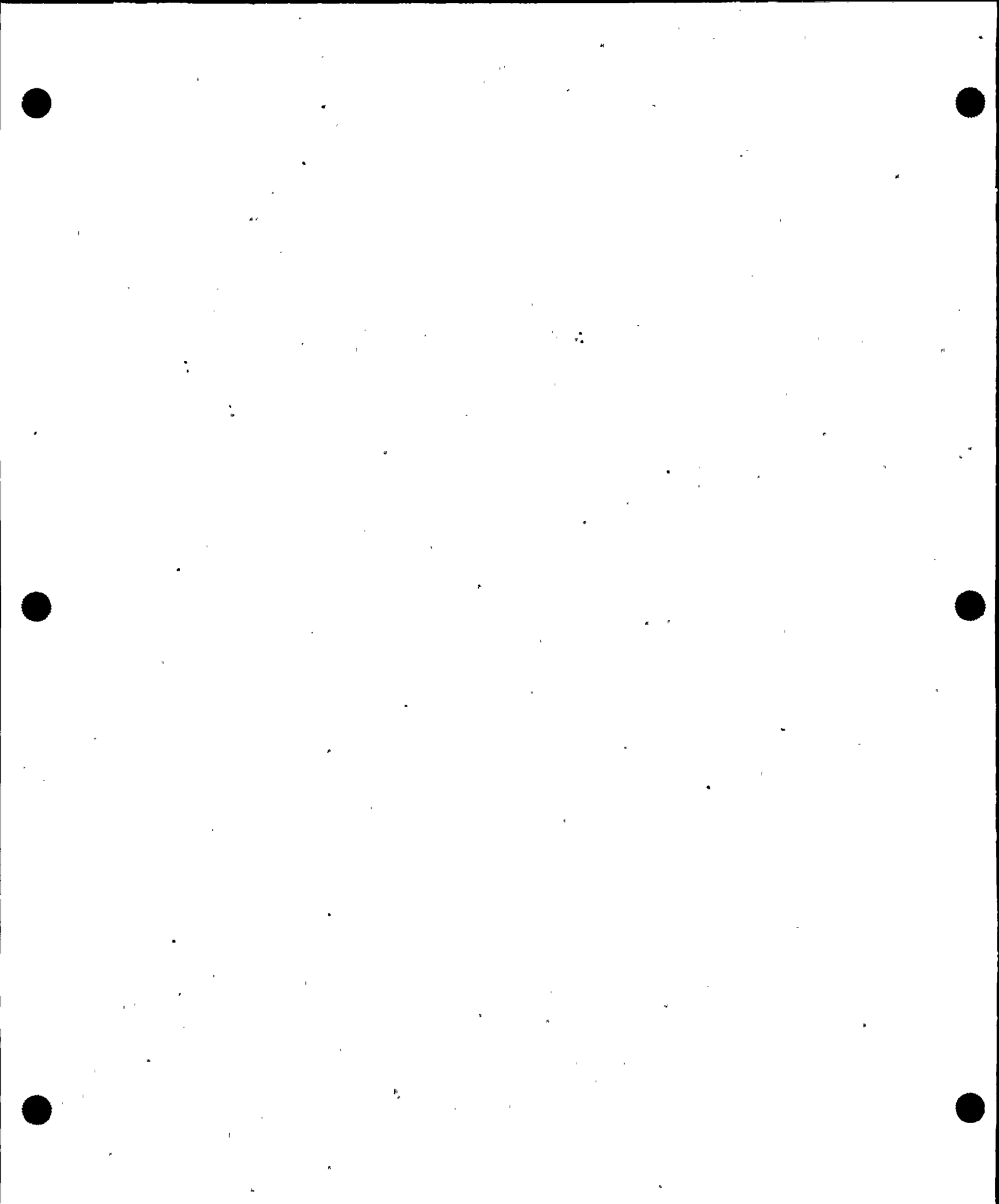


DONALD C. COOK, NUCLEAR PLANT  
 SECOND TEN YEAR INTERVAL  
 VALVE SUMMARY SHEET - UNIT 2  
 FLOW DIAGRAM: 2-5129-28

RUN DATE AND TIME: 18DEC85:09:14

SYSTEM NAME: CVCS - LETDOWN & CHARGING

| VALVE       |     |      |      | VALVE POSITION |            |            |              | ASME SECTION XI |     |                    |                        |                        |                   |                            |
|-------------|-----|------|------|----------------|------------|------------|--------------|-----------------|-----|--------------------|------------------------|------------------------|-------------------|----------------------------|
| NUMBER      | REV | TYPE | SIZE | ACT TYPE       | F.D. COORD | POWER OPER | SAFETY FUNCT | CD A/P CL       | CAT | PRIM TEST REQUIRED | TEST PERFORMED         | TEST MODE              | RELIEF REQUEST(S) |                            |
| 2-CS-292    | 0   | CK   | 2    | SA             | H/6        | C          | O/C          | 2               | A   | C                  | CF-1                   | CF-2                   | C                 | YES, NOTE 1                |
| 2-CS-297-E  | 0   | CK   | 2    | SA             | H/7        | O/C        | O            | 2               | A   | C                  | CF-1                   | CF-1                   | P                 | NO                         |
| 2-CS-297-H  | 0   | CK   | 2    | SA             | F/7        | O/C        | O            | 2               | A   | C                  | CF-1                   | CF-1                   | P                 | NO                         |
| 2-CS-299-E  | 0   | CK   | 4    | SA             | H/7        | O          | O/C          | 2               | A   | AC                 | CF-1<br>SLT-1          | CF-3<br>SLT-1          | P<br>R            | YES, NOTE 2<br>NO, NOTE 3  |
| 2-CS-299-H  | 0   | CK   | 4    | SA             | F/7        | O          | O/C          | 2               | A   | AC                 | CF-1<br>SLT-1          | CF-3<br>SLT-1          | P<br>R            | YES, NOTE 2<br>NO, NOTE 3  |
| 2-CS-321    | 0   | CK   | 3    | SA             | E/3        | O          | C/O          | 2               | A   | AC                 | CF-1<br>SLT-1          | CF-2<br>SLT-2          | -<br>R            | YES, NOTE 4<br>YES, NOTE 3 |
| 2-CS-328-L1 | 0   | CK   | 3    | SA             | B/2        | O/C        | O            | 1               | A   | C                  | CF-1                   | CF-1                   | P                 | NO, NOTE 5                 |
| 2-CS-328-L4 | 0   | CK   | 3    | SA             | B/3        | C/O        | O            | 1               | A   | C                  | CF-1                   | CF-1                   | P                 | NO, NOTE 5                 |
| 2-CS-329-L1 | 0   | CK   | 3    | SA             | B/2        | O/C        | O            | 1               | A   | C                  | CF-1                   | CF-1                   | P                 | NO, NOTE 5                 |
| 2-CS-329-L4 | 0   | CK   | 3    | SA             | B/3        | C/O        | O            | 1               | A   | C                  | CF-1                   | CF-1                   | P                 | NO, NOTE 5                 |
| 2-IMO-360   | 0   | GA   | 4    | MO             | J/6        | C          | O            | 2               | A   | B                  | EF-1<br>EF-5<br>ET-009 | EF-1<br>EF-5<br>ET-009 | P<br>-<br>P       | NO<br>NO<br>NO             |

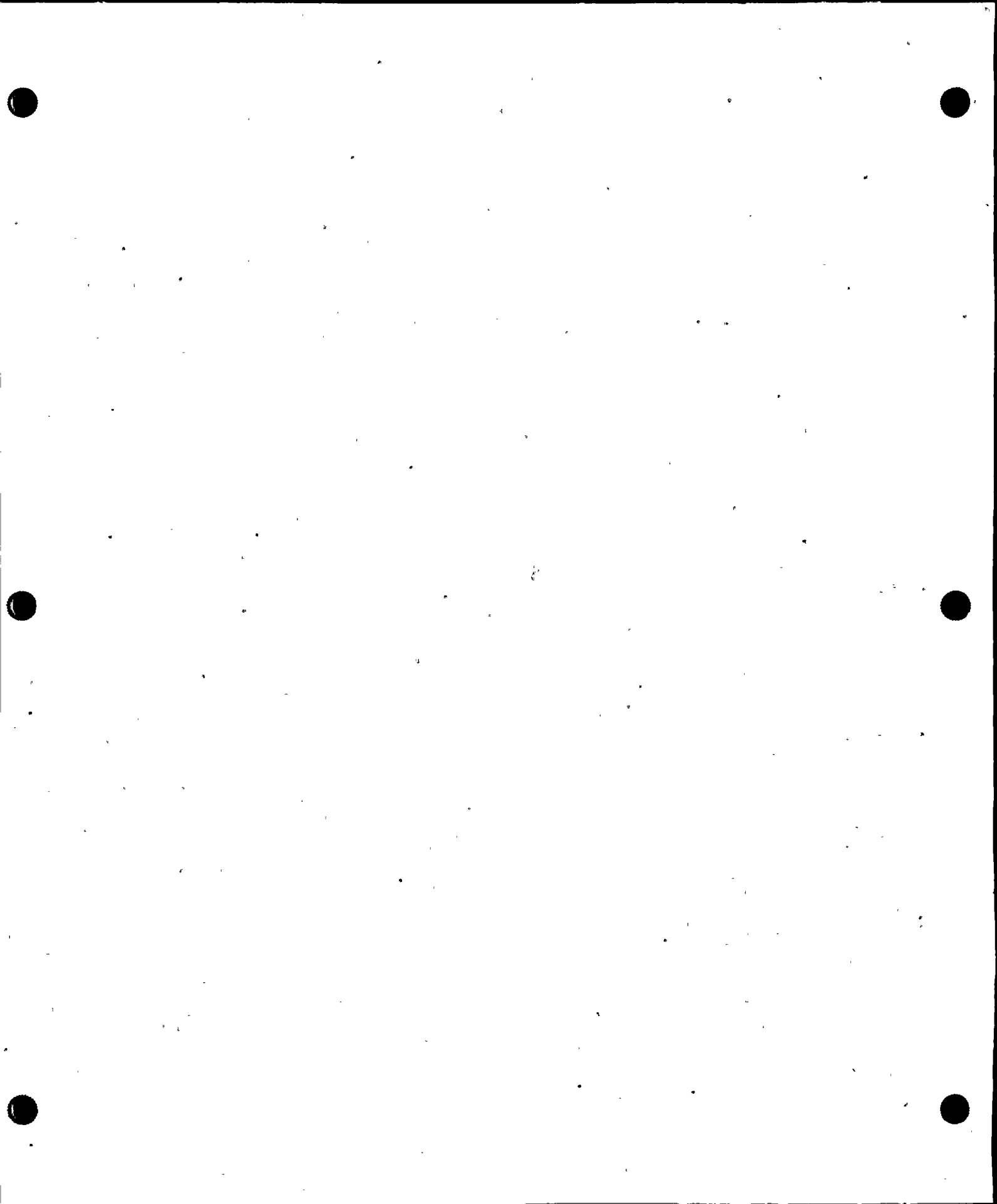


DONALD C. COOK, NUCLEAR PLANT  
 SECOND TEN YEAR INTERVAL  
 VALVE SUMMARY SHEET - UNIT 2  
 FLOW DIAGRAM: 2-5129-28

RUN DATE AND TIME: 18DEC85:09:14

SYSTEM NAME: CVCS - LETDOWN & CHARGING

| VALVE     |     |      |      | VALVE POSITION |            |            |              | ASME_SECTION_XI |     |     |   |   |                       |  |
|-----------|-----|------|------|----------------|------------|------------|--------------|-----------------|-----|-----|---|---|-----------------------|--|
| NUMBER    | REV | TYPE | SIZE | ACT TYPE       | F.D. COORD | POWER OPER | SAFETY FUNCT | CD ICL          | A/P | CAT | PRIM TEST REQUIRED                      | TEST PERFORMED                          | TEST MODE             | RELIEF REQUEST(S)                                    |
| 2-IMO-910 | 0   | GA   | 8    | MO             | L/5        | C          | O            | 2               | A   | B   | EF-1<br>EF-5<br>ET-012                  | EF-1<br>EF-5<br>ET-012                  | P<br>-<br>P           | NO<br>NO<br>NO                                       |
| 2-IMO-911 | 0   | GA   | 8    | MO             | L/6        | C          | O            | 2               | A   | B   | EF-1<br>EF-5<br>ET-012                  | EF-1<br>EF-5<br>ET-012                  | P<br>-<br>P           | NO<br>NO<br>NO                                       |
| 2-QCR-300 | 0   | GL   | 2    | A              | E/1        | O          | C            | 2               | A   | A   | EF-1<br>EF-5<br>EF-7<br>ET-003<br>SLT-1 | EF-2<br>EF-5<br>EF-8<br>ET-003<br>SLT-2 | C<br>-<br>C<br>C<br>R | YES, NOTE 6<br>NO<br>NO, NOTE 6<br>NO<br>YES, NOTE 3 |
| 2-QCR-301 | 0   | GL   | 2    | A              | E/1        | O          | C            | 2               | A   | A   | EF-1<br>EF-5<br>EF-7<br>ET-005<br>SLT-1 | EF-2<br>EF-5<br>EF-8<br>ET-005<br>SLT-2 | C<br>-<br>C<br>C<br>R | YES, NOTE 6<br>NO<br>NO, NOTE 6<br>NO<br>YES, NOTE 3 |
| 2-QMO-200 | 0   | GA   | 3    | MO             | J/3        | O          | O/C          | 2               | A   | B   | EF-1<br>EF-5<br>ET-012                  | EF-2<br>EF-5<br>ET-012                  | C<br>-<br>C           | YES, NOTE 7<br>NO<br>NO                              |
| 2-QMO-201 | 0   | GA   | 3    | MO             | J/3        | O          | O/C          | 2               | A   | B   | EF-1<br>EF-5<br>ET-012                  | EF-2<br>EF-5<br>ET-012                  | C<br>-<br>C           | YES, NOTE 7<br>NO<br>NO                              |
| 2-QMO-225 | 0   | GA   | 2    | MO             | J/7        | O          | O/C          | 2               | A   | B   | EF-1<br>EF-5<br>ET-012                  | EF-1<br>EF-5<br>ET-012                  | P<br>-<br>P           | NO<br>NO<br>NO                                       |



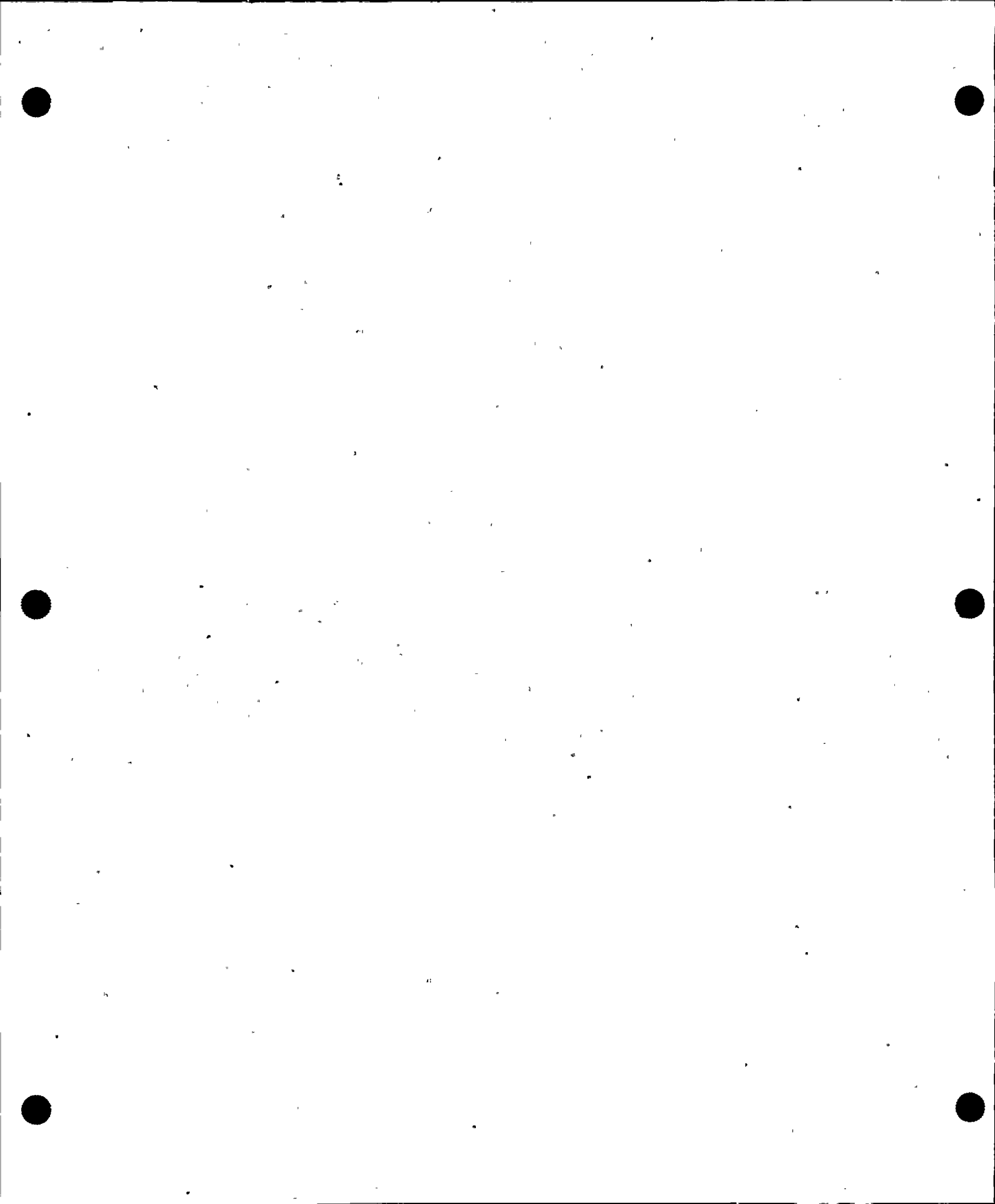
DONALD C. COOK NUCLEAR PLANT  
 SECOND TEN YEAR INTERVAL  
 VALVE SUMMARY SHEET - UNIT 2  
 FLOW DIAGRAM: 2-5129-28

RUN DATE AND TIME: 18DEC85:09:14

SYSTEM NAME: CVCS - LETDOWN & CHARGING

| VALVE     |     |      |      | VALVE POSITION |            |            |              | ASME SECTION XI |     |     |                                |                                  |                  |  |
|-----------|-----|------|------|----------------|------------|------------|--------------|-----------------|-----|-----|--------------------------------|----------------------------------|------------------|--|
| NUMBER    | REV | TYPE | SIZE | ACT TYPE       | F.D. COORD | POWER OPER | SAFETY FUNCT | CD ICL          | A/P | CAT | PRIM TEST REQUIRED             | TEST PERFORMED                   | TEST MODE        | RELIEF REQUEST(S)                              |
| 2-QMO-226 | 0   | GA   | 2    | MO             | G/7        | 0          | O/C          | 2               | A   | B   | EF-1<br>EF-5<br>ET-011         | EF-1<br>EF-5<br>ET-011           | P<br>-<br>P      | NO<br>NO<br>NO                                 |
| 2-QRV-200 | 0   | GL   | 3    | A              | H/3        | 0          | 0            | 2               | A   | B   | EF-1<br>EF-5<br>EF-7<br>ET-NA  | EF-3<br>EF-5<br>NOTE 8<br>NOTE 8 | P<br>-<br>-<br>- | NO, NOTE 8<br>NO<br>YES, NOTE 8<br>YES, NOTE 8 |
| 2-QRV-251 | 0   | GL   | 3    | A              | H/5        | 0          | 0            | 2               | A   | B   | EF-1<br>EF-5<br>EF-7<br>ET-NA  | EF-3<br>EF-5<br>NOTE 9<br>NOTE 9 | P<br>-<br>-<br>- | NO, NOTE 9<br>NO<br>YES, NOTE 9<br>YES, NOTE 9 |
| 2-QRV-61  | 0   | GL   | 3    | A              | C/2        | C          | 0            | 2               | A   | B   | EF-1<br>EF-5<br>EF-7<br>ET-008 | EF-1<br>EF-5<br>EF-7<br>ET-008   | P<br>-<br>P<br>P | NO<br>NO<br>NO<br>NO                           |
| 2-QRV-62  | 0   | GL   | 3    | A              | C/2        | O/C        | 0            | 2               | A   | B   | EF-1<br>EF-5<br>EF-7<br>ET-009 | EF-1<br>EF-5<br>EF-7<br>ET-009   | P<br>-<br>P<br>P | NO<br>NO<br>NO<br>NO                           |
| 2-SI-185  | 0   | CK   | 8    | SA             | K/5        | C          | 0            | 2               | A   | C   | CF-1                           | CF-2                             | R                | YES, NOTE 10                                   |
| 2-SV-51   | 0   | REL  | 2    | SA             | E/2        | C          | 0            | 2               | A   | C   | TF-1                           | TF-1                             | R                | NO   |





DONALD C. COOK NUCLEAR PLANT  
 SECCND TEN YEAR INTERVAL  
 VALVE SUMMARY SHEET - UNIT 2  
 FLOW DIAGRAM: 2-5129-28

RUN DATE AND TIME: 18DEC85:09:14

SYSTEM NAME: CVCS - LETDOWN & CHARGING

| VALVE   |     |      |      | VALVE POSITION |            |            |              | ASME SECTION XI |     |                    |                |           |                   |
|---------|-----|------|------|----------------|------------|------------|--------------|-----------------|-----|--------------------|----------------|-----------|-------------------|
| NUMBER  | REV | TYPE | SIZE | ACT TYPE       | F.D. COORD | POWER OPER | SAFETY FUNCT | CD A/P CL       | CAT | PRIM TEST REQUIRED | TEST PERFORMED | TEST MODE | RELIEF REQUEST(S) |
| 2-SV-52 | 0   | REL  | 2    | SA             | K/1        | C          | 0            | 2 A C           |     | TF-1               | TF-1           | R         | NO                |
| 2-SV-55 | 0   | REL  | 0.75 | SA             | K/7        | C          | 0            | 2 A C           |     | TF-1               | TF-1           | R         | NO                |
| 2-SV-56 | 0   | REL  | 0.75 | SA             | L/6        | C          | 0            | 2 A C           |     | TF-1               | TF-1           | R         | NO                |

DONALD C. COOK NUCLEAR PLANT  
 SECOND TEN YEAR INTERVAL  
 VALVE SUMMARY SHEET - UNIT 2  
 FLOW DIAGRAM: 2-5129A-18

RUN DATE AND TIME: 18DEC85:09:14

SYSTEM NAME: CVCS - LETDOWN & CHARGING

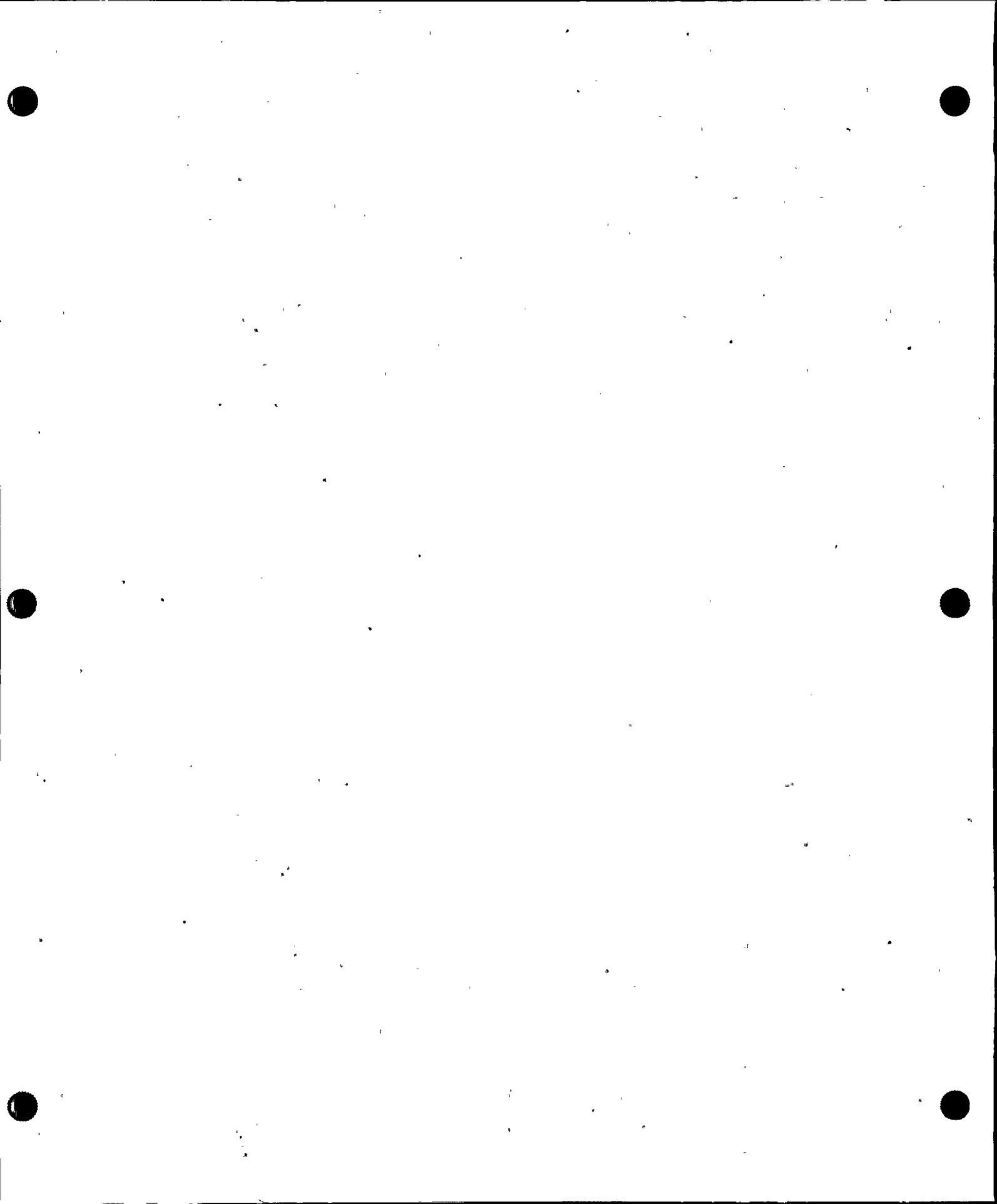
| VALVE     |     |      |      | VALVE POSITION |            |            |              | ASME_SECTION_XI |     |     |                                 |                                 |                  |  |
|-----------|-----|------|------|----------------|------------|------------|--------------|-----------------|-----|-----|---------------------------------|---------------------------------|------------------|--|
| NUMBER    | REV | TYPE | SIZE | ACT TYPE       | F.D. COORD | POWER OPER | SAFETY FUNCT | CD ICL          | A/P | CAT | PRIM TEST REQUIRED              | TEST PERFORMED                  | TEST MODE        | RELIEF REQUEST(S)                      |
| 2-QCM-250 | 0   | GA   | 4    | MO             | C/8        | O          | C            | 2               | A   | A   | EF-1<br>EF-5<br>ET-015<br>SLT-1 | EF-2<br>EF-5<br>ET-015<br>SLT-2 | C<br>-<br>C<br>R | YES, NOTE 1<br>NO<br>NO<br>YES, NOTE 2 |
| 2-QCM-350 | 0   | GA   | 4    | MO             | D/8        | O          | C            | 2               | A   | A   | EF-1<br>EF-5<br>ET-009<br>SLT-1 | EF-2<br>EF-5<br>ET-009<br>SLT-2 | C<br>-<br>C<br>R | YES, NOTE 1<br>NO<br>NO<br>YES, NOTE 2 |
| 2-QM0-451 | 0   | GA   | 4    | MO             | J/5        | O          | C            | 2               | A   | B   | EF-1<br>EF-5<br>ET-009          | EF-2<br>EF-5<br>ET-009          | C<br>-<br>C      | YES, NOTE 3<br>NO<br>NO                |
| 2-QMD-452 | 0   | GA   | 4    | MO             | J/5        | O          | C            | 2               | A   | B   | EF-1<br>EF-5<br>ET-006          | EF-2<br>EF-5<br>ET-006          | C<br>-<br>C      | YES, NOTE 3<br>NO<br>NO                |
| 2-QRV-400 | 0   | GL   | 2    | A              | K/4        | C          | O            | 2               | A   | B   | EF-1<br>EF-5<br>EF-7<br>ET-005  | EF-1<br>EF-5<br>EF-7<br>ET-005  | P<br>-<br>P<br>P | NO<br>NO<br>NO<br>NO                   |
| 2-SV-53   | 0   | REL  | 3    | SA             | H/2        | C          | O            | 2               | A   | C   | TF-1                            | TF-1                            | R                | NO                                     |
| 2-SV-54   | 0   | REL  | 2    | SA             | E/4        | C          | O            | 2               | A   | C   | TF-1                            | TF-1                            | R                | NO                                     |

DONALD C. COOK NUCLEAR PLANT  
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 VALVE SUMMARY SHEET - UNIT 2  
 FLOW DIAGRAM: 2-5135-31

RUN DATE AND TIME: 18DEC85:09:14

SYSTEM NAME: COMPONENT COOLING

| VALVE     |     |      |      | VALVE POSITION |            |            |              | ASME_SECTION_XI |     |     |                    |                |           |                   |
|-----------|-----|------|------|----------------|------------|------------|--------------|-----------------|-----|-----|--------------------|----------------|-----------|-------------------|
| NUMBER    | REV | TYPE | SIZE | ACT TYPE       | F.D. COORD | POWER OPER | SAFETY FUNCT | CD ICL          | A/P | CAT | PRIM TEST REQUIRED | TEST PERFORMED | TEST MODE | RELIEF REQUEST(S) |
| 2-CCM-451 | 0   | BF   | 8    | MO             | E/4        | 0          | C            | 2               | A   | A   | EF-1               | EF-2           | C         | YES, NOTE 1       |
|           |     |      |      |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | ET-026             | ET-026         | C         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | SLT-1              | SLT-2          | R         | YES, NOTE 2       |
| 2-CCM-452 | 0   | BF   | 8    | MO             | E/5        | 0          | C            | 2               | A   | A   | EF-1               | EF-2           | C         | YES, NOTE 1       |
|           |     |      |      |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | ET-023             | ET-023         | C         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | SLT-1              | SLT-2          | R         | YES, NOTE 2       |
| 2-CCM-453 | 0   | GL   | 4    | MO             | E/4        | 0          | C            | 2               | A   | A   | EF-1               | EF-2           | C         | YES, NOTE 1       |
|           |     |      |      |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | ET-030             | ET-030         | C         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | SLT-1              | SLT-2          | R         | YES, NOTE 2       |
| 2-CCM-454 | 0   | GL   | 4    | MO             | E/5        | 0          | C            | 2               | A   | A   | EF-1               | EF-2           | C         | YES, NOTE 1       |
|           |     |      |      |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | ET-030             | ET-030         | C         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | SLT-1              | SLT-2          | R         | YES, NOTE 2       |
| 2-CCM-458 | 0   | BF   | 8    | MO             | A/2        | 0          | C            | 2               | A   | A   | EF-1               | EF-2           | C         | YES, NOTE 1       |
|           |     |      |      |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | ET-023             | ET-023         | C         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | SLT-1              | SLT-2          | R         | YES, NOTE 2       |
| 2-CCM-459 | 0   | BF   | 8    | MO             | B/2        | 0          | C            | 2               | A   | A   | EF-1               | EF-2           | C         | YES, NOTE 1       |
|           |     |      |      |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | ET-024             | ET-024         | C         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | SLT-1              | SLT-2          | R         | YES, NOTE 2       |



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SYSTEM NAME: COMPONENT COOLING

| VALVE     |     |      |      | VALVE POSITION |            |            |              | ASME SECTION XI |     |     |                    |                |           |                   |
|-----------|-----|------|------|----------------|------------|------------|--------------|-----------------|-----|-----|--------------------|----------------|-----------|-------------------|
| NUMBER    | REV | TYPE | SIZE | ACT TYPE       | F.D. COORD | POWER OPER | SAFETY FUNCT | CD ICL          | A/P | CAT | PRIM TEST REQUIRED | TEST PERFORMED | TEST MODE | RELIEF REQUEST(S) |
| 2-CCR-455 | 0   | GL   | 2    | A              | B/3        | 0          | C            | 2               | A   | A   | EF-1               | EF-2           | C         | YES, NOTE 3       |
|           |     |      |      |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | EF-7               | EF-8           | C         | NO, NOTE 3        |
|           |     |      |      |                |            |            |              |                 |     |     | ET-005             | ET-005         | C         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | SLT-1              | SLT-2          | R         | YES, NOTE 2       |
| 2-CCR-456 | 0   | GL   | 2    | A              | D/4        | 0          | C            | 2               | A   | A   | EF-1               | EF-2           | C         | YES, NOTE 3       |
|           |     |      |      |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | EF-7               | EF-8           | C         | NO, NOTE 3        |
|           |     |      |      |                |            |            |              |                 |     |     | ET-005             | ET-005         | C         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | SLT-1              | SLT-2          | R         | YES, NOTE 2       |
| 2-CCR-457 | 0   | GL   | 2    | A              | D/4        | 0          | C            | 2               | A   | A   | EF-1               | EF-2           | C         | YES, NOTE 3       |
|           |     |      |      |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | EF-7               | EF-8           | C         | NO, NOTE 3        |
|           |     |      |      |                |            |            |              |                 |     |     | ETF-005            | ETF-005        | C         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | SLT-1              | SLT-2          | R         | YES, NOTE 2       |
| 2-CCR-460 | 0   | GL   | 3    | A              | C/4        | 0          | C            | 2               | A   | A   | EF-1               | EF-1           | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | EF-7               | EF-7           | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | ET-010             | ET-010         | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | SLT-1              | SLT-2          | R         | YES, NOTE 2       |
| 2-CCR-462 | 0   | GL   | 3    | A              | A/4        | 0          | C            | 2               | A   | A   | EF-1               | EF-1           | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | EF-7               | EF-7           | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | ET-009             | ET-009         | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | SLT-1              | SLT-2          | R         | YES, NOTE 2       |

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SYSTEM NAME: COMPONENT COOLING

| VALVE     |     |      |      | VALVE POSITION |            |            |             | ASME SECTION XI |     |     |                                |                                |                  |                                  |
|-----------|-----|------|------|----------------|------------|------------|-------------|-----------------|-----|-----|--------------------------------|--------------------------------|------------------|----------------------------------|
| NUMBER    | REV | TYPE | SIZE | ACT TYPE       | F.D. COORD | POWER OPER | SAFETY FUNC | CD ICL          | A/P | CAT | PRIM TEST REQUIRED             | TEST PERFORMED                 | TEST MODE        | RELIEF REQUEST(S)                |
| 2-CCH-135 | 0   | CK   | 2.5  | SA             | B/3        | 0          | C           | 2               | A   | AC  | CF-1<br>SLT-1                  | CF-2<br>SLT-2                  | R<br>R           | YES, NOTE 4<br>YES, NOTE 2       |
| 2-CRV-445 | 0   | BL   | 6    | A              | L/5        | 0          | O/C         | 3               | A   | B   | EF-1<br>EF-5<br>EF-7<br>ET-034 | EF-1<br>EF-5<br>EF-7<br>ET-034 | P<br>-<br>P<br>P | NO<br>NO<br>NO<br>NO             |
| 2-CRV-470 | 0   | GL   | 6    | A              | G/1        | 0          | C           | 3               | A   | B   | EF-1<br>EF-7<br>ET-NA          | EF-1<br>NOTE 5<br>NOTE 5       | P<br>-<br>-      | NO<br>YES, NOTE 5<br>YES, NOTE 5 |
| 2-CRV-485 | 0   | BF   | 10   | A              | B/7        | 0          | C           | 3               | A   | B   | EF-1<br>EF-5<br>EF-7<br>ET-018 | EF-1<br>EF-5<br>EF-7<br>ET-018 | P<br>-<br>P<br>P | NO<br>NO<br>NO<br>NO             |
| 2-SV-122  | 0   | REL  | 1    | SA             | D/3        | C          | 0           | 3               | A   | C   | TF-1                           | TF-1                           | R                | NO                               |
| 2-SV-62   | 0   | REL  | 1    | SA             | D/3        | C          | 0           | 3               | A   | C   | TF-1                           | TF-1                           | R                | NO                               |
| 2-SV-63   | 0   | REL  | 1    | SA             | E/3        | C          | 0           | 3               | A   | C   | TF-1                           | TF-1                           | R                | NO                               |
| 2-SV-64   | 0   | REL  | 1    | SA             | C/3        | C          | 0           | 3               | A   | C   | TF-1                           | TF-1                           | R                | NO                               |
| 2-SV-65   | 0   | REL  | 1    | SA             | H/1        | C          | 0           | 3               | A   | C   | TF-1                           | TF-1                           | R                | NO                               |

DONALD C. COOK NUCLEAR PLANT  
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 VALVE SUMMARY SHEET - UNIT 2  
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RUN DATE AND TIME: 18DEC85:09:14

SYSTEM NAME: COMPONENT COOLING

| VALVE   |     |      |      | VALVE POSITION |            |            |              | ASME SECTION XI |     |     |                    |                |           |                   |
|---------|-----|------|------|----------------|------------|------------|--------------|-----------------|-----|-----|--------------------|----------------|-----------|-------------------|
| NUMBER  | REV | TYPE | SIZE | ACT TYPE       | F.D. COORD | POWER OPER | SAFETY FUNCT | CD ICL          | A/P | CAT | PRIM TEST REQUIRED | TEST PERFORMED | TEST MODE | RELIEF REQUEST(S) |
| 2-SV-68 | 0   | REL  | 1    | SA             | J/2        | C          | 0            | 3               | A   | C   | TF-1               | TF-1           | R         | NO                |
| 2-SV-71 | 0   | REL  | 1    | SA             | L/3        | C          | 0            | 3               | A   | C   | TF-1               | TF-1           | R         | NO                |



DONALD C. COOK NUCLEAR PLANT  
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 VALVE SUMMARY SHEET - UNIT 2  
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RUN DATE AND TIME: 18DEC85:09:14

SYSTEM NAME: COMPONENT COOLING

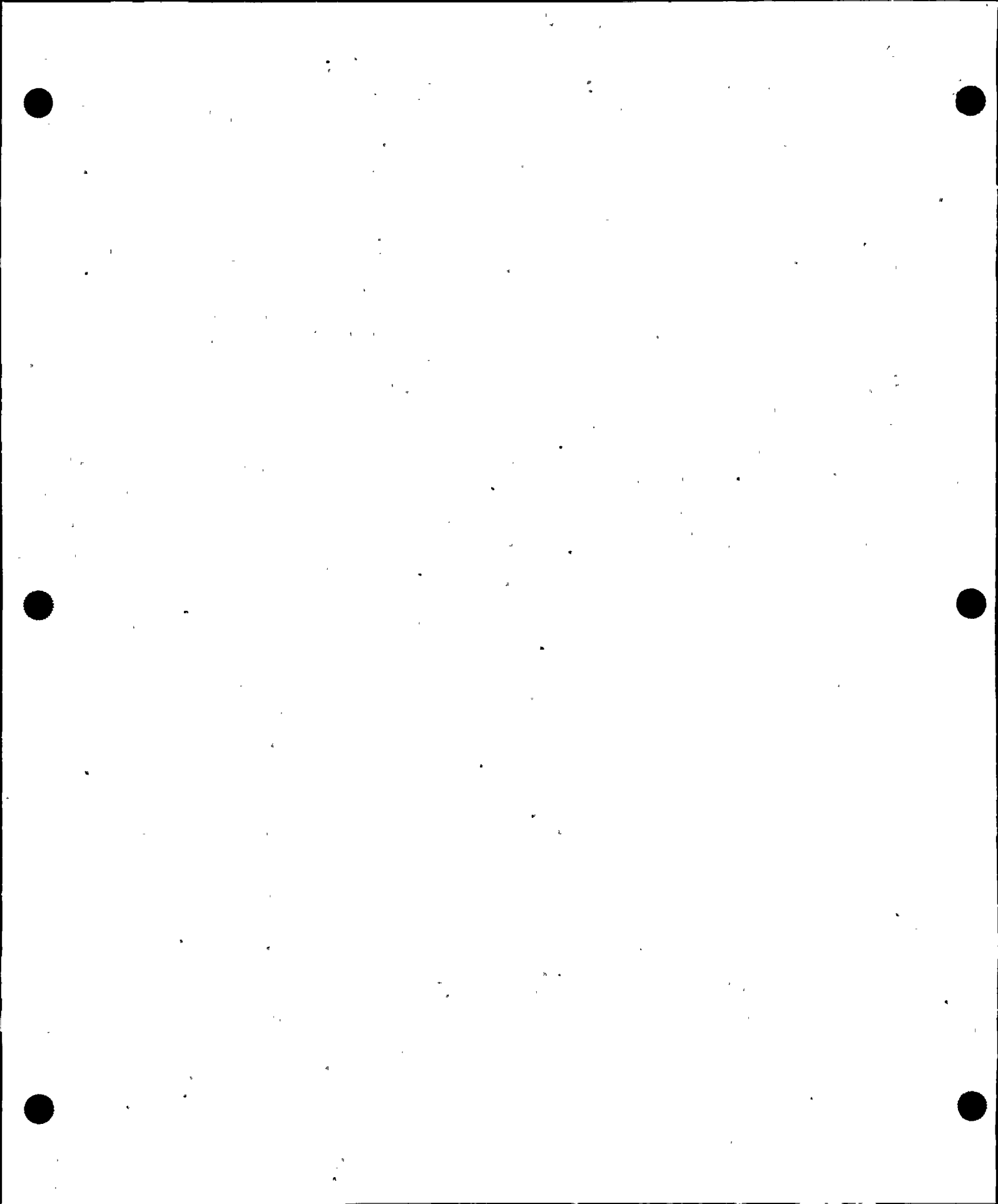
| VALVE       |     |      |      | VALVE POSITION |            |            |              | ASME_SECTION_XI |     |     |                        |                        |             |                        |
|-------------|-----|------|------|----------------|------------|------------|--------------|-----------------|-----|-----|------------------------|------------------------|-------------|------------------------|
| NUMBER      | REV | TYPE | SIZE | ACT TYPE       | F.D. COORD | POWER OPER | SAFETY FUNCT | CD              | A/P | CAT | PRIM TEST REQUIRED     | TEST PERFORMED         | TEST MODE   | RELIEF REQUEST(S)      |
| 2-CCK-176-E | 0   | CK   | 16   | SA             | L/4        | C/O        | 0            | 3               | A   | C   | CF-1                   | CF-1                   | P           | NO                     |
| 2-CCK-176-W | 0   | CK   | 16   | SA             | K/4        | C/O        | 0            | 3               | A   | C   | CF-1                   | CF-1                   | P           | NO                     |
| 2-CMO-410   | 0   | BF   | 16   | MO             | H/4        | C/O        | 0            | 3               | A   | B   | EF-1<br>EF-5<br>ET-055 | EF-1<br>EF-5<br>ET-055 | P<br>-<br>P | NO<br>NO<br>NO         |
| 2-CMO-411   | 0   | BF   | 18   | MO             | M/5        | 0          | O/C          | 3               | A   | B   | EF-1<br>EF-5<br>ET-053 | EF-1<br>EF-5<br>ET-053 | P<br>-<br>P | NO<br>NO<br>NO, NOTE 1 |
| 2-CMO-412   | 0   | BF   | 16   | MO             | L/3        | 0          | O/C          | 3               | A   | B   | EF-1<br>EF-5<br>ET-054 | EF-1<br>EF-5<br>ET-054 | P<br>-<br>P | NO<br>NO<br>NO, NOTE 1 |
| 2-CMO-413   | 0   | BF   | 18   | MO             | L/5        | 0          | O/C          | 3               | A   | B   | EF-1<br>EF-5<br>ET-053 | EF-1<br>EF-5<br>ET-053 | P<br>-<br>P | NO<br>NO<br>NO, NOTE 1 |
| 2-CMO-414   | 0   | BF   | 16   | MO             | K/3        | 0          | O/C          | 3               | A   | B   | EF-1<br>EF-5<br>ET-054 | EF-1<br>EF-5<br>ET-054 | P<br>-<br>P | NO<br>NO<br>NO, NOTE 1 |
| 2-CMO-415   | 0   | BF   | 16   | MO             | H/5        | 0          | O/C          | 3               | A   | B   | EF-1<br>EF-5<br>ET-054 | EF-1<br>EF-5<br>ET-054 | P<br>-<br>P | NO<br>NO<br>NO, NOTE 1 |

DONALD C. COOK NUCLEAR PLANT  
 SECOND TEN YEAR INTERVAL  
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RUN DATE AND TIME: 18DEC85:09:14

SYSTEM NAME: COMPONENT COOLING

| VALVE     |     |      |      | VALVE POSITION |            |            |              | ASME SECTION XI |     |     |                                |                                |                  |                        |
|-----------|-----|------|------|----------------|------------|------------|--------------|-----------------|-----|-----|--------------------------------|--------------------------------|------------------|------------------------|
| NUMBER    | REV | TYPE | SIZE | ACT TYPE       | F.D. COORD | POWER OPER | SAFETY FUNCT | CD ICL          | A/P | CAT | PRIM TEST REQUIRED             | TEST PERFORMED                 | TEST MODE        | RELIEF REQUEST(S)      |
| 2-CMO-416 | 0   | BF   | 16   | MO             | G/5        | O          | O/C          | 3               | A   | B   | EF-1<br>EF-5<br>ET-103         | EF-1<br>EF-5<br>ET-103         | P<br>-<br>P      | NO<br>NO<br>NO, NOTE 1 |
| 2-CMO-419 | 0   | BF   | 14   | MO             | E/5        | C          | O            | 3               | A   | B   | EF-1<br>EF-5<br>ET-053         | EF-1<br>EF-5<br>ET-053         | P<br>-<br>P      | NO<br>NO<br>NO         |
| 2-CMO-420 | 0   | BF   | 16   | MO             | H/4        | C/O        | O            | 3               | A   | B   | EF-1<br>EF-5<br>ET-066         | EF-1<br>EF-5<br>ET-066         | P<br>-<br>P      | NO<br>NO<br>NO         |
| 2-CMO-429 | 0   | BF   | 14   | MO             | E/5        | C          | O            | 3               | A   | B   | EF-1<br>EF-5<br>ET-054         | EF-1<br>EF-5<br>ET-054         | P<br>-<br>P      | NO<br>NO<br>NO         |
| 2-CRV-412 | 0   | GL   | 4    | A              | K/1        | O          | C            | 3               | A   | B   | EF-1<br>EF-5<br>EF-7<br>ET-019 | EF-1<br>EF-5<br>EF-7<br>ET-019 | P<br>-<br>P<br>P | NO<br>NO<br>NO<br>NO   |
| 2-SV-60   | 0   | REL  | 3    | SA             | L/1        | C          | O            | 3               | A   | C   | TF-1                           | TF-1                           | R                | NO                     |
| 2-SV-72   | 0   | REL  | 1    | SA             | E/5        | C          | O            | 3               | A   | C   | TF-1                           | TF-1                           | R                | NO                     |



DONALD C. COOK NUCLEAR PLANT  
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 VALVE SUMMARY SHEET - UNIT 2  
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RUN DATE AND TIME: 18DEC85:09:14

SYSTEM NAME: COMPONENT COOLING

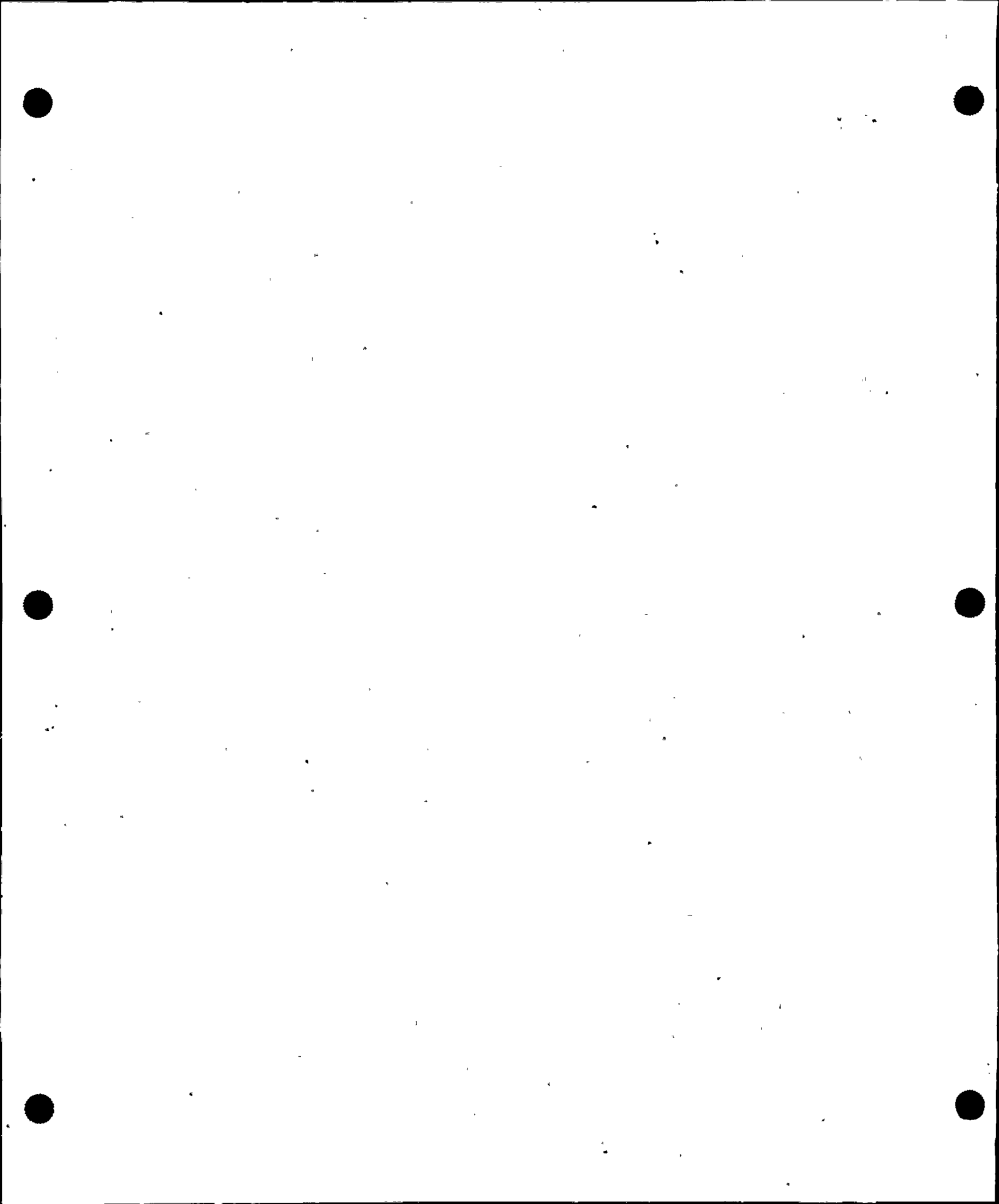
| VALVE     |     |      |      | VALVE POSITION |            |            |              | ASME SECTION XI |     |     |                    |                |           |                   |
|-----------|-----|------|------|----------------|------------|------------|--------------|-----------------|-----|-----|--------------------|----------------|-----------|-------------------|
| NUMBER    | REV | TYPE | SIZE | ACT TYPE       | F.D. COORD | POWER OPER | SAFETY FUNCT | CD ICL          | A/P | CAT | PRIM TEST REQUIRED | TEST PERFORMED | TEST MODE | RELIEF REQUEST(S) |
| 2-CCM-430 | 0   | GL   | 1.5  | MO             | D/6        | C          | O/C          | 2               | A   | A   | EF-1               | EF-1           | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | ET-018             | ET-018         | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | SLT-1              | SLT-2          | R         | YES, NOTE 1       |
| 2-CCM-431 | 0   | GL   | 1.5  | MO             | D/6        | C          | O/C          | 2               | A   | A   | EF-1               | EF-1           | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | ET-015             | ET-015         | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | SLT-1              | SLT-2          | R         | YES, NOTE 1       |
| 2-CCM-432 | 0   | GL   | 1.5  | MO             | D/6        | C          | O/C          | 2               | A   | A   | EF-1               | EF-1           | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | ET-018             | ET-018         | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | SLT-1              | SLT-2          | R         | YES, NOTE 1       |
| 2-CCM-433 | 0   | GL   | 1.5  | MO             | D/6        | C          | O/C          | 2               | A   | A   | EF-1               | EF-1           | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | ET-019             | ET-019         | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | SLT-1              | SLT-2          | R         | YES, NOTE 1       |
| 2-CCR-440 | 0   | GL   | 1.5  | A              | D/6        | O          | C            | 2               | A   | A   | EF-1               | EF-1           | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | EF-7               | EF-7           | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | ET-008             | ET-008         | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | SLT-1              | SLT-2          | R         | YES, NOTE 1       |
| 2-CCR-441 | 0   | GL   | 1.5  | A              | D/6        | O          | C            | 2               | A   | A   | EF-1               | EF-1           | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | EF-7               | EF-7           | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | ET-005             | ET-005         | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | SLT-1              | SLT-2          | R         | YES, NOTE 1       |

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 SECOND TEN YEAR INTERVAL  
 VALVE SUMMARY SHEET - UNIT 2  
 FLOW DIAGRAM: 2-5135B-12

RUN DATE AND TIME: 18DEC85:09:14

SYSTEM NAME: COMPONENT COOLING

| VALVE        |     |      |      | VALVE POSITION |            |            |              | ASME SECTION XI |     |     |                    |                |           |                           |
|--------------|-----|------|------|----------------|------------|------------|--------------|-----------------|-----|-----|--------------------|----------------|-----------|---------------------------|
| NUMBER       | REV | TYPE | SIZE | ACT TYPE       | F.D. COORD | POWER OPER | SAFETY FUNCT | CD  CL          | A/P | CAT | PRIM TEST REQUIRED | TEST PERFORMED | TEST MODE | RELIEF REQUEST(S)         |
| 2-CCH-243-25 | 0   | CK   | 1    | SA             | C/5        | 0          | C            | 2               | A   | AC  | CF-1<br>SLT-1      | CF-2<br>SLT-2  | R<br>R    | NO, NOTE 2<br>YES, NOTE 1 |
| 2-CCH-243-72 | 0   | CK   | 1    | SA             | C/5        | 0          | C            | 2               | A   | AC  | CF-1<br>SLT-1      | CF-2<br>SLT-2  | R<br>R    | NO, NOTE 2<br>YES, NOTE 1 |
| 2-CCH-244-25 | 0   | CK   | 1    | SA             | C/6        | 0          | C            | 2               | A   | AC  | CF-1<br>SLT-1      | CF-2<br>SLT-2  | R<br>R    | NO, NOTE 2<br>YES, NOTE 1 |
| 2-CCH-244-72 | 0   | CK   | 1    | SA             | C/6        | 0          | C            | 2               | A   | AC  | CF-1<br>SLT-1      | CF-2<br>SLT-2  | R<br>R    | NO, NOTE 2<br>YES, NOTE 1 |
| 2-SV-122-25B | 0   | REL  | 1.5  | SA             | B/6        | C          | 0            | 3               | A   | C   | TF-1               | TF-1           | R         | NO                        |
| 2-SV-122-72B | 0   | REL  | 1.5  | SA             | B/6        | C          | 0            | 3               | A   | C   | TF-1               | TF-1           | R         | NO                        |



DONALD C. COOK NUCLEAR PLANT  
 SECOND TEN YEAR INTERVAL  
 VALVE SUMMARY SHEET - UNIT 2  
 FLOW DIAGRAM: 2-5141-23

RUN DATE AND TIME: 18DEC85:09:14

SYSTEM NAME: NUCLEAR SAMPLING

| VALVE     |     |      |      | VALVE POSITION |            |            |              | ASME SECTION XI |     |     |                    |                |           |                   |
|-----------|-----|------|------|----------------|------------|------------|--------------|-----------------|-----|-----|--------------------|----------------|-----------|-------------------|
| NUMBER    | REV | TYPE | SIZE | ACT TYPE       | F.D. COORD | POWER OPER | SAFETY FUNCT | CD ICL          | A/P | CAT | PRIM TEST REQUIRED | TEST PERFORMED | TEST MODE | RELIEF REQUEST(S) |
| 2-ICR-5   | 0   | GL   | 0.5  | A              | C/5        | 0          | C            | 2               | A   | A   | EF-1               | EF-1           | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | EF-7               | EF-7           | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | ETF-002            | ETF-002        | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | SLT-1              | SLT-2          | R         | YES, NOTE 1       |
| 2-ICR-6   | 0   | GL   | 0.5  | A              | D/5        | 0          | C            | 2               | A   | A   | EF-1               | EF-1           | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | EF-7               | EF-7           | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | ETF-002            | ETF-002        | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | SLT-1              | SLT-2          | R         | YES, NOTE 1       |
| 2-NCR-105 | 0   | GL   | 0.5  | A              | C/7        | 0          | C            | 2               | A   | A   | EF-1               | EF-1           | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | EF-7               | EF-7           | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | ETF-002            | ETF-002        | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | SLT-1              | SLT-2          | R         | YES, NOTE 1       |
| 2-NCR-106 | 0   | GL   | 0.5  | A              | C/7        | 0          | C            | 2               | A   | A   | EF-1               | EF-1           | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | EF-7               | EF-7           | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | ETF-002            | ETF-002        | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | SLT-1              | SLT-2          | R         | YES, NOTE 1       |
| 2-NCR-107 | 0   | GL   | 0.5  | A              | D/6        | 0          | C            | 2               | A   | A   | EF-1               | EF-1           | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | EF-7               | EF-7           | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | ETF-002            | ETF-002        | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | SLT-1              | SLT-2          | R         | YES, NOTE 1       |

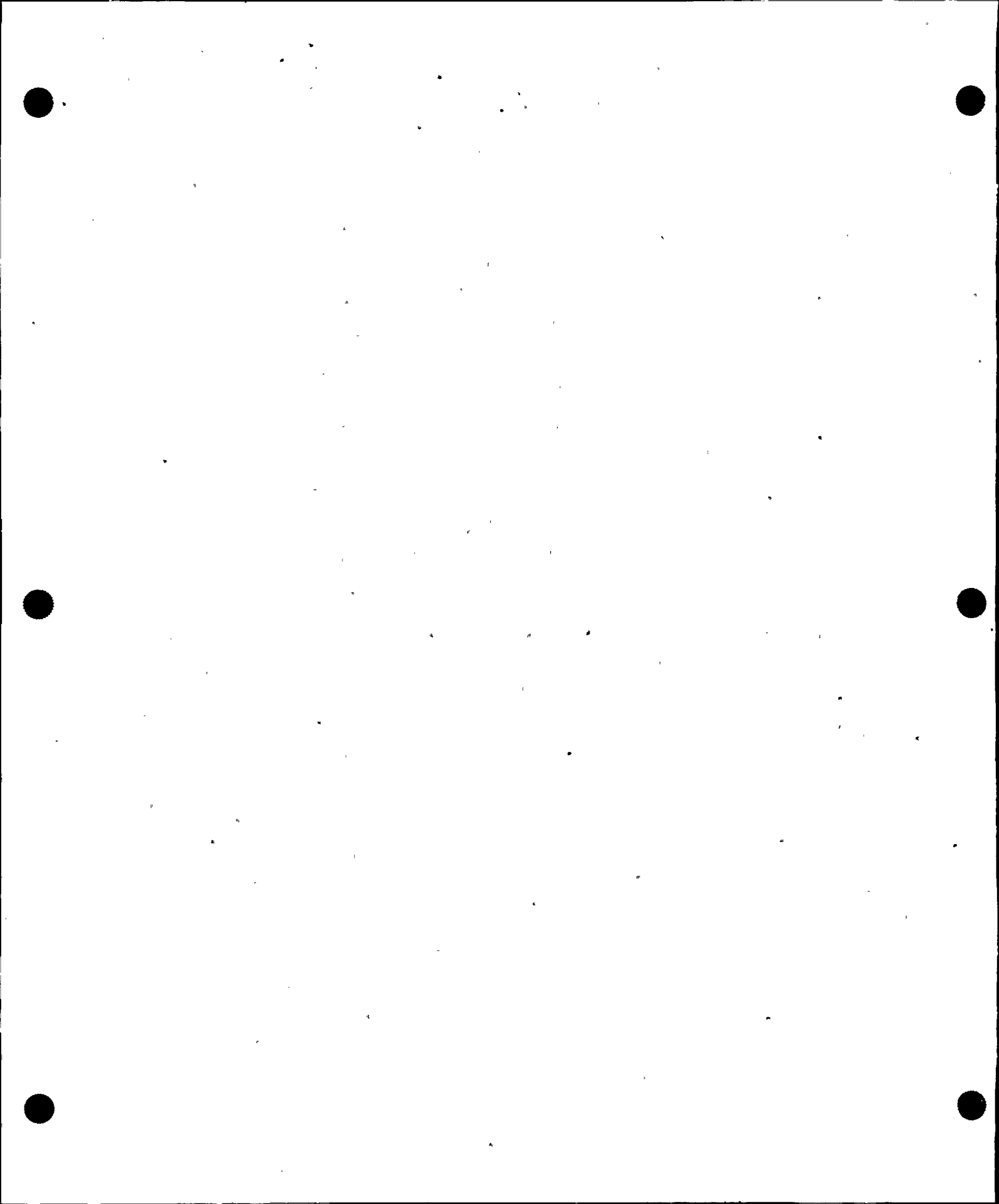
DONALD C. COOK NUCLEAR PLANT  
 SECOND TEN YEAR INTERVAL  
 VALVE SUMMARY SHEET - UNIT 2  
 FLOW DIAGRAM: 2-5141-23

RUN DATE AND TIME: 18DEC85:09:14

SYSTEM NAME: NUCLEAR SAMPLING

| VALVE     |     |      |      | VALVE POSITION |            |            |              | ASME_SECTION_XI |     |     |                    |                |           |                   |
|-----------|-----|------|------|----------------|------------|------------|--------------|-----------------|-----|-----|--------------------|----------------|-----------|-------------------|
| NUMBER    | REV | TYPE | SIZE | ACT TYPE       | F.D. COORD | POWER OPER | SAFETY FUNCT | CD ICL          | A/P | CAT | PRIM TEST REQUIRED | TEST PERFORMED | TEST MODE | RELIEF REQUEST(S) |
| 2-NCR-108 | 0   | GL   | 0.5  | A              | D/6        | 0          | C            | 2               | A   | A   | EF-1               | EF-1           | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | EF-7               | EF-7           | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | ETF-002            | ETF-002        | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | SLT-1              | SLT-2          | R         | YES, NOTE 1       |
| 2-NCR-109 | 0   | GL   | 0.5  | A              | D/5        | 0          | C            | 2               | A   | A   | EF-1               | EF-1           | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | EF-7               | EF-7           | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | ETF-002            | ETF-002        | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | SLT-1              | SLT-2          | R         | YES, NOTE 1       |
| 2-NCR-110 | 0   | GL   | 0.5  | A              | D/6        | 0          | C            | 2               | A   | A   | EF-1               | EF-1           | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | EF-7               | EF-7           | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | ETF-002            | ETF-002        | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | SLT-1              | SLT-2          | R         | YES, NOTE 1       |



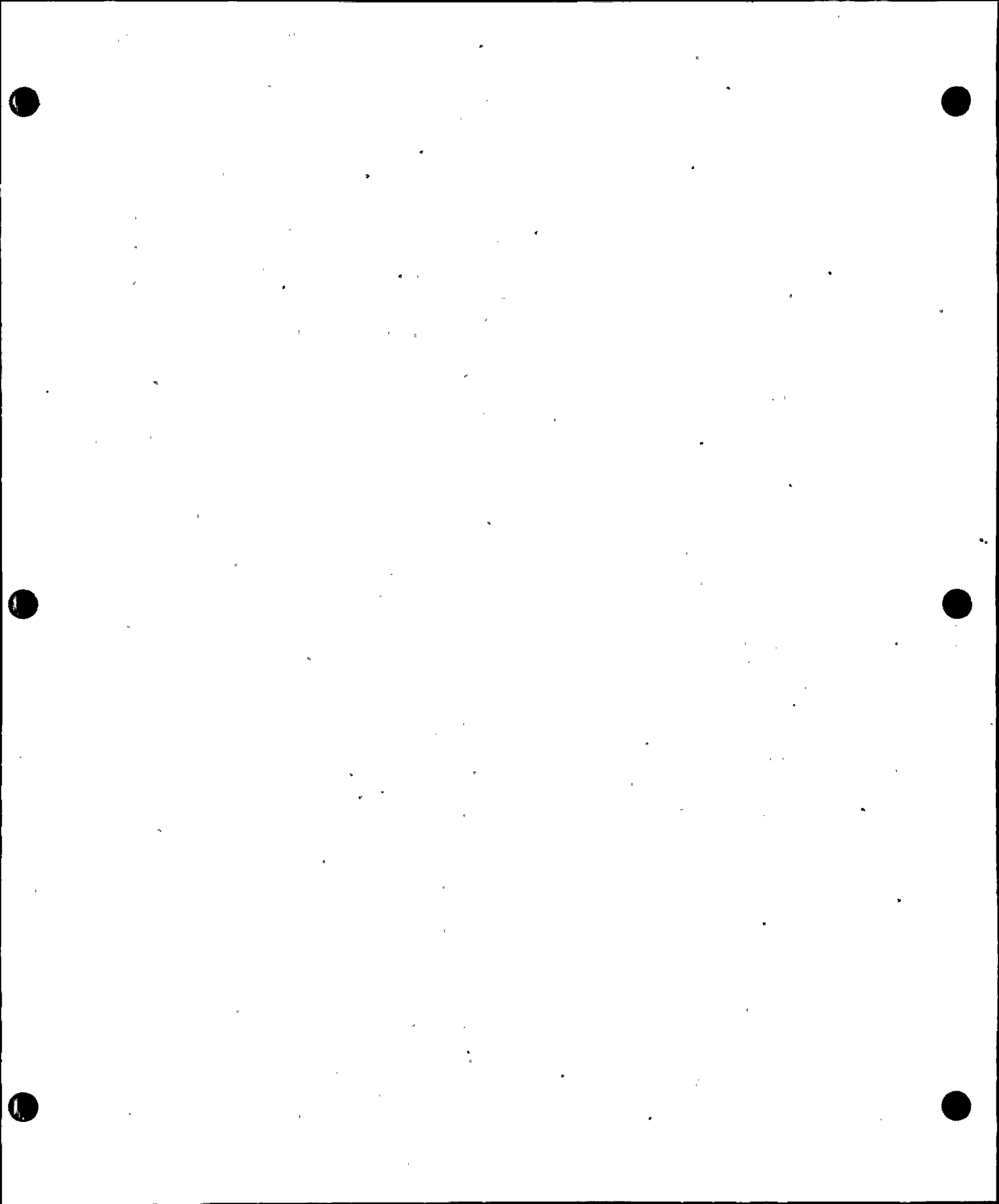


DONALD C. COOK NUCLEAR PLANT  
 SECOND TEN YEAR INTERVAL  
 VALVE SUMMARY SHEET - UNIT 2  
 FLOW DIAGRAM: 2-5141A-27

RUN DATE AND TIME: 18DEC85:09:14

SYSTEM NAME: NUCLEAR SAMPLING

| VALVE     |     |      |      | VALVE POSITION |            |            |              | ASME SECTION XI |     |     |                    |                |           |                   |
|-----------|-----|------|------|----------------|------------|------------|--------------|-----------------|-----|-----|--------------------|----------------|-----------|-------------------|
| NUMBER    | REV | TYPE | SIZE | ACT TYPE       | F.D. COORD | POWER OPER | SAFETY FUNCT | CD CL           | A/P | CAT | PRIM TEST REQUIRED | TEST PERFORMED | TEST MODE | RELIEF REQUEST(S) |
| 2-DCR-301 | 0   | GL   | 0.5  | A              | B/2        | 0          | C            | 2               | A   | B   | EF-1               | EF-1           | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | EF-7               | EF-7           | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | ETF-003            | ETF-003        | P         | NO                |
| 2-DCR-302 | 0   | GL   | 0.5  | A              | B/3        | 0          | C            | 2               | A   | B   | EF-1               | EF-1           | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | EF-7               | EF-7           | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | ETF-002            | ETF-002        | P         | NO                |
| 2-DCR-303 | 0   | GL   | 0.5  | A              | B/3        | 0          | C            | 2               | A   | B   | EF-1               | EF-1           | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | EF-7               | EF-7           | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | ETF-002            | ETF-002        | P         | NO                |
| 2-DCR-304 | 0   | GL   | 0.5  | A              | B/3        | 0          | C            | 2               | A   | B   | EF-1               | EF-1           | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | EF-7               | EF-7           | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | ETF-002            | ETF-002        | P         | NO                |
| 2-MCR-251 | 0   | GL   | 0.5  | A              | B/2        | 0          | C            | 2               | A   | B   | EF-1               | EF-1           | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | EF-7               | EF-7           | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | ETF-002            | ETF-002        | P         | NO                |
| 2-MCR-252 | 0   | GL   | 0.5  | A              | B/2        | 0          | C            | 2               | A   | B   | EF-1               | EF-1           | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | EF-7               | EF-7           | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | ETF-002            | ETF-002        | P         | NO                |

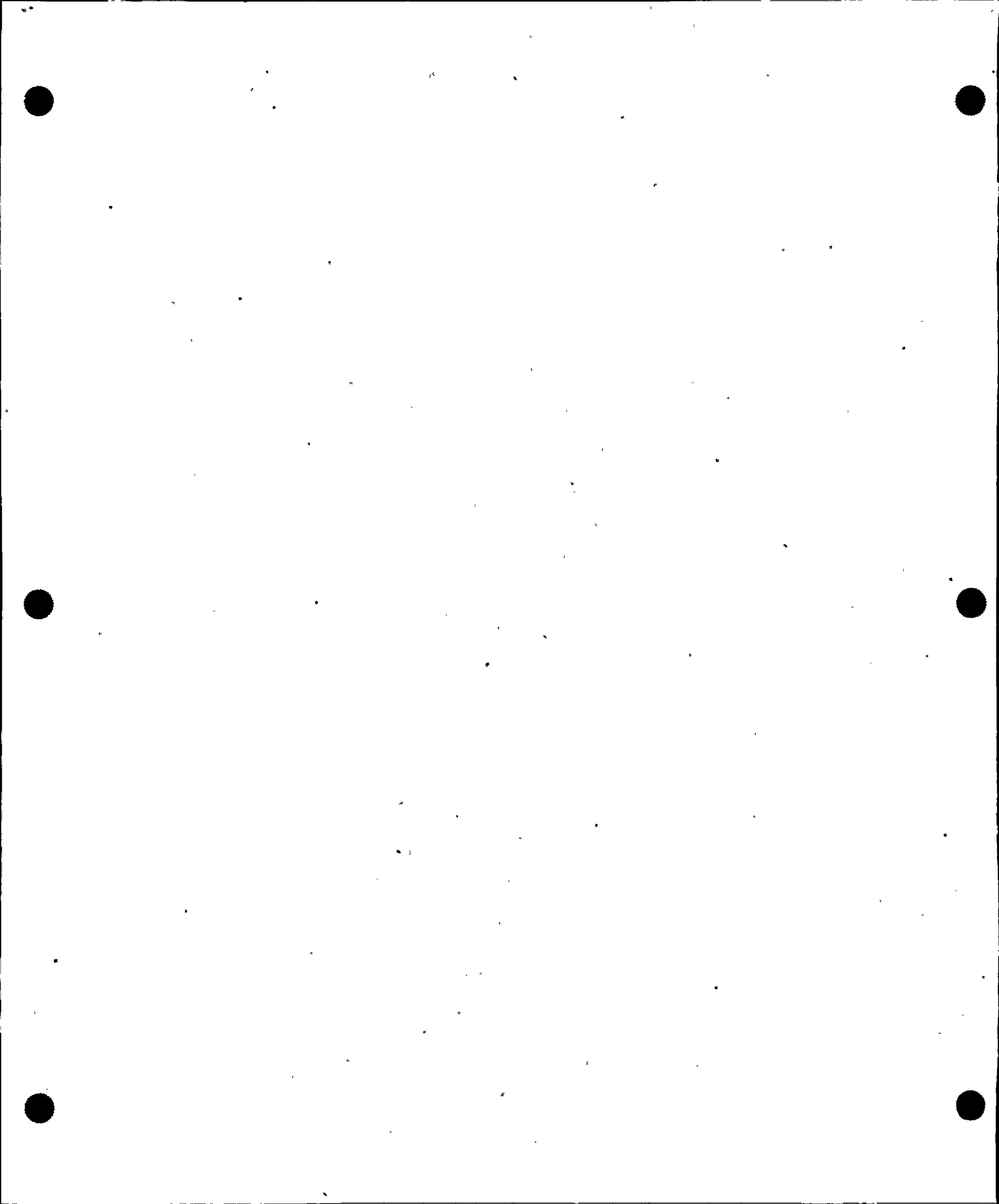


DONALD C. COOK NUCLEAR PLANT  
 SECOND TEN YEAR INTERVAL  
 VALVE SUMMARY SHEET - UNIT 2  
 FLOW DIAGRAM: 2-5141A-27

RUN DATE AND TIME: 18DEC85:09:14

SYSTEM NAME: NUCLEAR SAMPLING

| VALVE     |     |      |      | VALVE POSITION |            |            |              | ASME SECTION_XT |     |     |                    | RELIEF REQUEST(S) |           |                   |
|-----------|-----|------|------|----------------|------------|------------|--------------|-----------------|-----|-----|--------------------|-------------------|-----------|-------------------|
| NUMBER    | REV | TYPE | SIZE | ACT TYPE       | F.D. COORD | POWER OPER | SAFETY FUNCT | CD ICL          | A/P | CAT | PRIM TEST REQUIRED | TEST PERFORMED    | TEST MODE | RELIEF REQUEST(S) |
| 2-MCR-253 | 0   | GL   | 0.5  | A              | B/1        | 0          | C            | 2               | A   | B   | EF-1               | EF-1              | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | EF-5               | EF-5              | -         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | EF-7               | EF-7              | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | ETF-002            | ETF-002           | P         | NO                |
| 2-MCR-254 | 0   | GL   | 0.5  | A              | B/1        | 0          | C            | 2               | A   | B   | EF-1               | EF-1              | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | EF-5               | EF-5              | -         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | EF-7               | EF-7              | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | ETF-002            | ETF-002           | P         | NO                |

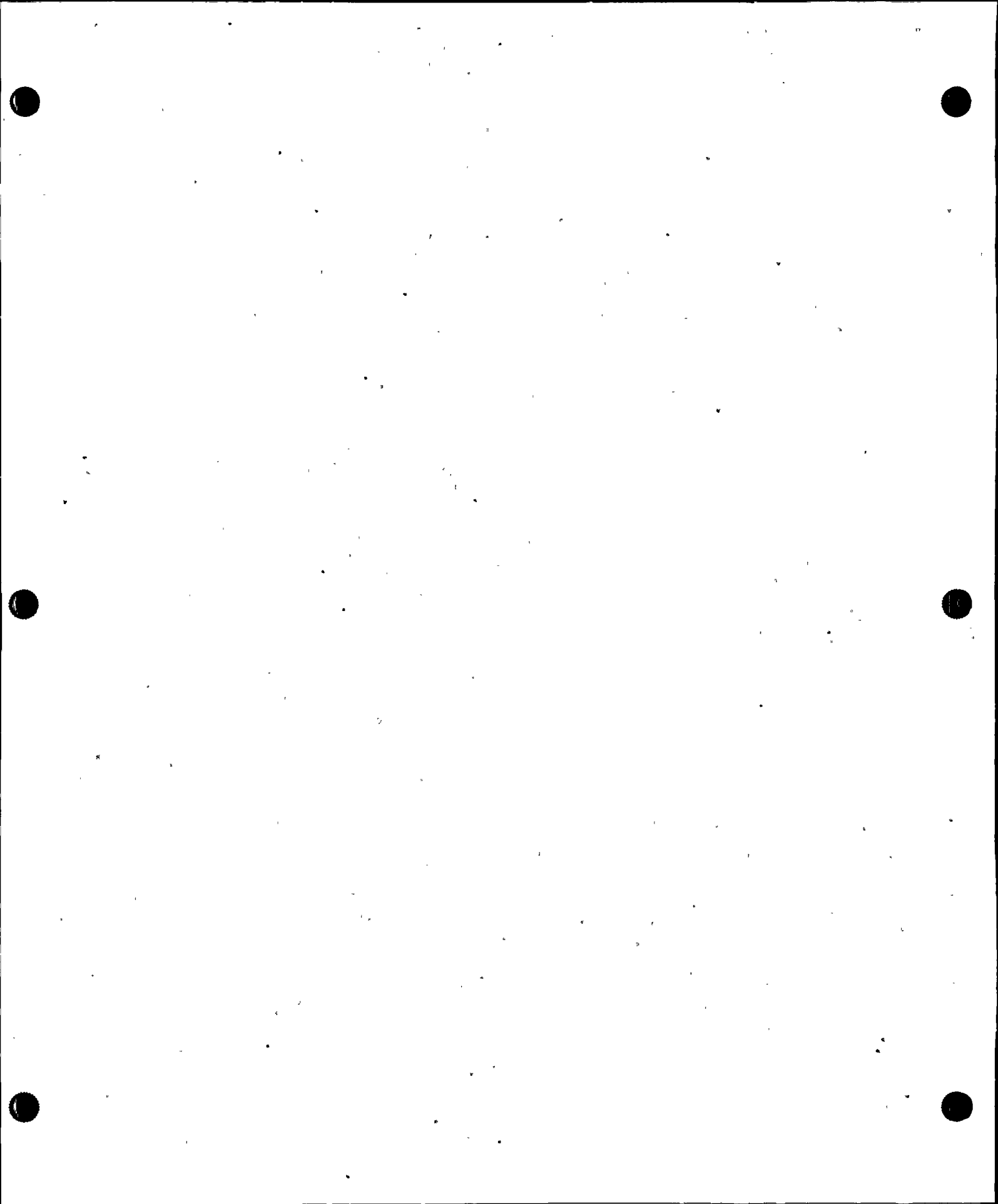


DONALD C. COOK, NUCLEAR PLANT  
 SECOND TEN YEAR INTERVAL  
 VALVE SUMMARY SHEET - UNIT 2  
 FLOW DIAGRAM: 2-5141D-7

RUN DATE AND TIME: 18DEC85:09:14

SYSTEM NAME: PAS CONTAINMENT HYDROGEN

| VALVE    |     |      |      | VALVE POSITION |            |            |              | ASME_SECTION_XI |     |     |                    |                |           |             |            |
|----------|-----|------|------|----------------|------------|------------|--------------|-----------------|-----|-----|--------------------|----------------|-----------|-------------|------------|
| NUMBER   | REV | TYPE | SIZE | ACT TYPE       | F.D. COORD | POWER OPER | SAFETY FUNCT | CD ICL          | A/P | CAT | PRIN TEST REQUIRED | TEST PERFORMED | TEST MODE | RELIEF      | REQUEST(S) |
| 2-ECR-10 | 0   | GL   | 0.5  | A              | C/8        | C          | O/C          | 2               | A   | A   | EF-1               | EF-1           | P         | NO          |            |
|          |     |      |      |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO          |            |
|          |     |      |      |                |            |            |              |                 |     |     | EF-7               | EF-7           | P         | NO          |            |
|          |     |      |      |                |            |            |              |                 |     |     | ETF-002            | ETF-002        | P         | NO          |            |
|          |     |      |      |                |            |            |              |                 |     |     | SLT-1              | SLT-2          | R         | YES, NOTE 1 |            |
| 2-ECR-11 | 0   | GL   | 0.5  | A              | A/2        | C          | O/C          | 2               | A   | A   | EF-1               | EF-1           | P         | NO          |            |
|          |     |      |      |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO          |            |
|          |     |      |      |                |            |            |              |                 |     |     | EF-7               | EF-7           | P         | NO          |            |
|          |     |      |      |                |            |            |              |                 |     |     | ETF-002            | ETF-002        | P         | NO          |            |
|          |     |      |      |                |            |            |              |                 |     |     | SLT-1              | SLT-2          | R         | YES, NOTE 1 |            |
| 2-ECR-12 | 0   | GL   | 0.5  | A              | A/2        | C          | O/C          | 2               | A   | A   | EF-1               | EF-1           | P         | NO          |            |
|          |     |      |      |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO          |            |
|          |     |      |      |                |            |            |              |                 |     |     | EF-7               | EF-7           | P         | NO          |            |
|          |     |      |      |                |            |            |              |                 |     |     | ETF-002            | ETF-002        | P         | NO          |            |
|          |     |      |      |                |            |            |              |                 |     |     | SLT-1              | SLT-2          | R         | YES, NOTE 1 |            |
| 2-ECR-13 | 0   | GL   | 0.5  | A              | A/1        | C          | O/C          | 2               | A   | A   | EF-1               | EF-1           | P         | NO          |            |
|          |     |      |      |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO          |            |
|          |     |      |      |                |            |            |              |                 |     |     | EF-7               | EF-7           | P         | NO          |            |
|          |     |      |      |                |            |            |              |                 |     |     | ETF-002            | ETF-002        | P         | NO          |            |
|          |     |      |      |                |            |            |              |                 |     |     | SLT-1              | SLT-2          | R         | YES, NOTE 1 |            |
| 2-ECR-14 | 0   | GL   | 0.5  | A              | A/3        | C          | O/C          | 2               | A   | A   | EF-1               | EF-1           | P         | NO          |            |
|          |     |      |      |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO          |            |
|          |     |      |      |                |            |            |              |                 |     |     | EF-7               | EF-7           | P         | NO          |            |
|          |     |      |      |                |            |            |              |                 |     |     | ETF-002            | ETF-002        | P         | NO          |            |
|          |     |      |      |                |            |            |              |                 |     |     | SLT-1              | SLT-2          | R         | YES, NOTE 1 |            |



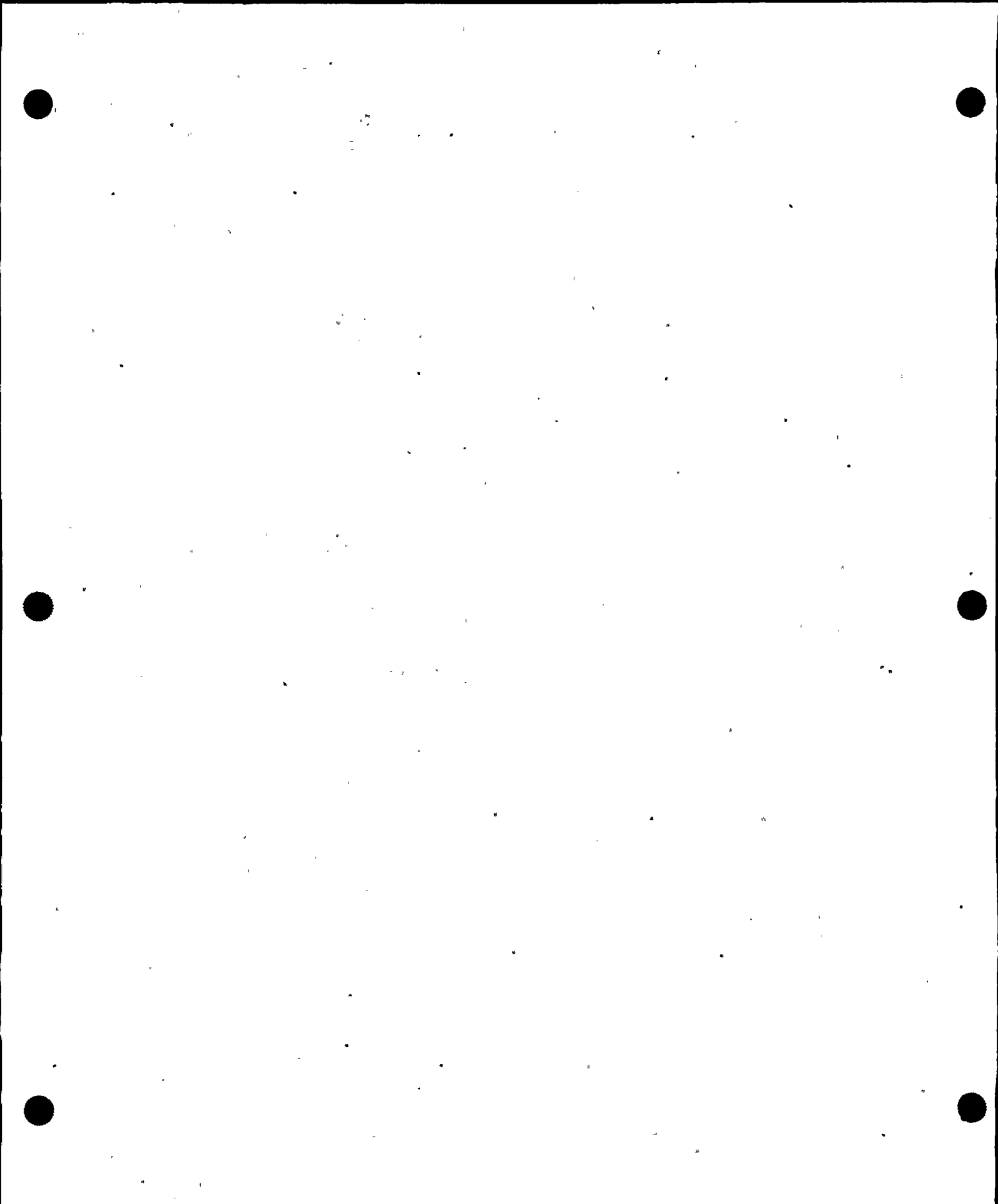
DONALD C. COOK NUCLEAR PLANT  
 SECOND TEN YEAR INTERVAL  
 VALVE SUMMARY SHEET - UNIT 2  
 FLOW DIAGRAM: 2-5141D-7

RUN DATE AND TIME: 18DEC85:09:14

SYSTEM NAME: PAS CONTAINMENT HYDROGEN

| VALVE    |     |      |      | VALVE POSITION |            |            |              | ASHE SECTION XI |     |     |                    |                |           |                   |
|----------|-----|------|------|----------------|------------|------------|--------------|-----------------|-----|-----|--------------------|----------------|-----------|-------------------|
| NUMBER   | REV | TYPE | SIZE | ACT TYPE       | F.D. COORD | POWER OPER | SAFETY FUNCT | CD ICL          | A/P | CAT | PRIM TEST REQUIRED | TEST PERFORMED | TEST MODE | RELIEF REQUEST(S) |
| 2-ECR-15 | 0   | GL   | 0.5  | A              | A/1        | C          | O/C          | 2               | A   | A   | EF-1               | EF-1           | P         | NO                |
|          |     |      |      |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO                |
|          |     |      |      |                |            |            |              |                 |     |     | EF-7               | EF-7           | P         | NO                |
|          |     |      |      |                |            |            |              |                 |     |     | ETF-002            | ETF-002        | P         | NO                |
|          |     |      |      |                |            |            |              |                 |     |     | SLT-1              | SLT-2          | R         | YES, NOTE 1       |
| 2-ECR-16 | 0   | GL   | 0.5  | A              | A/3        | C          | O/C          | 2               | A   | A   | EF-1               | EF-1           | P         | NO                |
|          |     |      |      |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO                |
|          |     |      |      |                |            |            |              |                 |     |     | EF-7               | EF-7           | P         | NO                |
|          |     |      |      |                |            |            |              |                 |     |     | ETF-002            | ETF-002        | P         | NO                |
|          |     |      |      |                |            |            |              |                 |     |     | SLT-1              | SLT-2          | R         | YES, NOTE 1       |
| 2-ECR-17 | 0   | GL   | 0.5  | A              | A/3        | C          | O/C          | 2               | A   | A   | EF-1               | EF-1           | P         | NO                |
|          |     |      |      |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO                |
|          |     |      |      |                |            |            |              |                 |     |     | EF-7               | EF-7           | P         | NO                |
|          |     |      |      |                |            |            |              |                 |     |     | ETF-002            | ETF-002        | P         | NO                |
|          |     |      |      |                |            |            |              |                 |     |     | SLT-1              | SLT-2          | R         | YES, NOTE 1       |
| 2-ECR-18 | 0   | GL   | 0.5  | A              | A/4        | C          | O/C          | 2               | A   | A   | EF-1               | EF-1           | P         | NO                |
|          |     |      |      |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO                |
|          |     |      |      |                |            |            |              |                 |     |     | EF-7               | EF-7           | P         | NO                |
|          |     |      |      |                |            |            |              |                 |     |     | ETF-002            | ETF-002        | P         | NO                |
|          |     |      |      |                |            |            |              |                 |     |     | SLT-1              | SLT-2          | R         | YES, NOTE 1       |
| 2-ECR-19 | 0   | GL   | 0.5  | A              | A/4        | C          | O/C          | 2               | A   | A   | EF-1               | EF-1           | P         | NO                |
|          |     |      |      |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO                |
|          |     |      |      |                |            |            |              |                 |     |     | EF-7               | EF-7           | P         | NO                |
|          |     |      |      |                |            |            |              |                 |     |     | ETF-002            | ETF-002        | P         | NO                |
|          |     |      |      |                |            |            |              |                 |     |     | SLT-1              | SLT-2          | R         | YES, NOTE 1       |



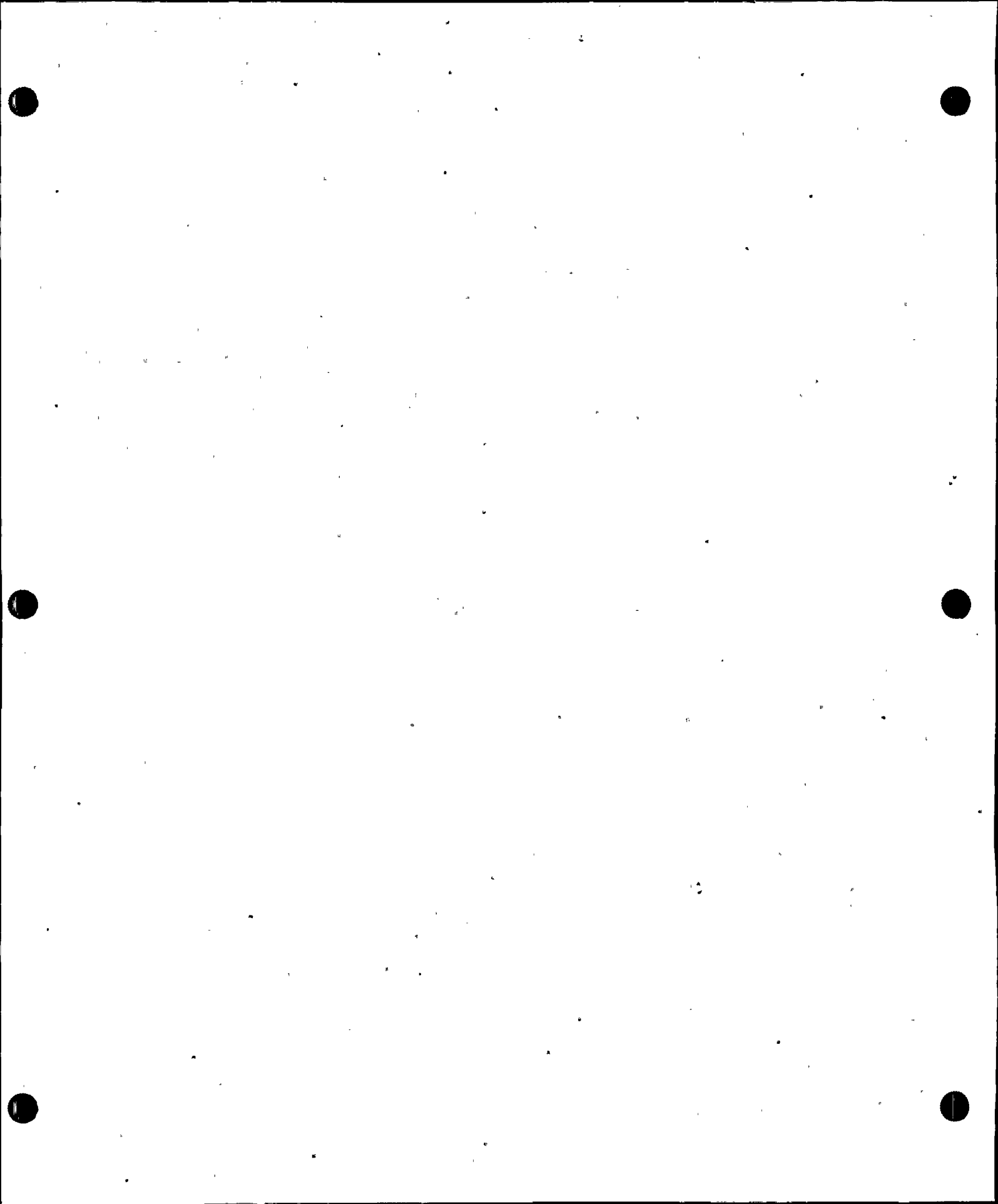


DONALD C. COOK NUCLEAR PLANT  
 SECOND TEN YEAR INTERVAL  
 VALVE SUMMARY SHEET - UNIT 2  
 FLOW DIAGRAM: 2-5141D-7

RUN DATE AND TIME: 18DEC85:09:14

SYSTEM NAME: PAS CONTAINMENT HYDROGEN

| VALVE    |     |      |      | VALVE POSITION |            |            |              | ASME SECTION XI |     |     |                    |                |           |                   |
|----------|-----|------|------|----------------|------------|------------|--------------|-----------------|-----|-----|--------------------|----------------|-----------|-------------------|
| NUMBER   | REV | TYPE | SIZE | ACT TYPE       | F.D. COORD | POWER OPER | SAFETY FUNCT | CD ICL          | A/P | CAT | PRIM TEST REQUIRED | TEST PERFORMED | TEST MODE | RELIEF REQUEST(S) |
| 2-ECR-20 | 0   | GL   | 0.5  | A              | C/8        | C          | O/C          | 2               | A   | A   | EF-1               | EF-1           | P         | NO                |
|          |     |      |      |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO                |
|          |     |      |      |                |            |            |              |                 |     |     | EF-7               | EF-7           | P         | NO                |
|          |     |      |      |                |            |            |              |                 |     |     | ETF-002            | ETF-002        | P         | NO                |
|          |     |      |      |                |            |            |              |                 |     |     | SLT-1              | SLT-2          | R         | YES, NOTE 1       |
| 2-ECR-21 | 0   | GL   | 0.5  | A              | B/2        | C          | O/C          | 2               | A   | A   | EF-1               | EF-1           | P         | NO                |
|          |     |      |      |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO                |
|          |     |      |      |                |            |            |              |                 |     |     | EF-7               | EF-7           | P         | NO                |
|          |     |      |      |                |            |            |              |                 |     |     | ETF-002            | ETF-002        | P         | NO                |
|          |     |      |      |                |            |            |              |                 |     |     | SLT-1              | SLT-2          | R         | YES, NOTE 1       |
| 2-ECR-22 | 0   | GL   | 0.5  | A              | B/2        | C          | O/C          | 2               | A   | A   | EF-1               | EF-1           | P         | NO                |
|          |     |      |      |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO                |
|          |     |      |      |                |            |            |              |                 |     |     | EF-7               | EF-7           | P         | NO                |
|          |     |      |      |                |            |            |              |                 |     |     | ETF-002            | ETF-002        | P         | NO                |
|          |     |      |      |                |            |            |              |                 |     |     | SLT-1              | SLT-2          | R         | YES, NOTE 1       |
| 2-ECR-23 | 0   | GL   | 0.5  | A              | B/1        | C          | O/C          | 2               | A   | A   | EF-1               | EF-1           | P         | NO                |
|          |     |      |      |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO                |
|          |     |      |      |                |            |            |              |                 |     |     | EF-7               | EF-7           | P         | NO                |
|          |     |      |      |                |            |            |              |                 |     |     | ETF-002            | ETF-002        | P         | NO                |
|          |     |      |      |                |            |            |              |                 |     |     | SLT-1              | SLT-2          | R         | YES, NOTE 1       |
| 2-ECR-24 | 0   | GL   | 0.5  | A              | B/3        | C          | O/C          | 2               | A   | A   | EF-1               | EF-1           | P         | NO                |
|          |     |      |      |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO                |
|          |     |      |      |                |            |            |              |                 |     |     | EF-7               | EF-7           | P         | NO                |
|          |     |      |      |                |            |            |              |                 |     |     | ETF-002            | ETF-002        | P         | NO                |
|          |     |      |      |                |            |            |              |                 |     |     | SLT-1              | SLT-2          | R         | YES, NOTE 1       |



DONALD C. COOK NUCLEAR PLANT  
 SECOND TEN YEAR INTERVAL  
 VALVE SUMMARY SHEET - UNIT 2  
 FLOW DIAGRAM: 2-5141D-7

RUN DATE AND TIME: 18DEC85:09:14

SYSTEM NAME: PAS CONTAINMENT HYDROGEN

| VALVE    |     |      |      | VALVE POSITION |            |            |              | ASME SECTION XI |     |     |                    |                |           |                   |
|----------|-----|------|------|----------------|------------|------------|--------------|-----------------|-----|-----|--------------------|----------------|-----------|-------------------|
| NUMBER   | REV | TYPE | SIZE | ACT TYPE       | F.D. COORD | POWER OPER | SAFETY FUNCT | CD ICL          | A/P | CAT | PRIM TEST REQUIRED | TEST PERFORMED | TEST MODE | RELIEF REQUEST(S) |
| 2-ECR-25 | 0   | GL   | 0.5  | A              | B/1        | C          | O/C          | 2               | A   | A   | EF-1               | EF-1           | P         | NO                |
|          |     |      |      |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO                |
|          |     |      |      |                |            |            |              |                 |     |     | EF-7               | EF-7           | P         | NO                |
|          |     |      |      |                |            |            |              |                 |     |     | ETF-002            | ETF-002        | P         | NO                |
|          |     |      |      |                |            |            |              |                 |     |     | SLT-1              | SLT-2          | R         | YES, NOTE 1       |
| 2-ECR-26 | 0   | GL   | 0.5  | A              | B/3        | C          | O/C          | 2               | A   | A   | EF-1               | EF-1           | P         | NO                |
|          |     |      |      |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO                |
|          |     |      |      |                |            |            |              |                 |     |     | EF-7               | EF-7           | P         | NO                |
|          |     |      |      |                |            |            |              |                 |     |     | ETF-002            | ETF-002        | P         | NO                |
|          |     |      |      |                |            |            |              |                 |     |     | SLT-1              | SLT-2          | R         | YES, NOTE 1       |
| 2-ECR-27 | 0   | GL   | 0.5  | A              | B/3        | C          | O/C          | 2               | A   | A   | EF-1               | EF-1           | P         | NO                |
|          |     |      |      |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO                |
|          |     |      |      |                |            |            |              |                 |     |     | EF-7               | EF-7           | P         | NO                |
|          |     |      |      |                |            |            |              |                 |     |     | ETF-002            | ETF-002        | P         | NO                |
|          |     |      |      |                |            |            |              |                 |     |     | SLT-1              | SLT-2          | R         | YES, NOTE 1       |
| 2-ECR-28 | 0   | GL   | 0.5  | A              | B/4        | C          | O/C          | 2               | A   | A   | EF-1               | EF-1           | P         | NO                |
|          |     |      |      |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO                |
|          |     |      |      |                |            |            |              |                 |     |     | EF-7               | EF-7           | P         | NO                |
|          |     |      |      |                |            |            |              |                 |     |     | ETF-002            | ETF-002        | P         | NO                |
|          |     |      |      |                |            |            |              |                 |     |     | SLT-1              | SLT-2          | R         | YES, NOTE 1       |
| 2-ECR-29 | 0   | GL   | 0.5  | A              | B/4        | C          | O/C          | 2               | A   | A   | EF-1               | EF-1           | P         | NO                |
|          |     |      |      |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO                |
|          |     |      |      |                |            |            |              |                 |     |     | EF-7               | EF-7           | P         | NO                |
|          |     |      |      |                |            |            |              |                 |     |     | ETF-002            | ETF-002        | P         | NO                |
|          |     |      |      |                |            |            |              |                 |     |     | SLT-1              | SLT-2          | R         | YES, NOTE 1       |

DONALD C. COOK NUCLEAR PLANT  
 SECOND TEN YEAR INTERVAL  
 VALVE SUMMARY SHEET - UNIT 2  
 FLOW DIAGRAM: 2-5141D-7

RUN DATE AND TIME: 18DEC85:09:14

SYSTEM NAME: PAS CONTAINMENT HYDROGEN

| VALVE    |     |      |      | VALVE POSITION |            |            |              | ASME SECTION XI |     |     |                    | TEST RELIEF REQUEST(S) |           |                           |
|----------|-----|------|------|----------------|------------|------------|--------------|-----------------|-----|-----|--------------------|------------------------|-----------|---------------------------|
| NUMBER   | REV | TYPE | SIZE | ACT TYPE       | F.D. COORD | POWER OPER | SAFETY FUNCT | CD ICL          | A/P | CAT | PRIM TEST REQUIRED | TEST PERFORMED         | TEST MODE | RELIEF REQUEST(S)         |
| 2-NS-283 | 0   | CK   | 0.5  | SA             | C/8        | C          | O/C          | 2               | A   | AC  | CF-1<br>SLT-1      | CF-1<br>SLT-2          | P<br>R    | NO, NOTE 2<br>YES, NOTE 1 |

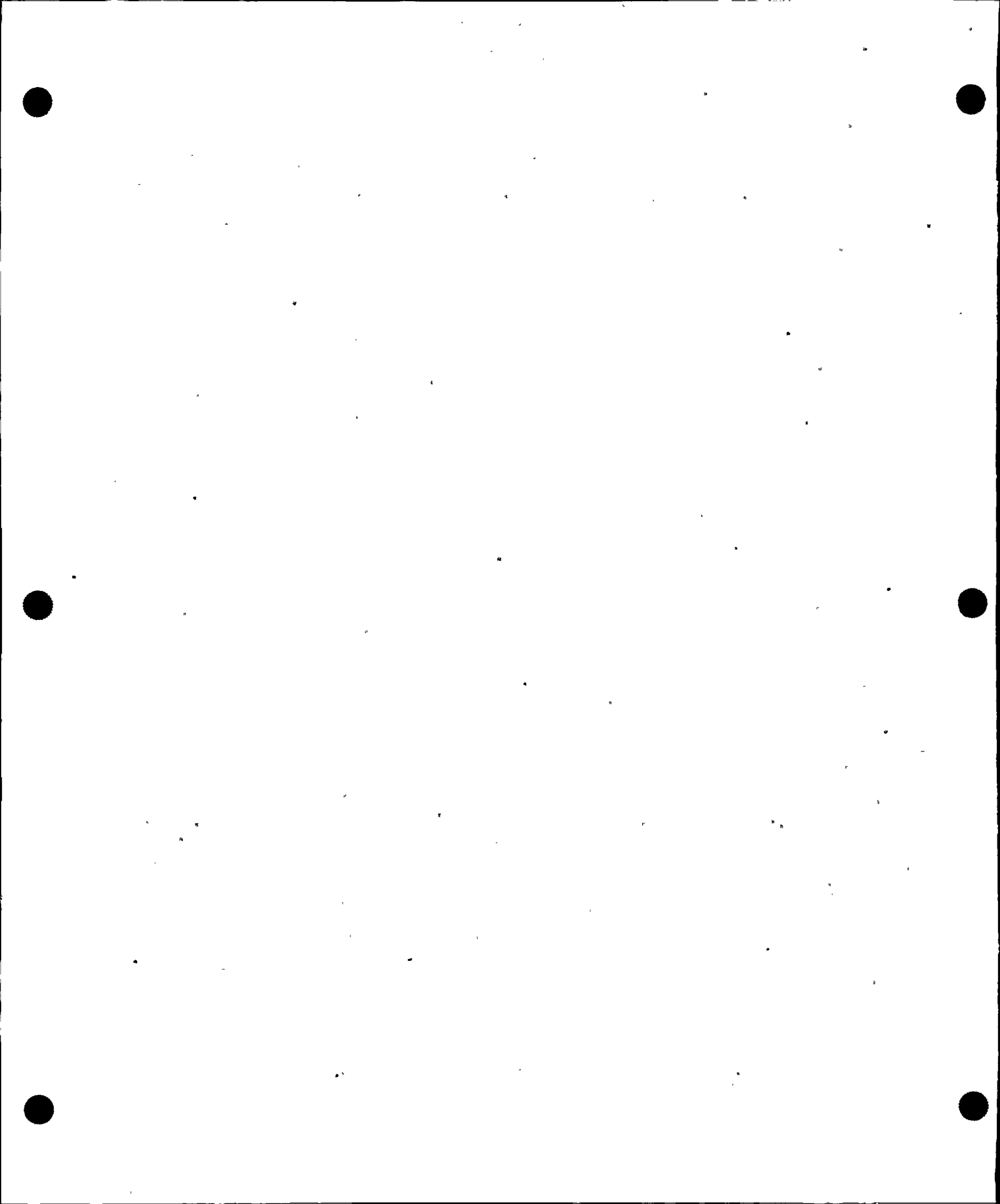


DONALD C. COOK NUCLEAR PLANT  
 SECOND TEN YEAR INTERVAL  
 VALVE SUMMARY SHEET - UNIT 2  
 FLOW DIAGRAM: 2-5142-26

RUN DATE AND TIME: 18DEC85:09:14

SYSTEM NAME: EMERGENCY CORE COOLING - SIS

| VALVE     |     |      |      | VALVE POSITION |            |            |              | ASME_SECTION_XI |     |                    |                |           |                   |             |
|-----------|-----|------|------|----------------|------------|------------|--------------|-----------------|-----|--------------------|----------------|-----------|-------------------|-------------|
| NUMBER    | REV | TYPE | SIZE | ACT TYPE       | F.D. COORD | POWER OPER | SAFETY FUNCT | CD A/P CL       | CAT | PRIM TEST REQUIRED | TEST PERFORMED | TEST MODE | RELIEF REQUEST(S) |             |
| 2-ICM-250 | 0   | GA   | 4    | MO             | H/2        | C          | O/C          | 2               | A   | A                  | EF-1           | EF-2      | C                 | YES, NOTE 1 |
|           |     |      |      |                |            |            |              |                 |     |                    | EF-5           | EF-5      | -                 | NO          |
|           |     |      |      |                |            |            |              |                 |     |                    | ET-012         | ET-012    | C                 | NO          |
|           |     |      |      |                |            |            |              |                 |     |                    | SLT-1          | SLT-2     | R                 | YES, NOTE 2 |
| 2-ICM-251 | 0   | GA   | 4    | MO             | H/3        | C          | O/C          | 2               | A   | A                  | EF-1           | EF-2      | C                 | YES, NOTE 1 |
|           |     |      |      |                |            |            |              |                 |     |                    | EF-5           | EF-5      | -                 | NO          |
|           |     |      |      |                |            |            |              |                 |     |                    | ET-012         | ET-012    | C                 | NO          |
|           |     |      |      |                |            |            |              |                 |     |                    | SLT-1          | SLT-2     | R                 | YES, NOTE 2 |
| 2-ICM-260 | 0   | GA   | 4    | MO             | C/9        | O          | O/C          | 2               | A   | A                  | EF-1           | EF-1      | P                 | NO          |
|           |     |      |      |                |            |            |              |                 |     |                    | EF-5           | EF-5      | -                 | NO          |
|           |     |      |      |                |            |            |              |                 |     |                    | ET-012         | ET-012    | P                 | NO          |
|           |     |      |      |                |            |            |              |                 |     |                    | SLT-1          | SLT-2     | R                 | YES, NOTE 2 |
| 2-ICM-265 | 0   | GA   | 4    | MO             | C/8        | O          | O/C          | 2               | A   | A                  | EF-1           | EF-1      | P                 | NO          |
|           |     |      |      |                |            |            |              |                 |     |                    | EF-5           | EF-5      | -                 | NO          |
|           |     |      |      |                |            |            |              |                 |     |                    | ET-012         | ET-012    | P                 | NO          |
|           |     |      |      |                |            |            |              |                 |     |                    | SLT-1          | SLT-2     | R                 | YES, NOTE 2 |
| 2-IMO-255 | 0   | GA   | 4    | MO             | J/7        | C          | O            | 2               | A   | B                  | EF-1           | EF-1      | P                 | NO          |
|           |     |      |      |                |            |            |              |                 |     |                    | EF-5           | EF-5      | -                 | NO          |
|           |     |      |      |                |            |            |              |                 |     |                    | ET-015         | ET-015    | P                 | NO          |
| 2-IMO-256 | 0   | GA   | 4    | MO             | J/6        | C          | O            | 2               | A   | B                  | EF-1           | EF-1      | P                 | NO          |
|           |     |      |      |                |            |            |              |                 |     |                    | EF-5           | EF-5      | -                 | NO          |
|           |     |      |      |                |            |            |              |                 |     |                    | ET-012         | ET-012    | P                 | NO          |
| 2-IMO-261 | 0   | GA   | 8    | MO             | H/8        | O          | O/C          | 2               | A   | B                  | EF-1           | EF-2      | C                 | YES, NOTE 3 |
|           |     |      |      |                |            |            |              |                 |     |                    | EF-5           | EF-5      | -                 | NO          |
|           |     |      |      |                |            |            |              |                 |     |                    | ET-015         | ET-015    | C                 | NO          |



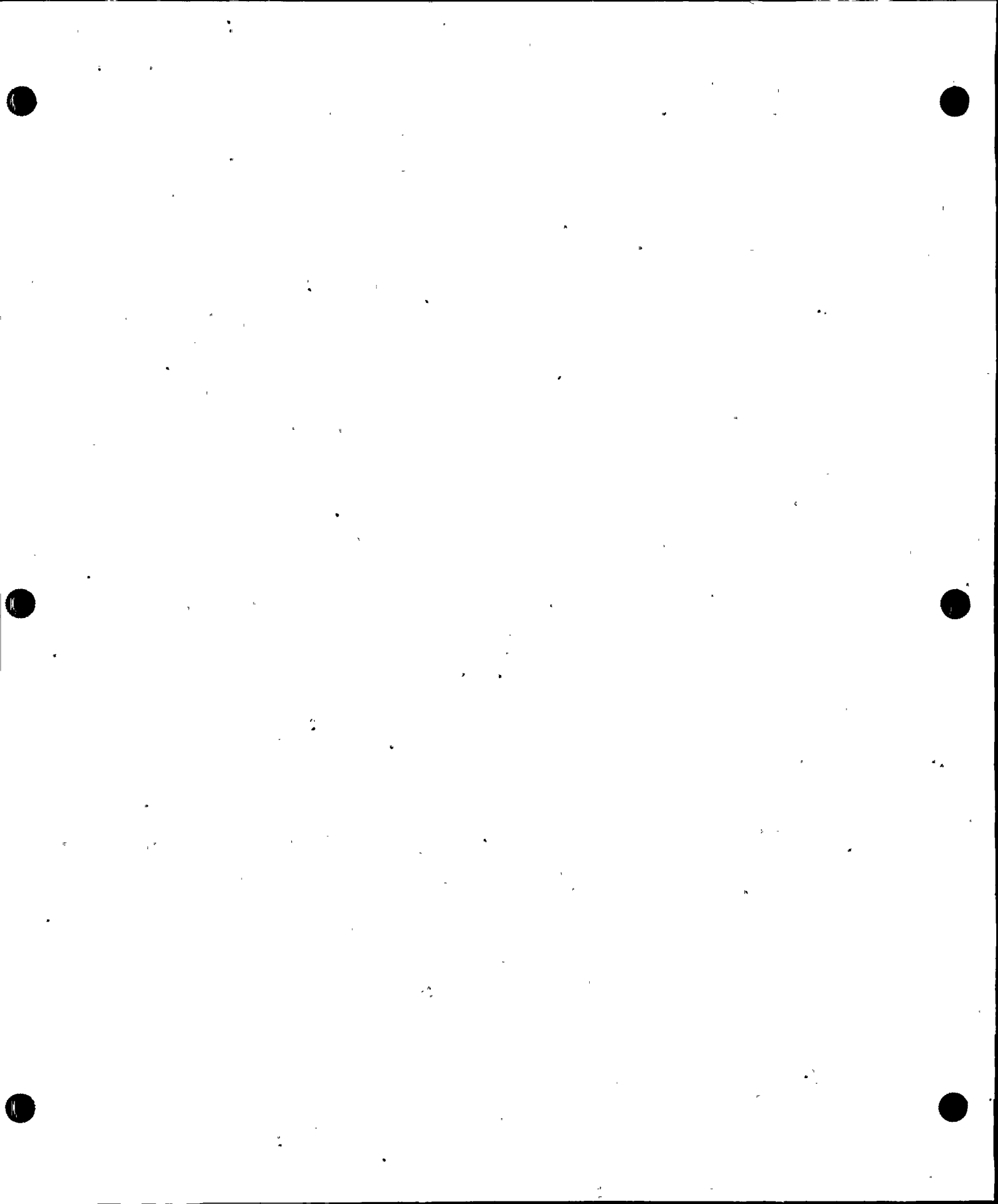


DONALD C. COOK NUCLEAR PLANT  
 SECOND TEN YEAR INTERVAL  
 VALVE SUMMARY SHEET - UNIT 2  
 FLOW DIAGRAM: 2-5142-26

RUN DATE AND TIME: 18DEC85:09:14

SYSTEM NAME: EMERGENCY CORE COOLING - SIS

| VALVE     |     |      |      | VALVE POSITION |            |            |              | ASME SECTION XI |     |     |                                |                                |                  |                         |
|-----------|-----|------|------|----------------|------------|------------|--------------|-----------------|-----|-----|--------------------------------|--------------------------------|------------------|-------------------------|
| NUMBER    | REV | TYPE | SIZE | ACT TYPE       | F.D. COORD | POWER OPER | SAFETY FUNCT | CD ICL          | A/P | CAT | PRIM TEST REQUIRED             | TEST PERFORMED                 | TEST MODE        | RELIEF REQUEST(S)       |
| 2-IMO-262 | 0   | GL   | 2    | NO             | L/8        | 0          | O/C          | 2               | A   | B   | EF-1<br>EF-5<br>ET-012         | EF-2<br>EF-5<br>ET-012         | C<br>-<br>C      | YES, NOTE 4<br>NO<br>NO |
| 2-IMO-263 | 0   | GL   | 2    | NO             | L/8        | 0          | O/C          | 2               | A   | B   | EF-1<br>EF-5<br>ET-012         | EF-2<br>EF-5<br>ET-012         | C<br>-<br>C      | YES, NOTE 4<br>NO<br>NO |
| 2-IMO-270 | 0   | GA   | 4    | NO             | E/9        | 0          | O/C          | 2               | A   | B   | EF-1<br>EF-5<br>ET-024         | EF-1<br>EF-5<br>ET-024         | P<br>-<br>P      | NO<br>NO<br>NO          |
| 2-IMO-275 | 0   | GA   | 4    | NO             | E/8        | 0          | O/C          | 2               | A   | B   | EF-1<br>EF-5<br>ET-020         | EF-1<br>EF-5<br>ET-020         | P<br>-<br>P      | NO<br>NO<br>NO          |
| 2-IMO-361 | 0   | GA   | 4    | NO             | G/9        | C          | C/O          | 2               | A   | B   | EF-1<br>EF-5<br>ET-009         | EF-1<br>EF-5<br>ET-009         | P<br>-<br>P      | NO<br>NO<br>NO          |
| 2-IMO-362 | 0   | GA   | 4    | NO             | G/9        | C          | C/O          | 2               | A   | B   | EF-1<br>EF-5<br>ET-009         | EF-1<br>EF-5<br>ET-009         | P<br>-<br>P      | NO<br>NO<br>NO          |
| 2-IRV-251 | 0   | GL   | 1    | A              | H/5        | 0          | C            | 2               | A   | B   | EF-1<br>EF-5<br>EF-7<br>ET-004 | EF-1<br>EF-5<br>EF-7<br>ET-004 | P<br>-<br>P<br>P | NO<br>NO<br>NO<br>NO    |

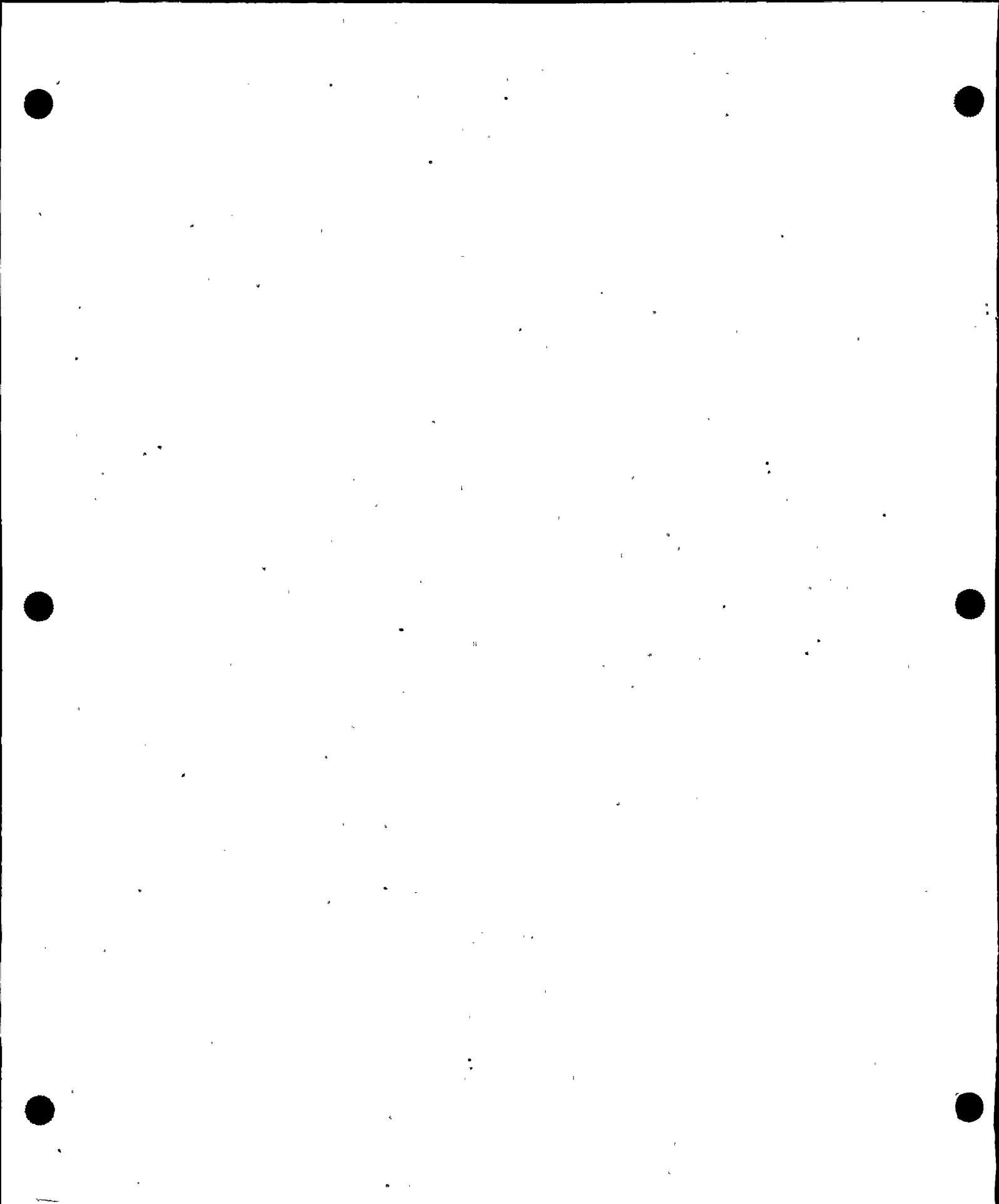


DONALD C. COOK NUCLEAR PLANT  
 SECOND TEN YEAR INTERVAL  
 VALVE SUMMARY SHEET - UNIT 2  
 FLOW DIAGRAM: 2-5142-26

RUN DATE AND TIME: 18DEC85:09:14

SYSTEM NAME: EMERGENCY CORE COOLING - SIS

| VALVE       |     |      |      | VALVE POSITION |            |            |              | ASME SECTION XI |     |     |                                |                                |                  |                      |
|-------------|-----|------|------|----------------|------------|------------|--------------|-----------------|-----|-----|--------------------------------|--------------------------------|------------------|----------------------|
| NUMBER      | REV | TYPE | SIZE | ACT TYPE       | F.D. COORD | POWER OPER | SAFETY FUNCT | CD ICL          | A/P | CAT | PRIM TEST REQUIRED             | TEST PERFORMED                 | TEST MODE        | RELIEF REQUEST(S)    |
| 2-IRV-252   | 0   | GL   | 1    | A              | J/5        | 0          | C            | 3               | A   | B   | EF-1<br>EF-5<br>EF-7<br>ET-005 | EF-1<br>EF-5<br>EF-7<br>ET-005 | P<br>-<br>P<br>P | NO<br>NO<br>NO<br>NO |
| 2-IRV-255   | 0   | GL   | 1    | A              | H/6        | 0          | C            | 2               | A   | B   | EF-1<br>EF-5<br>EF-7<br>ET-004 | EF-1<br>EF-5<br>EF-7<br>ET-004 | P<br>-<br>P<br>P | NO<br>NO<br>NO<br>NO |
| 2-SI-101    | 0   | CK   | 8    | SA             | M/8        | C          | 0            | 2               | A   | C   | CF-1                           | CF-3                           | R                | YES, NOTE 5          |
| 2-SI-104-N  | 0   | CK   | 0.75 | SA             | E/9        | C          | 0            | 2               | A   | C   | CF-1                           | CF-1                           | P                | NO                   |
| 2-SI-104-S  | 0   | CK   | 0.75 | SA             | J/9        | C          | 0            | 2               | A   | C   | CF-1                           | CF-1                           | P                | NO                   |
| 2-SI-110-N  | 0   | CK   | 4    | SA             | E/9        | C          | 0            | 2               | A   | C   | CF-1                           | CF-2                           | R                | YES, NOTE 5          |
| 2-SI-110-S  | 0   | CK   | 4    | SA             | H/9        | C          | 0            | 2               | A   | C   | CF-1                           | CF-2                           | R                | YES, NOTE 5          |
| 2-SI-126    | 0   | CK   | 1    | SA             | H/6        | 0          | C            | 2               | A   | C   | CF-1                           | CF-1                           | P                | NO                   |
| 2-SI-142-L1 | 0   | CK   | 1.5  | SA             | C/1        | C          | 0            | 1               | A   | C   | CF-1                           | CF-2                           | R                | YES, NOTE 6          |
| 2-SI-142-L2 | 0   | CK   | 1.5  | SA             | C/2        | C          | 0            | 1               | A   | C   | CF-1                           | CF-2                           | R                | YES, NOTE 6          |

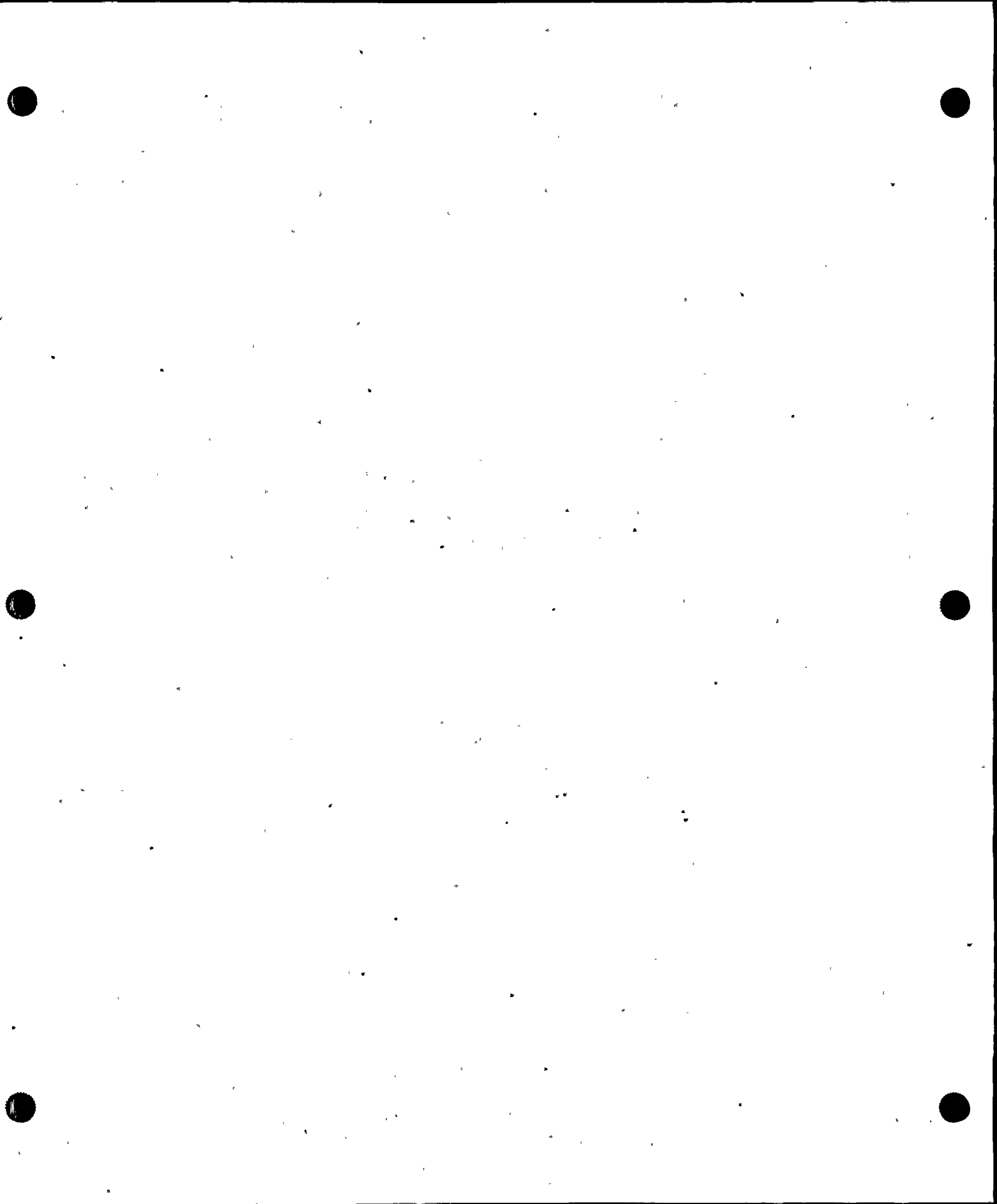


DONALD C. COOK NUCLEAR PLANT  
 SECOND TEN YEAR INTERVAL  
 VALVE SUMMARY SHEET - UNIT 2  
 FLOH DIAGRAM: 2-5142-26

RUN DATE AND TIME: 18DEC85:09:14

SYSTEM NAME: EMERGENCY CORE COOLING - SIS

| VALVE       |     |      |      | VALVE POSITION |            |            |              | ASME SECTION XI |     |     |                    |                |           |                   |
|-------------|-----|------|------|----------------|------------|------------|--------------|-----------------|-----|-----|--------------------|----------------|-----------|-------------------|
| NUMBER      | REV | TYPE | SIZE | ACT TYPE       | F.D. COORD | POWER OPER | SAFETY FUNCT | CD ICL          | A/P | CAT | PRIM TEST REQUIRED | TEST PERFORMED | TEST MODE | RELIEF REQUEST(S) |
| 2-SI-142-L3 | 0   | CK   | 1.5  | SA             | C/2        | C          | 0            | 1               | A   | C   | CF-1               | CF-2           | R         | YES, NOTE 6       |
| 2-SI-142-L4 | 0   | CK   | 1.5  | SA             | C/1        | C          | 0            | 1               | A   | C   | CF-1               | CF-2           | R         | YES, NOTE 6       |
| 2-SV-96     | 0   | REL  | 0.75 | SA             | J/8        | C          | 0            | 2               | A   | C   | TF-1               | TF-1           | R         | NO                |
| 2-SV-97     | 0   | REL  | 0.75 | SA             | J/4        | C          | 0            | 2               | A   | C   | TF-1               | TF-1           | R         | NO                |
| 2-SV-98-N   | 0   | REL  | 0.75 | SA             | C/9        | C          | 0            | 2               | A   | C   | TF-1               | TF-1           | R         | NO                |
| 2-SV-98-S   | 0   | REL  | 0.75 | SA             | E/8        | C          | 0            | 2               | A   | C   | TF-1               | TF-1           | R         | NO                |

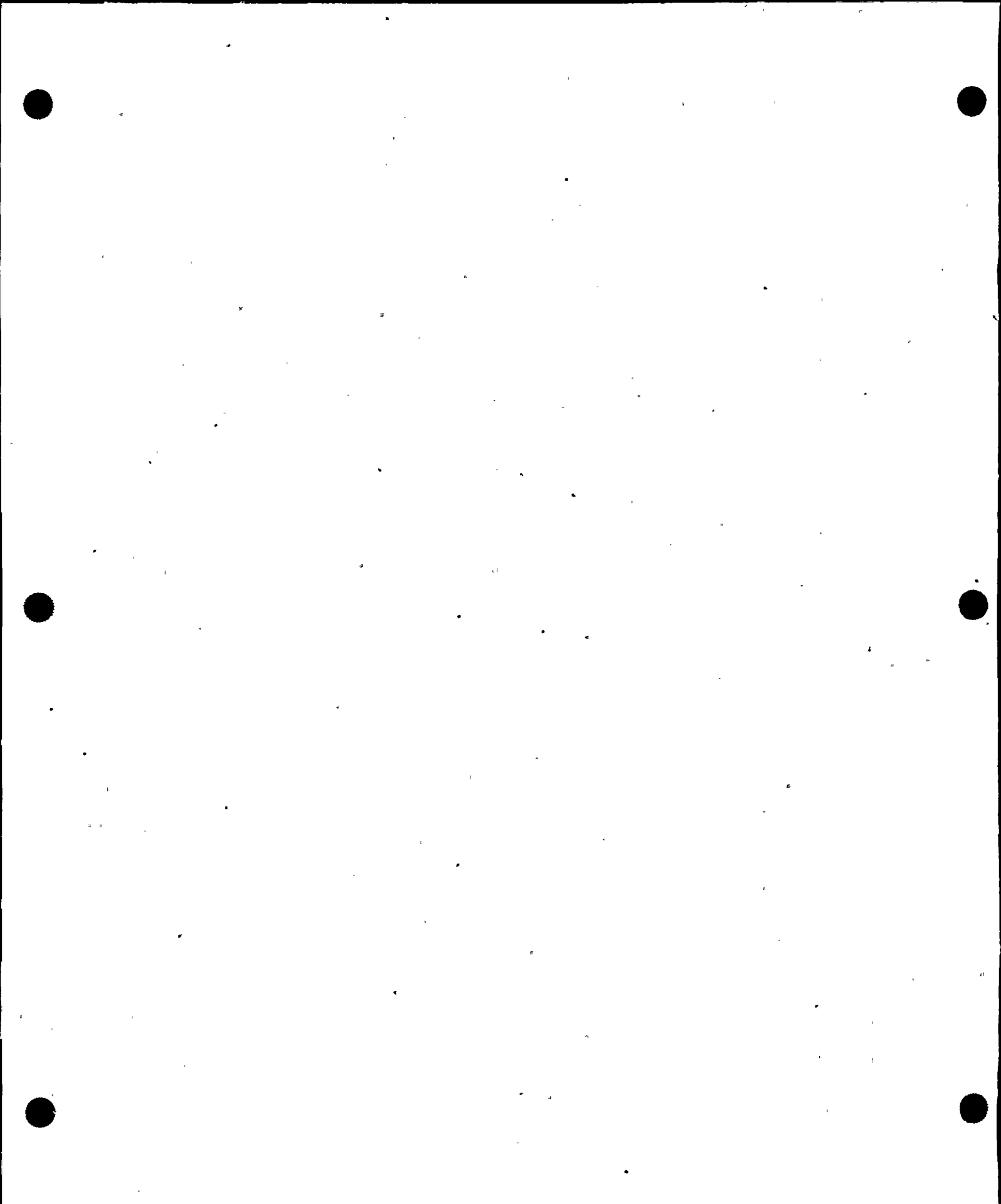


DONALD C. COOK NUCLEAR PLANT  
 SECOND TEN YEAR INTERVAL  
 VALVE SUMMARY SHEET - UNIT 2  
 FLOW DIAGRAM: 2-5143-29

RUN DATE AND TIME: 18DEC85:09:14

SYSTEM NAME: EMERGENCY CORE COOLING - RHR

| VALVE     |     |      |      | VALVE POSITION |            |            |              | ASME SECTION XI |     |     |                    |                |           |                   |
|-----------|-----|------|------|----------------|------------|------------|--------------|-----------------|-----|-----|--------------------|----------------|-----------|-------------------|
| NUMBER    | REV | TYPE | SIZE | ACT TYPE       | F.D. COORD | POWER OPER | SAFETY FUNCT | CD ICL          | A/P | CAT | PRIM TEST REQUIRED | TEST PERFORMED | TEST MODE | RELIEF REQUEST(S) |
| 2-GCR-314 | 0   | GL   | 1    | A              | G/2        | O          | C            | 2               | A   | A   | EF-1               | EF-1           | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | EF-7               | EF-7           | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | ET-003             | ET-003         | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | SLT-1              | SLT-2          | R         | YES, NOTE 1       |
| 2-ICM-129 | 0   | GA   | 14   | NO             | E/8        | C          | C            | 1               | P   | A   | EF-1               | EF-4           | -         | NO, NOTE 2        |
|           |     |      |      |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | ET-121             | ET-121         | -         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | SLT-1              | SLT-1          | R         | NO, NOTE 1        |
|           |     |      |      |                |            |            |              |                 |     |     | EF-1               | EF-1           | P         | NO                |
| 2-ICM-305 | 0   | GA   | 18   | NO             | D/9        | C          | O            | 2               | A   | A   | EF-5               | EF-5           | -         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | ET-049             | ET-049         | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | SLT-1              | SLT-2          | R         | YES, NOTE 1       |
|           |     |      |      |                |            |            |              |                 |     |     | EF-1               | EF-1           | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO                |
| 2-ICM-306 | 0   | GA   | 18   | NO             | D/9        | C          | O            | 2               | A   | A   | ET-049             | ET-049         | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | SLT-1              | SLT-2          | R         | YES, NOTE 1       |
|           |     |      |      |                |            |            |              |                 |     |     | EF-1               | EF-1           | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | ET-049             | ET-049         | P         | NO                |
| 2-IMO-128 | 0   | GA   | 14   | NO             | B/8        | C          | C            | 1               | P   | B   | SLT-1              | SLT-2          | R         | YES, NOTE 1       |
|           |     |      |      |                |            |            |              |                 |     |     | EF-1               | EF-4           | -         | NO, NOTE 2        |
|           |     |      |      |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | ET-134             | ET-134         | -         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | EF-1               | EF-1           | P         | NO                |
| 2-IMO-310 | 0   | GA   | 14   | NO             | H/9        | O          | O/C          | 2               | A   | B   | EF-5               | EF-5           | -         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | ET-148             | ET-148         | P         | NO, NOTE 3        |
|           |     |      |      |                |            |            |              |                 |     |     | EF-1               | EF-1           | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | ET-148             | ET-148         | P         | NO, NOTE 3        |



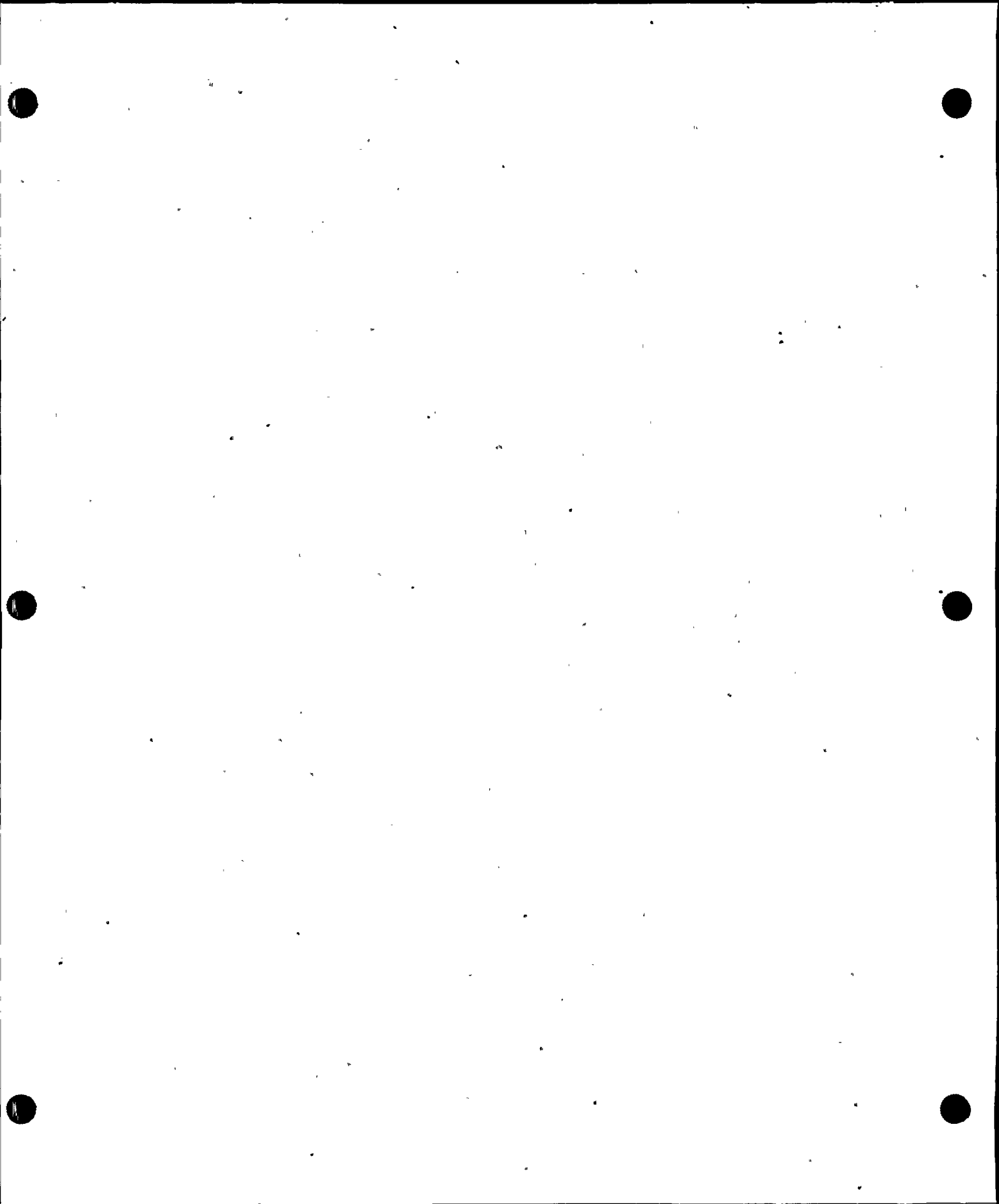


DONALD C. COOK NUCLEAR PLANT  
 SECOND TEN YEAR INTERVAL  
 VALVE SUMMARY SHEET - UNIT 2  
 FLOW DIAGRAM: 2-5143-29

RUN DATE AND TIME: 18DEC85:09:14

SYSTEM NAME: EMERGENCY CORE COOLING - RHR

| VALVE     |     |      |      | VALVE POSITION |            |            |              | ASME SECTION XI |     |     |                        |                        |             |                         |
|-----------|-----|------|------|----------------|------------|------------|--------------|-----------------|-----|-----|------------------------|------------------------|-------------|-------------------------|
| NUMBER    | REV | TYPE | SIZE | ACT TYPE       | F.D. COORD | POWER OPER | SAFETY FUNCT | CD ICL          | A/P | CAT | PRIM TEST REQUIRED     | TEST PERFORMED         | TEST MODE   | RELIEF REQUEST(S)       |
| 2-IMO-312 | 0   | GL   | 2    | MO             | J/5        | 0          | O/C          | 2               | A   | B   | EF-1<br>EF-5<br>ET-012 | EF-1<br>EF-5<br>ET-012 | P<br>-<br>P | NO<br>NO<br>NO          |
| 2-IMO-314 | 0   | GA   | 8    | MO             | K/6        | 0          | O/C          | 2               | A   | B   | EF-1<br>EF-5<br>ET-034 | EF-1<br>EF-5<br>ET-034 | P<br>-<br>P | NO<br>NO<br>NO, NOTE 3  |
| 2-IMO-315 | 0   | GA   | 8    | MO             | C/7        | C          | C/O          | 1               | A   | B   | EF-1<br>EF-5<br>ET-033 | EF-2<br>EF-5<br>ET-033 | C<br>-<br>C | YES, NOTE 4<br>NO<br>NO |
| 2-IMO-316 | 0   | GA   | 8    | MO             | C/7        | 0          | O/C          | 2               | A   | B   | EF-1<br>EF-5<br>ET-033 | EF-2<br>EF-5<br>ET-033 | C<br>-<br>C | YES, NOTE 4<br>NO<br>NO |
| 2-IMO-320 | 0   | GA   | 14   | MO             | L/9        | 0          | O/C          | 2               | A   | B   | EF-1<br>EF-5<br>ET-128 | EF-1<br>EF-5<br>ET-128 | P<br>-<br>P | NO<br>NO<br>NO, NOTE 3  |
| 2-IMO-322 | 0   | GL   | 2    | MO             | M/5        | 0          | O/C          | 2               | A   | B   | EF-1<br>EF-5<br>ET-011 | EF-1<br>EF-5<br>ET-011 | P<br>-<br>P | NO<br>NO<br>NO          |
| 2-IMO-324 | 0   | GA   | 8    | MO             | M/6        | 0          | O/C          | 2               | A   | B   | EF-1<br>EF-5<br>ET-035 | EF-1<br>EF-5<br>ET-035 | P<br>-<br>P | NO<br>NO<br>NO, NOTE 3  |

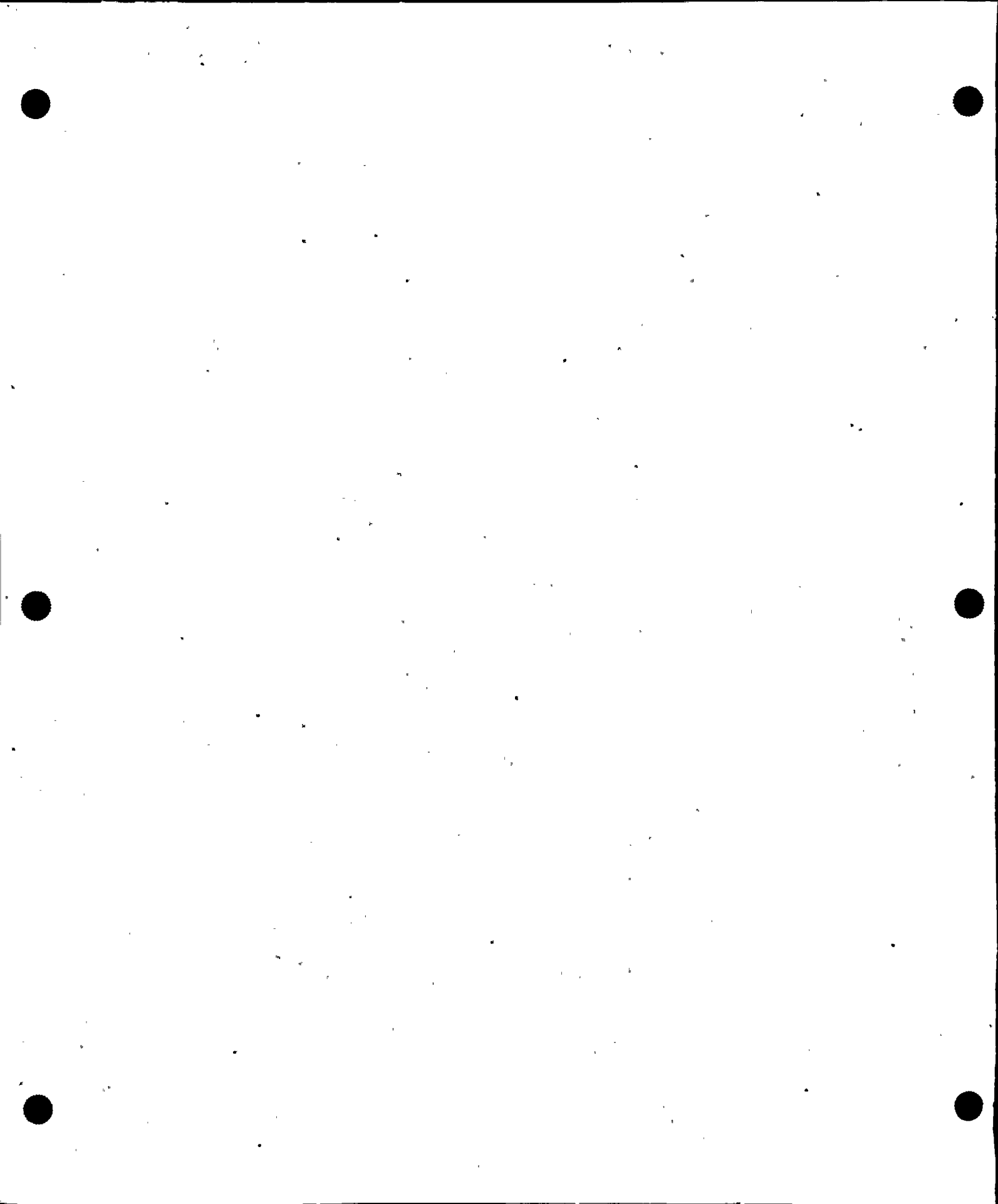


DONALD C. COOK NUCLEAR PLANT  
 SECOND TEN YEAR INTERVAL  
 VALVE SUMMARY SHEET - UNIT 2  
 FLOW DIAGRAM: 2-5143-29

RUN DATE AND TIME: 18DEC85:09:14

SYSTEM NAME: EMERGENCY CORE COOLING - RHR

| VALVE     |     |      |      | VALVE POSITION |            |            |              | ASME SECTION XI |     |     |                        |                        |             |                         |
|-----------|-----|------|------|----------------|------------|------------|--------------|-----------------|-----|-----|------------------------|------------------------|-------------|-------------------------|
| NUMBER    | REV | TYPE | SIZE | ACT TYPE       | F.D. COORD | POWER OPER | SAFETY FUNCT | CD ICL          | A/P | CAT | PRIM TEST REQUIRED     | TEST PERFORMED         | TEST MODE   | RELIEF REQUEST(S)       |
| 2-IMO-325 | 0   | GA   | 8    | NO             | C/7        | C          | C/O          | 1               | A   | B   | EF-1<br>EF-5<br>ET-028 | EF-2<br>EF-5<br>ET-028 | C<br>-<br>C | YES, NOTE 4<br>NO<br>NO |
| 2-IMO-326 | 0   | GA   | 8    | NO             | C/7        | O          | O/C          | 2               | A   | B   | EF-1<br>EF-5<br>ET-028 | EF-2<br>EF-5<br>ET-028 | C<br>-<br>C | YES, NOTE 4<br>NO<br>NO |
| 2-IMO-330 | 0   | GA   | 8    | MO             | G/4        | C          | O            | 2               | A   | B   | EF-1<br>EF-5<br>ET-053 | EF-1<br>EF-5<br>ET-053 | P<br>-<br>P | NO<br>NO<br>NO          |
| 2-IMO-331 | 0   | GA   | 8    | NO             | L/5        | C          | O            | 2               | A   | B   | EF-1<br>EF-5<br>ET-051 | EF-1<br>EF-5<br>ET-051 | P<br>-<br>P | NO<br>NO<br>NO          |
| 2-IMO-340 | 0   | GA   | 8    | NO             | H/5        | C          | O            | 2               | A   | B   | EF-1<br>EF-5<br>ET-015 | EF-1<br>EF-5<br>ET-015 | P<br>-<br>P | NO<br>NO<br>NO          |
| 2-IMO-350 | 0   | GA   | 8    | NO             | L/5        | C          | O            | 2               | A   | B   | EF-1<br>EF-5<br>ET-015 | EF-1<br>EF-5<br>ET-015 | P<br>-<br>P | NO<br>NO<br>NO          |
| 2-N-102   | 0   | CK   | 1    | SA             | F/5        | C          | C'           | 2               | P   | AC  | SLT-1                  | SLT-2                  | R           | YES, NOTE 1             |
| 2-RH-108E | 0   | CK   | 8    | SA             | K/9        | C          | O            | 2               | A   | C   | CF-1                   | CF-3                   | C           | NO, NOTE 7              |

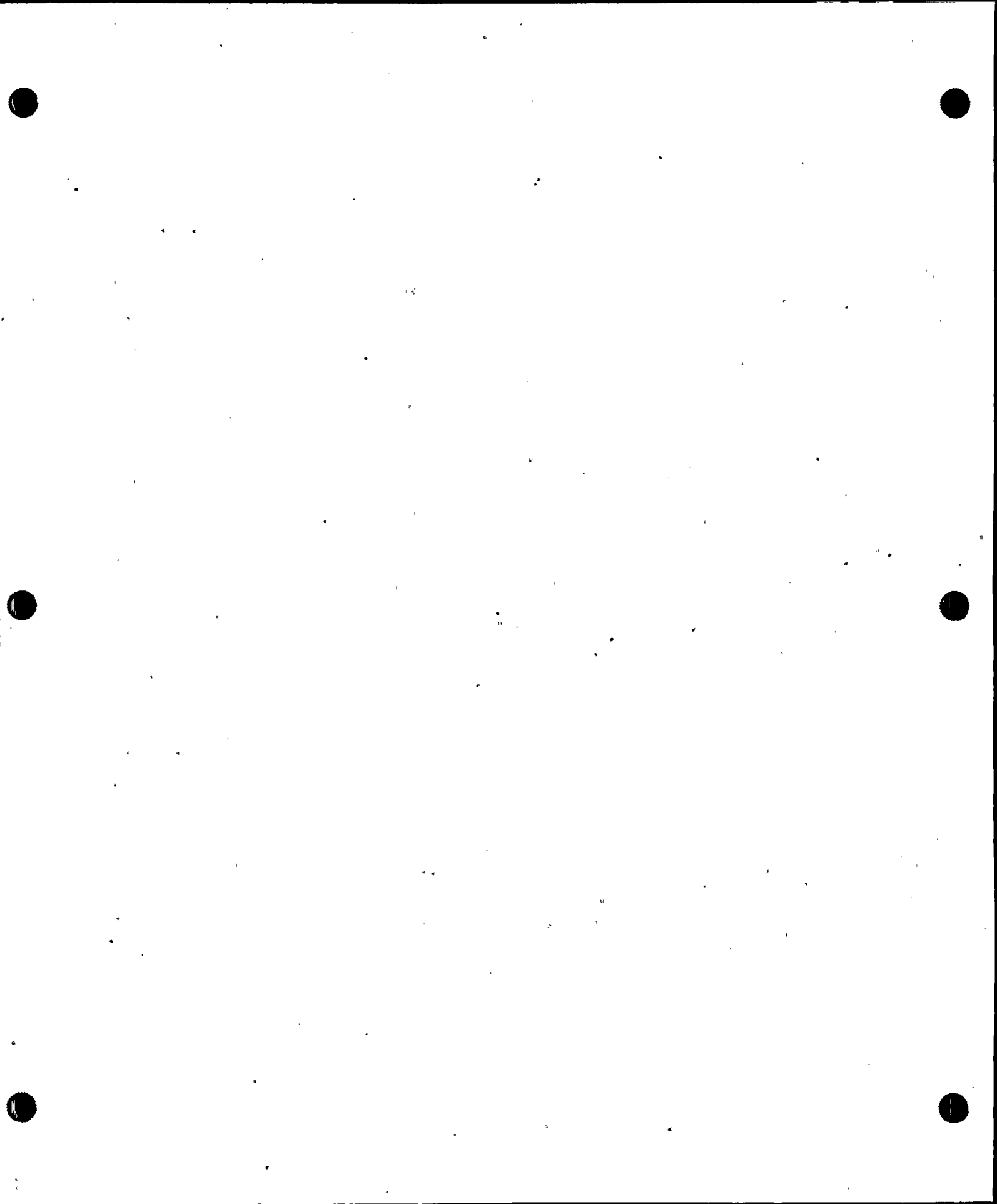


DONALD C. COOK NUCLEAR PLANT  
 SECOND TEN YEAR INTERVAL  
 VALVE SUMMARY SHEET - UNIT 2  
 FLOW DIAGRAM: 2-5143-29

RUN DATE AND TIME: 18DEC85:09:14

SYSTEM NAME: EMERGENCY CORE COOLING - RHR

| VALVE       |     |      |      | VALVE POSITION |            |            |              | ASME SECTION XI |     |     |                    |                |           |                            |
|-------------|-----|------|------|----------------|------------|------------|--------------|-----------------|-----|-----|--------------------|----------------|-----------|----------------------------|
| NUMBER      | REV | TYPE | SIZE | ACT TYPE       | F.D. COORD | POWER OPER | SAFETY FUNCT | CD ICL          | A/P | CAT | PRIM TEST REQUIRED | TEST PERFORMED | TEST MODE | RELIEF REQUEST(S)          |
| 2-RH-108W   | 0   | CK   | 8    | SA             | N/9        | C          | 0            | 2               | A   | C   | CF-1               | CF-3           | C         | NO, NOTE 7                 |
| 2-RH-133    | 0   | CK   | 8    | SA             | C/5        | C          | C            | 1               | P   | AC  | CF-1<br>SLT-1      | CF-2<br>SLT-1  | C<br>R    | YES, NOTE 8<br>NO, NOTE 1  |
| 2-RH-134    | 0   | CK   | 8    | SA             | C/5        | C          | C            | 1               | P   | AC  | CF-1<br>SLT-1      | CF-2<br>SLT-1  | C<br>R    | YES, NOTE 8<br>NO, NOTE 1  |
| 2-SI-148    | 0   | CK   | 12   | SA             | G/7        | C          | 0            | 2               | A   | C   | CF-1               | CF-3           | C         | YES, NOTE 9                |
| 2-SI-151-E  | 0   | CK   | 8    | SA             | D/7        | C          | 0            | 2               | A   | AC  | CF-1<br>SLT-1      | CF-2<br>SLT-1  | C<br>R    | YES, NOTE 10<br>NO, NOTE 1 |
| 2-SI-151-W  | 0   | CK   | 8    | SA             | D/7        | C          | 0            | 2               | A   | AC  | CF-1<br>SLT-1      | CF-2<br>SLT-1  | C<br>R    | YES, NOTE 10<br>NO, NOTE 1 |
| 2-SI-152-N  | 0   | CK   | 4    | SA             | D/8        | C          | 0            | 2               | A   | AC  | CF-1<br>SLT-1      | CF-2<br>SLT-1  | R<br>R    | YES, NOTE 11<br>NO, NOTE 1 |
| 2-SI-152-S  | 0   | CK   | 4    | SA             | D/7        | C          | 0            | 2               | A   | AC  | CF-1<br>SLT-1      | CF-2<br>SLT-1  | R<br>R    | YES, NOTE 11<br>NO, NOTE 1 |
| 2-SI-158-L1 | 0   | CK   | 6    | SA             | B/8        | C          | 0            | 1               | A   | AC  | CF-1<br>SLT-1      | CF-2<br>SLT-1  | C<br>R    | YES, NOTE 12<br>NO, NOTE 1 |
| 2-SI-158-L2 | 0   | CK   | 6    | SA             | B/7        | C          | 0            | 1               | A   | AC  | CF-1<br>SLT-1      | CF-2<br>SLT-1  | C<br>R    | YES, NOTE 12<br>NO, NOTE 1 |



DONALD C. COOK NUCLEAR PLANT  
 SECOND TEN YEAR INTERVAL  
 VALVE SUMMARY SHEET - UNIT 2  
 FLOW DIAGRAM: 2-5143-29

RUN DATE AND TIME: 18DEC85:09:14

SYSTEM NAME: EMERGENCY CORE COOLING - RHR

| VALVE       |     |      |      | VALVE POSITION |            |            |              | ASME_SECTION_XI |     |     |                    |                |           |                            |
|-------------|-----|------|------|----------------|------------|------------|--------------|-----------------|-----|-----|--------------------|----------------|-----------|----------------------------|
| NUMBER      | REV | TYPE | SIZE | ACT TYPE       | F.D. COORD | POWER OPER | SAFETY FUNCT | CD ICL          | A/P | CAT | PRIM TEST REQUIRED | TEST PERFORMED | TEST MODE | RELIEF REQUEST(S)          |
| 2-SI-158-L3 | 0   | CK   | 6    | SA             | B/7        | C          | 0            | 1               | A   | AC  | CF-1<br>SLT-1      | CF-2<br>SLT-1  | C<br>R    | YES, NOTE 12<br>NO, NOTE 1 |
| 2-SI-158-L4 | 0   | CK   | 6    | SA             | B/7        | C          | 0            | 1               | A   | AC  | CF-1<br>SLT-1      | CF-2<br>SLT-1  | C<br>R    | YES, NOTE 12<br>NO, NOTE 1 |
| 2-SI-161-L1 | 0   | CK   | 6    | SA             | B/6        | C          | 0            | 1               | A   | AC  | CF-1<br>SLT-1      | CF-2<br>SLT-1  | C<br>R    | YES, NOTE 6<br>NO, NOTE 1  |
| 2-SI-161-L2 | 0   | CK   | 6    | SA             | B/5        | C          | 0            | 1               | A   | AC  | CF-1<br>SLT-1      | CF-2<br>SLT-1  | C<br>R    | YES, NOTE 6<br>NO, NOTE 1  |
| 2-SI-161-L3 | 0   | CK   | 6    | SA             | B/5        | C          | 0            | 1               | A   | AC  | CF-1<br>SLT-1      | CF-2<br>SLT-1  | C<br>R    | YES, NOTE 6<br>NO, NOTE 1  |
| 2-SI-161-L4 | 0   | CK   | 6    | SA             | B/6        | C          | 0            | 1               | A   | AC  | CF-1<br>SLT-1      | CF-2<br>SLT-1  | C<br>R    | YES, NOTE 6<br>NO, NOTE 1  |
| 2-SI-166-L1 | 0   | CK   | 10   | SA             | C/4        | C          | 0            | 1               | A   | AC  | CF-1<br>SLT-1      | CF-2<br>SLT-1  | R<br>R    | YES, NOTE 5<br>NO, NOTE 1  |
| 2-SI-166-L2 | 0   | CK   | 10   | SA             | C/4        | C          | 0            | 1               | A   | AC  | CF-1<br>SLT-1      | CF-2<br>SLT-1  | R<br>R    | YES, NOTE 5<br>NO, NOTE 1  |
| 2-SI-166-L3 | 0   | CK   | 10   | SA             | C/4        | C          | 0            | 1               | A   | AC  | CF-1<br>SLT-1      | CF-2<br>SLT-1  | R<br>R    | YES, NOTE 5<br>NO, NOTE 1  |

DONALD C. COOK NUCLEAR PLANT  
 SECOND TEN YEAR INTERVAL  
 VALVE SUMMARY SHEET - UNIT 2  
 FLOW DIAGRAM: 2-5143-29

RUN DATE AND TIME: 18DEC85:09:14

SYSTEM NAME: EMERGENCY CORE COOLING - RHR

| VALVE       |     |      |      | VALVE POSITION |            |            |              | ASME SECTION XI |     |     |                    |                |           |                           |
|-------------|-----|------|------|----------------|------------|------------|--------------|-----------------|-----|-----|--------------------|----------------|-----------|---------------------------|
| NUMBER      | REV | TYPE | SIZE | ACT TYPE       | F.D. COORD | POWER OPER | SAFETY FUNCT | CD ICL          | A/P | CAT | PRIM TEST REQUIRED | TEST PERFORMED | TEST MODE | RELIEF REQUEST(S)         |
| 2-SI-166-L4 | 0   | CK   | 10   | SA             | C/4        | C          | 0            | 1               | A   | AC  | CF-1<br>SLT-1      | CF-2<br>SLT-1  | R<br>R    | YES, NOTE 5<br>NO, NOTE 1 |
| 2-SI-170-L1 | 0   | CK   | 10   | SA             | A/4        | C          | 0            | 1               | A   | AC  | CF-1<br>SLT-1      | CF-2<br>SLT-1  | R<br>R    | YES, NOTE 6<br>NO, NOTE 1 |
| 2-SI-170-L2 | 0   | CK   | 10   | SA             | A/5        | C          | 0/C          | 1               | A   | AC  | CF-1<br>SLT-1      | CF-2<br>SLT-1  | R<br>R    | YES, NOTE 6<br>NO, NOTE 1 |
| 2-SI-170-L3 | 0   | CK   | 10   | SA             | A/5        | C          | 0/C          | 1               | A   | AC  | CF-1<br>SLT-1      | CF-2<br>SLT-1  | R<br>R    | YES, NOTE 6<br>NO, NOTE 1 |
| 2-SI-170-L4 | 0   | CK   | 10   | SA             | A/4        | C          | 0            | 1               | A   | AC  | CF-1<br>SLT-1      | CF-2<br>SLT-1  | R<br>R    | YES, NOTE 6<br>NO, NOTE 1 |
| 2-SI-171    | 0   | GL   | 0.75 | M              | H/6        | C          | C            | 2               | P   | A   | SLT-1              | SLT-2          | R         | YES, NOTE 1               |
| 2-SI-172    | 0   | GL   | 0.75 | M              | H/6        | C          | C            | 2               | P   | A   | SLT-1              | SLT-2          | R         | YES, NOTE 1               |
| 2-SI-194    | 0   | GL   | 0.75 | M              | G/6        | C          | C            | 2               | P   | A   | SLT-1              | SLT-2          | R         | YES, NOTE 1               |
| 2-SV-100-1  | 0   | REL  | 1    | SA             | D/1        | C          | 0            | 2               | A   | C   | TF-1               | TF-1           | R         | NO                        |
| 2-SV-100-2  | 0   | REL  | 1    | SA             | D/1        | C          | 0            | 2               | A   | C   | TF-1               | TF-1           | R         | NO                        |





DONALD C. COOK NUCLEAR PLANT  
 SECOND TEN YEAR INTERVAL  
 VALVE SUMMARY SHEET - UNIT 2  
 FLOW DIAGRAM: 2-5143-29

RUN DATE AND TIME: 18DEC85:09:14

SYSTEM NAME: EMERGENCY CORE COOLING - RHR

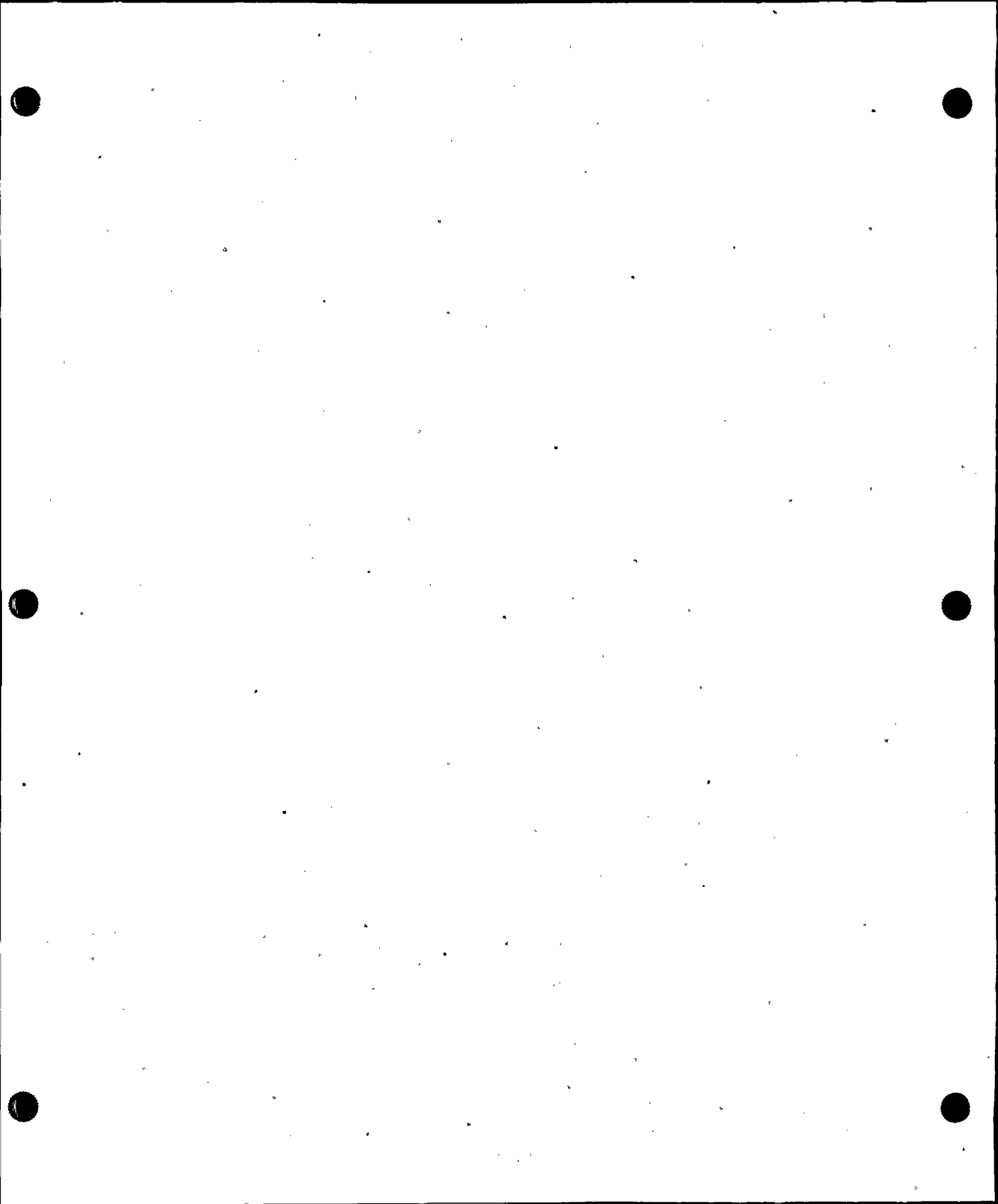
| VALVE      |     |      |      | VALVE POSITION |            |            |              | ASME SECTION XI |     |     |                    |                |           |                   |
|------------|-----|------|------|----------------|------------|------------|--------------|-----------------|-----|-----|--------------------|----------------|-----------|-------------------|
| NUMBER     | REV | TYPE | SIZE | ACT TYPE       | F.D. COORD | POWER OPER | SAFETY FUNCT | CD ICL          | A/P | CAT | PRIM TEST REQUIRED | TEST PERFORMED | TEST MODE | RELIEF REQUEST(S) |
| 2-SV-100-3 | 0   | REL  | 1    | SA             | D/1        | C          | 0            | 2               | A   | C   | TF-1               | TF-1           | R         | NO                |
| 2-SV-100-4 | 0   | REL  | 1    | SA             | D/1        | C          | 0            | 2               | A   | C   | TF-1               | TF-1           | R         | NO                |
| 2-SV-102   | 0   | REL  | 0.75 | SA             | E/5        | C          | 0            | 2               | A   | C   | TF-1               | TF-1           | R         | NO                |
| 2-SV-103   | 0   | REL  | 3    | SA             | F/8        | C          | 0            | 2               | A   | C   | TF-1               | TF-1           | R         | NO                |
| 2-SV-104E  | 0   | REL  | 2    | SA             | G/4        | C          | 0            | 2               | A   | C   | TF-1               | TF-1           | R         | NO                |
| 2-SV-104W  | 0   | REL  | 2    | SA             | K/4        | C          | 0            | 2               | A   | C   | TF-1               | TF-1           | R         | NO                |
| 2-SV-105E  | 0   | REL  | 2    | SA             | D/9        | C          | 0            | 2               | A   | C   | TF-1               | TF-1           | R         | NO                |
| 2-SV-105W  | 0   | REL  | 2    | SA             | D/9        | C          | 0            | 2               | A   | C   | TF-1               | TF-1           | R         | NO                |

DONALD C. COOK NUCLEAR PLANT  
 SECOND TEN YEAR INTERVAL  
 VALVE SUMMARY SHEET - UNIT 2  
 FLOW DIAGRAM: 2-5144-27

RUN DATE AND TIME: 18DEC85:09:14

SYSTEM NAME: CONTAINMENT SPRAY

| VALVE       |     |      |      | VALVE POSITION |            |            |              | ASME SECTION XI |     |     |                    |                |           |                            |
|-------------|-----|------|------|----------------|------------|------------|--------------|-----------------|-----|-----|--------------------|----------------|-----------|----------------------------|
| NUMBER      | REV | TYPE | SIZE | ACT TYPE       | F.D. COORD | POWER OPER | SAFETY FUNCT | CD ICL          | A/P | CAT | PRIM TEST REQUIRED | TEST PERFORMED | TEST MODE | RELIEF REQUEST(S)          |
| 2-CTS-103-E | 0   | CK   | 10   | SA             | J/9        | C          | 0            | 2               | A   | C   | CF-1               | CF-3           | P         | YES, NOTE 1                |
| 2-CTS-103-W | 0   | CK   | 10   | SA             | L/9        | C          | 0            | 2               | A   | C   | CF-1               | CF-3           | P         | YES, NOTE 1                |
| 2-CTS-109   | 0   | VB   | 1    | SA             | M/6        | C          | 0            | 2               | A   | C   | TF-1               | TF-1           | R         | NO                         |
| 2-CTS-110   | 0   | VB   | 1    | SA             | M/6        | C          | 0            | 2               | A   | C   | TF-1               | TF-1           | R         | NO                         |
| 2-CTS-120-E | 0   | CK   | 2    | SA             | H/8        | C          | 0            | 2               | A   | C   | CF-1               | CF-1           | P         | NO                         |
| 2-CTS-120-W | 0   | CK   | 2    | SA             | K/8        | C          | 0            | 2               | A   | C   | CF-1               | CF-1           | P         | NO                         |
| 2-CTS-127-E | 0   | CK   | 6    | SA             | E/5        | C          | 0            | 2               | A   | AC  | CF-1<br>SLT-1      | CF-2<br>SLT-2A | R<br>R    | YES, NOTE 2<br>YES, NOTE 3 |
| 2-CTS-127-W | 0   | CK   | 6    | SA             | E/4        | C          | 0            | 2               | A   | AC  | CF-1<br>SLT-1      | CF-2<br>SLT-2A | R<br>R    | YES, NOTE 2<br>YES, NOTE 3 |
| 2-CTS-131-E | 0   | CK   | 8    | SA             | E/2        | C          | 0            | 2               | A   | AC  | CF-1<br>SLT-1      | CF-2<br>SLT-2A | R<br>R    | YES, NOTE 2<br>YES, NOTE 3 |
| 2-CTS-131-W | 0   | CK   | 8    | SA             | E/2        | C          | 0            | 2               | A   | AC  | CF-1<br>SLT-1      | CF-2<br>SLT-2A | R<br>R    | YES, NOTE 2<br>YES, NOTE 3 |
| 2-CTS-138-E | 0   | CK   | 12   | SA             | G/9        | C          | 0/C          | 2               | A   | C   | CF-1               | CF-3           | P         | YES, NOTE 1                |



DONALD C. COOK NUCLEAR PLANT  
 SECOND TEN YEAR INTERVAL  
 VALVE SUMMARY SHEET - UNIT 2  
 FLOW DIAGRAM: 2-5144-27

RUN DATE AND TIME: 18DEC85:09:14

SYSTEM NAME: CONTAINMENT SPRAY

| VALVE       |     |      |      | VALVE POSITION |            |            |              | ASME SECTION XI |     |     |                        |                        |             |                   |
|-------------|-----|------|------|----------------|------------|------------|--------------|-----------------|-----|-----|------------------------|------------------------|-------------|-------------------|
| NUMBER      | REV | TYPE | SIZE | ACT TYPE       | F.D. COORD | POWER OPER | SAFETY FUNCT | CD  CL          | A/P | CAT | PRIM TEST REQUIRED     | TEST PERFORMED         | TEST MODE   | RELIEF REQUEST(S) |
| 2-CTS-138-W | 0   | CK   | 12   | SA             | J/9        | C          | O/C          | 2               | A   | C   | CF-1                   | CF-3                   | P           | YES, NOTE 1       |
| 2-IMO-202   | 0   | GA   | 2.5  | MO             | M/7        | C          | 0            | 2               | A   | B   | EF-1<br>EF-5<br>ET-018 | EF-1<br>EF-5<br>ET-018 | P<br>-<br>P | NO<br>NO<br>NO    |
| 2-IMO-204   | 0   | GA   | 2.5  | MO             | M/7        | C          | 0            | 2               | A   | B   | EF-1<br>EF-5<br>ET-018 | EF-1<br>EF-5<br>ET-018 | P<br>-<br>P | NO<br>NO<br>NO    |
| 2-IMO-210   | 0   | GA   | 10   | MO             | J/8        | C          | 0            | 2               | A   | B   | EF-1<br>EF-5<br>ET-066 | EF-1<br>EF-5<br>ET-066 | P<br>-<br>P | NO<br>NO<br>NO    |
| 2-IMO-211   | 0   | GA   | 10   | MO             | J/8        | C          | 0            | 2               | A   | B   | EF-1<br>EF-5<br>ET-065 | EF-1<br>EF-5<br>ET-065 | P<br>-<br>P | NO<br>NO<br>NO    |
| 2-IMO-212   | 0   | GA   | 2    | MO             | H/8        | O          | O/C          | 2               | A   | B   | EF-1<br>EF-5<br>ET-033 | EF-1<br>EF-5<br>ET-033 | P<br>-<br>P | NO<br>NO<br>NO    |
| 2-IMO-215   | 0   | GA   | 12   | MO             | G/9        | O          | O/C          | 2               | A   | B   | EF-1<br>EF-5<br>ET-074 | EF-1<br>EF-5<br>ET-074 | P<br>-<br>P | NO<br>NO<br>NO    |
| 2-IMO-220   | 0   | GA   | 10   | MO             | L/8        | C          | 0            | 2               | A   | B   | EF-1<br>EF-5<br>ET-065 | EF-1<br>EF-5<br>ET-065 | P<br>-<br>P | NO<br>NO<br>NO    |

DONALD C. COOK NUCLEAR PLANT  
 SECOND TEN YEAR INTERVAL  
 VALVE SUMMARY SHEET - UNIT 2  
 FLOW DIAGRAM: 2-5144-27

RUN DATE AND TIME: 18DEC85:09:14

SYSTEM NAME: CONTAINMENT SPRAY

| VALVE     |     |      |      | VALVE POSITION |            |            |              | ASME SECTION XI |      |                        |                        |             |                            |
|-----------|-----|------|------|----------------|------------|------------|--------------|-----------------|------|------------------------|------------------------|-------------|----------------------------|
| NUMBER    | REV | TYPE | SIZE | ACT TYPE       | F.D. COORD | POWER OPER | SAFETY FUNCT | CD A/P CL       | CAT  | PRIM TEST REQUIRED     | TEST PERFORMED         | TEST MODE   | RELIEF REQUEST(S)          |
| 2-IMO-221 | 0   | GA   | 10   | MO             | L/8        | C          | 0            | 2               | A B  | EF-1<br>EF-5<br>ET-066 | EF-1<br>EF-5<br>ET-066 | P<br>-<br>P | NO<br>NO<br>NO             |
| 2-IMO-222 | 0   | GA   | 2    | MO             | L/9        | 0          | O/C          | 2               | A B  | EF-1<br>EF-5<br>ET-030 | EF-1<br>EF-5<br>ET-030 | P<br>-<br>P | NO<br>NO<br>NO             |
| 2-IMO-225 | 0   | GA   | 12   | MO             | J/9        | 0          | O/C          | 2               | A B  | EF-1<br>EF-5<br>ET-074 | EF-1<br>EF-5<br>ET-074 | P<br>-<br>P | NO<br>NO<br>NO             |
| 2-RH-141  | 0   | CK   | 8    | SA             | E/3        | C          | 0            | 2               | A AC | CF-1<br>SLT-1          | CF-2<br>SLT-2A         | R<br>R      | YES, NOTE 2<br>YES, NOTE 3 |
| 2-RH-142  | 0   | CK   | 8    | SA             | E/3        | C          | 0            | 2               | A AC | CF-1<br>SLT-1          | CF-2<br>SLT-2A         | R<br>R      | YES, NOTE 2<br>YES, NOTE 3 |
| 2-SV-107  | 0   | REL  | 1    | SA             | N/5        | C          | 0            | 2               | A C  | TF-1                   | TF-1                   | R           | NO                         |

DONALD C. COOK NUCLEAR PLANT  
 SECOND TEN YEAR INTERVAL  
 VALVE SUMMARY SHEET - UNIT 2  
 FLOW DIAGRAM: 2-5145-17

RUN DATE AND TIME: 18DEC85:09:14

SYSTEM NAME: CPN/WELD CHANNEL PRESSURIZATION

| VALVE      |     |      |      | VALVE POSITION |            |            |              | ASME_SECTION_XI |     |     |                    |                |           |                   |
|------------|-----|------|------|----------------|------------|------------|--------------|-----------------|-----|-----|--------------------|----------------|-----------|-------------------|
| NUMBER     | REV | TYPE | SIZE | ACT TYPE       | F.D. COORD | POWER OPER | SAFETY FUNCT | CD ICL          | A/P | CAT | PRIM TEST REQUIRED | TEST PERFORMED | TEST MODE | RELIEF REQUEST(S) |
| 2-CA-181-N | 0   | CK   | 0.5  | SA             | F/2        | C          | C            | 2               | P   | AC  | SLT-1              | SLT-2          | R         | YES, NOTE 1       |
| 2-CA-181-S | 0   | CK   | 0.5  | SA             | F/3        | C          | C            | 2               | P   | AC  | SLT-1              | SLT-2          | R         | YES, NOTE 1       |

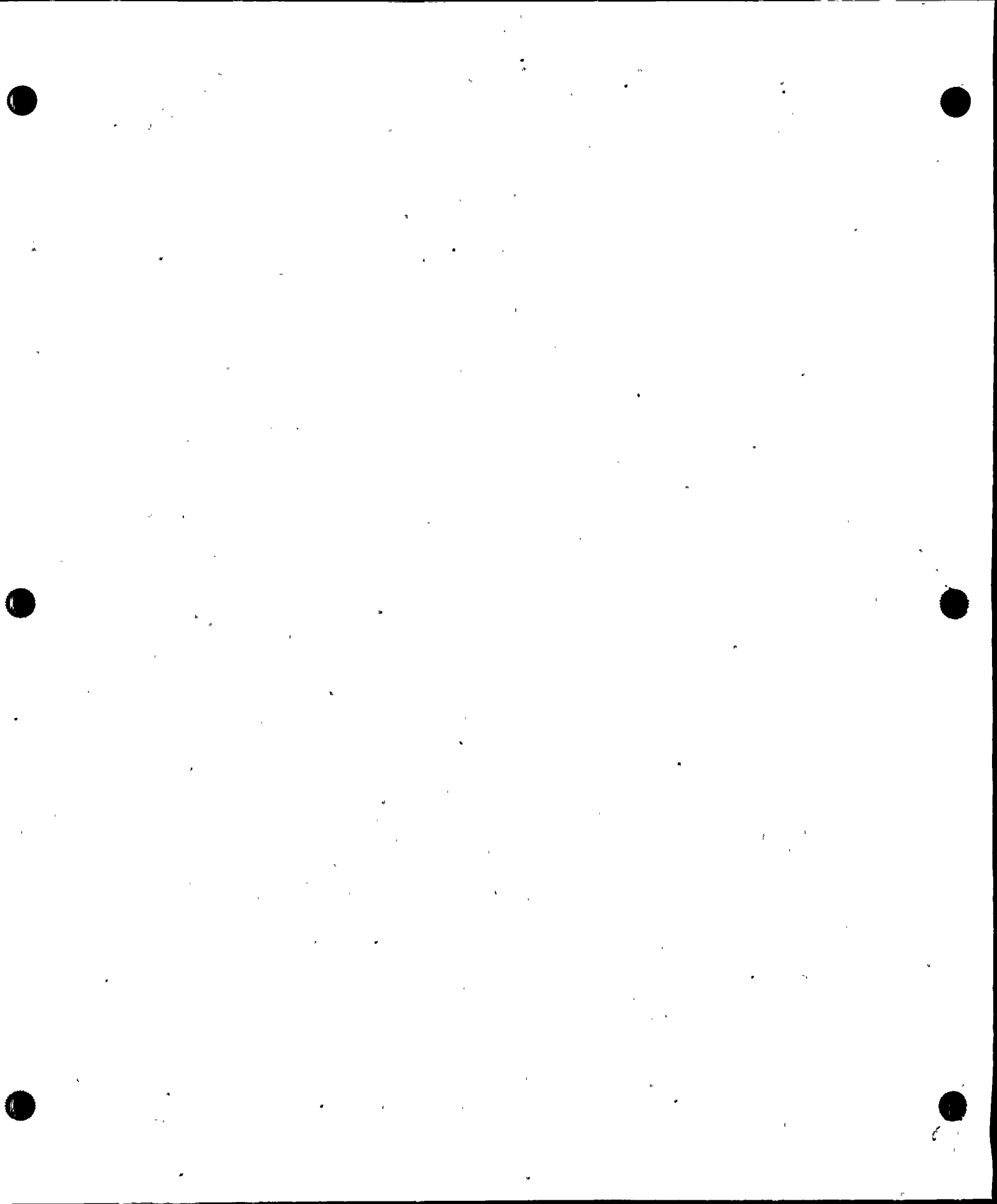
DONALD C. COOK NUCLEAR PLANT  
 SECOND TEN YEAR INTERVAL  
 VALVE SUMMARY SHEET - UNIT 2  
 FLOW DIAGRAM: 2-5146B-21

RUN DATE AND TIME: 18DEC85:09:14

SYSTEM NAME: ICE CONDENSER REFRIGERATION

| VALVE    |     |      |       | VALVE POSITION |            |            |              | ASME SECTION XI |     |     |   |   |                       |                                     |
|----------|-----|------|-------|----------------|------------|------------|--------------|-----------------|-----|-----|---|---|-----------------------|-------------------------------------|
| NUMBER   | REV | TYPE | SIZE  | ACT TYPE       | F.D. COORD | POWER OPER | SAFETY FUNCT | CD ICL          | A/P | CAT | PRIM TEST REQUIRED                      | TEST PERFORMED                          | TEST MODE             | RELIEF REQUEST(S)                   |
| 2-R-156  | 0   | CK   | 0.375 | SA             | L/4        | C          | O/C          | 2               | A   | AC  | CF-1<br>SLT-1                           | CF-1<br>SLT-2                           | P<br>R                | NO, NOTE 1<br>YES, NOTE 2           |
| 2-R-157  | 0   | CK   | 0.375 | SA             | L/6        | C          | O/C          | 2               | A   | AC  | CF-1<br>SLT-1                           | CF-1<br>SLT-2                           | P<br>R                | NO, NOTE 1<br>YES, NOTE 2           |
| 2-VCR-10 | 0   | DA   | 4     | A              | M/5        | O          | C            | 2               | A   | A   | EF-1<br>EF-5<br>EF-7<br>ET-005<br>SLT-1 | EF-1<br>EF-5<br>EF-7<br>ET-005<br>SLT-2 | P<br>-<br>P<br>P<br>R | NO<br>NO<br>NO<br>NO<br>YES, NOTE 2 |
| 2-VCR-11 | 0   | DA   | 4     | A              | L/5        | O          | C            | 2               | A   | A   | EF-1<br>EF-5<br>EF-7<br>ET-005<br>SLT-1 | EF-1<br>EF-5<br>EF-7<br>ET-005<br>SLT-2 | P<br>-<br>P<br>P<br>R | NO<br>NO<br>NO<br>NO<br>YES, NOTE 2 |
| 2-VCR-20 | 0   | DA   | 4     | A              | M/7        | O          | C            | 2               | A   | A   | EF-1<br>EF-5<br>EF-7<br>ET-005<br>SLT-1 | EF-1<br>EF-5<br>EF-7<br>ET-005<br>SLT-2 | P<br>-<br>P<br>P<br>R | NO<br>NO<br>NO<br>NO<br>YES, NOTE 2 |
| 2-VCR-21 | 0   | DA   | 4     | A              | L/7        | O          | C            | 2               | A   | A   | EF-1<br>EF-5<br>EF-7<br>ET-006<br>SLT-1 | EF-1<br>EF-5<br>EF-7<br>ET-006<br>SLT-2 | P<br>-<br>P<br>P<br>R | NO<br>NO<br>NO<br>NO<br>YES, NOTE 2 |



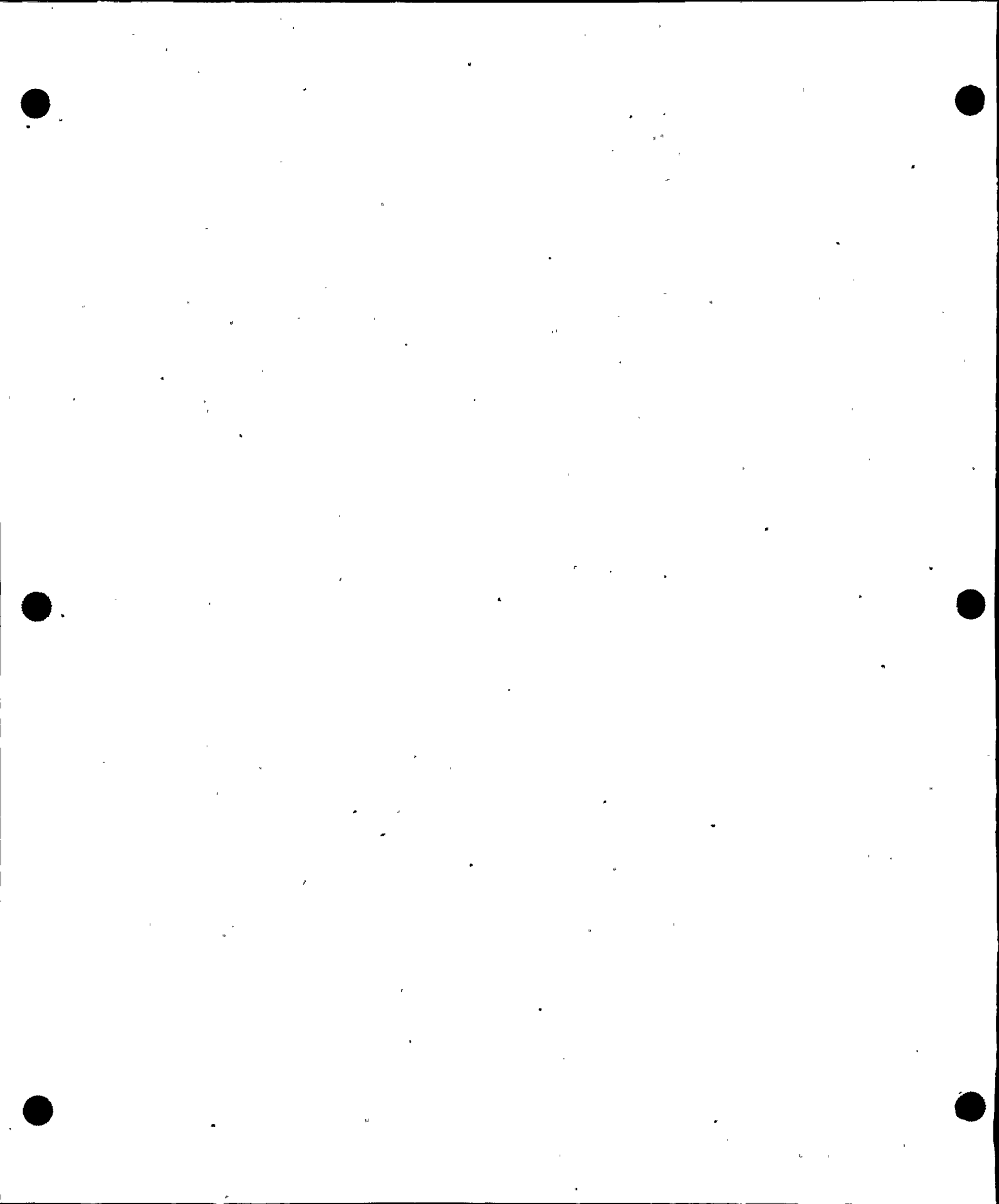


DONALD C. COOK NUCLEAR PLANT  
 SECOND TEN YEAR INTERVAL  
 VALVE SUMMARY SHEET - UNIT 2  
 FLOW DIAGRAM: 2-5147A-32

RUN DATE AND TIME: 18DEC85:09:14

SYSTEM NAME: CONTAINMENT VENTILATION

| VALVE     |     |      |      | VALVE POSITION |            |            |              | ASME SECTION XI |     |     |   |   |                       |                                     |
|-----------|-----|------|------|----------------|------------|------------|--------------|-----------------|-----|-----|---|---|-----------------------|-------------------------------------|
| NUMBER    | REV | TYPE | SIZE | ACT TYPE       | F.D. COORD | POWER OPER | SAFETY FUNCT | CD ICL          | A/P | CAT | PRIM TEST REQUIRED                      | TEST PERFORMED                          | TEST MODE             | RELIEF REQUEST(S)                   |
| 2-SM-10   | 0   | GA   | 0.5  | M              | A/4        | C          | C            | 2               | P   | A   | SLT-1                                   | SLT-2                                   | R                     | YES, NOTE 1                         |
| 2-SM-4    | 0   | GA   | 0.5  | M              | A/2        | C          | C            | 2               | P   | A   | SLT-1                                   | SLT-2                                   | R                     | YES, NOTE 1                         |
| 2-SM-6    | 0   | GA   | 0.5  | M              | A/2        | C          | C            | 2               | P   | A   | SLT-1                                   | SLT-2                                   | R                     | YES, NOTE 1                         |
| 2-SM-8    | 0   | GA   | 0.5  | M              | A/4        | C          | C            | 2               | P   | A   | SLT-1                                   | SLT-2                                   | R                     | YES, NOTE 1                         |
| 2-VCR-101 | 0   | BF   | 14   | A              | J/8        | C          | C            | 2               | P   | A   | EF-1<br>EF-5<br>EF-7<br>ET-005<br>SLT-1 | EF-1<br>EF-5<br>EF-7<br>ET-005<br>SLT-2 | P<br>-<br>P<br>P<br>R | NO<br>NO<br>NO<br>NO<br>YES, NOTE 1 |
| 2-VCR-102 | 0   | BF   | 14   | A              | J/9        | C          | C            | 2               | P   | A   | EF-1<br>EF-5<br>EF-7<br>ET-005<br>SLT-1 | EF-1<br>EF-5<br>EF-7<br>ET-005<br>SLT-2 | P<br>-<br>P<br>P<br>R | NO<br>NO<br>NO<br>NO<br>YES, NOTE 1 |
| 2-VCR-103 | 0   | BF   | 24   | A              | J/5        | C          | C            | 2               | P   | A   | EF-1<br>EF-5<br>EF-7<br>ET-005<br>SLT-1 | EF-1<br>EF-5<br>EF-7<br>ET-005<br>SLT-2 | P<br>-<br>P<br>P<br>R | NO<br>NO<br>NO<br>NO<br>YES, NOTE 1 |
| 2-VCR-104 | 0   | BF   | 30   | A              | J/6        | C          | C            | 2               | P   | A   | EF-1<br>EF-5<br>EF-7<br>ET-004<br>SLT-1 | EF-1<br>EF-5<br>EF-7<br>ET-004<br>SLT-2 | P<br>-<br>P<br>P<br>R | NO<br>NO<br>NO<br>NO<br>YES, NOTE 1 |

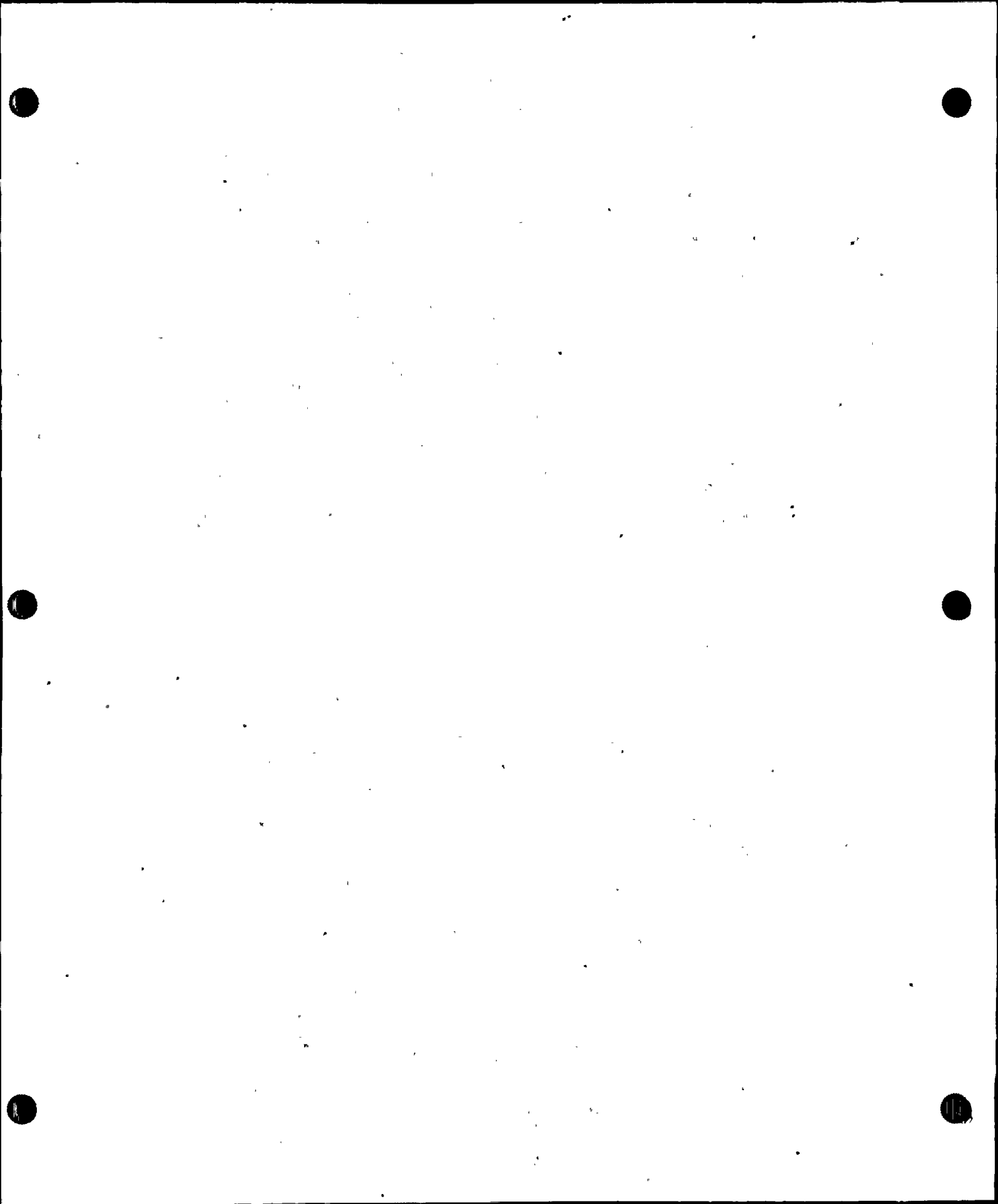


DONALD C. COCK NUCLEAR PLANT  
 SECOND TEN YEAR INTERVAL  
 VALVE SUMMARY SHEET - UNIT 2  
 FLOW DIAGRAM: 2-5147A-32

RUN DATE AND TIME: 18DEC85:09:14

SYSTEM NAME: CONTAINMENT VENTILATION

| VALVE     |     |      |      | VALVE POSITION |            |            |              | ASME SECTION XI |     |     |                    |                |           |                   |
|-----------|-----|------|------|----------------|------------|------------|--------------|-----------------|-----|-----|--------------------|----------------|-----------|-------------------|
| NUMBER    | REV | TYPE | SIZE | ACT TYPE       | F.D. COORD | POWER OPER | SAFETY FUNCT | CD ICL          | A/P | CAT | PRIM TEST REQUIRED | TEST PERFORMED | TEST MODE | RELIEF REQUEST(S) |
| 2-VCR-105 | 0   | BF   | 30   | A              | J/3        | C          | C            | 2               | P   | A   | EF-1               | EF-1           | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | EF-7               | EF-7           | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | ET-005             | ET-005         | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | SLT-1              | SLT-2          | R         | YES, NOTE 1       |
| 2-VCR-106 | 0   | BF   | 24   | A              | J/3        | C          | C            | 2               | P   | A   | EF-1               | EF-1           | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | EF-7               | EF-7           | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | ET-005             | ET-005         | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | SLT-1              | SLT-2          | R         | YES, NOTE 1       |
| 2-VCR-107 | 0   | BF   | 14   | A              | J/4        | O/C        | C            | 2               | A   | A   | EF-1               | EF-1           | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | EF-7               | EF-7           | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | ET-005             | ET-005         | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | SLT-1              | SLT-2          | R         | YES, NOTE 1       |
| 2-VCR-201 | 0   | BF   | 14   | A              | J/8        | C          | C            | 2               | P   | A   | EF-1               | EF-1           | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | EF-7               | EF-7           | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | ET-005             | ET-005         | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | SLT-1              | SLT-2          | R         | YES, NOTE 1       |
| 2-VCR-202 | 0   | BF   | 14   | A              | J/9        | C          | C            | 2               | P   | A   | EF-1               | EF-1           | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | EF-7               | EF-7           | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | ET-005             | ET-005         | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | SLT-1              | SLT-2          | R         | YES, NOTE 1       |

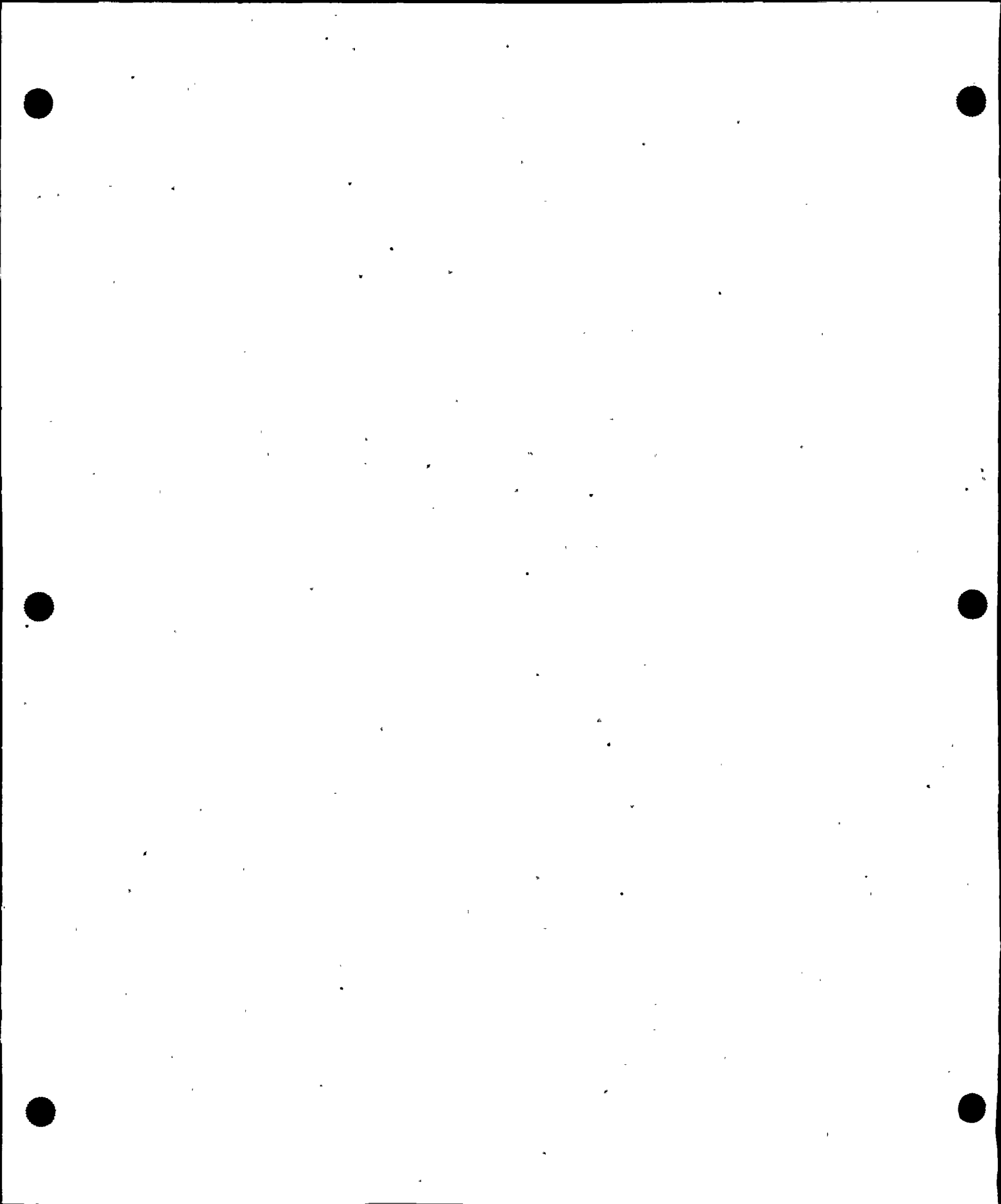


DONALD C. COOK NUCLEAR PLANT  
 SECOND TEN YEAR INTERVAL  
 VALVE SUMMARY SHEET - UNIT 2  
 FLOW DIAGRAM: 2-5147A-32

RUN DATE AND TIME: 18DEC85:09:14

SYSTEM NAME: CONTAINMENT VENTILATION

| VALVE     |     |      |      | VALVE POSITION |            |            |              | ASME_SECTION_XI |     |     |                    |                |           |                   |
|-----------|-----|------|------|----------------|------------|------------|--------------|-----------------|-----|-----|--------------------|----------------|-----------|-------------------|
| NUMBER    | REV | TYPE | SIZE | ACT TYPE       | F.D. COORD | POWER OPER | SAFETY FUNCT | CD ICL          | A/P | CAT | PRIM TEST REQUIRED | TEST PERFORMED | TEST MODE | RELIEF REQUEST(S) |
| 2-VCR-203 | 0   | BF   | 24   | A              | J/5        | C          | C            | 2               | P   | A   | EF-1               | EF-1           | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | EF-7               | EF-7           | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | ET-005             | ET-005         | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | SLT-1              | SLT-2          | R         | YES, NOTE 1       |
| 2-VCR-204 | 0   | BF   | 30   | A              | J/6        | C          | C            | 2               | P   | A   | EF-1               | EF-1           | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | EF-7               | EF-7           | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | ET-005             | ET-005         | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | SLT-1              | SLT-2          | R         | YES, NOTE 1       |
| 2-VCR-205 | 0   | BF   | 30   | A              | J/3        | C          | C            | 2               | P   | A   | EF-1               | EF-1           | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | EF-7               | EF-7           | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | ET-005             | ET-005         | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | SLT-1              | SLT-2          | R         | YES, NOTE 1       |
| 2-VCR-206 | 0   | BF   | 24   | A              | J/3        | C          | C            | 2               | P   | A   | EF-1               | EF-1           | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | EF-7               | EF-7           | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | ET-005             | ET-005         | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | SLT-1              | SLT-2          | R         | YES, NOTE 1       |
| 2-VCR-207 | 0   | BF   | 14   | A              | J/4        | O/C        | C            | 2               | A   | A   | EF-1               | EF-1           | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | EF-7               | EF-7           | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | ET-005             | ET-005         | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | SLT-1              | SLT-2          | R         | YES, NOTE 1       |



DONALD C. COOK NUCLEAR PLANT  
 SECOND TEN YEAR INTERVAL  
 VALVE SUMMARY SHEET - UNIT 2  
 FLOW DIAGRAM: 2-5149-18

RUN DATE AND TIME: 18DEC85:09:14

SYSTEM NAME: CONTROL ROOM VENTILATION

| VALVE      |     |      |      | VALVE POSITION |            |            |              | CASHE SECTION XI |     |     |                       |                        |             |   |
|------------|-----|------|------|----------------|------------|------------|--------------|------------------|-----|-----|-----------------------|------------------------|-------------|---|
| NUMBER     | REV | TYPE | SIZE | ACT TYPE       | F.D. COORD | POWER OPER | SAFETY FUNCT | CD ICL           | A/P | CAT | PRIM TEST REQUIRED    | TEST PERFORMED         | TEST MODE   | RELIEF REQUEST(S)                       |
| 2-DN-163-N | 0   | GA   | 2.5  | M              | F/2        | 0          | O/C          | 3                | A   | B   | EF-1                  | EF-1                   | P           | NO                                      |
| 2-DN-163-S | 0   | GA   | 2.5  | M              | G/2        | 0          | O/C          | 3                | A   | B   | EF-1                  | EF-1                   | P           | NO                                      |
| 2-DN-166-N | 0   | GA   | 2.5  | M              | E/5        | 0          | O/C          | 3                | A   | B   | EF-1                  | EF-1                   | P           | NO                                      |
| 2-DN-166-S | 0   | GA   | 2.5  | M              | J/5        | 0          | O/C          | 3                | A   | B   | EF-1                  | EF-1                   | P           | NO                                      |
| 2-VRV-315  | 0   | 3W   | 2.5  | A              | F/5        | 0          | 0            | 3                | A   | B   | EF-1<br>EF-7<br>ET-NA | EF-1<br>EF-7<br>NOTE 1 | P<br>P<br>- | NO, NOTE 1<br>NO, NOTE 1<br>YES, NOTE 1 |
| 2-VRV-325  | 0   | 3W   | 2.5  | A              | G/5        | 0          | 0            | 3                | A   | B   | EF-1<br>EF-7<br>ET-NA | EF-1<br>EF-7<br>NOTE 1 | P<br>P<br>- | NO, NOTE 1<br>NO, NOTE 1<br>YES, NOTE 1 |



DONALD C. COOK NUCLEAR PLANT  
 SECOND TEN YEAR INTERVAL  
 VALVE SUMMARY SHEET - UNIT 2  
 FLOW DIAGRAM: 2-5151A-24

RUN DATE AND TIME: 18DEC85:09:14

SYSTEM NAME: EMERGENCY DIESEL GENERATOR

| VALVE        |     |      |      | VALVE POSITION |            |            |              | ASME_SECTION_XI |     |     |                    |                |           |                   |
|--------------|-----|------|------|----------------|------------|------------|--------------|-----------------|-----|-----|--------------------|----------------|-----------|-------------------|
| NUMBER       | REV | TYPE | SIZE | ACT TYPE       | F.D. COORD | POWER OPER | SAFETY FUNCT | CD ICL          | A/P | CAT | PRIM TEST REQUIRED | TEST PERFORMED | TEST MODE | RELIEF REQUEST(S) |
| 2-DF-108A    | 0   | CK   | 1.5  | SA             | L/3        | C          | 0            | 3               | A   | C   | CF-1               | CF-1           | P         | NO, NOTE 1        |
| 2-DF-109A    | 0   | CK   | 1.5  | SA             | K/3        | C          | 0            | 3               | A   | C   | CF-1               | CF-1           | P         | NO, NOTE 1        |
| 2-DF-114A    | 0   | CK   | 1.5  | SA             | J/3        | C          | 0            | 3               | A   | C   | CF-1               | CF-1           | P         | NO, NOTE 1        |
| 2-DF-115A    | 0   | CK   | 1.5  | SA             | H/3        | C          | 0            | 3               | A   | C   | CF-1               | CF-1           | P         | NO, NOTE 1        |
| 2-DL-114A    | 0   | CK   | 1.5  | SA             | B/9        | O          | C            | 3               | A   | C   | CF-1               | CF-1           | P         | NO, NOTE 1        |
| 2-DL-116A    | 0   | CK   | 1.5  | SA             | B/9        | C          | 0            | 3               | A   | C   | CF-1               | CF-1           | P         | NO, NOTE 1        |
| 2-DL-132A    | 0   | CK   | 1    | SA             | F/9        | O          | C            | 3               | A   | C   | CF-1               | CF-1           | P         | NO, NOTE 1        |
| 2-DL-158A    | 0   | CK   | 6    | SA             | G/6        | C          | 0            | 3               | A   | C   | CF-1               | CF-1           | P         | NO, NOTE 1        |
| 2-QT-114-2AB | 0   | 3W   | 6    | SA             | H/5        | O          | 0            | 3               | A   | B   | EF-1               | NOTE 2         | P         | NO, NOTE 2        |

DONALD C. COOK NUCLEAR PLANT  
 SECOND TEN YEAR INTERVAL  
 VALVE SUMMARY SHEET - UNIT 2  
 FLOW DIAGRAM: 2-5151B-26

RUN DATE AND TIME: 18DEC85:09:14

SYSTEM NAME: EMERGENCY DIESEL GENERATOR

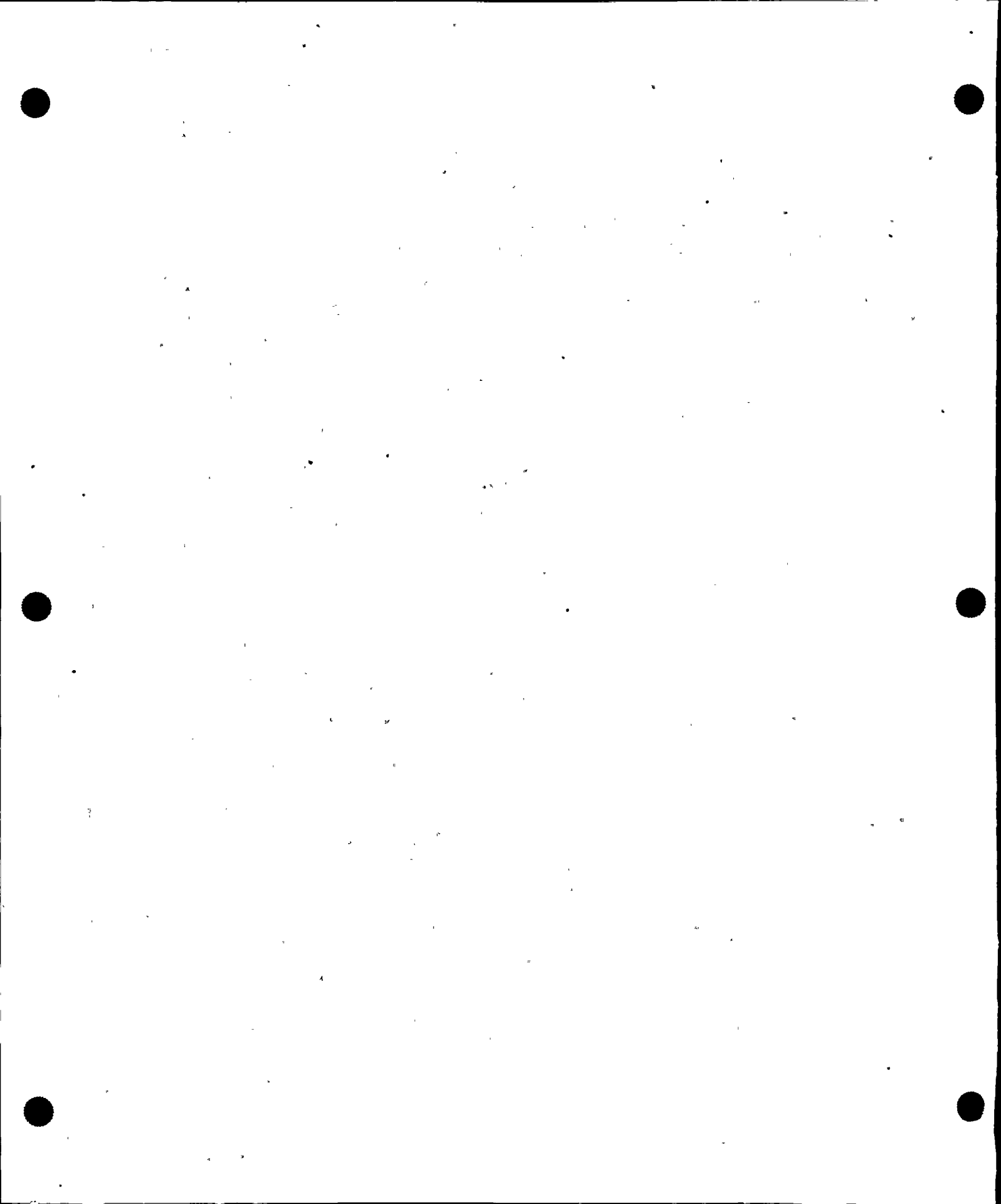
| VALVE        |     |      |      | VALVE POSITION |            |            |              | ASME SECTION XI |     |     |                    |                |           |                   |
|--------------|-----|------|------|----------------|------------|------------|--------------|-----------------|-----|-----|--------------------|----------------|-----------|-------------------|
| NUMBER       | REV | TYPE | SIZE | ACT TYPE       | F.D. COORD | POWER OPER | SAFETY FUNCT | CD CL           | A/P | CAT | PRIM TEST REQUIRED | TEST PERFORMED | TEST MODE | RELIEF REQUEST(S) |
| 2-DG-102A    | 0   | CK   | 1.5  | SA             | H/4        | O          | O/C          | 3               | A   | C   | CF-1               | CF-1           | P         | NO, NOTE 1        |
| 2-DG-104A    | 0   | CK   | 1.5  | SA             | G/4        | O          | O/C          | 3               | A   | C   | CF-1               | CF-1           | P         | NO, NOTE 1        |
| 2-DG-128A    | 0   | CK   | 1    | SA             | C/4        | C          | O            | 3               | A   | C   | CF-1               | CF-1           | P         | NO, NOTE 1        |
| 2-DG-130A    | 0   | CK   | 1    | SA             | C/4        | C          | O            | 3               | A   | C   | CF-1               | CF-1           | P         | NO, NOTE 1        |
| 2-DG-132A    | 0   | CK   | 3    | SA             | B/4        | C          | O            | 3               | A   | C   | CF-1               | CF-1           | P         | NO, NOTE 1        |
| 2-DG-134A    | 0   | CK   | 3    | SA             | B/4        | C          | O            | 3               | A   | C   | CF-1               | CF-1           | P         | NO, NOTE 1        |
| 2-DG-140A    | 0   | CK   | 0.5  | SA             | F/1        | C          | O/C          | 3               | A   | C   | CF-1               | CF-1           | P         | NO                |
| 2-DG-142A    | 0   | CK   | 0.5  | SA             | F/1        | C          | O/C          | 3               | A   | C   | CF-1               | CF-1           | P         | NO                |
| 2-DG-146A    | 0   | CK   | 2    | SA             | A/8        | O          | C            | 3               | A   | C   | CF-1               | CF-1           | P         | NO, NOTE 1        |
| 2-DG-152A    | 0   | CK   | 4    | SA             | D/8        | C          | O            | 3               | A   | C   | CF-1               | CF-1           | P         | NO, NOTE 1        |
| 2-DG-154A    | 0   | CK   | 4    | SA             | C/8        | C          | O            | 3               | A   | C   | CF-1               | CF-1           | P         | NO, NOTE 1        |
| 2-QT-132-2AB | 0   | 3W   | 6    | SA             | E/8        | O          | O            | 3               | A   | B   | EF-1               | NOTE 2         | P         | NO, NOTE 2        |

DONALD C. COOK NUCLEAR PLANT  
 SECOND TEN YEAR INTERVAL  
 VALVE SUMMARY SHEET - UNIT 2  
 FLOW DIAGRAM: 2-5151B-26

RUN DATE AND TIME: 18DEC85:09:14

SYSTEM NAME: EMERGENCY DIESEL GENERATOR

| VALVE       |     |      |      | VALVE POSITION |            |            |              | ASME SECTION XI |     |     |                        |                        |             |                         |
|-------------|-----|------|------|----------------|------------|------------|--------------|-----------------|-----|-----|------------------------|------------------------|-------------|-------------------------|
| NUMBER      | REV | TYPE | SIZE | ACT TYPE       | F.D. COORD | POWER OPER | SAFETY FUNCT | CD ICL          | A/P | CAT | PRIM TEST REQUIRED     | TEST PERFORMED         | TEST MODE   | RELIEF REQUEST(S)       |
| 2-SV-120-AB | 0   | REL  | 0.25 | SA             | G/2        | C          | 0            | 3               | A   | C   | TF-1                   | TF-1                   | R           | NO                      |
| 2-SV-139-AB | 0   | REL  | 1    | SA             | B/2        | C          | 0            | 3               | A   | C   | TF-1                   | TF-1                   | R           | NO                      |
| 2-SV-61-AB  | 0   | REL  | 1    | SA             | A/8        | C          | 0            | 3               | A   | C   | TF-1                   | TF-1                   | R           | NO                      |
| 2-SV-78-AB1 | 0   | REL  | 1    | SA             | E/3        | C          | 0            | 3               | A   | C   | TF-1                   | TF-1                   | R           | NO                      |
| 2-SV-78-AB2 | 0   | REL  | 1    | SA             | D/3        | C          | 0            | 3               | A   | C   | TF-1                   | TF-1                   | R           | NO                      |
| 2-SV-79-AB1 | 0   | REL  | 0.5  | SA             | E/1        | C          | 0            | 3               | A   | C   | TF-1                   | TF-1                   | R           | NO                      |
| 2-SV-79-AB2 | 0   | REL  | 0.5  | SA             | E/1        | C          | 0            | 3               | A   | C   | TF-1                   | TF-1                   | R           | NO                      |
| 2-XRV-220   | 0   | GA   | 1    | A              | B/3        | C          | 0            | 3               | A   | B   | EF-1<br>EF-7<br>ET-010 | EF-1<br>EF-7<br>NOTE 3 | P<br>P<br>P | NO<br>NO<br>YES, NOTE 3 |
| 2-XRV-221   | 0   | GL   | 3    | A              | B/4        | C          | 0            | 3               | A   | B   | EF-1<br>ET-010         | EF-1<br>NOTE 3         | P<br>P      | NO<br>YES, NOTE 3       |
| 2-XRV-222   | 0   | GL   | 3    | A              | B/4        | C          | 0            | 3               | A   | B   | EF-1<br>ET-010         | EF-1<br>NOTE 3         | P<br>P      | NO<br>YES, NOTE 3       |

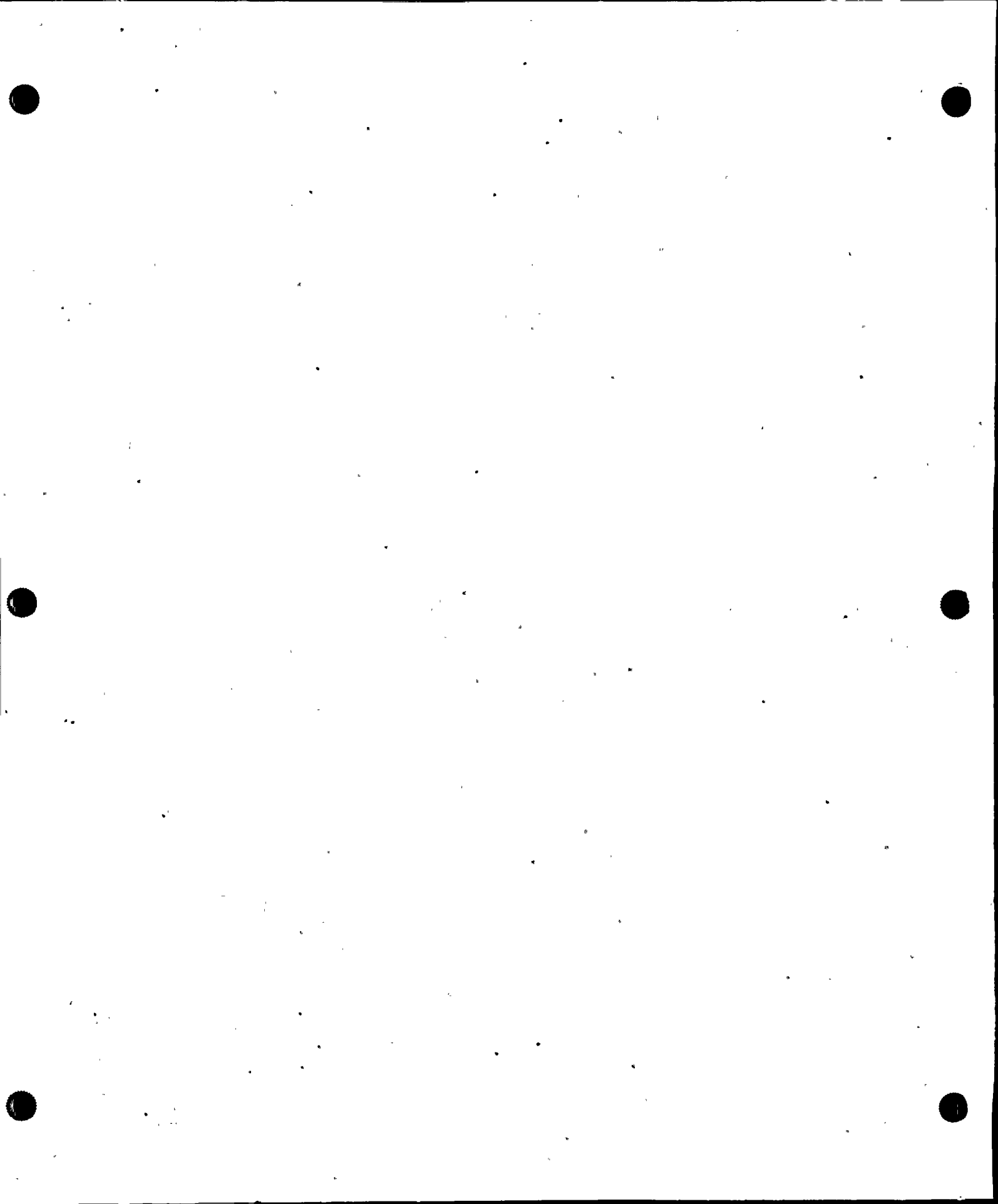


DONALD C. COCK NUCLEAR PLANT  
 SECOND TEN YEAR INTERVAL  
 VALVE SUMMARY SHEET - UNIT 2  
 FLOW DIAGRAM: 2-5151C-26

RUN DATE AND TIME: 18DEC85:09:14

SYSTEM NAME: EMERGENCY DIESEL GENERATOR

| VALVE        |     |      |      | VALVE POSITION |            |            |              | ASME SECTION XI |     |     |                    |                |           |                   |
|--------------|-----|------|------|----------------|------------|------------|--------------|-----------------|-----|-----|--------------------|----------------|-----------|-------------------|
| NUMBER       | REV | TYPE | SIZE | ACT TYPE       | F.D. COORD | POWER OPER | SAFETY FUNCT | CD  CL          | A/P | CAT | PRIM TEST REQUIRED | TEST PERFORMED | TEST MODE | RELIEF REQUEST(S) |
| 2-DL-114C    | 0   | CK   | 1.5  | SA             | B/9        | O          | C            | 3               | A   | C   | CF-1               | CF-1           | P         | NO, NOTE 1        |
| 2-DL-116C    | 0   | CK   | 1.5  | SA             | B/9        | C          | O            | 3               | A   | C   | CF-1               | CF-1           | P         | NO, NOTE 1        |
| 2-DL-132C    | 0   | CK   | 1    | SA             | F/9        | O          | C            | 3               | A   | C   | CF-1               | CF-1           | P         | NO, NOTE 1        |
| 2-DL-158C    | 0   | CK   | 6    | SA             | G/5        | C          | O            | 3               | A   | C   | CF-1               | CF-1           | P         | NO, NOTE 1        |
| 2-QT-114-2CD | 0   | 3W   | 6    | SA             | H/5        | O          | O            | 3               | A   | B   | EF-1               | NOTE 2         | P         | NO, NOTE 2        |

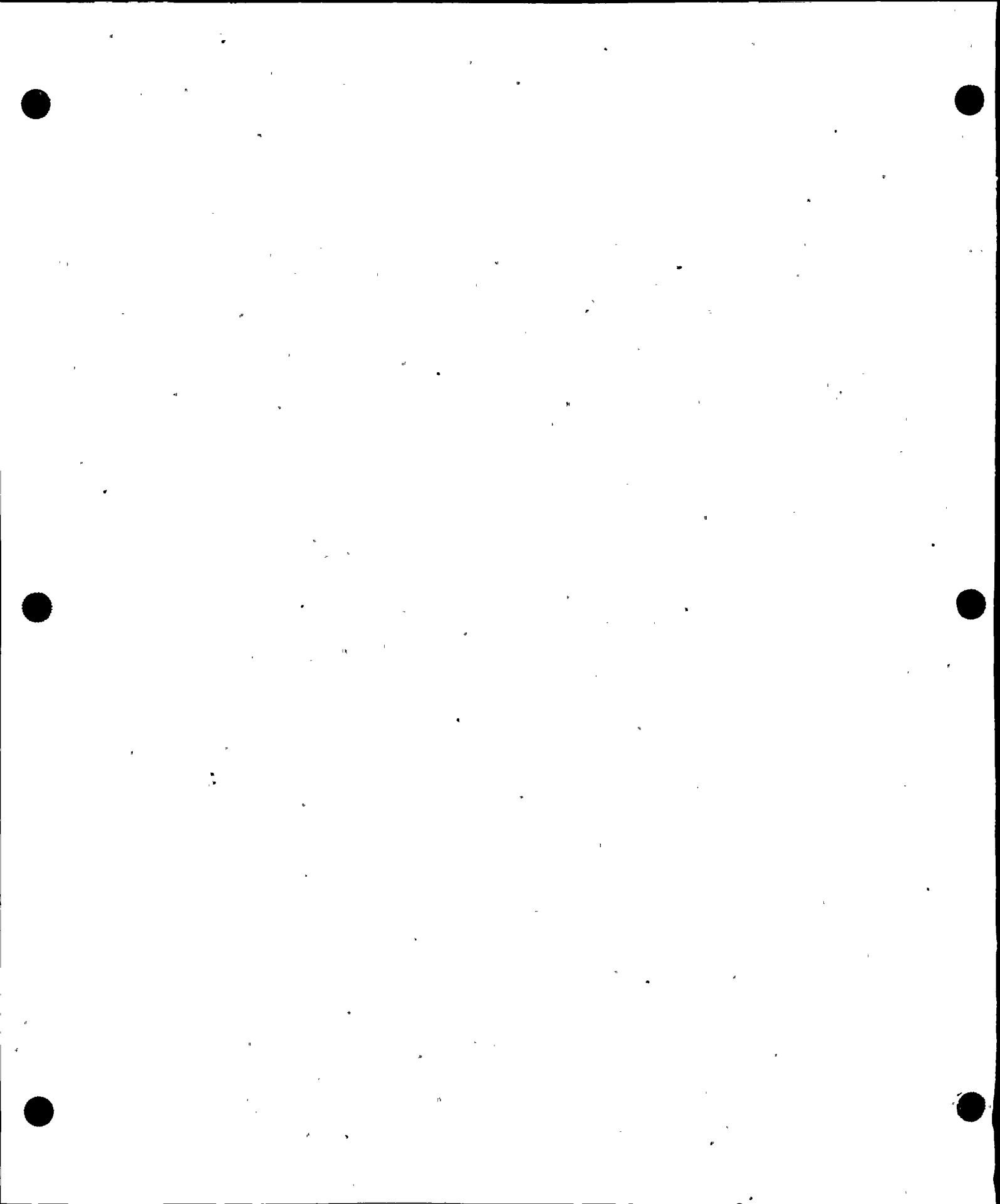


DONALD C. COOK NUCLEAR PLANT  
 SECOND TEN YEAR INTERVAL  
 VALVE SUMMARY SHEET - UNIT 2  
 FLOW DIAGRAM: 2-5151D-26

RUN DATE AND TIME: 18DEC85:09:14

SYSTEM NAME: EMERGENCY DIESEL GENERATOR CD

| VALVE        |     |      |      | VALVE POSITION |            |            |              | ASME_SECTION_XI |     |                    |                |           |                   |  |
|--------------|-----|------|------|----------------|------------|------------|--------------|-----------------|-----|--------------------|----------------|-----------|-------------------|--|
| NUMBER       | REV | TYPE | SIZE | ACT TYPE       | F.D. COORD | POWER OPER | SAFETY FUNCT | CD A/P [CL      | CAT | PRIM TEST REQUIRED | TEST PERFORMED | TEST MODE | RELIEF REQUEST(S) |  |
| 2-DG-128C    | 0   | CK   | 1    | SA             | C/3        | C          | 0            | 3 A C           | C   | CF-1               | CF-1           | P         | NO, NOTE 1        |  |
| 2-DG-130C    | 0   | CK   | 1    | SA             | C/3        | C          | 0            | 3 A C           | C   | CF-1               | CF-1           | P         | NO, NOTE 1        |  |
| 2-DG-132C    | 0   | CK   | 3    | SA             | B/4        | C          | 0            | 3 A C           | C   | CF-1               | CF-1           | P         | NO, NOTE 1        |  |
| 2-DG-134C    | 0   | CK   | 3    | SA             | B/4        | C          | 0            | 3 A C           | C   | CF-1               | CF-1           | P         | NO, NOTE 1        |  |
| 2-DG-140C    | 0   | CK   | 0.5  | SA             | F/1        | C          | 0/C          | 3 A C           | C   | CF-1               | CF-1           | P         | NO                |  |
| 2-DG-142C    | 0   | CK   | 0.5  | SA             | F/1        | C          | 0/C          | 3 A C           | C   | CF-1               | CF-1           | P         | NO                |  |
| 2-DG-146C    | 0   | CK   | 2    | SA             | A/9        | O          | C            | 3 A C           | C   | CF-1               | CF-1           | P         | NO, NOTE 1        |  |
| 2-DG-152C    | 0   | CK   | 4    | SA             | D/9        | C          | 0            | 3 A C           | C   | CF-1               | CF-1           | P         | NO, NOTE 1        |  |
| 2-DG-154C    | 0   | CK   | 4    | SA             | C/9        | C          | 0            | 3 A C           | C   | CF-1               | CF-1           | P         | NO, NOTE 1        |  |
| 2-QT-132-2CD | 0   | 3W   | 6    | SA             | E/8        | O          | 0            | 3 A B           | B   | EF-1               | NOTE 1         | P         | NO, NOTE 2        |  |
| 2-SV-120-CD  | 0   | REL  | 0.25 | SA             | H/2        | C          | 0            | 3 A C           | C   | TF-1               | TF-1           | R         | NO                |  |
| 2-SV-139-CD  | 0   | REL  | 1    | SA             | B/2        | C          | 0            | 3 A C           | C   | TF-1               | TF-1           | R         | NO                |  |



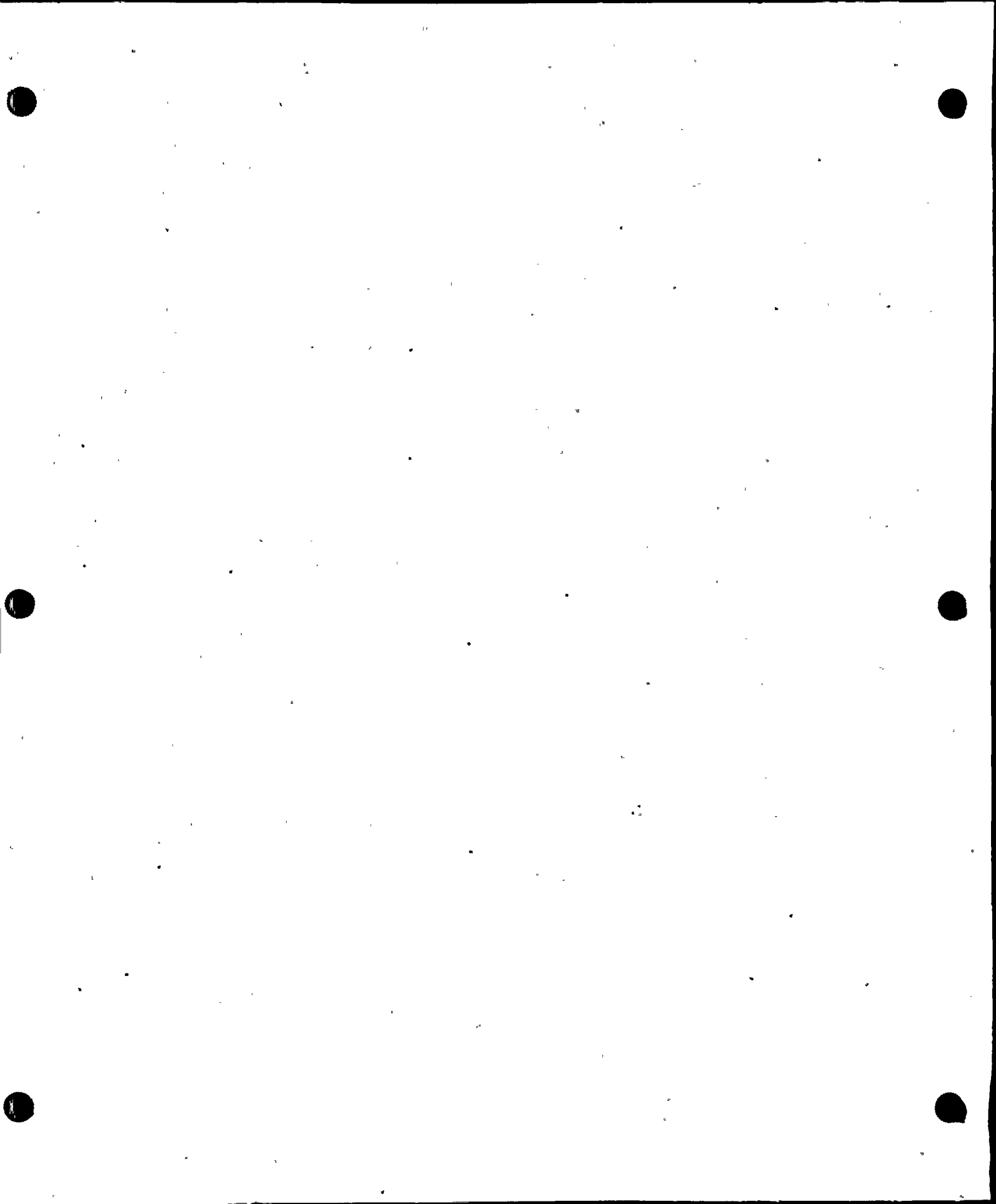


DONALD C. COOK NUCLEAR PLANT  
 SECOND TEN YEAR INTERVAL  
 VALVE SUMMARY SHEET - UNIT 2  
 FLOW DIAGRAM: 2-5151D-26

RUN DATE AND TIME: 18DEC85:09:14

SYSTEM NAME: EMERGENCY DIESEL GENERATOR CD

| VALVE       |     |      |      | VALVE POSITION |            |            |              | ASME SECTION XI |     |     |                        |                        |             |                            |
|-------------|-----|------|------|----------------|------------|------------|--------------|-----------------|-----|-----|------------------------|------------------------|-------------|----------------------------|
| NUMBER      | REV | TYPE | SIZE | ACT TYPE       | F.D. COORD | POWER OPER | SAFETY FUNCT | CD ICL          | A/P | CAT | PRIM TEST REQUIRED     | TEST PERFORMED         | TEST MODE   | RELIEF REQUEST(S)          |
| 2-SV-61-CD  | 0   | REL  | 1    | SA             | A/8        | C          | 0            | 3               | A   | C   | TF-1                   | TF-1                   | R           | NO                         |
| 2-SV-78-CD1 | 0   | REL  | 1    | SA             | E/3        | C          | 0            | 3               | A   | C   | TF-1                   | TF-1                   | R           | NO                         |
| 2-SV-78-CD2 | 0   | REL  | 1    | SA             | D/3        | C          | 0            | 3               | A   | C   | TF-1                   | TF-1                   | R           | NO                         |
| 2-SV-79-CD1 | 0   | REL  | 0.5  | SA             | E/1        | C          | 0            | 3               | A   | C   | TF-1                   | TF-1                   | R           | NO                         |
| 2-SV-79-CD2 | 0   | REL  | 0.5  | SA             | E/1        | C          | 0            | 3               | A   | C   | TF-1                   | TF-1                   | R           | NO                         |
| 2-XRV-225   | 0   | GA   | 1    | A              | B/3        | C          | 0            | 3               | A   | B   | EF-1<br>EF-7<br>ET-010 | EF-1<br>EF-7<br>NOTE 3 | P<br>P<br>P | NO<br>NO<br>YES, NOTE 3    |
| 2-XRV-226   | 0   | GL   | 3    | A              | B/4        | C          | 0            | 3               | A   | B   | EF-1<br>ET-010         | EF-1<br>NOTE 3         | P<br>P      | YES, NOTE 3<br>YES, NOTE 3 |
| 2-XRV-227   | 0   | GL   | 3    | A              | B/4        | C          | 0            | 3               | A   | B   | EF-1<br>ET-010         | EF-1<br>NOTE 3         | P<br>P      | YES, NOTE 3<br>YES, NOTE 3 |

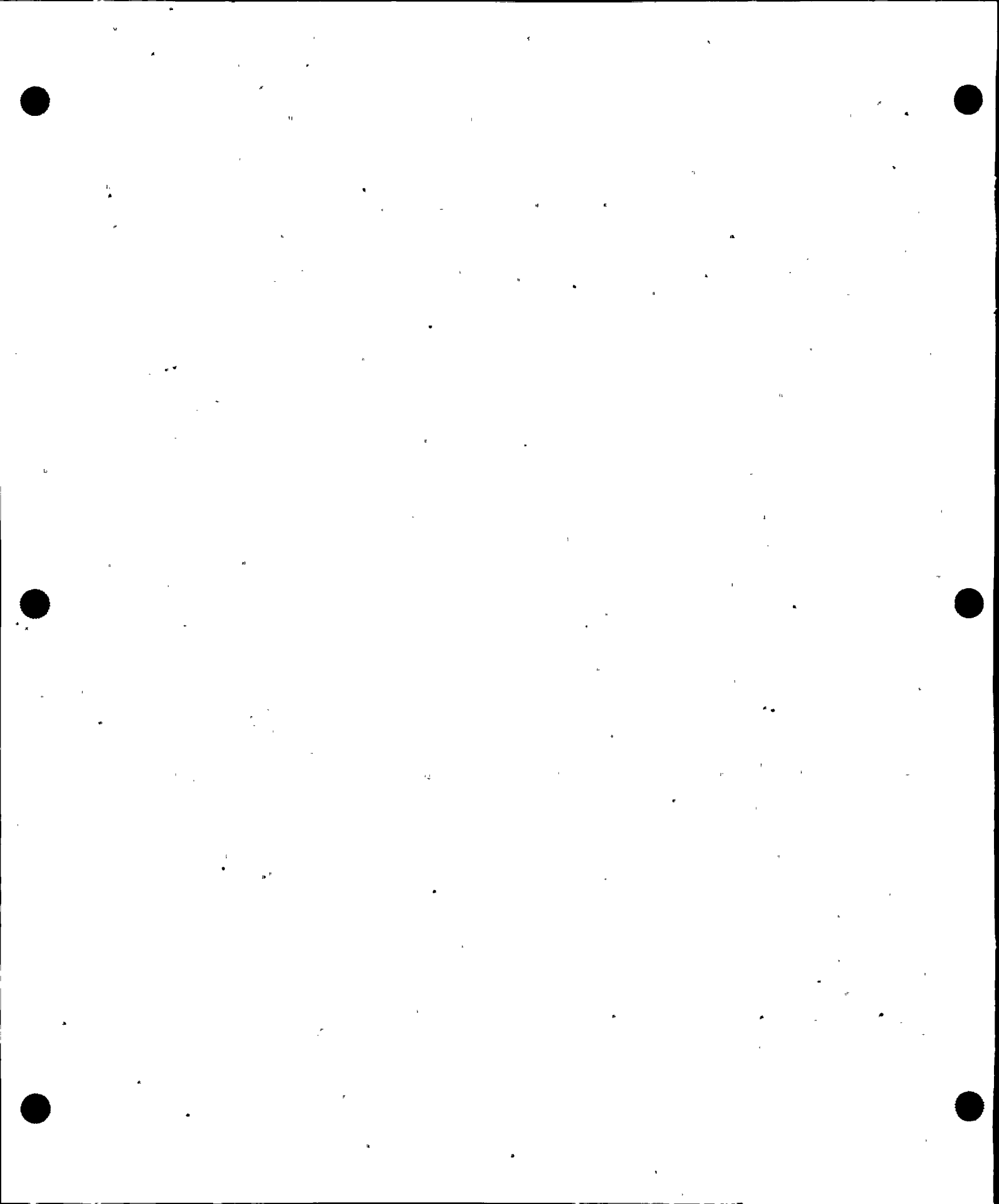


DONALD C. COOK NUCLEAR PLANT  
 SECOND TEN YEAR INTERVAL  
 VALVE SUMMARY SHEET - UNIT 2  
 FLOW DIAGRAM: 12-5115A-37

RUN DATE AND TIME: 18DEC85:09:14

SYSTEM NAME: MAKE UP & PRIMARY WATER UNIT 2

| VALVE     |     |      |      | VALVE POSITION |            |            |              | ASME_SECTION_XI |     |     |                    |                |           |                   |
|-----------|-----|------|------|----------------|------------|------------|--------------|-----------------|-----|-----|--------------------|----------------|-----------|-------------------|
| NUMBER    | REV | TYPE | SIZE | ACT TYPE       | F.D. COORD | POWER OPER | SAFETY FUNCT | CD ICL          | A/P | CAT | PRIM TEST REQUIRED | TEST PERFORMED | TEST MODE | RELIEF REQUEST(S) |
| 2-QCR-919 | 0   | DA   | 2    | A              | D/7        | O/C        | C            | 2               | A   | A   | EF-1               | EF-1           | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | EF-7               | EF-7           | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | ET-004             | ET-004         | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | SLT-1              | SLT-2          | R         | YES, NOTE 1       |
| 2-QCR-920 | 0   | DA   | 2    | A              | D/7        | O/C        | C            | 2               | A   | A   | EF-1               | EF-2           | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | EF-7               | EF-7           | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | ET-004             | ET-004         | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | SLT-1              | SLT-2          | R         | YES, NOTE 1       |

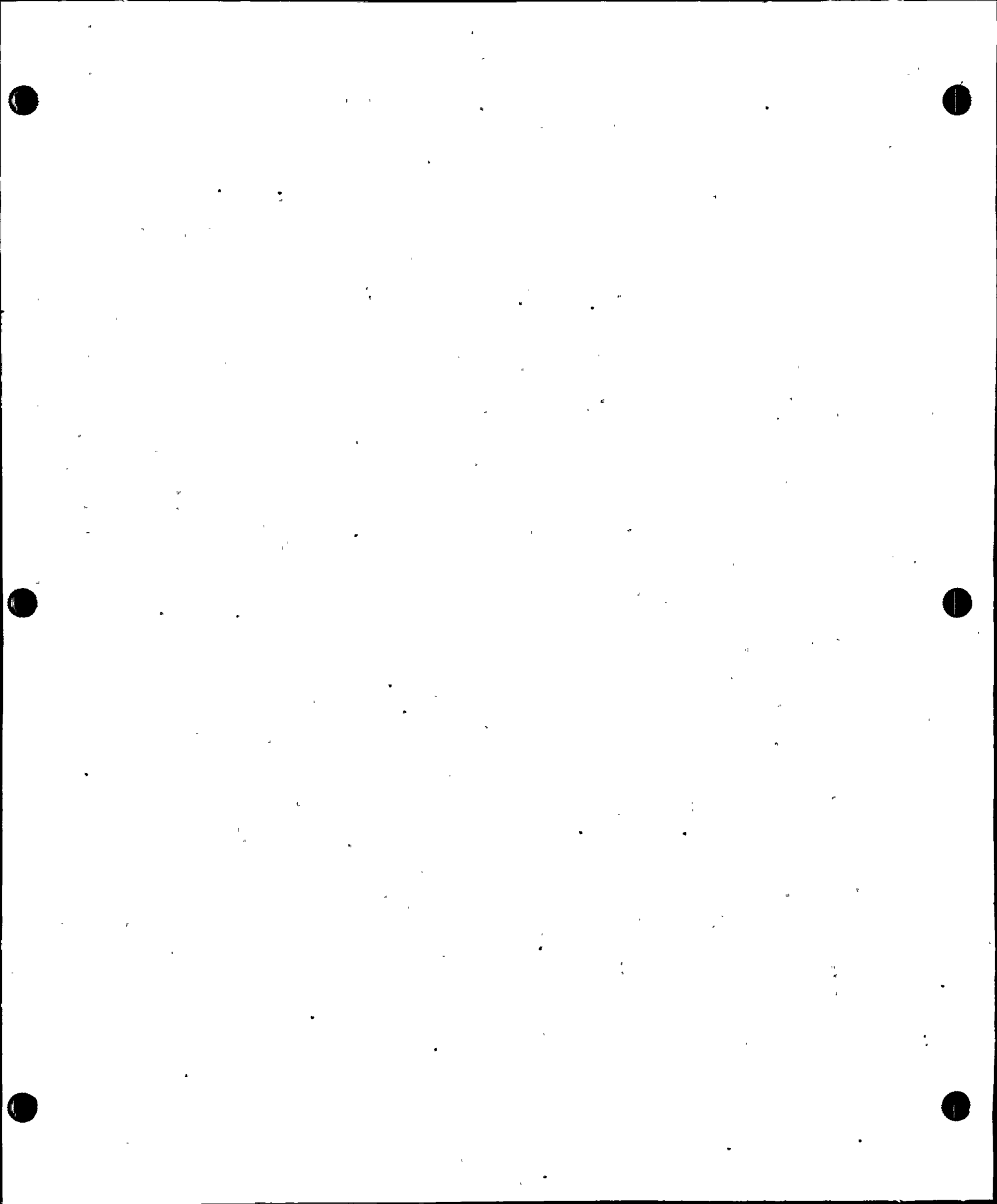


DONALD C. COOK NUCLEAR PLANT  
 SECOND TEN YEAR INTERVAL  
 VALVE SUMMARY SHEET - UNIT 2  
 FLOW DIAGRAM: 12-5120B-21

RUN DATE AND TIME: 18DEC85:09:14

SYSTEM NAME: COMPRESSED AIR SYSTEM UNIT 2

| VALVE     |     |      |      | VALVE POSITION |            |            |              | ASME SECTION XI |     |     |   |   |                       |  |
|-----------|-----|------|------|----------------|------------|------------|--------------|-----------------|-----|-----|---|---|-----------------------|--|
| NUMBER    | REV | TYPE | SIZE | ACT TYPE       | F.D. COORD | POWER OPER | SAFETY FUNCT | CD ICL          | A/P | CAT | PRIM TEST REQUIRED                      | TEST PERFORMED                          | TEST MODE             | RELIEF REQUEST(S)                                    |
| 2-PA-342  | 0   | CK   | 2    | SA             | K/7        | C          | C            | 2               | P   | AC  | CF-1<br>SLT-1                           | CF-4<br>SLT-2                           | -<br>R                | NO, NOTE 1<br>YES, NOTE 2                            |
| 2-PCR-40  | 0   | GA   | 2    | A              | H/7        | C          | C            | 2               | P   | A   | EF-1<br>EF-5<br>EF-7<br>ET-003<br>SLT-1 | EF-4<br>EF-5<br>EF-8<br>ET-003<br>SLT-2 | -<br>-<br>-<br>-<br>R | NO, NOTE 1<br>NO<br>NO, NOTE 1<br>NO<br>YES, NOTE 2  |
| 2-XCR-100 | 0   | GL   | 1    | A              | L/3        | O          | C            | 2               | A   | A   | EF-1<br>EF-5<br>EF-7<br>ET-004<br>SLT-1 | EF-2<br>EF-5<br>EF-8<br>ET-004<br>SLT-2 | C<br>-<br>C<br>C<br>R | YES, NOTE 3<br>NO<br>NO, NOTE 3<br>NO<br>YES, NOTE 2 |
| 2-XCR-101 | 0   | GL   | 1    | A              | L/3        | O          | C            | 2               | A   | A   | EF-1<br>EF-5<br>EF-7<br>ET-005<br>SLT-1 | EF-2<br>EF-5<br>EF-8<br>ET-005<br>SLT-2 | C<br>-<br>C<br>C<br>R | YES, NOTE 3<br>NO<br>NO, NOTE 3<br>NO<br>YES, NOTE 2 |
| 2-XCR-102 | 0   | GL   | 1    | A              | L/2        | O          | C            | 2               | A   | A   | EF-1<br>EF-5<br>EF-7<br>ET-004<br>SLT-1 | EF-2<br>EF-5<br>EF-8<br>ET-004<br>SLT-2 | C<br>-<br>C<br>C<br>R | YES, NOTE 3<br>NO<br>NO, NOTE 3<br>NO<br>YES, NOTE 2 |
| 2-XCR-103 | 0   | GL   | 1    | A              | L/2        | O          | C            | 2               | A   | A   | EF-1<br>EF-5<br>EF-7<br>ET-004<br>SLT-1 | EF-2<br>EF-5<br>EF-8<br>ET-004<br>SLT-2 | C<br>-<br>C<br>C<br>R | YES, NOTE 3<br>NO<br>NO, NOTE 3<br>NO<br>YES, NOTE 2 |

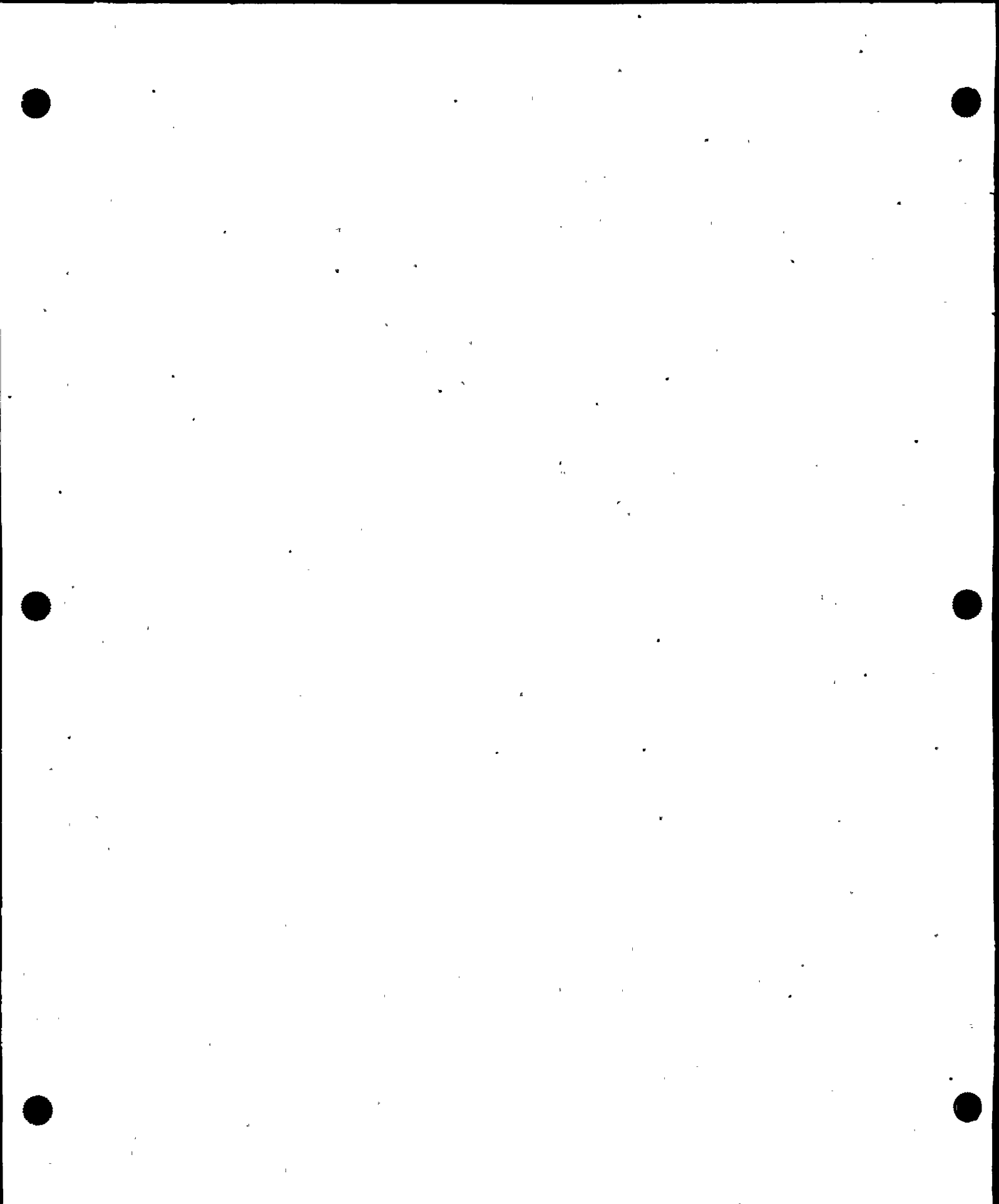


DONALD C. COOK NUCLEAR PLANT  
 SECON D TEN YEAR INTERVAL  
 VALVE SUMMARY SHEET - UNIT 2  
 FLOW DIAGRAM: 12-5136-22

RUN DATE AND TIME: 18DEC85:09:14

SYSTEM NAME: SPENT FUEL PIT COOLING & CLEANUP U2

| VALVE    |     |      |      | VALVE POSITION |            |            |              | ASME_SECTION XI |     |                    |                |           |                   |             |
|----------|-----|------|------|----------------|------------|------------|--------------|-----------------|-----|--------------------|----------------|-----------|-------------------|-------------|
| NUMBER   | REV | TYPE | SIZE | ACT TYPE       | F.D. COORD | POWER OPER | SAFETY FUNCT | CD A/P CL       | CAT | PRIM TEST REQUIRED | TEST PERFORMED | TEST MODE | RELIEF REQUEST(S) |             |
| 2-SF-152 | 0   | DA   | 2.5  | M              | K/9        | C          | C            | 2               | P   | A                  | SLT-1          | SLT-2     | R                 | YES, NOTE 1 |
| 2-SF-154 | 0   | GL   | 2.5  | M              | K/9        | C          | C            | 2               | P   | A                  | SLT-1          | SLT-2     | R                 | YES, NOTE 1 |



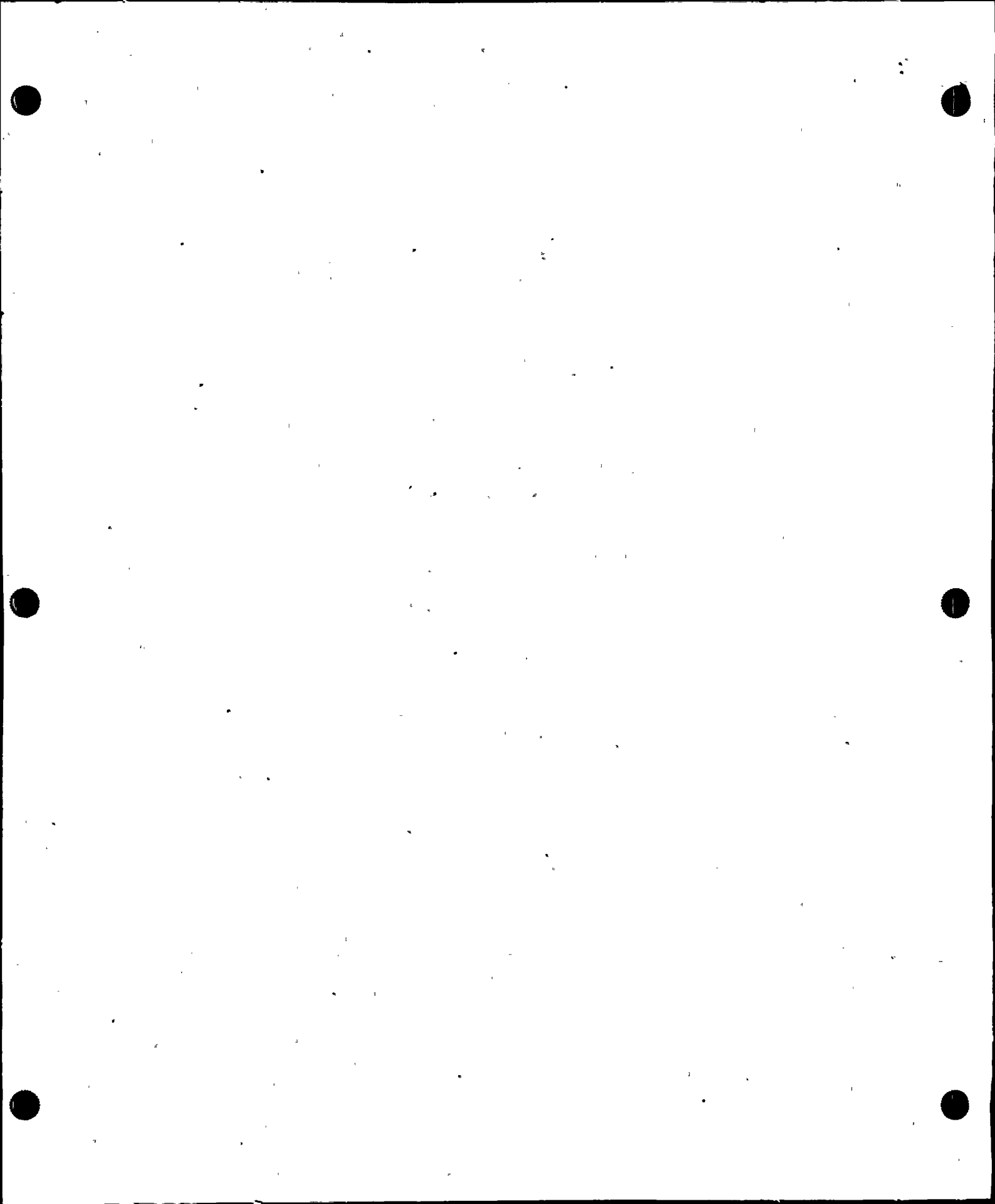


DONALD C. COOK, NUCLEAR PLANT  
 SECOND TEN YEAR INTERVAL  
 VALVE SUMMARY SHEET - UNIT 2  
 FLOW DIAGRAM: 12-5137A-20

RUN DATE AND TIME: 18DEC85:09:14

SYSTEM NAME: WDS VENTS & DRAINS

| VALVE     |     | VALVE POSITION |      |          |            | ASME SECTION XI |              |           |     |                    |                |           |                   |             |
|-----------|-----|----------------|------|----------|------------|-----------------|--------------|-----------|-----|--------------------|----------------|-----------|-------------------|-------------|
| NUMBER    | REV | TYPE           | SIZE | ACT TYPE | F.D. COORD | POWER OPER      | SAFETY FUNCT | CD A/P CL | CAT | PRIM TEST REQUIRED | TEST PERFORMED | TEST MODE | RELIEF REQUEST(S) |             |
| 2-DCR-201 | 0   | DA             | 1    | A        | E/4        | C               | C            | 2         | P   | A                  | EF-1           | EF-1      | P                 | NO          |
|           |     |                |      |          |            |                 |              |           |     |                    | EF-5           | EF-5      | -                 | NO          |
|           |     |                |      |          |            |                 |              |           |     |                    | EF-7           | EF-7      | P                 | NO          |
|           |     |                |      |          |            |                 |              |           |     |                    | ETF-002        | ETF-002   | P                 | NO          |
|           |     |                |      |          |            |                 |              |           |     |                    | SLT-1          | SLT-2     | R                 | YES, NOTE 1 |
| 2-DCR-202 | 0   | DA             | 0.75 | A        | E/5        | O               | C            | 2         | A   | A                  | EF-1           | EF-1      | P                 | NO          |
|           |     |                |      |          |            |                 |              |           |     |                    | EF-5           | EF-5      | -                 | NO          |
|           |     |                |      |          |            |                 |              |           |     |                    | EF-7           | EF-7      | P                 | NO          |
|           |     |                |      |          |            |                 |              |           |     |                    | ETF-002        | ETF-002   | P                 | NO          |
|           |     |                |      |          |            |                 |              |           |     |                    | SLT-1          | SLT-2     | R                 | YES, NOTE 1 |
| 2-DCR-203 | 0   | DA             | 1    | A        | F/4        | C               | C            | 2         | P   | A                  | EF-1           | EF-1      | P                 | NO          |
|           |     |                |      |          |            |                 |              |           |     |                    | EF-5           | EF-5      | -                 | NO          |
|           |     |                |      |          |            |                 |              |           |     |                    | EF-7           | EF-7      | P                 | NO          |
|           |     |                |      |          |            |                 |              |           |     |                    | ETF-002        | ETF-002   | P                 | NO          |
|           |     |                |      |          |            |                 |              |           |     |                    | SLT-1          | SLT-2     | R                 | YES, NOTE 1 |
| 2-DCR-204 | 0   | DA             | 0.75 | A        | F/5        | O               | C            | 2         | A   | A                  | EF-1           | EF-1      | P                 | NO          |
|           |     |                |      |          |            |                 |              |           |     |                    | EF-5           | EF-5      | -                 | NO          |
|           |     |                |      |          |            |                 |              |           |     |                    | EF-7           | EF-7      | P                 | NO          |
|           |     |                |      |          |            |                 |              |           |     |                    | ET-003         | ET-003    | P                 | NO          |
|           |     |                |      |          |            |                 |              |           |     |                    | SLT-1          | SLT-2     | R                 | YES, NOTE 1 |
| 2-DCR-205 | 0   | GL             | 4    | A        | E/7        | O/C             | C            | 2         | A   | A                  | EF-1           | EF-1      | P                 | NO          |
|           |     |                |      |          |            |                 |              |           |     |                    | EF-5           | EF-5      | -                 | NO          |
|           |     |                |      |          |            |                 |              |           |     |                    | EF-7           | EF-7      | P                 | NO          |
|           |     |                |      |          |            |                 |              |           |     |                    | ET-005         | ET-005    | P                 | NO          |
|           |     |                |      |          |            |                 |              |           |     |                    | SLT-1          | SLT-2     | R                 | YES, NOTE 1 |

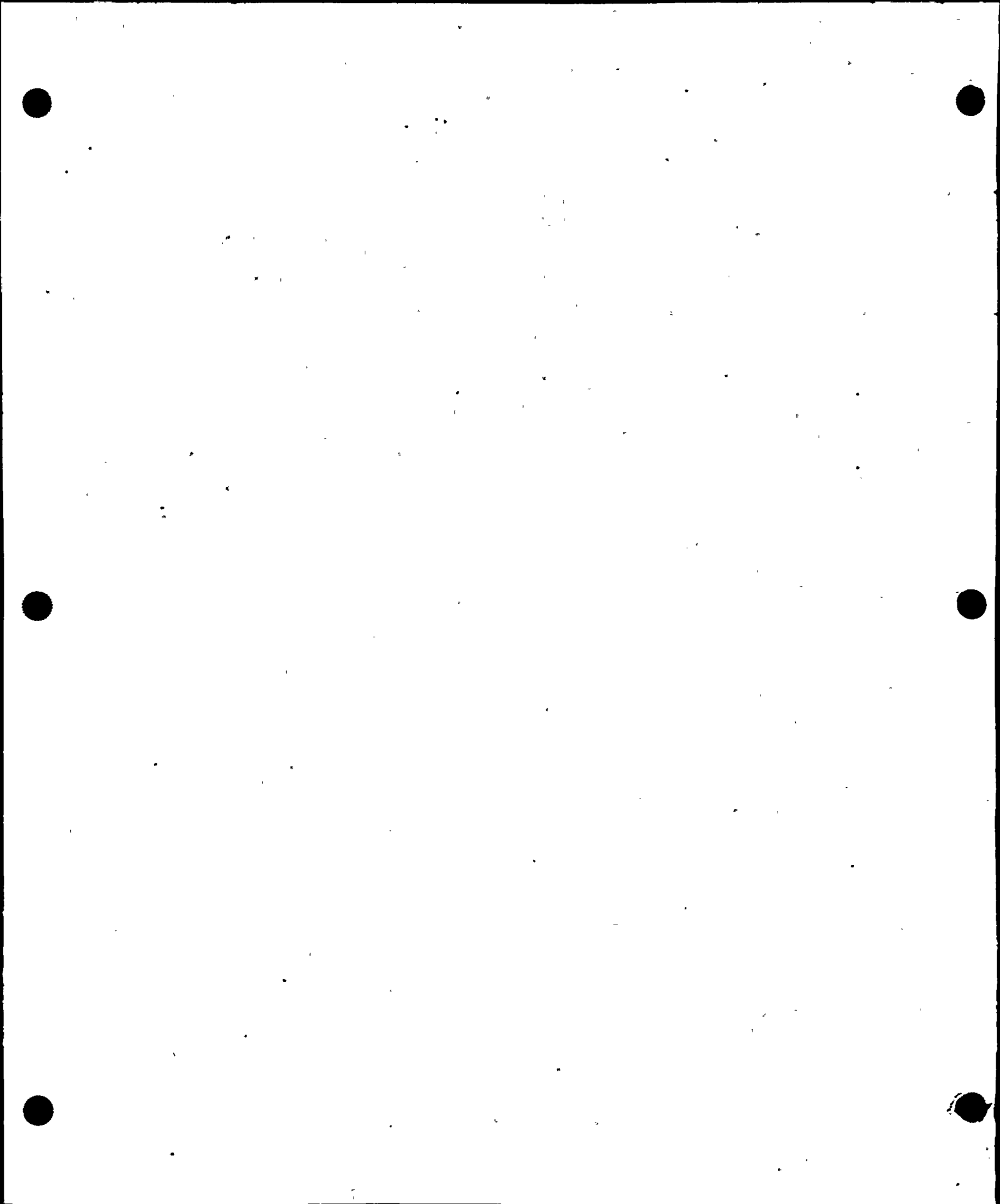


DONALD C. COOK NUCLEAR PLANT  
 SECOND TEN YEAR INTERVAL  
 VALVE SUMMARY SHEET - UNIT 2  
 FLOW DIAGRAM: 12-5137A-20

RUN DATE AND TIME: 18DEC85:09:14

SYSTEM NAME: WDS VENTS & DRAINS

| VALVE     |     |      |      | VALVE POSITION |            |            |              | ASME SECTION XI |     |     |                    |                |           |                   |
|-----------|-----|------|------|----------------|------------|------------|--------------|-----------------|-----|-----|--------------------|----------------|-----------|-------------------|
| NUMBER    | REV | TYPE | SIZE | ACT TYPE       | F.D. COORD | POWER OPER | SAFETY FUNCT | CD  CL          | A/P | CAT | PRIM TEST REQUIRED | TEST PERFORMED | TEST MODE | RELIEF REQUEST(S) |
| 2-DCR-206 | 0   | GL   | 4    | A              | E/8        | O/C        | C            | 2               | A   | A   | EF-1               | EF-1           | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | EF-7               | EF-7           | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | ET-005             | ET-005         | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | SLT-1              | SLT-2          | R         | YES, NOTE 1       |
| 2-DCR-207 | 0   | DA   | 1    | A              | F/4        | O          | C            | 2               | A   | A   | EF-1               | EF-1           | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | EF-7               | EF-7           | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | ETF-002            | ETF-002        | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | SLT-1              | SLT-2          | R         | YES, NOTE 1       |
| 2-DCR-610 | 0   | DA   | 2.5  | A              | M/9        | O          | C            | 2               | A   | A   | EF-1               | EF-1           | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | EF-7               | EF-7           | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | ET-003             | ET-003         | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | SLT-1              | SLT-2          | R         | YES, NOTE 1       |
| 2-DCR-611 | 0   | DA   | 2.5  | A              | N/9        | O          | C            | 2               | A   | A   | EF-1               | EF-1           | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | EF-7               | EF-7           | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | ET-004             | ET-004         | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | SLT-1              | SLT-2          | R         | YES, NOTE 1       |
| 2-DCR-620 | 0   | DA   | 1    | A              | M/9        | O          | C            | 2               | A   | A   | EF-1               | EF-1           | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | EF-7               | EF-7           | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | ET-004             | ET-004         | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | SLT-1              | SLT-2          | R         | YES, NOTE 1       |

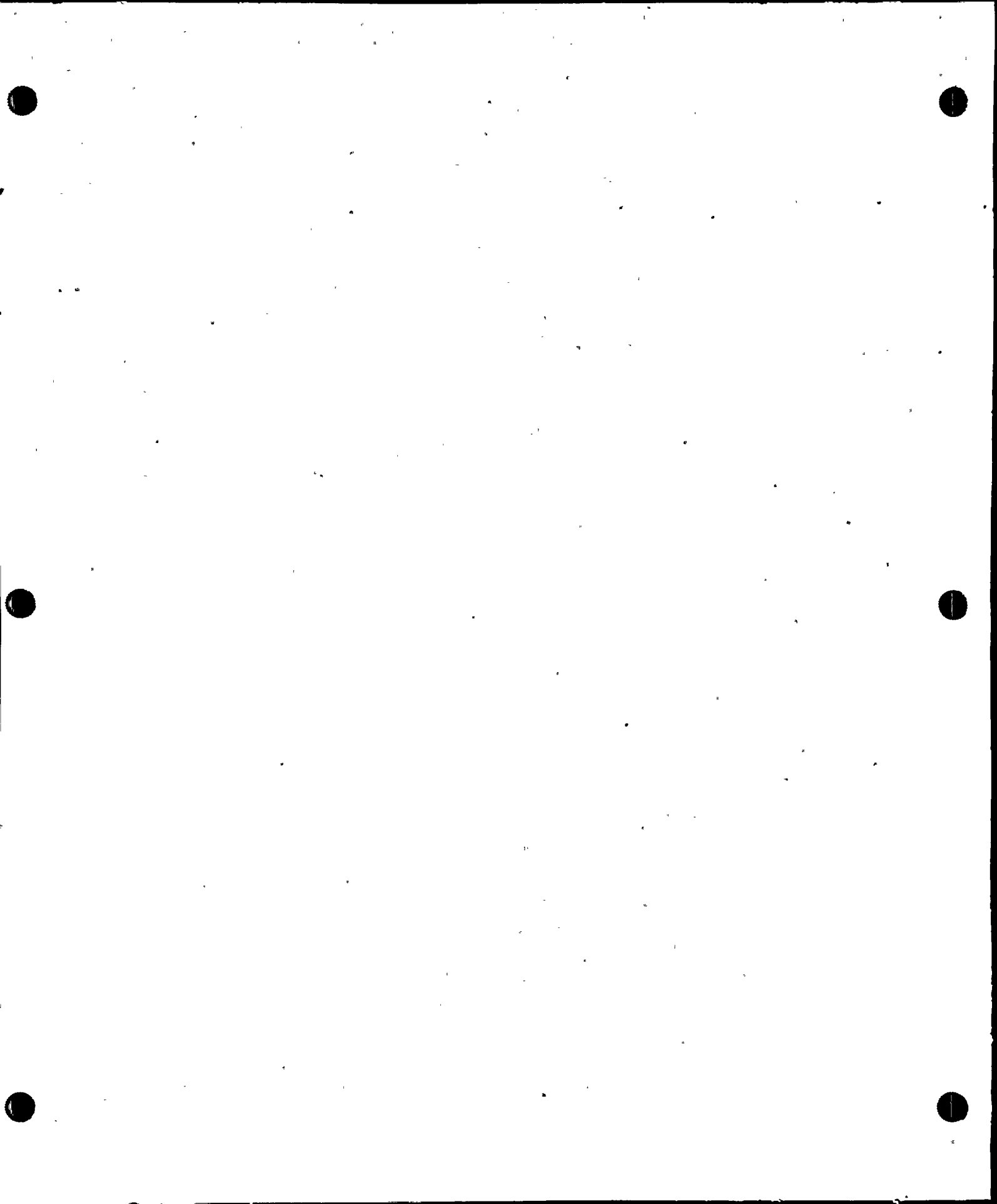


DONALD C. COOK NUCLEAR PLANT  
 SECOND TEN YEAR INTERVAL  
 VALVE SUMMARY SHEET - UNIT 2  
 FLOW DIAGRAM: 12-5137A-20

RUN DATE AND TIME: 18DEC85:09:14

SYSTEM NAME: WDS VENTS & DRAINS

| VALVE     |     |      |      | VALVE POSITION |            |            |              | ASME SECTION XI |     |     |                    |                |           |                   |
|-----------|-----|------|------|----------------|------------|------------|--------------|-----------------|-----|-----|--------------------|----------------|-----------|-------------------|
| NUMBER    | REV | TYPE | SIZE | ACT TYPE       | F.D. COORD | POWER OPER | SAFETY FUNCT | CD [CL          | A/P | CAT | PRIM TEST REQUIRED | TEST PERFORMED | TEST MODE | RELIEF REQUEST(S) |
| 2-DCR-621 | 0   | DA   | 1    | A              | N/9        | O          | C            | 2               | A   | A   | EF-1               | EF-1           | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | EF-7               | EF-7           | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | ET-005             | ET-005         | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | SLT-1              | SLT-2          | R         | YES, NOTE 1       |
| 2-N-160   | 0   | CK   | 1    | SA             | F/4        | O          | C            | 2               | A   | AC  | CF-1               | CF-2           | R         | YES, NOTE 2       |
|           |     |      |      |                |            |            |              |                 |     |     | SLT-1              | SLT-2          | R         | YES, NOTE 1       |
| 2-SF-159  | 0   | DA   | 3    | M              | E/5        | C          | C            | 2               | P   | A   | SLT-1              | SLT-2          | R         | YES, NOTE 1       |
| 2-SF-160  | 0   | DA   | 3    | H              | F/5        | C          | C            | 2               | P   | A   | SLT-1              | SLT-2          | R         | YES, NOTE 1       |



DONALD C. COOK NUCLEAR PLANT  
 SECOND TEN YEAR INTERVAL  
 VALVE SUMMARY SHEET - UNIT 2  
 FLOW DIAGRAM: 12-5141C-7

RUN DATE AND TIME: 18DEC85:09:14

SYSTEM NAME: PAS LIQUID & GAS - UNIT-2

| VALVE     |     |      |      | VALVE POSITION |            |            |              | ASME SECTION XI |     |     |                    |                |           |                   |
|-----------|-----|------|------|----------------|------------|------------|--------------|-----------------|-----|-----|--------------------|----------------|-----------|-------------------|
| NUMBER    | REV | TYPE | SIZE | ACT TYPE       | F.D. COORD | POWER OPER | SAFETY FUNCT | CD ICL          | A/P | CAT | PRIM TEST REQUIRED | TEST PERFORMED | TEST MODE | RELIEF REQUEST(S) |
| 2-ECR-416 | 0   | GL   | 0.5  | A              | M/6        | C          | C            | 2               | P   | A   | EF-1               | EF-1           | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | EF-7               | EF-7           | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | ETF-002            | ETF-002        | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | SLT-1              | SLT-2          | R         | YES, NOTE 1       |
| 2-ECR-417 | 0   | GL   | 0.5  | A              | M/6        | C          | C            | 2               | P   | A   | EF-1               | EF-1           | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | EF-7               | EF-7           | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | ETF-002            | ETF-002        | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | SLT-1              | SLT-2          | R         | YES, NOTE 1       |
| 2-ECR-496 | 0   | GL   | 0.5  | A              | M/8        | C          | C            | 2               | P   | A   | EF-1               | EF-1           | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | EF-7               | EF-7           | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | ETF-002            | ETF-002        | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | SLT-1              | SLT-2          | R         | YES, NOTE 1       |
| 2-ECR-497 | 0   | GL   | 0.5  | A              | M/8        | C          | C            | 2               | P   | A   | EF-1               | EF-1           | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | EF-7               | EF-7           | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | ETF-002            | ETF-002        | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | SLT-1              | SLT-2          | R         | YES, NOTE 1       |
| 2-ECR-535 | 0   | GL   | 0.5  | A              | M/2        | C          | C            | 2               | P   | A   | EF-1               | EF-1           | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | EF-7               | EF-7           | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | ET-003             | ET-003         | P         | NO                |
|           |     |      |      |                |            |            |              |                 |     |     | SLT-1              | SLT-2          | R         | YES, NOTE 1       |



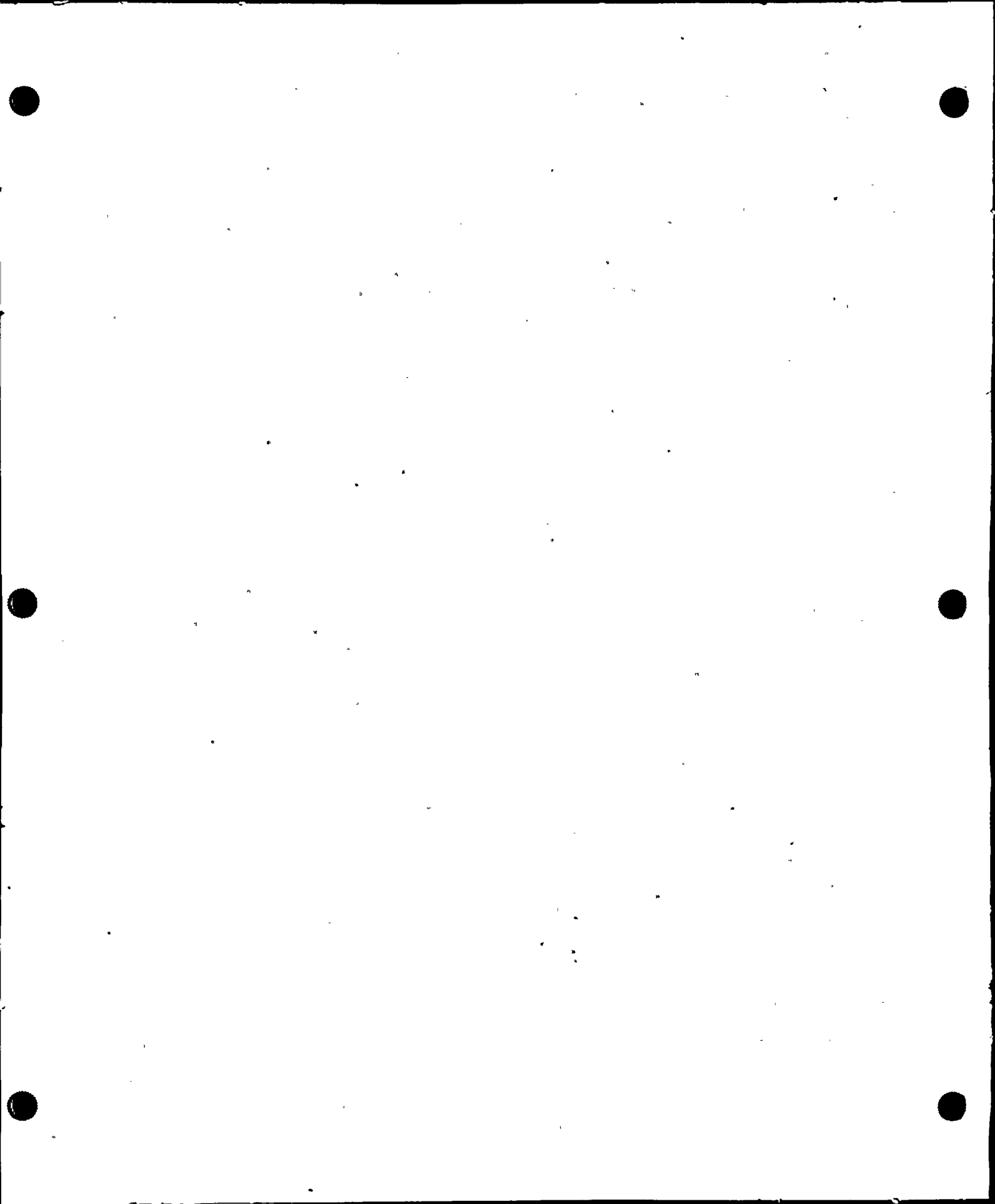


DONALD C. COOK NUCLEAR PLANT  
 SECOND TEN YEAR INTERVAL  
 VALVE SUMMARY SHEET - UNIT 2  
 FLOW DIAGRAM: 12-5141C-7

RUN DATE AND TIME: 18DEC85:09:14

SYSTEM NAME: PAS LIQUID & GAS - UNIT-2

| VALVE     |     |      |      | VALVE POSITION |            |            |              | ASME SECTION XI |     |     |   |   |                       |                                     |
|-----------|-----|------|------|----------------|------------|------------|--------------|-----------------|-----|-----|---|---|-----------------------|-------------------------------------|
| NUMBER    | REV | TYPE | SIZE | ACT TYPE       | F.D. COORD | POWER OPER | SAFETY FUNCT | CD ICL          | A/P | CAT | PRIM TEST REQUIRED                      | TEST PERFORMED                          | TEST MODE             | RELIEF REQUEST(S)                   |
| 2-ECR-536 | 0   | GL   | 0.5  | A              | L/2        | C          | C            | 2               | P   | A   | EF-1<br>EF-5<br>EF-7<br>ET-003<br>SLT-1 | EF-1<br>EF-5<br>EF-7<br>ET-003<br>SLT-2 | P<br>-<br>P<br>P<br>R | NO<br>NO<br>NO<br>NO<br>YES, NOTE 1 |

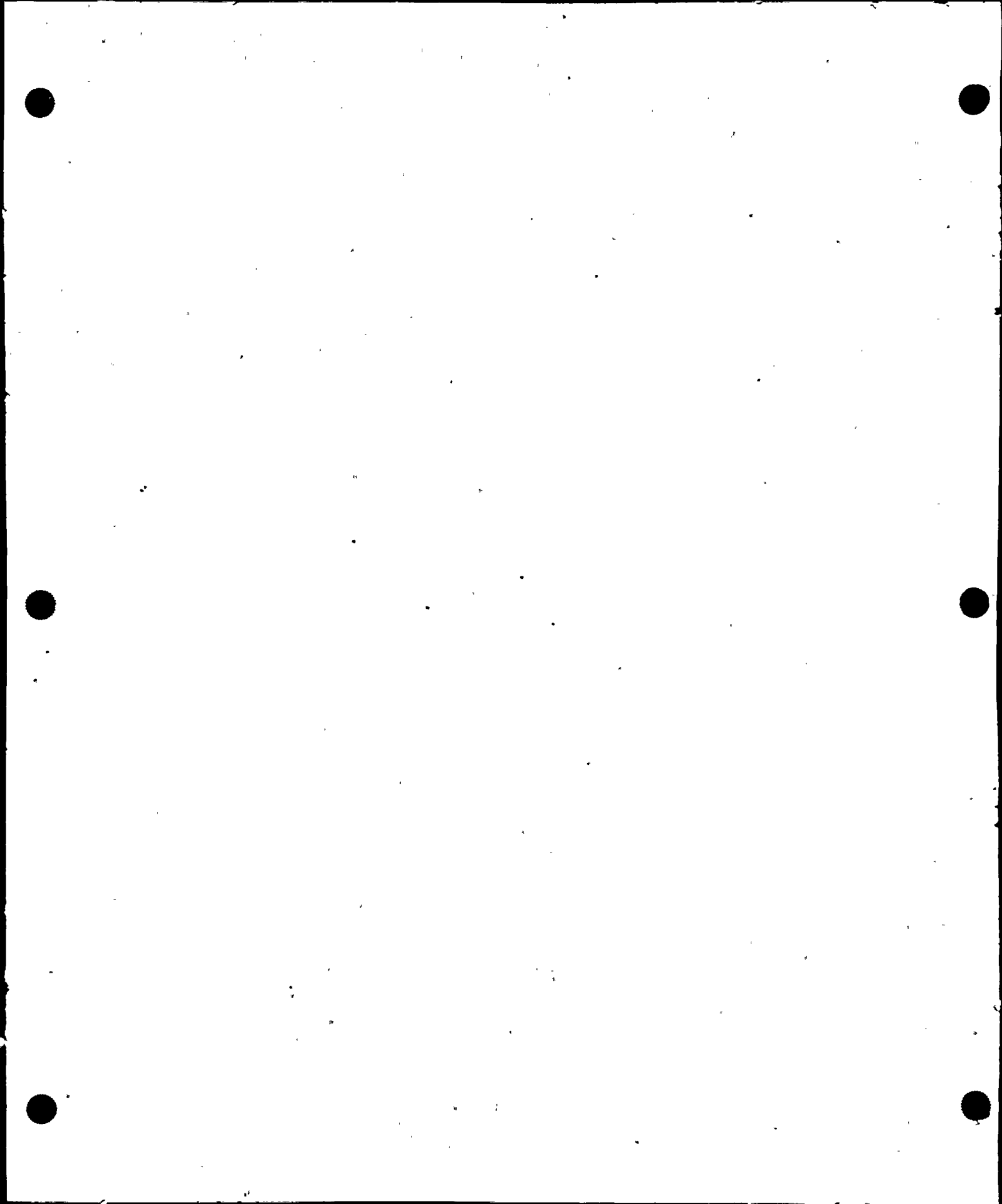


DONALD C. COOK NUCLEAR PLANT  
 SECOND TEN YEAR INTERVAL  
 VALVE SUMMARY SHEET - UNIT 2  
 FLOW DIAGRAM: 12-5141F-3

RUN DATE AND TIME: 18DEC85:09:14

SYSTEM NAME: PAL SAMPLING & INST. PANELS - U-2

| VALVE    |     |      |      | VALVE POSITION |            |            |              | ASME SECTION XI |     |     |                    |                |           |                   |
|----------|-----|------|------|----------------|------------|------------|--------------|-----------------|-----|-----|--------------------|----------------|-----------|-------------------|
| NUMBER   | REV | TYPE | SIZE | ACT TYPE       | F.D. COORD | POWER OPER | SAFETY FUNCT | CD ICL          | A/P | CAT | PRIM TEST REQUIRED | TEST PERFORMED | TEST MODE | RELIEF REQUEST(S) |
| 2-ECR-31 | 0   | GL   | 1    | A              | B/3        | 0          | C            | 2               | A   | A   | EF-1               | EF-2           | C         | YES, NOTE 1       |
|          |     |      |      |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO                |
|          |     |      |      |                |            |            |              |                 |     |     | EF-7               | EF-8           | C         | NO, NOTE 1        |
|          |     |      |      |                |            |            |              |                 |     |     | ET-005             | ET-005         | C         | NO                |
|          |     |      |      |                |            |            |              |                 |     |     | SLT-1              | SLT-2          | R         | YES, NOTE 2       |
| 2-ECR-32 | 0   | GL   | 1    | A              | B/3        | 0          | C            | 2               | A   | A   | EF-1               | EF-2           | C         | YES, NOTE 1       |
|          |     |      |      |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO                |
|          |     |      |      |                |            |            |              |                 |     |     | EF-7               | EF-8           | C         | NO, NOTE 1        |
|          |     |      |      |                |            |            |              |                 |     |     | ET-005             | ET-005         | C         | NO                |
|          |     |      |      |                |            |            |              |                 |     |     | SLT-1              | SLT-2          | R         | YES, NOTE 2       |
| 2-ECR-33 | 0   | GL   | 0.75 | A              | B/2        | 0          | C            | 2               | A   | A   | EF-1               | EF-2           | C         | YES, NOTE 1       |
|          |     |      |      |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO                |
|          |     |      |      |                |            |            |              |                 |     |     | EF-7               | EF-8           | C         | NO, NOTE 1        |
|          |     |      |      |                |            |            |              |                 |     |     | ET-004             | ET-004         | C         | NO                |
|          |     |      |      |                |            |            |              |                 |     |     | SLT-1              | SLT-2          | R         | YES, NOTE 2       |
| 2-ECR-35 | 0   | GL   | 1    | A              | B/2        | 0          | C            | 2               | A   | A   | EF-1               | EF-2           | C         | YES, NOTE 1       |
|          |     |      |      |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO                |
|          |     |      |      |                |            |            |              |                 |     |     | EF-7               | EF-8           | C         | NO, NOTE 1        |
|          |     |      |      |                |            |            |              |                 |     |     | ET-004             | ET-004         | C         | NO                |
|          |     |      |      |                |            |            |              |                 |     |     | SLT-1              | SLT-2          | R         | YES, NOTE 2       |
| 2-ECR-36 | 0   | GL   | 1    | A              | B/3        | 0          | C            | 2               | A   | A   | EF-1               | EF-2           | C         | YES, NOTE 1       |
|          |     |      |      |                |            |            |              |                 |     |     | EF-5               | EF-5           | -         | NO                |
|          |     |      |      |                |            |            |              |                 |     |     | EF-7               | EF-8           | C         | NO, NOTE 1        |
|          |     |      |      |                |            |            |              |                 |     |     | ET-004             | ET-004         | C         | NO                |
|          |     |      |      |                |            |            |              |                 |     |     | SLT-1              | SLT-2          | R         | YES, NOTE 2       |

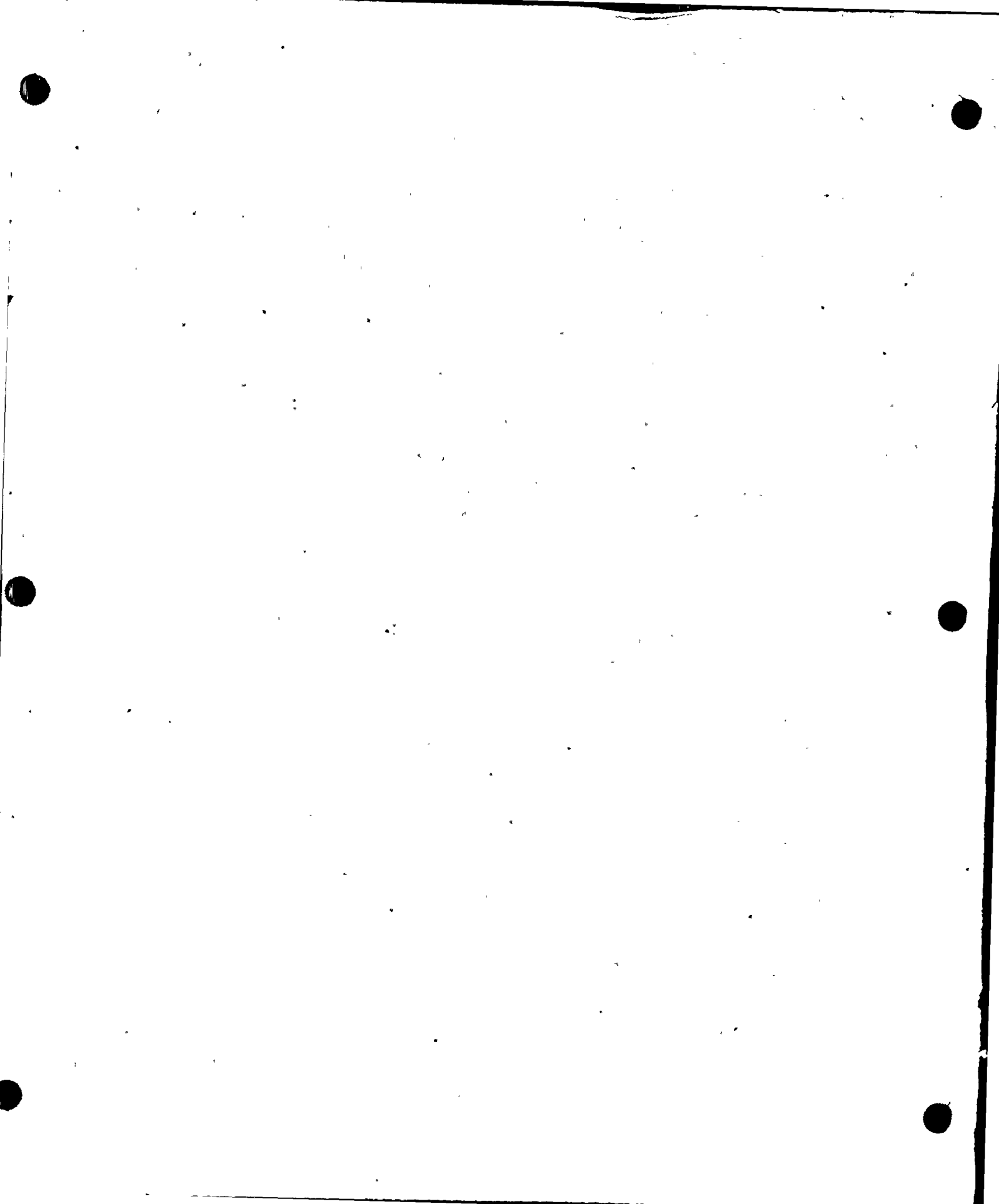


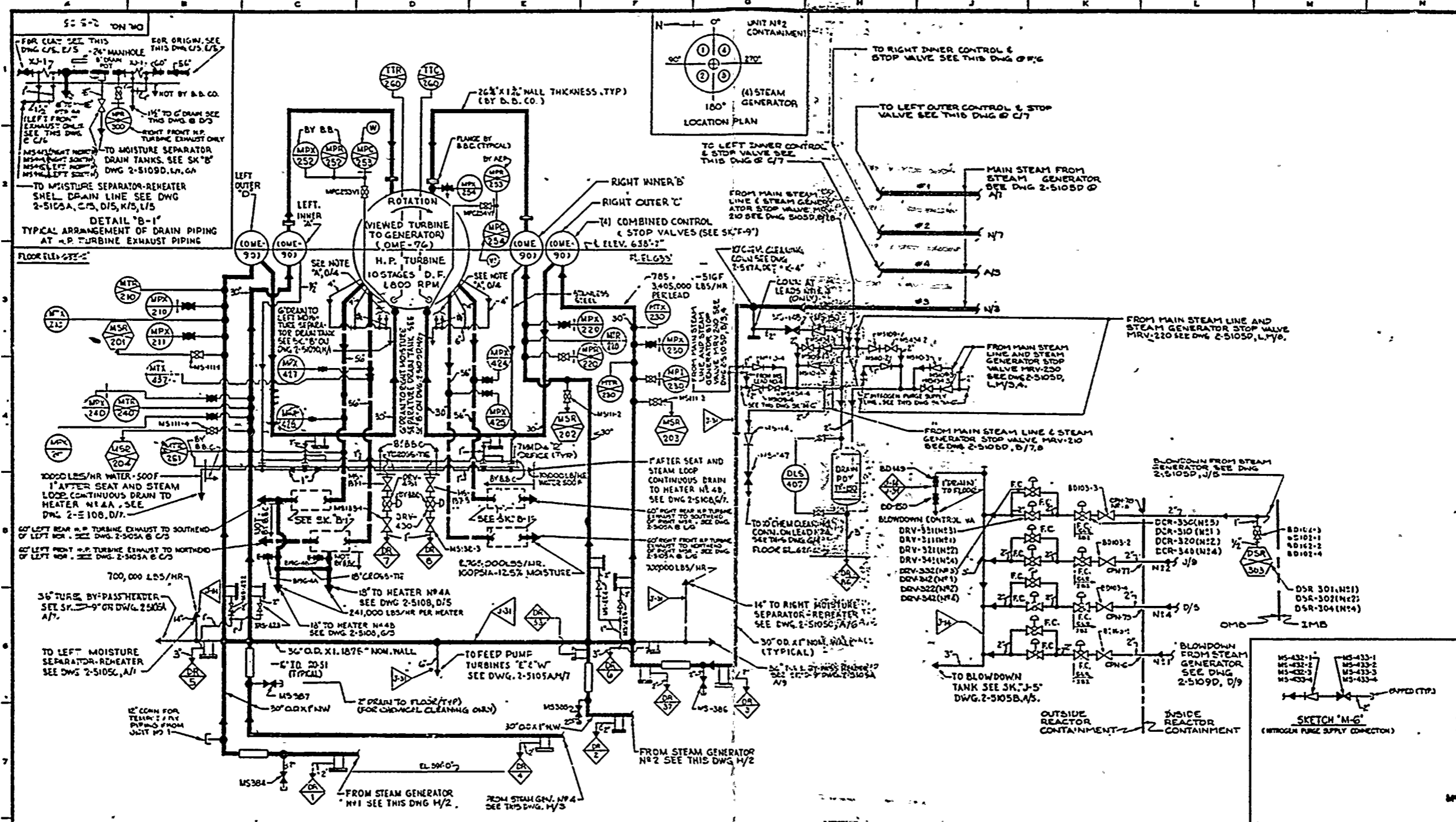
DONALD C. COOK NUCLEAR PLANT  
 SECOND TEN YEAR INTERVAL  
 VALVE SUMMARY SHEET - UNIT 2  
 FLOW DIAGRAM: 12-5141F-3

RUN DATE AND TIME: 18DEC85:09:14

SYSTEM NAME: PAL SAMPLING & INST. PANELS - U-2

| VALVE  |     |      |      | VALVE POSITION |            |            |              | ASME_SECTION_XI |     |                    |                |               | RELIEF REQUEST(S) |                            |
|--------|-----|------|------|----------------|------------|------------|--------------|-----------------|-----|--------------------|----------------|---------------|-------------------|----------------------------|
| NUMBER | REV | TYPE | SIZE | ACT TYPE       | F.D. COORD | POWER OPER | SAFETY FUNCT | CD A/P CL       | CAT | PRIM TEST REQUIRED | TEST PERFORMED | TEST MODE     | RELIEF REQUEST(S) |                            |
| 2-SM-1 | 0   | CK   | 1    | SA             | A/3        | 0          | C            | 2               | A   | AC                 | CF-1<br>SLT-1  | CF-2<br>SLT-2 | R<br>R            | YES, NOTE 3<br>YES, NOTE 2 |





**GENERAL NOTES**

**LEGEND**

— MAIN STEAM  
 - - - H.P. TURBINE EXHAUST (BY BROWN BOYER) AUX. PIPING

FOR VALVE, INSTRUMENT, SAMPLING, PIPE MATERIAL AND OTHER SYMBOLS NOT EXPLAINED ON THIS DWG., AND FOR MARK NUMBER CODES, SEE DWG. 5104

Ⓜ BY WESTINGHOUSE

QUANTITIES FROM BROWN BOYER HEAT BALANCE D 10240/0 DATED 11-17-68 FOR MAXIMUM EXPECTED REACTOR POWER (3391 MW)

**NOTE "A":** C/S, E/S 1/2" DRAIN TO H.P. TURBINE EXHAUST PIPING EXPANSION JOINT SEE THIS DWG. SK "B-1"

**NOTE "B":** ALL EQUIPMENT E.C. EXCEPT AS NOTED.

**NOTE "C":** FOR COSE CLASS & INSTRUMENT CONNECTIONS THE SEE BOUNDARY EXTENSION TO AND INCLUDES THE FIRST ROOT VALVE.

**NOTE "D":** SEE DWG. 2-5108 FOR CONTINUATION OF DRAINS & SEE DWG. 2-5109 FOR TERMINATION OF DRAINS & DUMP RECEIVER "A".

THE UNIT PREFIX DESIGNATION FOR EACH COMPONENT IDENTIFICATION NUMBER IS "2" UNLESS OTHERWISE NOTED.

**HAND OPERATED VALVE IDENTIFICATION NUMBERS**

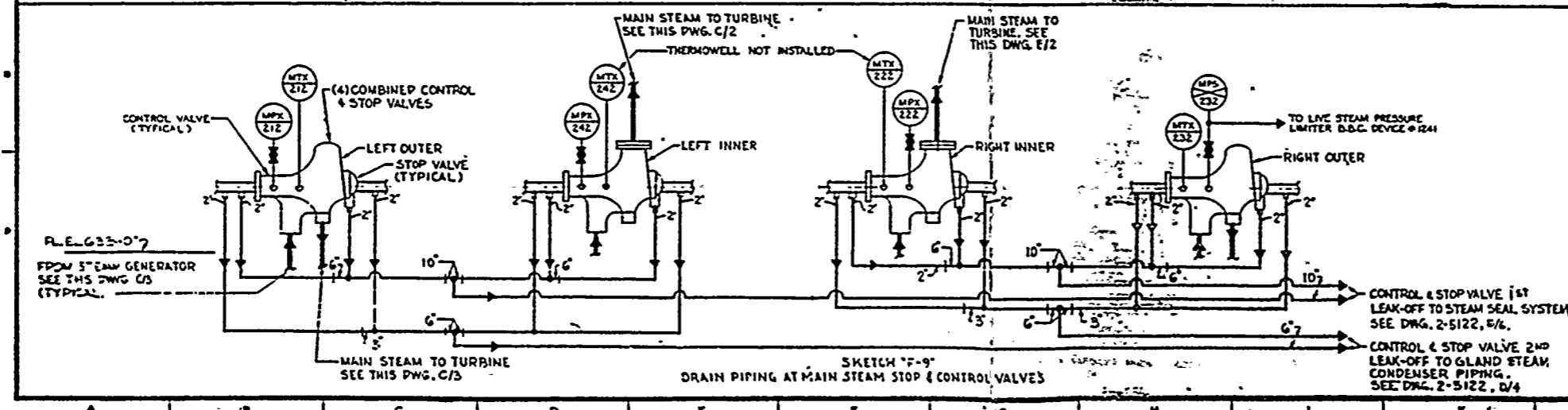
1. ONLY "UNIQUE VALVE NUMBERS" APPEAR ON THIS DRAWING. SEE SEPARATE VALVE IDENTIFICATION LIST FOR EQUIVALENT DESIGN (MCR) NUMBERS.

2. TAG NUMBERS MODIFIED FOR DRAWING USE AS FOLLOWS:  
 TAG #1: 2-5105-100-W APPEARS AS 2-5105-100  
 TAG #2: 2-5105-100-W APPEARS AS 2-5105-100

3. INSTRUMENT ROOT VALVE MARK #1'S NOT SHOWN ON DRAWING (SEE VALVE IDENTIFICATION LIST) DERIVED BY ADDING TO INSTRUMENT NUMBER:  
 FOR SINGLE IMPULSE: V1  
 FOR DOUBLE IMPULSE: V1P/STREAM  
 V2/COM/STRM

MS-432-1 MS-433-1  
 MS-432-2 MS-433-2  
 MS-432-3 MS-433-3  
 MS-432-4 MS-433-4

**SKETCH "M-G"**  
 (NITROGEN PURGE SUPPLY CONNECTION)



**TI APERTURE CARD**

Also Available On Aperture Card

8601080550-01

INDIANA & MICHIGAN ELECTRIC CO.  
 DONALD C. COOK  
 NUCLEAR PLANT

FLOW DIAGRAM  
 MAIN STEAM  
 UNIT NO. 2  
 SHEET 1 OF 4

DR. NO. 2-5105-33

|         |    |     |          |
|---------|----|-----|----------|
| DATE    | BY | NO. | APPROVED |
| 10-2-65 | 33 | 100 |          |

FOR REVISION DESCRIPTION SEE SEPARATE REVISION RECORD - FOR THIS DRAWING

AMERICAN ELECTRIC POWER SERVICE CORP.  
 2 BROADWAY NEW YORK

2151100 FALCO  
ALTIUM NEG-011  
2151100 FALCO

2151100 FALCO

2151100 FALCO

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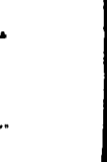
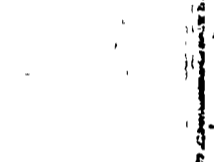
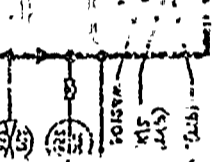
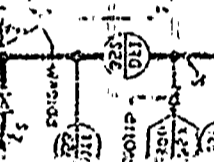
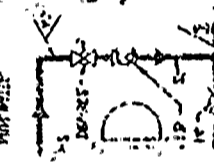
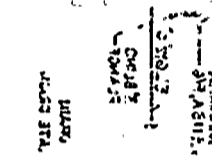
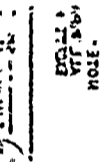
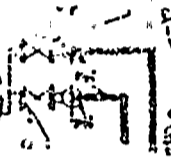
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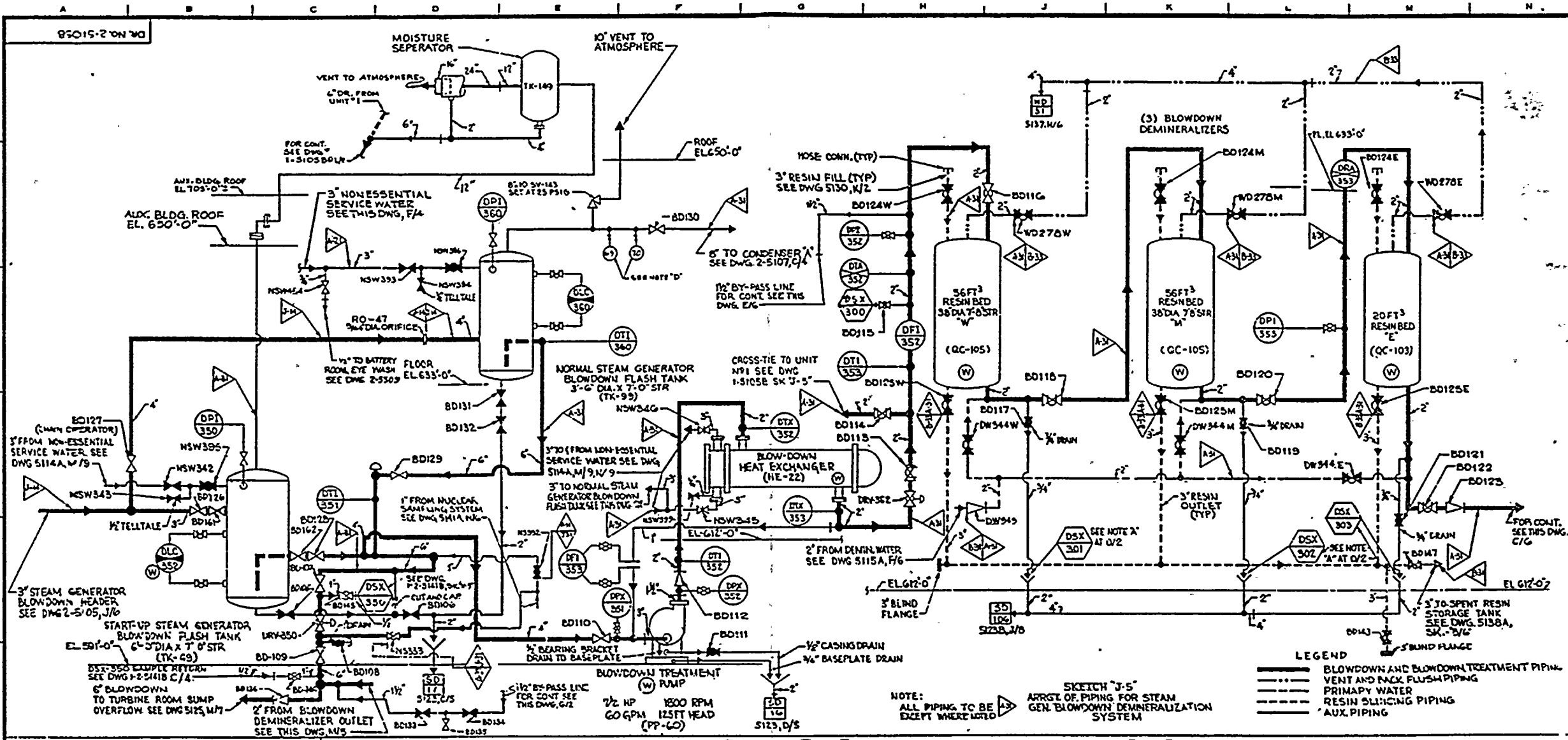
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**GENERAL NOTES**

**LEGEND**  
AS NOTED

FOR VALVE, INSTRUMENT, SAMPLING, PIPE MATERIAL AND OTHER SYMBOLS NOT EXPLAINED ON THIS DWG. AND FOR MARK NUMBER CODES, SEE DWG 5104

(W) BY WESTINGHOUSE  
(R) BY INGERSOLL RAND

NOTE "A" SUFFICIENT ROOM PROVIDED AT DSX-301, 302, & 303 FOR GRAB SAMPLES

NOTE "B" ALL EQUIPMENT SC II EXCEPT AS NOTED

NOTE "C" FOR CLASS 3 INSTRUMENT, UNLESS THE SC II BOUNDARY EXTENDS TO AND INCLUDES THE INSTRUMENT VALVE, THE SC II BOUNDARY EXTENDS TO AND INCLUDES THE INSTRUMENT VALVE. THE SC II BOUNDARY EXTENDS TO AND INCLUDES THE FIRST NORMALLY CLOSED VALVE.

NOTE "D" THIS SYMBOL INDICATES A TRAP INJECTION POINT. THE TRAP, WITH THE CHECK INDICATOR, IS FOR THE CHECK INDICATOR. THE TRAP IS FOR THE CHECK, (TR-...), AND IS SHOWN ON THE VALVE LIST

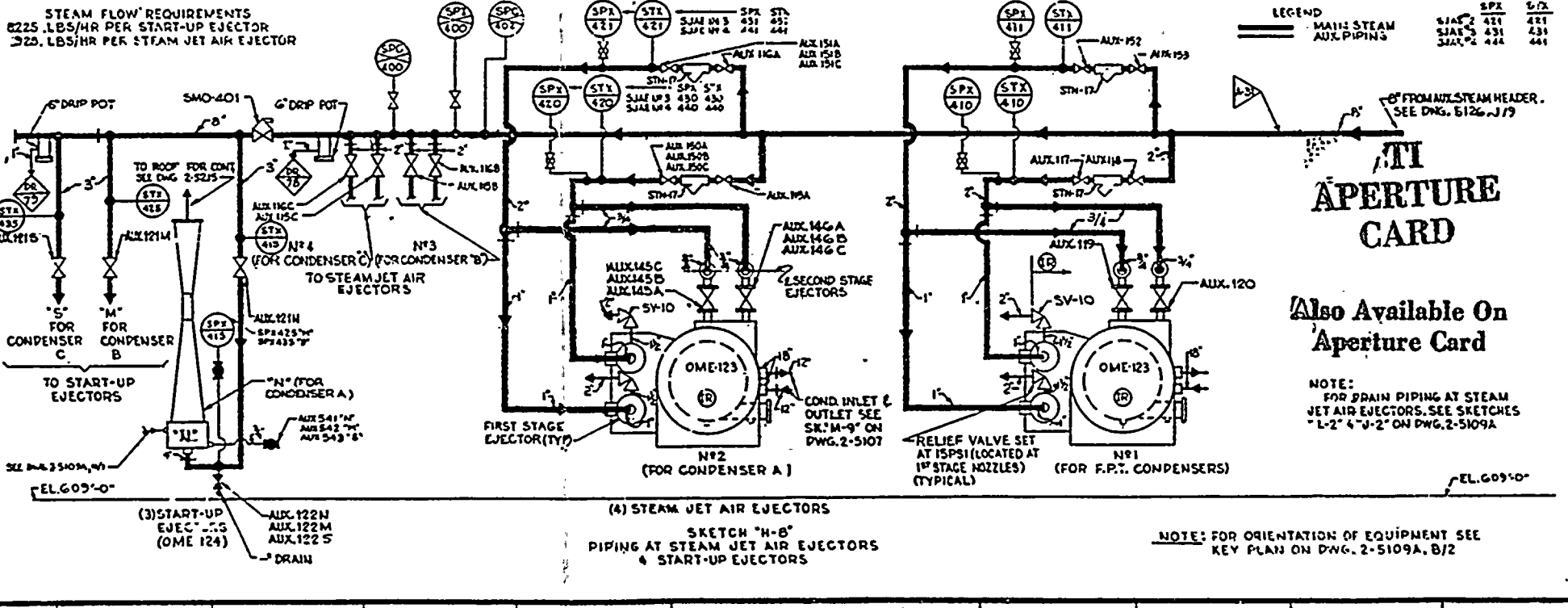
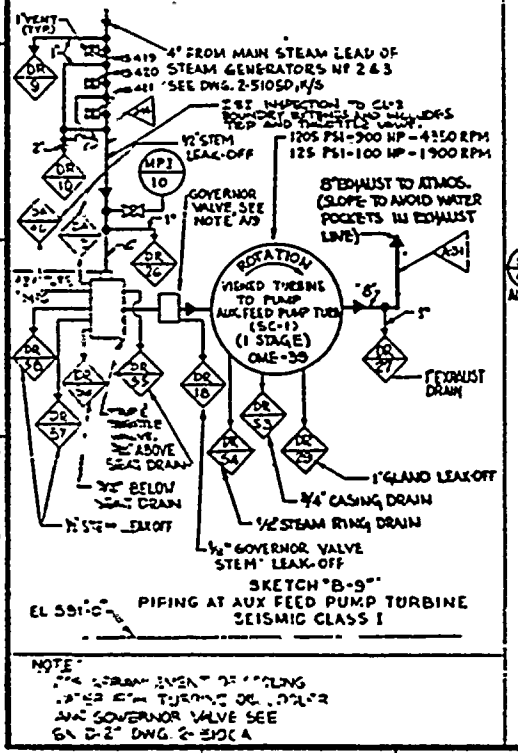
NOTE "E" THE UNIT PREFIX DESIGNATIONS FOR EACH COMPONENT IDENTIFICATION NUMBER IS "2" UNLESS OTHERWISE NOTED.

MANUALLY OPERATED VALVE IDENTIFICATION NUMBERS

1. ONLY "UNIQUE VALVE NUMBERS" APPEAR ON THIS DRAWING. SEE SEPARATE VALVE IDENTIFICATION LIST FOR EQUIVALENT DESIGN (W/C) NUMBERS.

2. "TAG" NUMBERS MODIFIED FOR DRAWING USE AS FOLLOWS:  
TAG NO: 2-NSW-V03-W  
APPEARS AS: NSW003

3. INSTRUMENT ROOT VALVE MARK NPS NOT SHOWN ON DRAWING (SEE VALVE IDENTIFICATION LIST) DERIVED BY ADDING TO INSTRUMENT NUMBER FOR SINGLE BRANCH, VI FOR DOUBLE BRANCH, VPS FOR TRIP, V2 FOR TRIP/STOP



**APERTURE CARD**

Also Available On Aperture Card

INDIANA & MICHIGAN ELECTRIC CO.  
DONALD C. COOK  
NUCLEAR PLANT

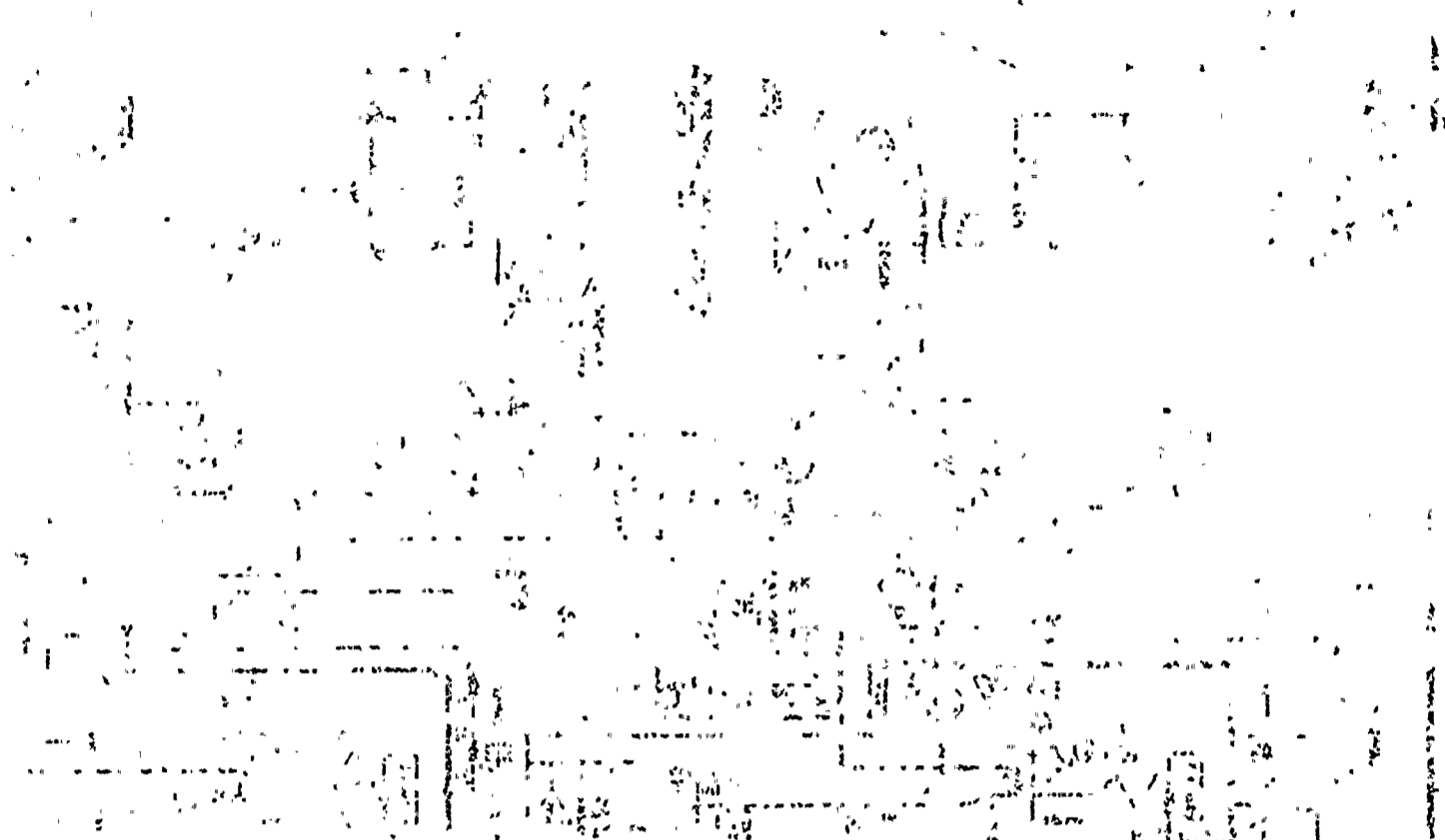
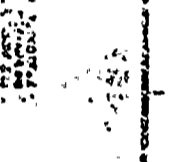
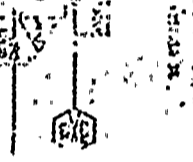
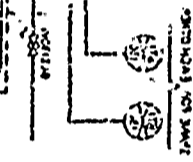
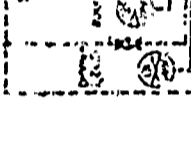
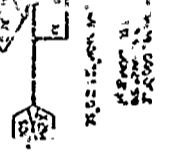
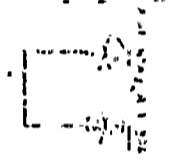
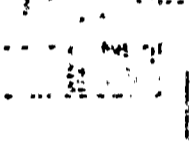
FLOW DIAGRAM  
MAIN STEAM  
UNIT N22  
SHEET 3 OF 3

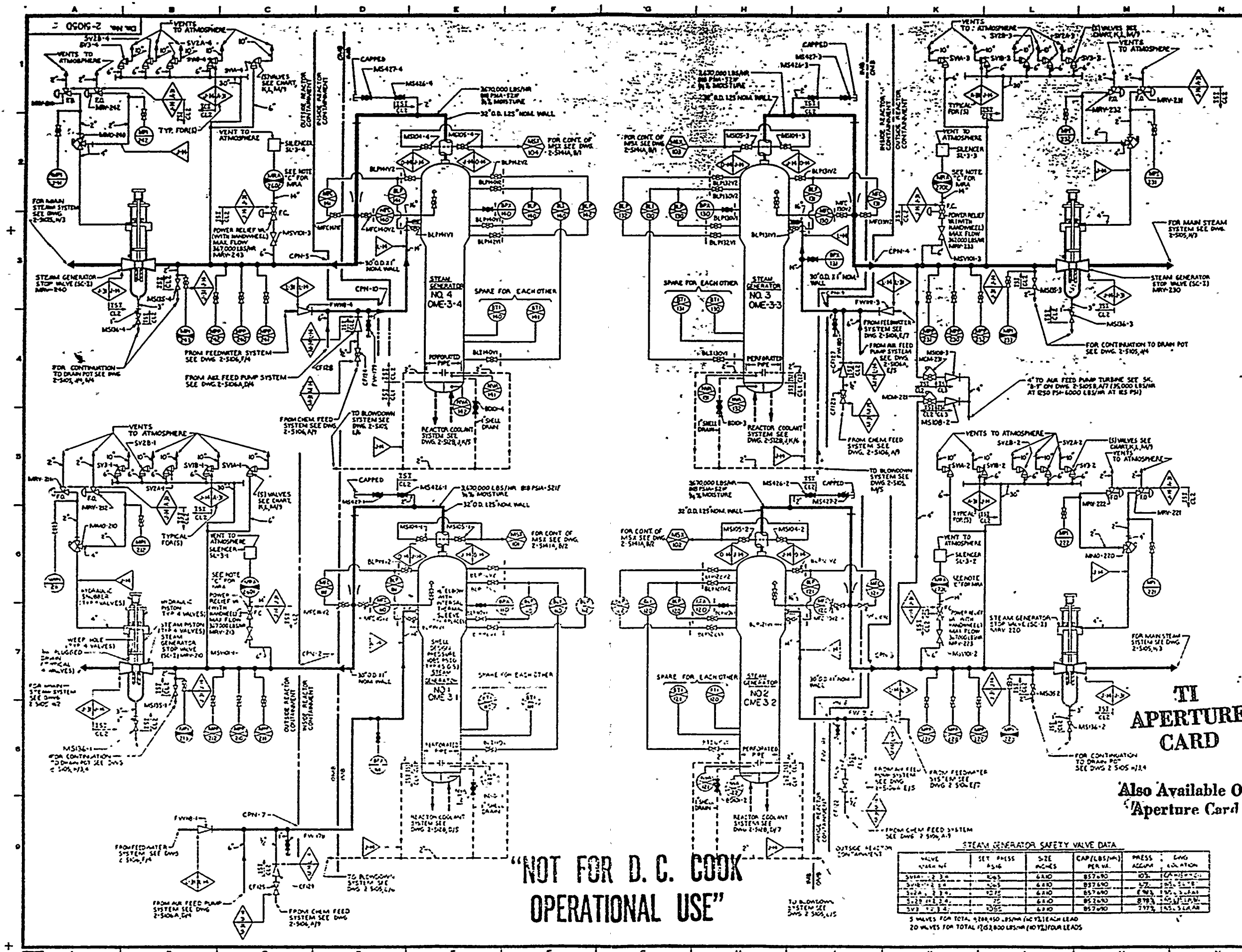
DR. NO. 2-5105B-39

AMERICAN ELECTRIC POWER SUPPLY CO. BROADWAY NEW YORK

1125

1125





**"NOT FOR D. C. COOK  
OPERATIONAL USE"**

**STEAM GENERATOR SAFETY VALVE DATA**

| VALVE<br>SERIAL NO. | SET PRESS<br>PSIA | SIZE<br>INCHES | CAP(LBS/HR)<br>PER IN. | PRESS<br>ACQVA | ENG<br>LOCATION |
|---------------------|-------------------|----------------|------------------------|----------------|-----------------|
| SV2A-1              | 205               | 6.00           | 85760                  | 105            | 105             |
| SV2A-2              | 205               | 6.00           | 85760                  | 105            | 105             |
| SV2A-3              | 205               | 6.00           | 85760                  | 105            | 105             |
| SV2A-4              | 205               | 6.00           | 85760                  | 105            | 105             |
| SV2A-5              | 205               | 6.00           | 85760                  | 105            | 105             |
| SV2A-6              | 205               | 6.00           | 85760                  | 105            | 105             |
| SV2A-7              | 205               | 6.00           | 85760                  | 105            | 105             |
| SV2A-8              | 205               | 6.00           | 85760                  | 105            | 105             |
| SV2A-9              | 205               | 6.00           | 85760                  | 105            | 105             |
| SV2A-10             | 205               | 6.00           | 85760                  | 105            | 105             |

5 VALVES FOR TOTAL 428,800 LBS/HR (10% TEACH LEAD)  
20 VALVES FOR TOTAL 1715,200 LBS/HR (10% TEACH LEAD)

**GENERAL NOTES**

**LEGEND**

- STEAM
- FEEDWATER
- REACTOR COOLANT
- BL. PUMP
- BLOWDOWN

FOR VALVE INSTRUMENT SAMPLING  
PIPE MATERIAL AND OTHER SYMBOLS  
NOT EXPLAINED ON THIS DWG. GO  
FOR MAIN NUMBER CODES, SEE  
DWG. 2-505-0

**NOTE "A"**  
ALL EQUIPMENT S.C. 2 EXCEPT  
AS NOTED.

**NOTE "B"**  
FOR CODE CLASS 2 INSTRUMENT (I  
SAMPLE CONNECTIONS THE 64  
BOUNDARY EXTENDS TO AND INCLUDES  
THE FIRST ROOT VALVE.

**NOTE "C"**  
DETECTOR IS IN PROXIMITY TO PIPE  
BUT NOT PHYSICALLY ATTACHED FOR  
DETAIL. SEE DWG. 2-5047, 2-5048-2

**MANO OPERATED VALVE  
IDENTIFICATION MARKING**  
1. ONE "UNIQUE VALVE ALPHABET"  
APPEAR ON THIS DRAWING SEE  
SEPARATE VALVE IDENTIFICATION  
LIST FOR EQUIPMENT DESIGN  
(UNO MARKING)  
2. "UNO" MARKING MODIFIED FOR  
DRAWING USE AS FOLLOWS:  
UNO NO. 12-NOW UNO-12  
APPEARS AS "12UNO12"  
3. INSTRUMENT ROOT VALVE MARKING  
IS NOT SHOWN ON DRAWING (SEE  
VALVE IDENTIFICATION LIST)  
DETERMINED BY ADDING TO  
INSTRUMENT NUMBER  
FOR SINGLE IMPULSE: UNO  
FOR DOUBLE IMPULSE: UNO-12UNO12

**NOTES**  
THE UNO PREFIX DESIGNATION FOR EACH  
COMPONENT IDENTIFICATION NO.  
IS "2" UNLESS OTHERWISE NOTED.

DATE: 10-10-55  
APPROVED: [Signature]

FOR REVISION DESCRIPTION SEE  
SEPARATE REVISION RECORD  
FOR THIS DRAWING.

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SHOULD BE RESPONSIBLE FOR OBTAINING THE ORIGINAL SOURCE.

PHOENIX & MICHIGAN ELECTRIC CO.  
DONALD C. COOK  
NUCLEAR PLANT

FLOW DIAGRAM  
STEAM GENERATING  
SYSTEM  
UNIT NO. 2

DWG NO. 2-5050-0

AMERICAN ELECTRIC POWER SERVICE CORP.

**TI  
APERTURE  
CARD**

Also Available On  
Aperture Card

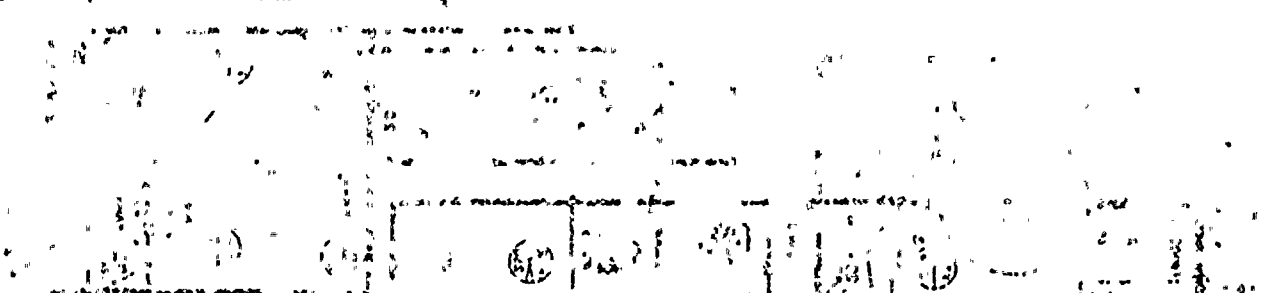
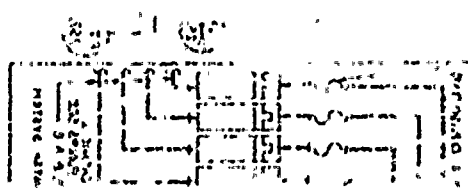
DEPT. OF THE ARMY  
ENGINEERING CENTER  
FORT BELLEVILLE, ILL.

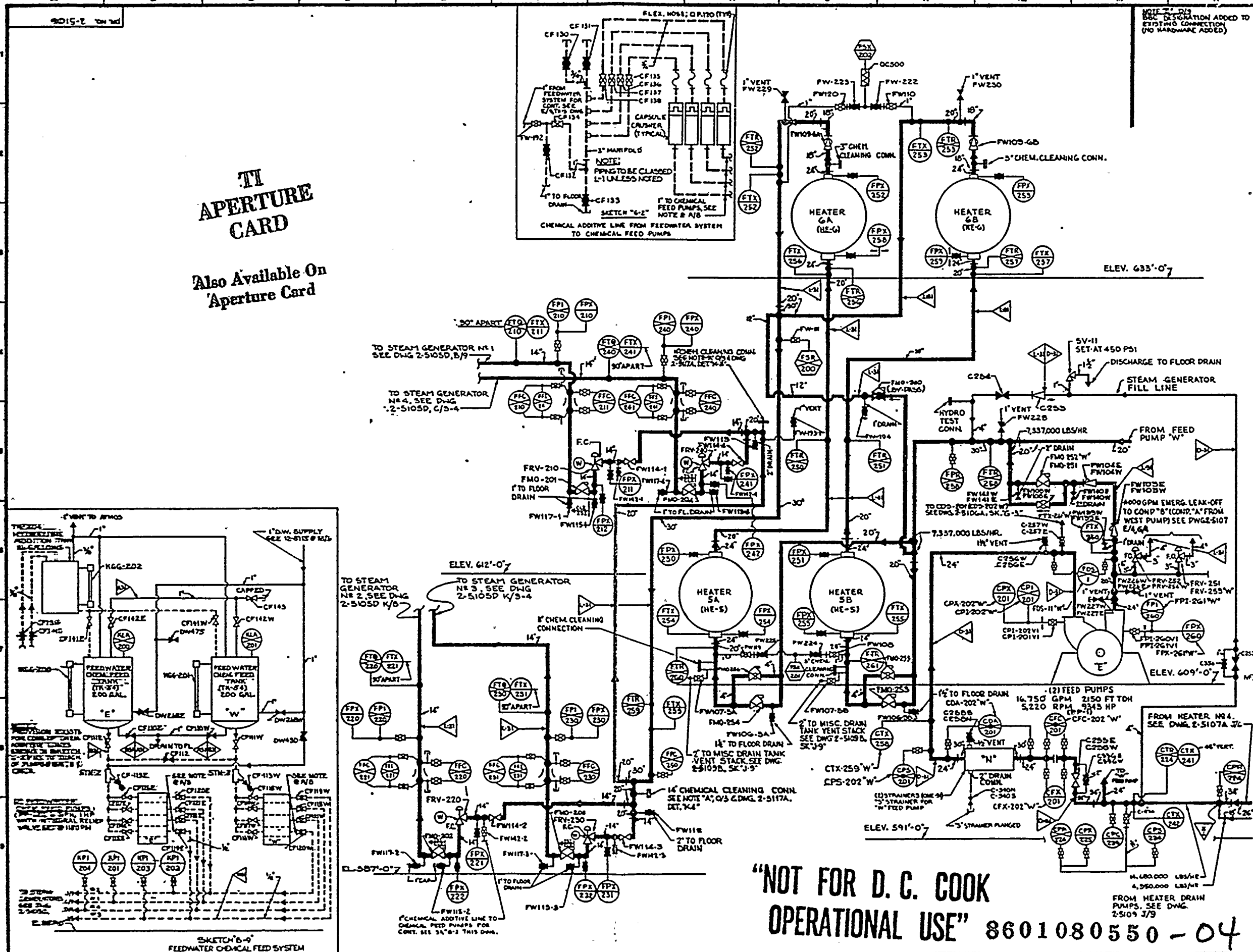
REVISIONS  
BY DATE  
1. 10/15/54  
2. 11/15/54

MEETS BY  
PENNER

ENGINEERING CENTER  
FORT BELLEVILLE, ILL.

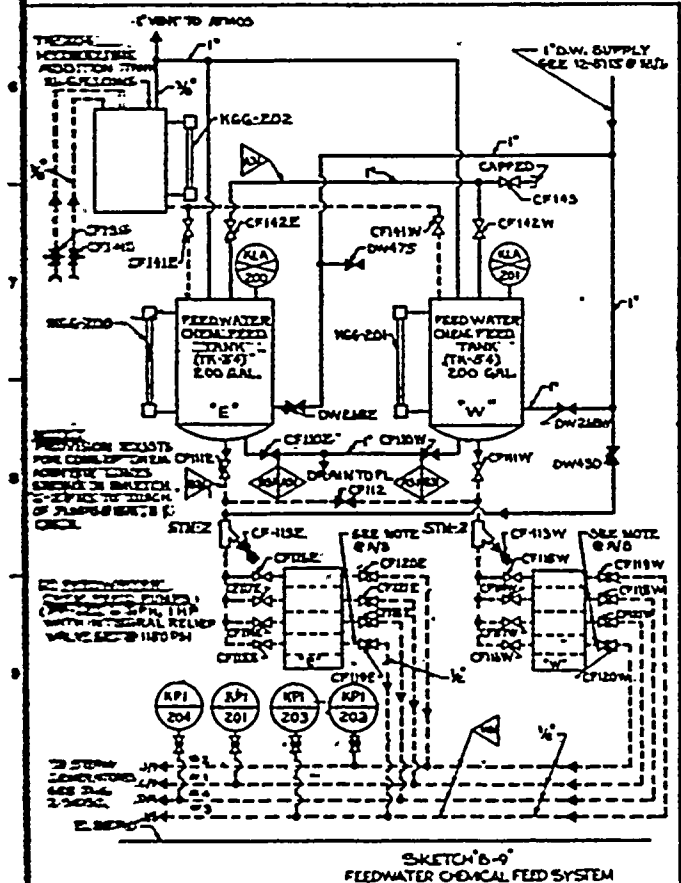
ENGINEERING CENTER  
FORT BELLEVILLE, ILL.





**TI APERTURE CARD**

Also Available On Aperture Card



**GENERAL NOTES**

**LEGEND**

- FEEDWATER
- AUX. PIPING
- CHEM. FEED PIPING

FOR VALVE, INSTRUMENT, SAMPLING, PIPE MATERIAL, AND OTHER SYMBOLS NOT EXPLAINED ON THIS DWG., AND FOR MARK NUMBER CODES, SEE DWG. 810-4.

**NOTE:** ALL EQUIPMENT SEISMIC CLASS III EXCEPT AS NOTED

QUANTITIES PER G.E.-CO. HEAT BALANCE 311B136 V.W.D. REVISED 3-25-66 & B.B. CO. HEAT BALANCE D10240/D DATED 12-17-68 AT MAX. REACTOR POWER

**NOTE:** A/C N/S, G/S CHEMICAL CLEANING CONNECTIONS PROVIDED FOR CONDENSATE FEEDWATER SYSTEM CHEMICAL CLEANING.

**NOTE:** FOR CODE CLASS 2 INSTRUMENT CONNECTIONS, THE ISM BOUNDARY EXTENDS TO AND INCLUDES THE FIRST ROOT VALVE.

**NOTE:** FOR CODE CLASS 2 VENTS AND DRAINS THE ISM BOUNDARY EXTENDS TO AND INCLUDES THE FIRST NORMALLY CLOSED VALVE.

**SYMBOLS**

- DUCK DISCONNECT COUPLING

**HAND OPERATED VALVE IDENTIFICATION NUMBERS**

- ONLY "UNIQUE VALVE NUMBERS" APPEAR ON THIS DRAWING. SEE SEPARATE VALVE IDENTIFICATION LIST FOR EQUIVALENT DESIGN (EAC) NUMBERS.
- "TAG" NUMBERS MODIFIED FOR DRAWING USE AS FOLLOWS:  
TAG N°: 2-NOM-WOD-W  
APPEARS AS: N5WODW
- INSTRUMENT ROOT VALVE MARK N°S NOT SHOWN ON DRAWING SEE VALVE IDENTIFICATION LIST DERIVED BY ADDING TO INSTRUMENT NUMBER:  
FOR SINGLE IMPULSE V<sub>I</sub>  
FOR DOUBLE IMPULSE V<sub>I</sub>STREAM  
FOR DOUBLE IMPULSE V<sub>I</sub>STREAM

DATE: 1-17-65 32 1079 CAI

FOR REVISION DESCRIPTION SEE SEPARATE REVISION RECORD FOR THIS DRAWING

INDIANA & MICHIGAN ELECTRIC CO.  
DONALD C. COOK  
NUCLEAR PLANT

**FLOW DIAGRAM FEEDWATER**

UNIT NO. 2 SHEET 2 OF 2

DWG. NO. 2-5106-32

DATE: 1-17-65

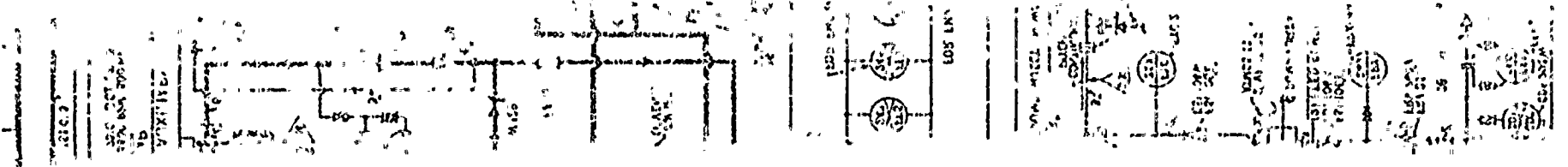
DESIGNED BY: J.B.

CHECKED BY: J.B.

APPROVED BY: J.B.

AMERICAN ELECTRIC POWER SERVICE CORP.  
2 BROADWAY NEW YORK

**"NOT FOR D. C. COOK OPERATIONAL USE" 8601080550-04**



Y901G-2

**"NOT FOR D. C. COOK  
OPERATIONAL USE"**

THE UNIT PREFIX DESIGNATION  
FOR EACH COMPONENT IDENTIFICA-  
TION NUMBER IS "2" UNLESS  
OTHERWISE NOTED.

**GENERAL NOTES**

- AUX FEED WATER
- EMERGENCY LEAK-OFF
- COOLING WATER
- AUX PIPING
- TEST LINE

THIS DWG MADE UNIQUE  
FOR UNIT 2 FROM DWG  
12-5106A REV. 23.

FOR VALVE, INSTRUMENT, SAMPLING,  
PIPE MATERIAL & OTHER  
SYMBOLS NOT EXPLAINED ON  
THIS DWG & FOR MARK NUMBER  
COOLS, SEE DWG 5104

△, △ - LINE IDENTIFICATION  
SYMBOLS

NOTE "A"  
VALVES ALSO SHOWN (AND  
NUMBERED) ON DWG 5113 NOT  
TO BE DUPLICATED, AND ARE  
NORMALLY CLOSED.

NOTE "B"  
6" FROM MISC. DRAIN TANK  
USED FOR HEATING SYSTEM  
OPERATION DURING CONSTRUCTION  
AND ON OCCASIONS WHEN  
BOTH UNITS ARE IN OPERATION.

NOTE "C"  
EQUIPMENT SEISMIC CLASSIFICA-  
TION AS NOTED.

NOTE "D"  
1. FOR CODE CLASS 2(3) INSTRUMENT  
CONNECTIONS, THE IS1  
BOUNDARY EXTENDS TO AND  
INCLUDES THE FIRST ROOT  
VALVE.

2. FOR CODE CLASS 2(3) VENTS  
& DRAINS, THE IS1 BOUNDARY  
EXTENDS TO AND INCLUDES  
THE FIRST NORMALLY CLOSED  
VALVE.

NOTE "E"  
CLIMB LOCATED IN TADFF ROOM.

NOTE "F"  
FOR TADFF STEAM SUPPLY -  
SEE DWG. 2-5105B, A/3.

NOTE "G"  
FOR COOLING WATER SUPPLY TO  
AUX. FEED PUMP BEARING  
SEE DWG. 2-5114

**HAND OPERATED VALVE  
IDENTIFICATION NUMBERS**

ONLY UNIQUE VALVE NUMBERS  
APPEAR ON THIS DWG. SEE  
SEPARATE VALVE IDENTIFICATION  
LIST FOR EQUIVALENT DESIGN  
(MCO) NUMBERS.

2" TAG NUMBERS MODIFIED FOR  
DWG USE AS FOLLOWS:  
TAG NO. 2-NSW-Y105-W  
APPEARS AS NSW105W

3. INSTRUMENT ROOT VALVE  
MARK NO'S NOT SHOWN ON DWG  
SEE VALVE IDENTIFICATION  
LIST DERIVED BY ADDING TO  
INSTRUMENT NUMBER  
FOR SINGLE IMPULSE: V1  
FOR DOUBLE IMPULSE: V1  
(UPSTREAM)  
V2 (DOWNSTREAM)

| DATE     | BY  | APPROVED |
|----------|-----|----------|
| 12-23-63 | ... | ...      |

FOR REVISION DESCRIPTION SEE  
SEPARATE REVISION RECORD  
FOR THIS DRAWING

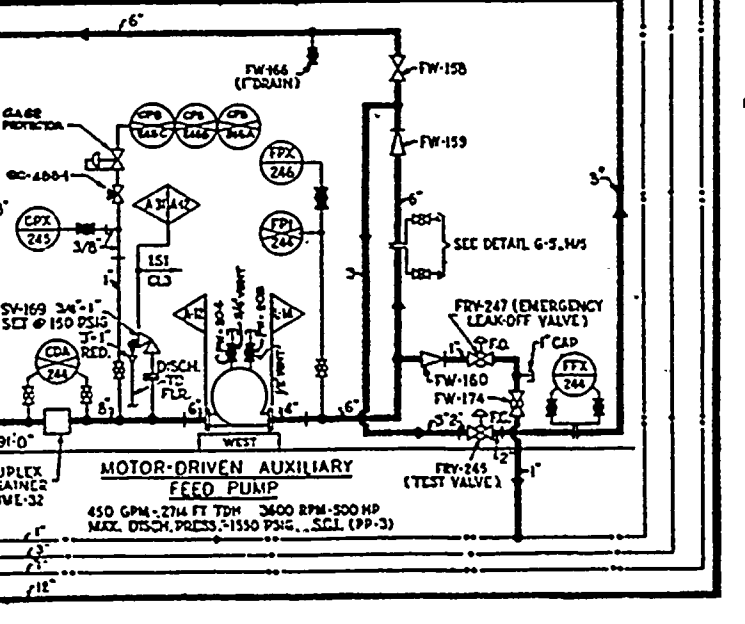
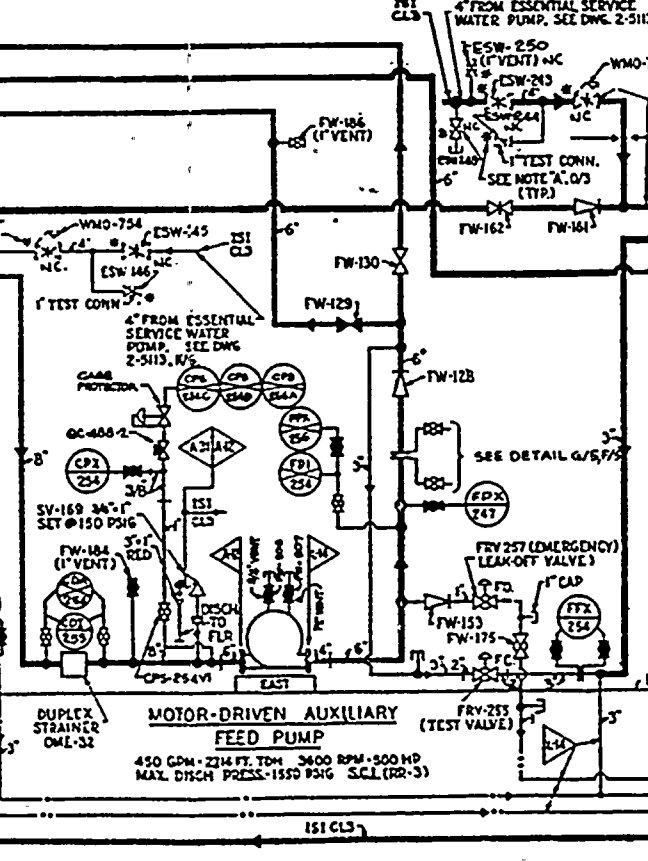
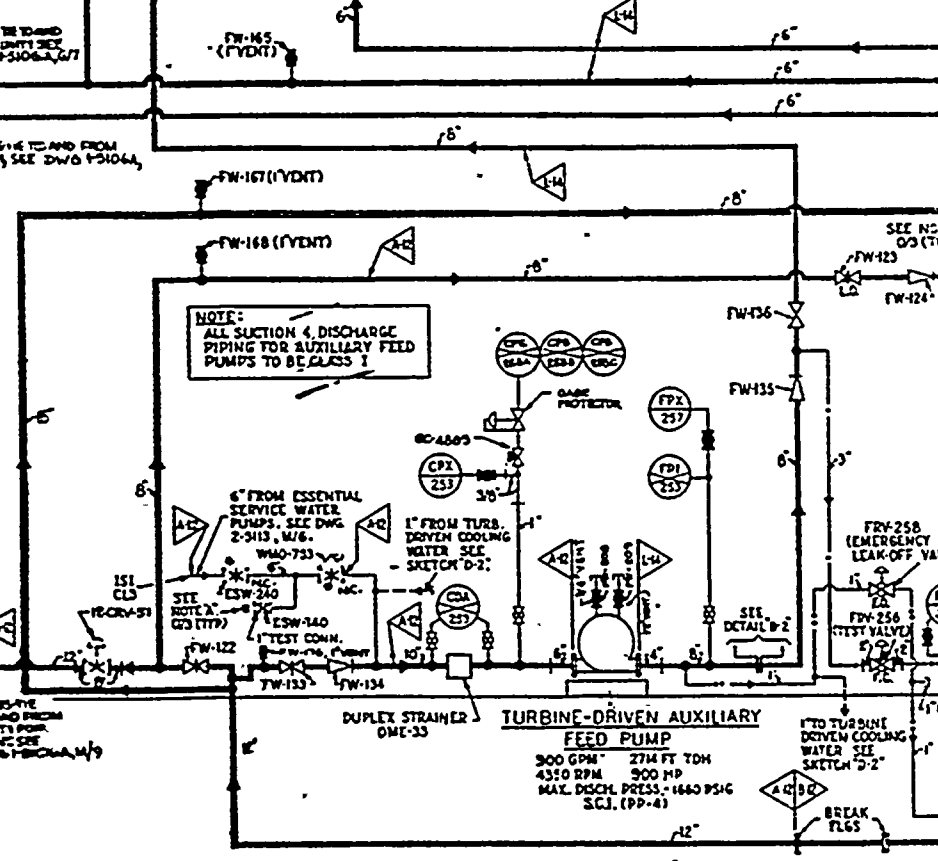
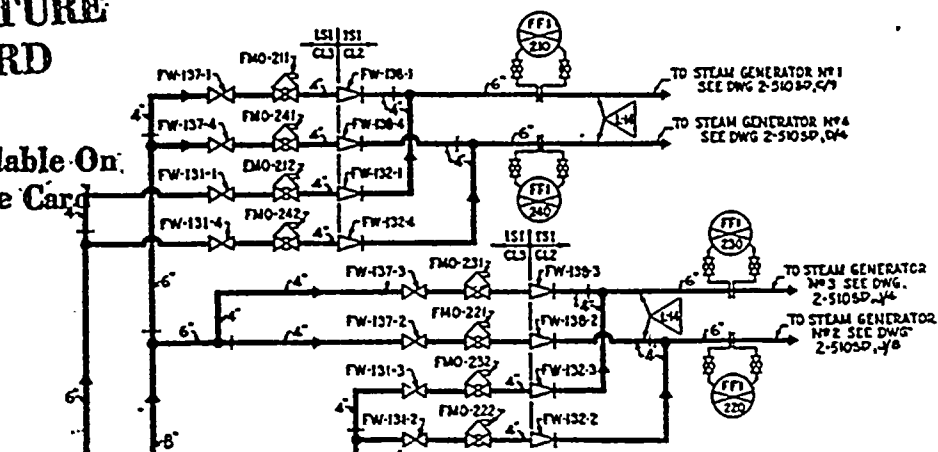
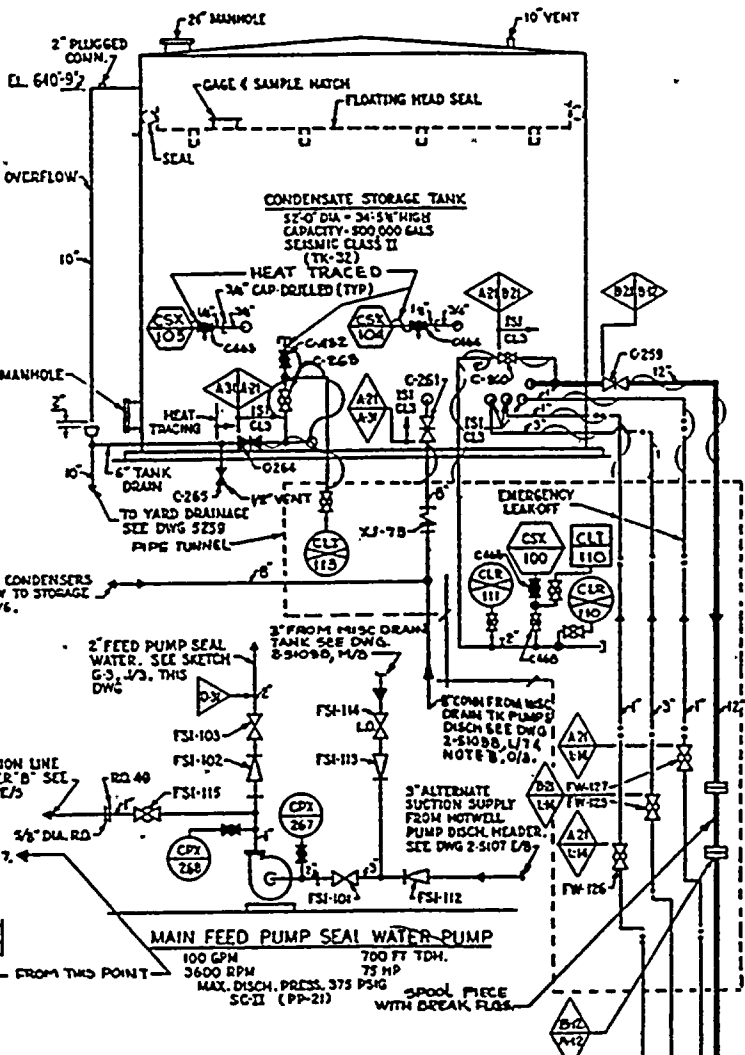
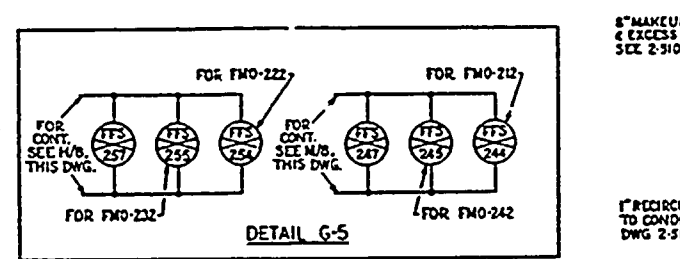
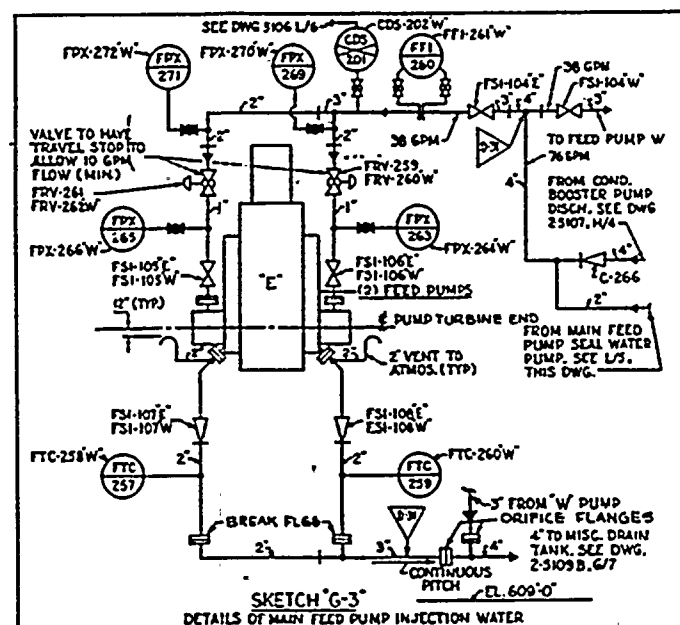
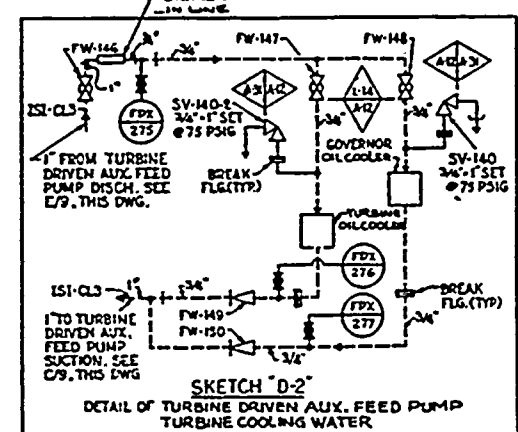
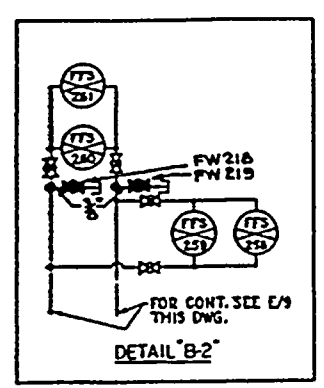
INDIANA & MICHIGAN ELECTRIC CO.  
DONALD C. COOK  
NUCLEAR PLANT

**FLOW DIAGRAM  
AUX. FEED WATER  
UNIT 2**

DWG. NO. 2-5106A-33

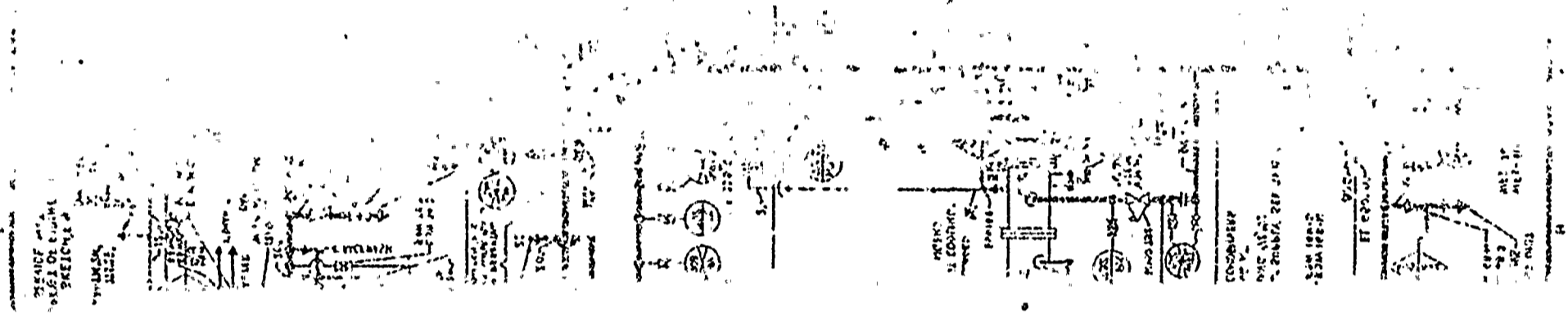
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| SCALE    | AS SHOWN |
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| BY       | ...      |
| CHECKED  | ...      |
| APPROVED | ...      |
| SCALE    | ...      |
| DATE     | ...      |

AMERICAN ELECTRIC POWER SERVICE CORP.



Also Available On  
Aperture Card

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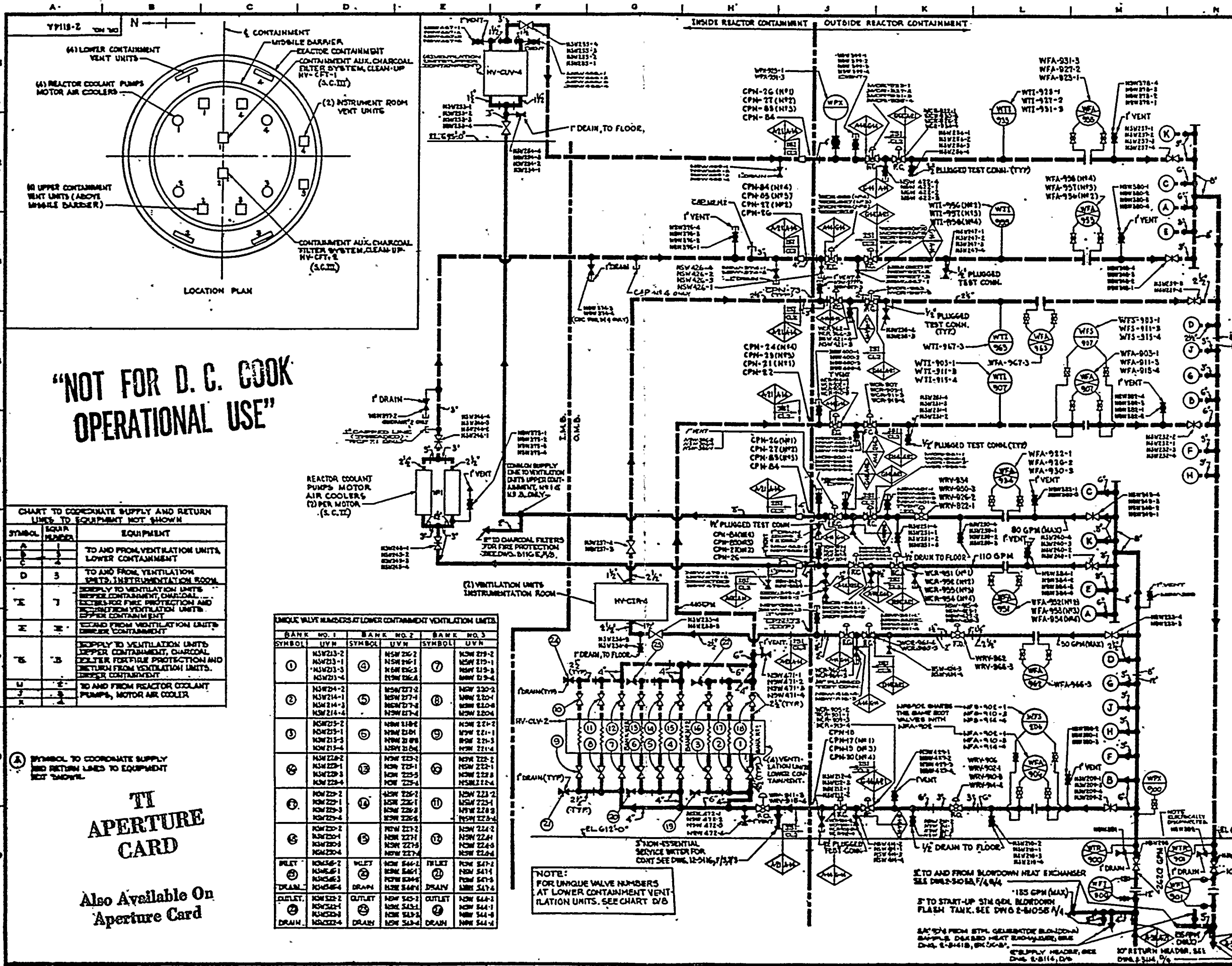


CHART TO COORDINATE SUPPLY AND RETURN LINES TO EQUIPMENT NOT SHOWN

| SYMBOL | LINE NO. | EQUIPMENT  |
|--------|----------|--|
| A      | 1        | TO AND FROM VENTILATION UNITS, LOWER CONTAINMENT   |
| D      | 3        | TO AND FROM VENTILATION UNITS, INSTRUMENTATION ROOM  |
| X      | 7        | SUPPLY TO VENTILATION UNITS, INSIDE CONTAINMENT, CHARCOAL FILTERS FOR FIRE PROTECTION AND RETURN FROM VENTILATION UNITS, UPPER CONTAINMENT   |
| Z      | X        | RETURN FROM VENTILATION UNITS, INSIDE CONTAINMENT  |
| W      | B        | TO AND FROM VENTILATION UNITS, UPPER CONTAINMENT, CHARCOAL FILTERS FOR FIRE PROTECTION AND RETURN FROM VENTILATION UNITS, INSIDE CONTAINMENT |
| U      | 2        | TO AND FROM REACTOR COOLANT PUMPS, MOTOR AIR COOLER  |
| V      | 4        |  |

UNIQUE VALVE NUMBERS AT LOWER CONTAINMENT VENTILATION UNITS

| BANK NO. 1 | BANK NO. 2                                   | BANK NO. 3 |  |        |  |
|------------|--|------------|--|--------|--|
| SYMBOL     | UVN  | SYMBOL     | UVN  | SYMBOL | UVN  |
| 1          | NSW213-1<br>NSW213-2<br>NSW213-3<br>NSW213-4 | 4          | NSW216-1<br>NSW216-2<br>NSW216-3<br>NSW216-4 | 7      | NSW219-1<br>NSW219-2<br>NSW219-3<br>NSW219-4 |
| 2          | NSW214-1<br>NSW214-2<br>NSW214-3<br>NSW214-4 | 5          | NSW217-1<br>NSW217-2<br>NSW217-3<br>NSW217-4 | 8      | NSW220-1<br>NSW220-2<br>NSW220-3<br>NSW220-4 |
| 3          | NSW215-1<br>NSW215-2<br>NSW215-3<br>NSW215-4 | 6          | NSW220-1<br>NSW220-2<br>NSW220-3<br>NSW220-4 | 9      | NSW223-1<br>NSW223-2<br>NSW223-3<br>NSW223-4 |
| 4          | NSW216-1<br>NSW216-2<br>NSW216-3<br>NSW216-4 | 13         | NSW225-1<br>NSW225-2<br>NSW225-3<br>NSW225-4 | 16     | NSW228-1<br>NSW228-2<br>NSW228-3<br>NSW228-4 |
| 5          | NSW217-1<br>NSW217-2<br>NSW217-3<br>NSW217-4 | 14         | NSW226-1<br>NSW226-2<br>NSW226-3<br>NSW226-4 | 17     | NSW229-1<br>NSW229-2<br>NSW229-3<br>NSW229-4 |
| 6          | NSW218-1<br>NSW218-2<br>NSW218-3<br>NSW218-4 | 15         | NSW227-1<br>NSW227-2<br>NSW227-3<br>NSW227-4 | 18     | NSW230-1<br>NSW230-2<br>NSW230-3<br>NSW230-4 |
| INLET      | NSW213-2<br>NSW213-3<br>NSW213-4             | INLET      | NSW216-1<br>NSW216-2<br>NSW216-3<br>NSW216-4 | INLET  | NSW219-1<br>NSW219-2<br>NSW219-3<br>NSW219-4 |
| OUTLET     | NSW214-2<br>NSW214-3<br>NSW214-4             | OUTLET     | NSW217-1<br>NSW217-2<br>NSW217-3<br>NSW217-4 | OUTLET | NSW220-1<br>NSW220-2<br>NSW220-3<br>NSW220-4 |
| DRAIN      | NSW215-2<br>NSW215-3<br>NSW215-4             | DRAIN      | NSW220-1<br>NSW220-2<br>NSW220-3<br>NSW220-4 | DRAIN  | NSW223-1<br>NSW223-2<br>NSW223-3<br>NSW223-4 |

**TI APERTURE CARD**

Also Available On Aperture Card

**GENERAL NOTES**

**LEGEND**

- SUPPLY PIPING
- RETURN PIPING
- AUXILIARY PIPING

FOR VALVE, INSTRUMENT, SAMPLING, PIPE MATERIAL AND OTHER SYMBOLS NOT EXPLAINED ON THIS DWG., AND FOR MARK NUMBER CODES, SEE DWG. 5104.

**NOTES:**

- ALL EQUIPMENT BEING CLASS II EXCEPT AS NOTED.
- FOR CODE CLASS 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100.
- FOR CODE CLASS 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100.

**NOTES:**

- THE UNIT SHALL BE DESIGNED FOR EACH COMPONENT IDENTIFICATION NUMBER TO BE PLACED THEREON UNLESS OTHERWISE LISTED.
- HAND OPERATED VALVE IDENTIFICATION NUMBER.
- ONLY UNIQUE VALVE NUMBERS APPEAR ON THIS DRAWING. SEE SEPARATE VALVE IDENTIFICATION LIST FOR SUBSTITUTED DESIGN (SICR) NUMBERS.
- TAP NUMBERS SHOWN FOR CHANGE USE AS FOLLOWS: TAP NO. 1-2-3-4-5-6-7-8-9-10-11-12-13-14-15-16-17-18-19-20-21-22-23-24-25-26-27-28-29-30-31-32-33-34-35-36-37-38-39-40-41-42-43-44-45-46-47-48-49-50-51-52-53-54-55-56-57-58-59-60-61-62-63-64-65-66-67-68-69-70-71-72-73-74-75-76-77-78-79-80-81-82-83-84-85-86-87-88-89-90-91-92-93-94-95-96-97-98-99-100.
- INSTRUMENT SHOWN VALVE MARKING SHALL NOT SHOWN ON DRAWING (SEE VALVE IDENTIFICATION LIST) DERIVED BY ADDING TO INSTRUMENT IDENTIFICATION NUMBER FOR DOUBLE PULSE/STREAMING IDENTIFICATION.

FOR REVISION STATUS OF THIS DRAWING, SEE REVISION RECORD FOR THIS DRAWING.

DATE: 12-15-55

FOR REVISION DESCRIPTION SEE SEPARATE REVISION RECORD FOR THIS DRAWING.

McNAMA & BROWNE ELECTRIC CO.  
DONALD C. COOK  
NUCLEAR PLANT

**FLOW DIAGRAM NON-ESSENTIAL SERVICE WATER UNIT NO. 2**

DWG. NO. 2-5114 A-25

600 71 10 22 44

10/20/44

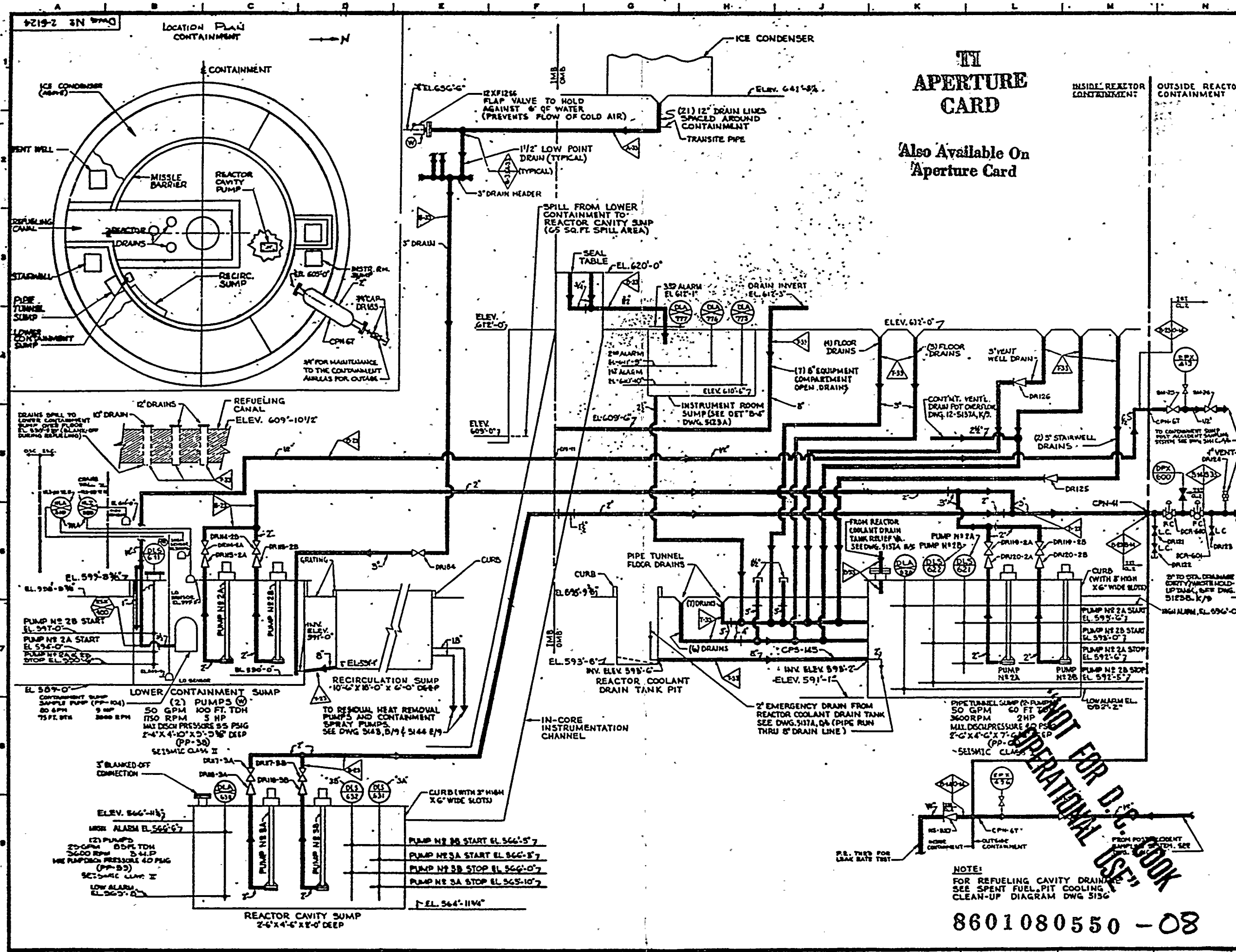
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**III APERTURE CARD**  
 Also Available On Aperture Card

**GENERAL NOTES**

**LEGEND**  
 — DRAINAGE PIPING  
 — AUXILIARY PIPING

FOR VALVE, INSTRUMENT, SAMPLING PIPE MATERIAL AND OTHER SYMBOLS NOT EXPLAINED ON THIS DWG AND FOR MARK NUMBER CODES, SEE DWG. 5104.

© BY WESTINGHOUSE CO.  
 ALL EQUIPMENT SEISMIC CLASS I EXCEPT AS NOTED

**NOTE**  
 (1) ALL CONTAINMENT SUMP PUMPS TO BE TRIPPED OFF ON ISOLATE SIGNAL  
 (2) VALVES SM-25, SM-26, SM-27 ARE TEMPORARY. TO BE PERMANENTLY REPLACED BY ECR-416, 417, 496, 497

SUMPS SEISMIC CLASSIFICATION SAME AS STRUCTURE IN WHICH ARE LOCATED  
 (3) FOR COOL CLASS E INSTRUMENT CONN. THE 233 BOUNDARY, EITHER INSIDE OR OUTSIDE THE FIRST FLOOR WALL.  
 (4) FOR COOL CLASS E VENTS & DRAINS THE 233 BOUNDARY EXTENDING TO (INCLUDES THE PIPE INSTALLED OUTSIDE)

REV 11  
 NOTE: THIS DWG MADE UNUSABLE FOR UNIT #2 FROM DWG #2-5124-10

**HAND OPERATED VALVE IDENTIFICATION NUMBERS**  
 (1) ONLY "UNIQUE VALVE NUMBERS" APPEAR ON THIS DRAWING. SEE SEPARATE VALVE IDENTIFICATION LIST FOR EQUIVALENT DESIGNATION (SIC) NUMBERS.  
 (2) TAG NUMBERS MODIFIED FOR DRAWING USE AS FOLLOWS:  
 TAG #1: 2-5124-1000-W APPEARS AS: 2-5124-1000-W  
 (3) INSTRUMENT BOOT VALVE MARK #1'S NOT SHOWN ON DRAWING (SEE VALVE IDENTIFICATION LIST) DERIVED BY ADDING TO RESTRICTION NUMBER: FOR SINGLE BRANCH: FOR DOUBLE BRANCH: VALVE STREAM

5-21-83 19 247-87  
 DATE REV. APPROVED  
 FOR REVISIONS DESIGNER MUST SEE SEPARATE REVISION RECORD FOR THIS DRAWING

THIS DRAWING IS THE PROPERTY OF THE AMERICAN ELECTRIC POWER SERVICE CORP. AND IS LOANED TO YOU CONDITIONED THAT IT IS TO BE RETURNED TO US IMMEDIATELY UPON COMPLETION OF THE PROJECT FOR WHICH IT WAS LOANED. IT IS NOT TO BE REPRODUCED OR COPIED IN ANY MANNER WITHOUT THE WRITTEN CONSENT OF THE A.E.P. SERVICE CORP. IT IS NOT TO BE USED FOR ANY OTHER PROJECT OR FOR ANY OTHER PURPOSE WITHOUT THE WRITTEN CONSENT OF THE A.E.P. SERVICE CORP.

INDIANA & MICHIGAN ELECTRIC CO.  
 DONALD C. COOK  
 NUCLEAR PLANT

**FLOW DIAGRAM STATION DRAINAGE CONTAINMENT UNIT #2**

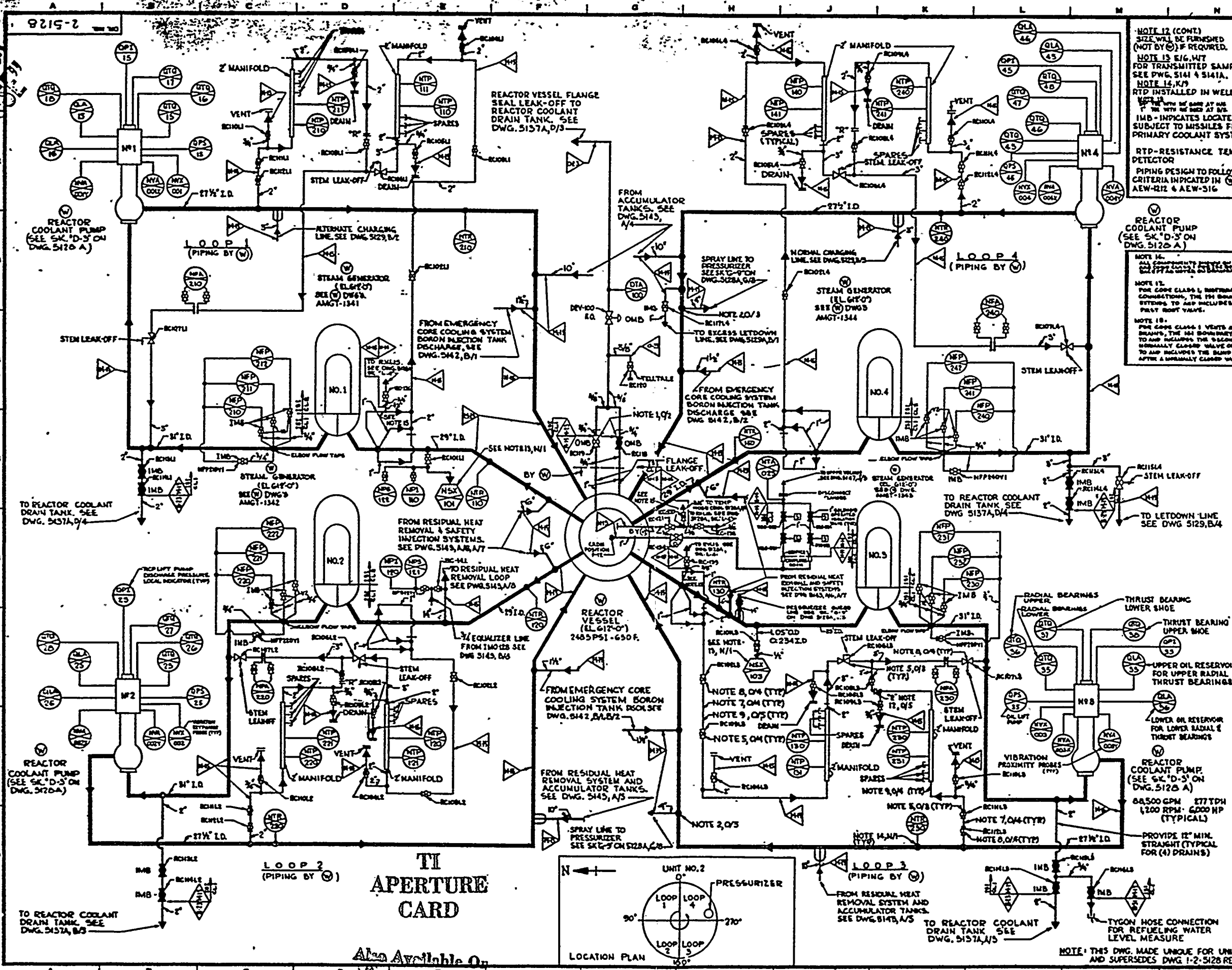
DWG. NO. 2-5124-10

|      |      |    |        |
|------|------|----|--------|
| DATE | REV. | BY | APP'D. |
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8601080550 - 08

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**GENERAL NOTES**

**LEGEND**

- REACTOR COOLANT PIPING
- AUX. PIPING
- INSTR. PIPING
- BY WESTINGHOUSE
- SEISMIC CLASS 2

ALL VALVES AND INSTRUMENTATION BY (M)

FOR VALVE, INSTRUMENT, SAMPLING PIPE MATERIAL, AND OTHER SYMBOLS NOT EXPLAINED ON THIS DWG., AND FOR MARK NUMBER CODES SEE DWG 8104

BLANKED FLANGED CONNECTION

NOTE 1, 6/8 LOCATE OUTSIDE SECONDARY SHIELD WALL. ONE VALVE FROM INNER O-RING, ONE VALVE FROM OUTER O-RING.

NOTE 1, 7/3, 7/9 SPRAY LINE SCOOP

NOTE 5, 4/7, 4/8, 4/9 LOCATE STD MANU. ISOLATION VAL. APPEND. 9 FROM MANIFOLD.

NOTE 7, 4/7, 4/8 ALL EXTRUSION PIPING AT THE STD MANIFOLDS SHALL HAVE REMOVABLE INSULATION UP TO LOOP BOOT VALVES.

NOTE 8, 4/7, 4/7, 4/9 LOCATE SCOTCHMAN ABOVE ELEV. OF REACTOR VESSEL NOZZLES.

NOTE 3, 4/8, 4/8 LENGTH OF HOT LEG PIPE AND COLD LEG PIPE BASED ON (M) RECOMMENDATION TO MEET "TEMPERATURE TIME LAB" OF LESS THAN 1.0 SEC. PER STD MANIFOLD.

NOTE 11, 4/7 R/W'S ARE INSTALLED FOR INFEED OF FLOW LIMITING DEVICES, IF REQUIRED. BLANK ORIFICE PLATES TO BE DELIVERED TO (CONTINUED)

**HAND OPERATED VALVE IDENTIFICATION NUMBERS**

- ONLY "UNIQUE VALVE NUMBERS" APPEAR ON THIS DRAWING. SEE SEPARATE VALVE IDENTIFICATION LIST FOR EQUIVALENT DESIGN (MCR) NUMBERS.
- "TM" NUMBERS ASSIGNED FOR DRAWING USE AS FOLLOWS:
  - 1. TAB BY (M) 400-400-4 APPEARS AS: (M) 400
  - 2. INSTRUMENT BOOT VALVE MARK: (M) 3 NOT SHOWN ON DRAWING (SEE VALVE IDENTIFICATION LIST) DERIVED BY ADDING TO INSTRUMENT NUMBER: (M) 3 FOR SINGLE IMPULSE; (M) 3 FOR DOUBLE IMPULSE; (M) 3 FOR VIBRATION

**RF** FOR MICROFAN STATUS SEE REVISION RECORD FOR THIS DWG

|        |     |     |          |
|--------|-----|-----|----------|
| 3-2-85 | 18  | REV | ALL      |
| DATE   | NO. | BY  | APPROVED |

FOR REVISION DESCRIPTION SEE SEPARATE REVISION RECORD FOR THIS DRAWING

THIS DRAWING IS THE PROPERTY OF THE GENERAL ELECTRIC POWER SERVICE CORP. AND IS LOANED TO YOU. IT IS TO BE RETURNED TO THE GENERAL ELECTRIC POWER SERVICE CORP. ON OR BEFORE THE DATE SPECIFIED ON THE LOAN ORDER. IT IS NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM.

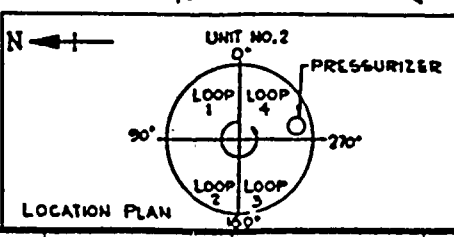
WESTINGHOUSE & BROWN ELECTRIC CO.  
DONALD C. COOK  
NUCLEAR PLANT

**FLOW DIAGRAM REACTOR COOLANT UNIT NO. 2 SHEET 1 OF 2**

DR. NO. 2-5128-1B

NOTE: THIS DWG. MADE UNIQUE FOR UNIT #2 AND SUPERSEDES DWG 1-2-5128 REV. 8

**TI APERTURE CARD**

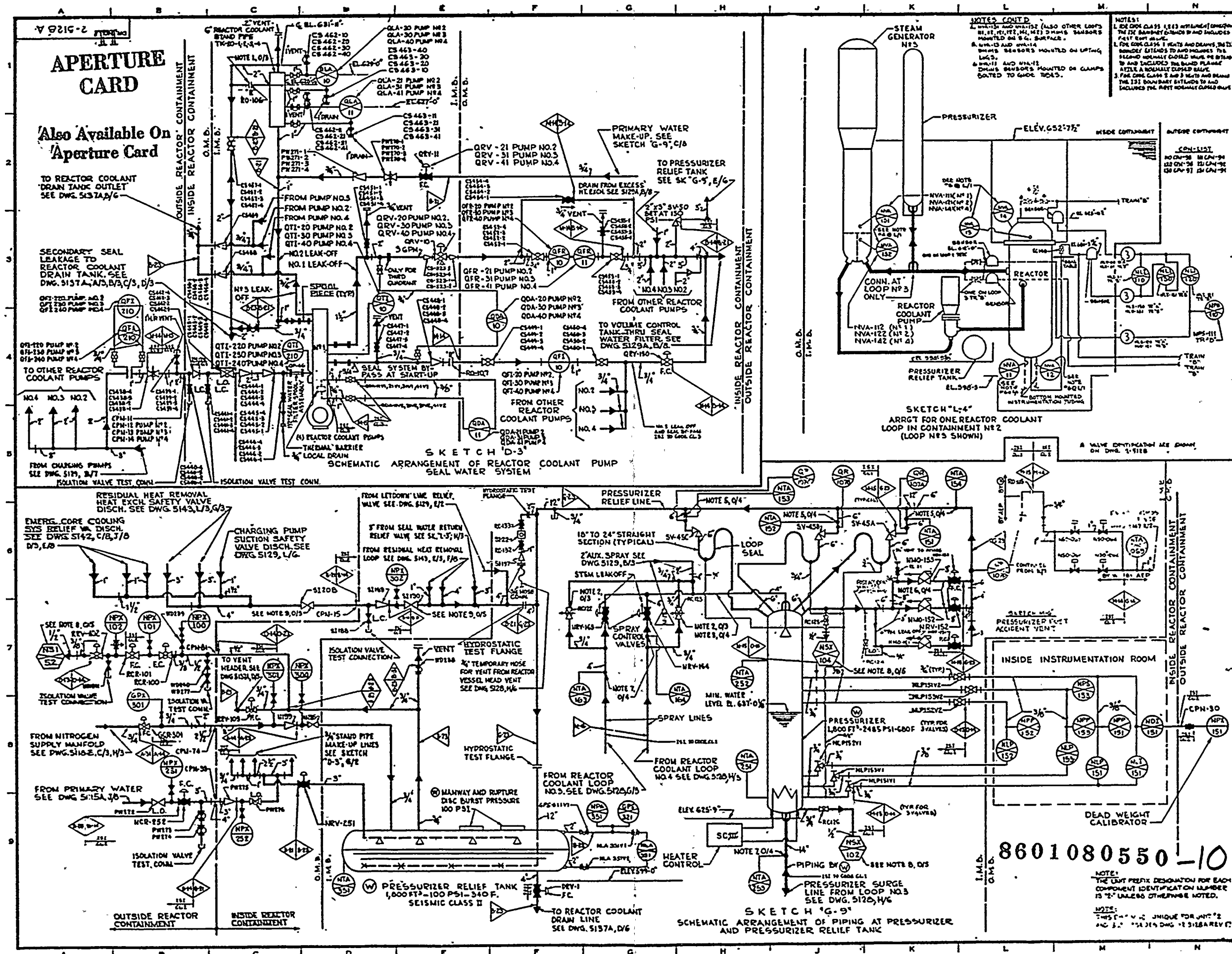


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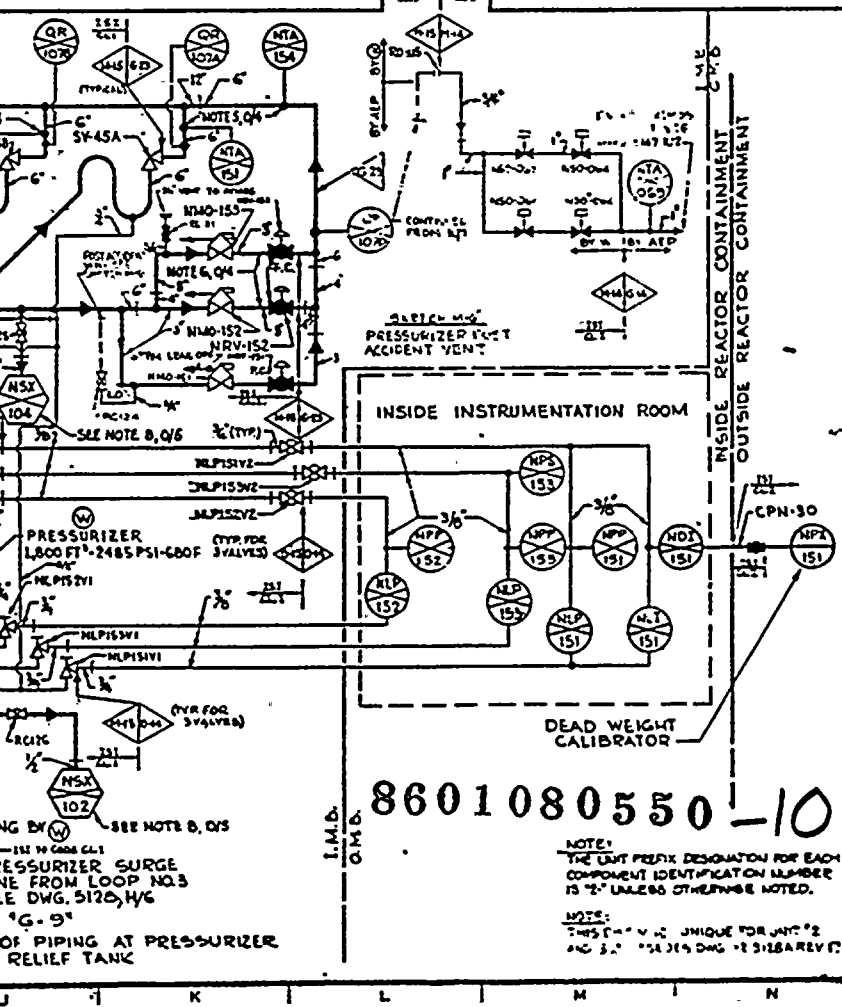
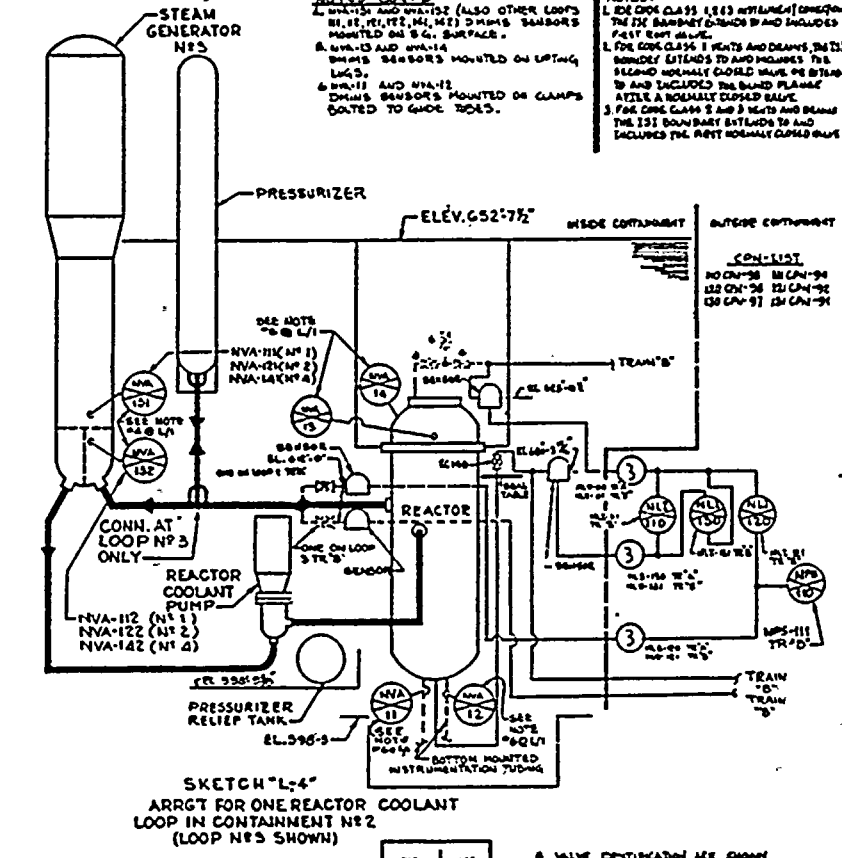




**APERTURE CARD**  
 Also Available On Aperture Card  
 TO REACTOR COOLANT DRAIN TANK OUTLET SEE DWG. 5137A, B/C  
 SECONDARY SEAL LEAKAGE TO REACTOR COOLANT DRAIN TANK, SEE DWG. 5137A, B/C, D/E  
 TO OTHER REACTOR COOLANT PUMPS  
 FROM CHARGING PUMPS SEE DWG. 5129, 517

RESIDUAL HEAT REMOVAL HEAT EXCH. SAFETY VALVE DISCH. SEE DWG. 5143, L/S, Q/S  
 EMERG. CORE COOLING SYS. RELIEF VALVE DISCH. SEE DWG. 5142, C/B, S/B, D/S, E/B  
 CHARGING PUMP SUCTION SAFETY VALVE DISCH. SEE DWG. 5129, L/S, Q/S  
 FROM NITROGEN SUPPLY MANIFOLD SEE DWG. 5150, E, C/S, H/S  
 FROM PRIMARY WATER SEE DWG. 5151, J/D

OUTSIDE REACTOR CONTAINMENT  
 INSIDE REACTOR CONTAINMENT



**NOTES CONT'D**  
 1. SEE CLASS 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000

**GENERAL NOTES**

**LEGEND**

- REACTOR COOLANT PIPING BY (X)
- AUX. PIPING BY (O)
- INSTR. PIPING BY (M)
- BY WESTINGHOUSE BY (W)

ALL VALVES AND INSTRUMENTATION BY (W)

FOR VALVE, INSTRUMENT, SAMPLING, PIPE MATERIAL AND OTHER SYMBOLS NOT EXPLAINED ON THIS DWG., AND FOR MARK NUMBER CODES, SEE DWGS. 5129, 5100.

**NOTE:** PIPING DESIGN TO FOLLOW CRITERIA INDICATED IN (W) AEW-1212 4 AEW-BIG SEISMIC CLASS I EXCEPT AS INDICATED.

**NOTE 1, CT:** OFFICE IS A MIN. OF 7 FT. ABOVE THE CEILING TO THE REACTOR COOLANT PUMP.

**NOTE 2, FIT, NIT:** VALVE TO HAVE EXTENSION STILL TO BE OPERATED OUTSIDE OF PRESSURIZER ENCLOSURE AT EL. 617'-0".

**NOTE 3, W7:** SLOPE SPRAY PIPE DOWNWARD TO PROVIDE WATER SEAL BETWEEN PRESSURIZER AND SPRAY VALVES.

**NOTE 5, M6, J6, K6:** PLACE DETECTORS AT BOTTOM OF PIPE.

**NOTE 6, K6:** SLOPE PIPE DOWNWARD TO PROVIDE WATER SEAL ON RELIEF VALVES.

**NOTE 7, 67, J9:** LOCATE APPROXIMATELY MIDWAY BETWEEN LOOP AND PRESSURIZER.

**NOTE 8, A7, J7, J9:** FOR TRANSMITTED SAMPLE SEE DWG. 5141.

**NOTE 9, E17:** VALVE BONNET AND INTERNALS ARE TO BE REMOVED AND BOUND HEAD INSTALLED EXCEPT WHEN TESTING VALVE 51109.

**MANU. OPERATED VALVE IDENTIFICATION NUMBERS:**

- ONLY "UNIQUE VALVE NUMBERS" APPEAR ON THIS DRAWING. SEE SEPARATE VALVE IDENTIFICATION LIST FOR EQUIVALENT DESIGN (MCR) NUMBERS.
- "TAG" NUMBERS MODIFIED FOR CHARGING USE AS FOLLOWS: TAG NO. 2-NSP-1000-00 APPEARS AS: NSW000
- INSTRUMENT ROOT VALVE MARK NO. 3 IS SHOWN ON DRAWING (SEE VALVE IDENTIFICATION LIST) DERIVED BY ADDING TO INSTRUMENT NUMBER: FOR SINGLE IMPULSE (VI) FOR DOUBLE IMPULSE (V2) FOR DOUBLE IMPULSE (V2) FOR DOUBLE IMPULSE (V2)

**MF:** FOR MICROFILM STAT. 5 SEE REVISION RECORD TAG NO. 11

DATE: 10-22-65 321 Rev. 1

FOR REVISION DESCRIPTION SEE SEPARATE REVISION RECORD FOR THIS DRAWING

INDIANA & MICHIGAN ELECTRIC CO.  
 DONALD C. COOK  
 NUCLEAR PLANT

PROFESSOR INCHON

**FLOW DIAGRAM REACTOR COOLANT UNIT 2 SHEET 2 OF 2**

DR. NO. 2-5128 A-32

8601080550-10

**NOTE:** THE UNIT PREFIX DESIGNATION FOR EACH COMPONENT IDENTIFICATION NUMBER IS "2" UNLESS OTHERWISE NOTED.

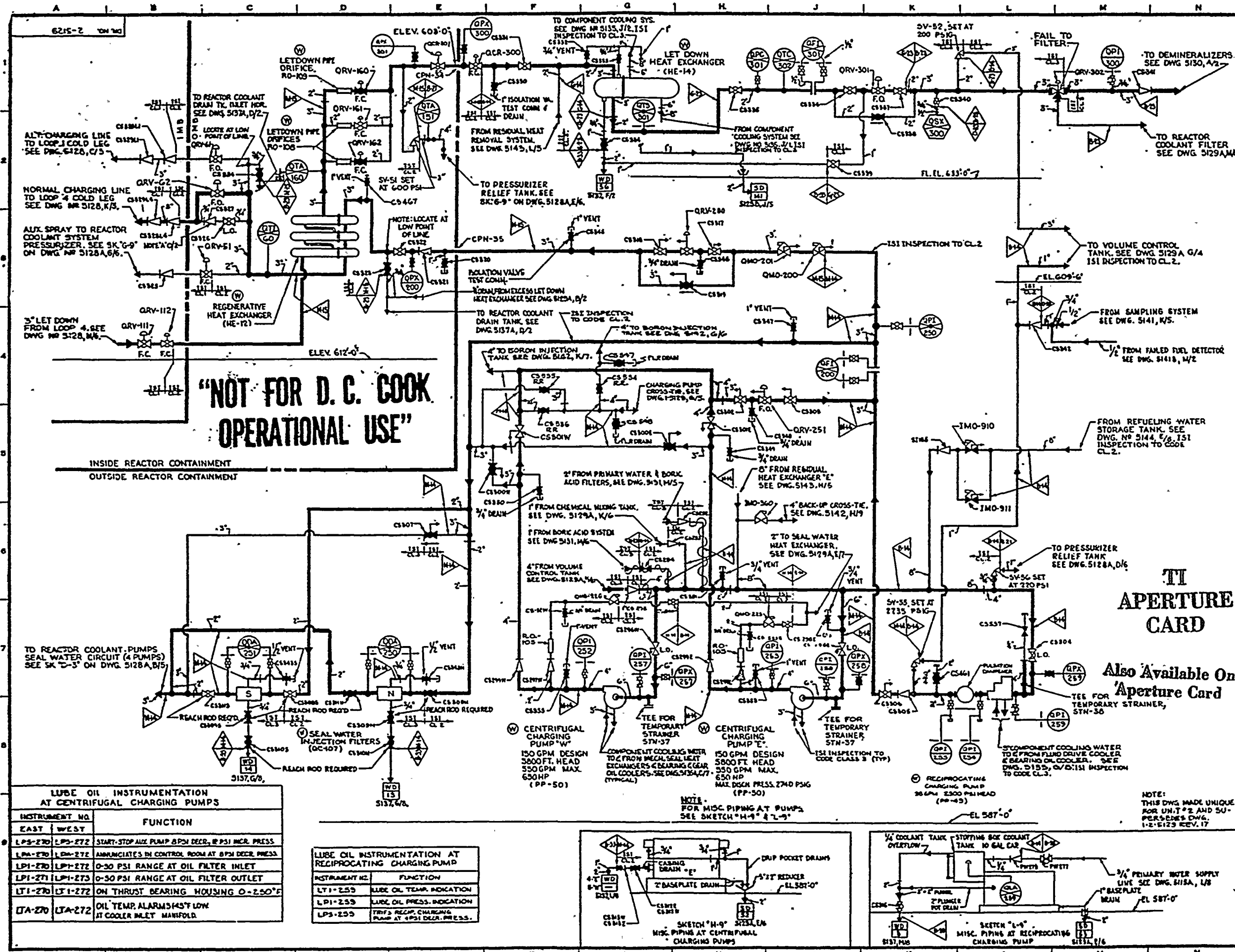
**NOTE:** THIS DWG. IS A UNIQUE FOR UNIT 2 AND IS TO BE USED IN DWG. 5128 REV. 17

SECRET

SECRET

SECRET

SECRET



**GENERAL NOTES**

**LEGEND**  
 — MAIN FLOW  
 - - - AUX. FLOW

FOR VALVE, INSTRUMENT, SAMPLING, PIPE MATERIAL AND OTHER SYMBOLS NOT EXPLAINED ON THIS DWG AND FOR MARK NUMBER CODES SEE DWG 5104.

SEISMIC CLASS I

VALVE NOTED "A" B/S VALVE OPEN AT 800PSID

⊙ BY WESTINGHOUSE EXCEPT AS NOTED

ALL VALVES & INSTRUMENTATION SUPPLIED BY ⊙ AS NOTED

EQUIPMENT SUPPLIED BY ⊙ AS NOTED

1. FOR CODE CLASS 2 & 3 INSTRUMENT CONNECTIONS, THE ISI BOUNDARY EXTENDS TO AND INCLUDES THE FIRST ROOT VALVE.

2. FOR CODE CLASS 2 & 3 VENTS & DRAINS THE ISI BOUNDARY EXTENDS TO AND INCLUDES THE FIRST NORMALLY CLOSED VALVE.

3. RR INDICATES REACH ROD REQUIRED

**TI APERTURE CARD**

Also Available On Aperture Card

**NOTE:** THIS DWG MADE UNIQUE FOR UNIT #2 AND SUPERSEDES DWG. 1-2-5129 REV. 17

**INDIANA & MICHIGAN ELECTRIC CO.**  
 DONALD C. COOK  
 NUCLEAR PLANT

**FLOW DIAGRAM CVCS - REACTOR LETDOWN & CHARGING**

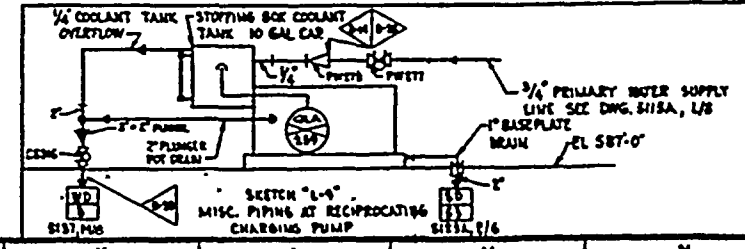
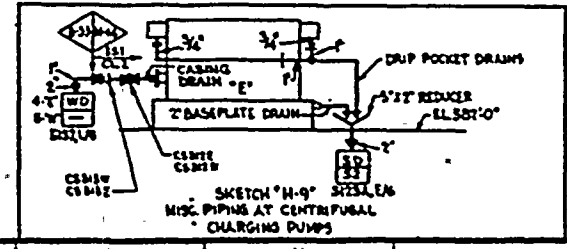
DWG. NO. 2-5129-28

**LUBE OIL INSTRUMENTATION AT CENTRIFUGAL CHARGING PUMPS**

| INSTRUMENT NO. | FUNCTION  |
|----------------|---|
| LPS-270        | START-STOP AUX PUMP @ PSI DECR. @ PSI INCR. PRESS.  |
| LPA-270        | ANNUNCIATES IN CONTROL ROOM AT 8 PSI DECR. PRESS.   |
| LPI-270        | 0-30 PSI RANGE AT OIL FILTER INLET                  |
| LPI-271        | 0-30 PSI RANGE AT OIL FILTER OUTLET                 |
| LT1-270        | ON THRUST BEARING HOUSING 0-250°F                   |
| LTA-270        | OIL TEMP. ALARMS 145°F LOW AT COOLER INLET MANIFOLD |

**LUBE OIL INSTRUMENTATION AT RECIPROCATING CHARGING PUMP**

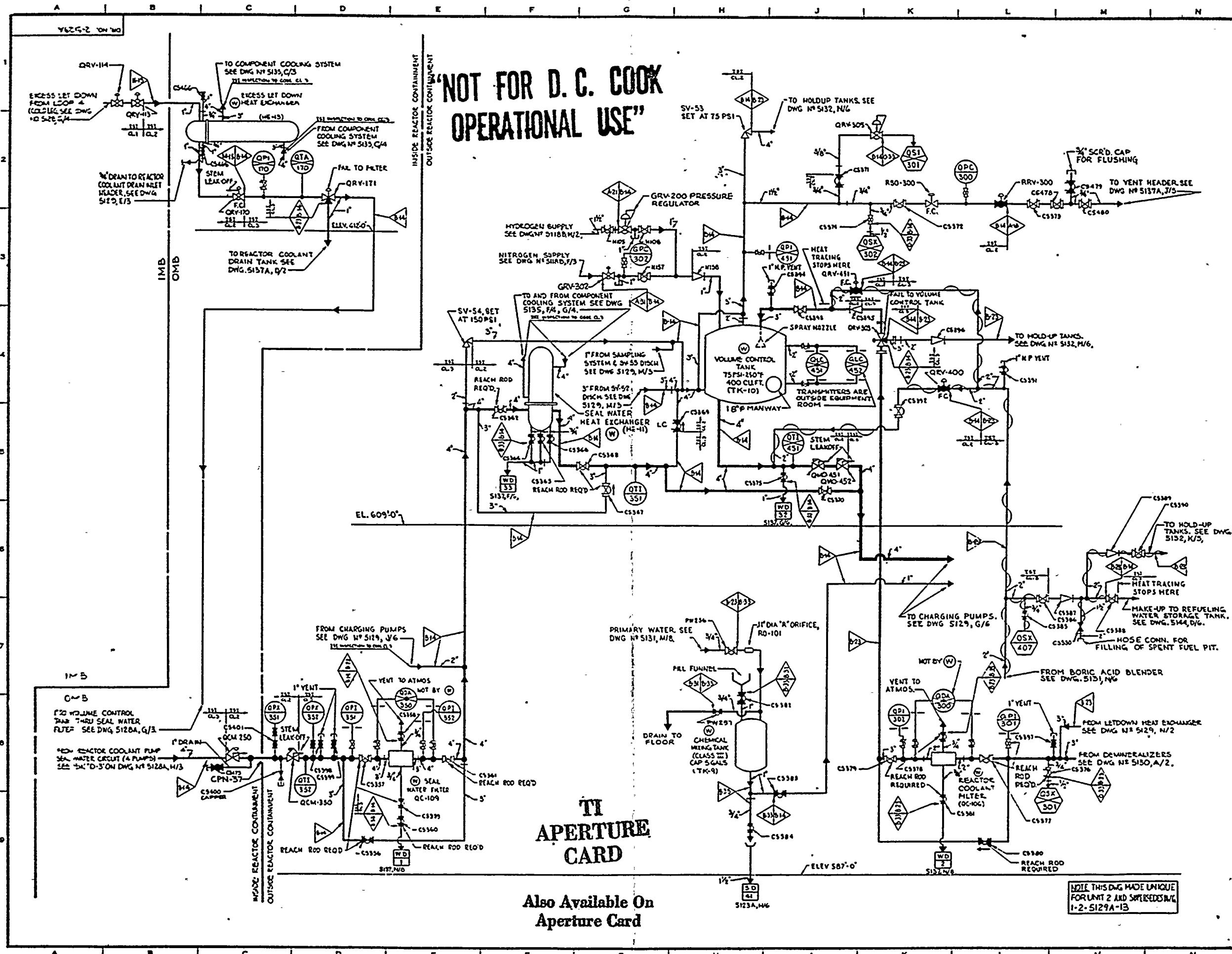
| INSTRUMENT NO. | FUNCTION  |
|----------------|---|
| LP1-253        | LUBE OIL TEMP. INDICATION                       |
| LP1-255        | LUBE OIL PRESS. INDICATION                      |
| LPS-253        | TRIP RECIP. CHARGING PUMP AT 4 PSI DECR. PRESS. |



SECRET  
NO FORN DISSEM

SECRET  
NO FORN DISSEM

SECRET



**NOT FOR D.C. COOK OPERATIONAL USE**

**TI APERTURE CARD**

Also Available On Aperture Card

**GENERAL NOTES**

**LEGEND**  
 ——— MAIN FLOW  
 - - - - - AUX FLOW

FOR VALVE, INSTRUMENT, SAMPLING, PIPE MATERIAL AND OTHER SYMBOLS NOT EXPLAINED ON THIS DWG AND FOR MARK NUMBER CODES SEE DWG 5104.

SEISMIC CLASS 1 EXCEPT AS NOTED

Ⓜ BY WESTINGHOUSE

ALL VALVES & INSTRUMENTATION SUPPLIED BY Ⓜ

EQUIPMENT SUPPLIED BY Ⓜ AS NOTED

**NOTES:**

1. FOR CODE CL 2.3 INSTRUMENT CODES THE 233 BRANCHES EXTEND TO AND INCLUDE THE FIRST ROOT VALVE.

2. FOR CODE CL 2.3 VENTS/FLOORS THE 233 BRANCHES EXTEND TO AND INCLUDE THE FIRST DOWNWARD CLOSED VALVE.

THE UNIT PREFIX DESIGNATION FOR EACH COMPONENT IDENTIFICATION NUMBER IS 2-NW-VCS-W, OTHERS AS NOTED.

**HAND OPERATED VALVE IDENTIFICATION NUMBERS**

1. ONLY "UNIQUE VALVE NUMBERS" APPEAR ON THIS DRAWING. SEE SEPARATE VALVE IDENTIFICATION LIST FOR EQUIVALENT DESIGN (MCR) NUMBERS.

2. "TAG" NUMBERS MODIFIED FOR DRAWING USE AS FOLLOWS:  
 TAG #1: 2-NW-VCS-W APPEARS AS: NSWVCSW

3. INSTRUMENT ROOT VALVE MARK #1'S NOT SHOWN ON DRAWING (SEE VALVE IDENTIFICATION LIST) DERIVED BY ADDING TO INSTRUMENT NUMBER:  
 FOR SINGLE IMPULSE: VI  
 FOR DOUBLE IMPULSE (VAPSTREAM) V2C00MSTRM

|         |     |          |
|---------|-----|----------|
| DATE    | NO. | APPROVED |
| 1-22-55 | 18  | APR 1955 |

FOR REVISION DESCRIPTION SEE SEPARATE REVISION RECORD FOR THIS DRAWING

THIS DRAWING IS THE PROPERTY OF THE AMERICAN ELECTRIC POWER SERVICE CORP. AND IS LOANED TO YOU UNDER THE CONDITION THAT IT IS NOT TO BE REPRODUCED OR COPIED IN ANY MANNER OR FOR ANY PURPOSE WITHOUT THE WRITTEN PERMISSION OF THE A.E.P. SERVICE CORP. AND THAT ANY REVISIONS THEREON BE MADE ONLY AS NOTED ON IT OR APPROVED BY THE COMPANY.

INDIANA & MICHIGAN ELECTRIC CO.  
 DONALD C. COOK  
 NUCLEAR PLANT

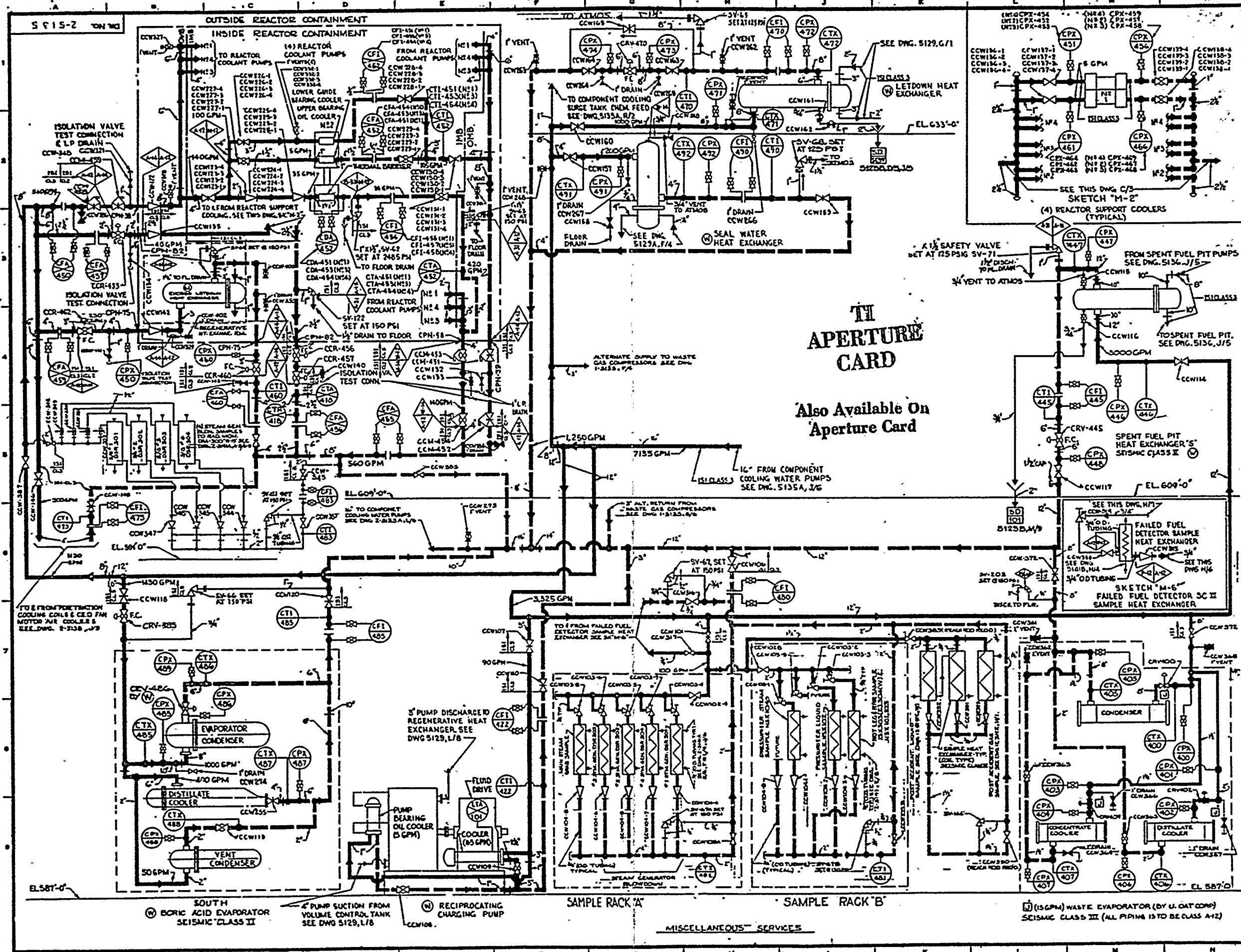
BROADWAY BROADWAY  
**FLOW DIAGRAM**  
 CVCS-REACTOR LETDOWN & CHARGING

SHEET NO. 2 SHEET 2 OF 2

DPL NO 2-5129A-1B

AMERICAN ELECTRIC POWER SERVICE CORP.  
 2 BROADWAY NEW YORK





**GENERAL NOTES**

**LEGEND**

- COMPONENT
- COOLING SUPPLY
- COMPONENT RETURN
- COOLING RETURN
- AUXILIARY PIPING

FOR VALVE, INSTRUMENT, SAMPLING, PIPE MATERIAL AND OTHER SYMBOLS NOT EXPLAINED ON THIS DWG, AND FOR MARK NUMBER CODES, SEE DWG 5104

⊙ BY WESTINGHOUSE

EQUIPMENT SUPPLIED BY ⊙ AS NOTED

ALL PIPING TO BE CLASS A-12

ALL TUBING TO BE CLASS P-2 EXCEPT AS NOTED

ALL EQUIPMENT SEISMIC CLASS I EXCEPT AS NOTED

⊙ FOR CODE CLASS E AND S INSTR. CONNECTIONS, THE SEI BOUNDARY EXTENDS TO AND INCLUDES THE FIRST ROOT VALVE.

⊙ FOR CODE CLASS E (3 VENTS) DRAINS THE SEI BOUNDARY EXTENDS TO AND INCLUDES THE FIRST NORMALLY CLOSED VALVE.

**NOTE:**  
THIS DWG MADE UNIQUE FOR UNIT #2 AND SUPERSEDES DWG. 1-2-5135 REV 17

**HAND OPERATED VALVE IDENTIFICATION NUMBERS**

1. ONLY "UNIQUE VALVE NUMBERS" APPEAR ON THIS DRAWING. SEE SEPARATE VALVE IDENTIFICATION LIST FOR EQUIVALENT DESIGN (MCA) NUMBERS.

2. "TAG" NUMBERS MODIFIED FOR DRAWING USE AS FOLLOWS: TAG #1: 2-NEW-100-W APPEARS AS: 100W00

3. INSTRUMENT ROOT VALVE MARK #1'S NOT SHOWN ON DRAWING (SEE VALVE IDENTIFICATION LIST) DERIVED BY ADDING TO INSTRUMENT NUMBER: FOR SINGLE BRANCH: V FOR DOUBLE BRANCH: V2

FOR MICROFILM STATUS SEE REVISION RECORD FOR THIS DWG.

|         |     |          |
|---------|-----|----------|
| DATE    | NO. | APPROVED |
| 8-27-75 | 31  | DL       |

FOR REVISION DESCRIPTION SEE SEPARATE REVISION RECORD FOR THIS DRAWING

INDIANA & MICHIGAN ELECTRIC CO.  
DONALD C. COOK  
NUCLEAR PLANT

**FLOW DIAGRAM COMPONENT COOLING UNIT N82 SHEET 1 OF 3**

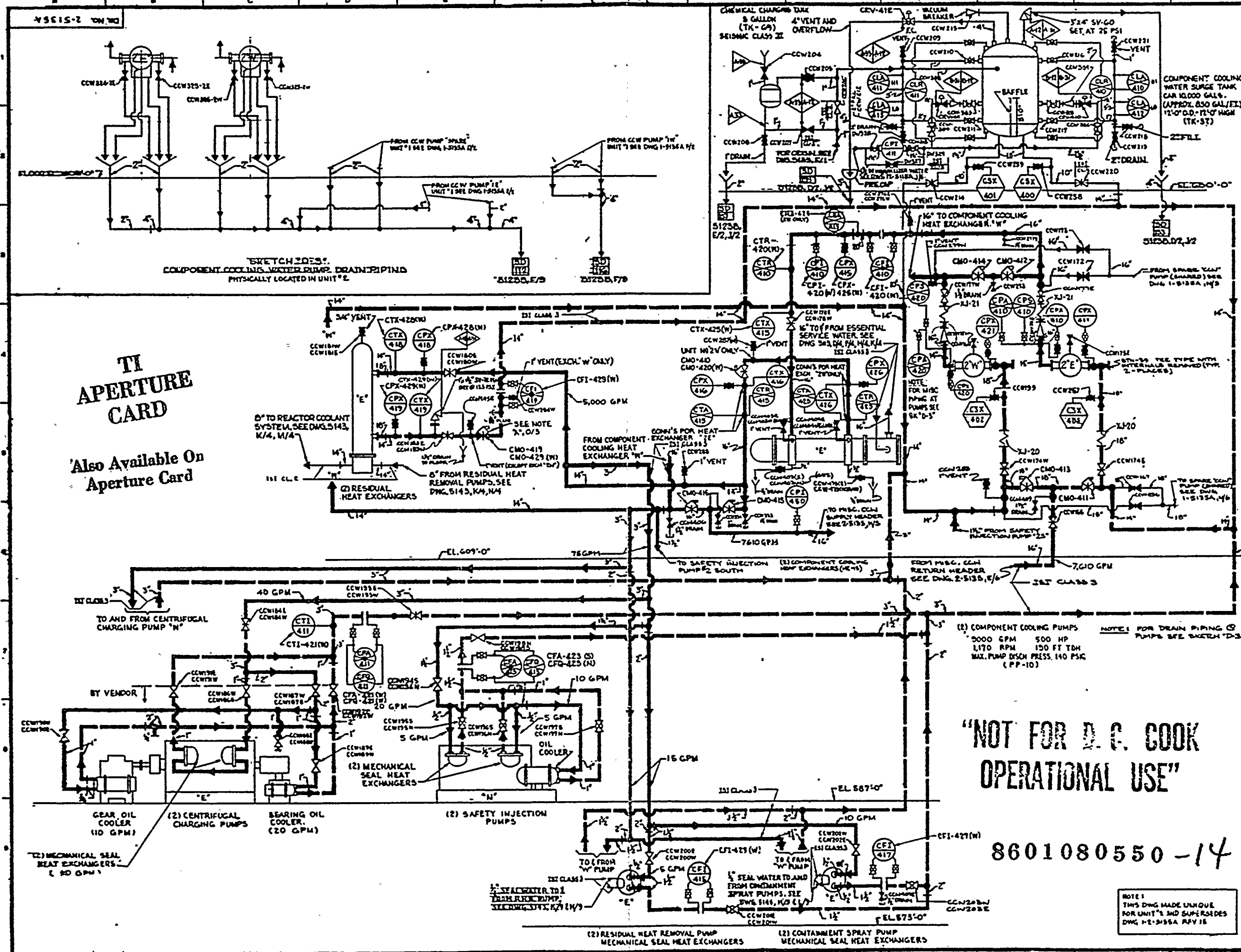
DR. NO. 2-5135-31

AMERICAN ELECTRIC POWER SERVICE CORP.  
1 BROADWAY NEW YORK

1947  
JAN 10 1947

1947  
JAN 10 1947





**TI APERTURE CARD**  
 Also Available On Aperture Card

**"NOT FOR D. C. COOK OPERATIONAL USE"**

8601080550-14

**GENERAL NOTES**

**LEGEND**

- COMPONENT COOLING SUPPLY
- COMPONENT COOLING RETURN
- AUXILIARY PIPING

FOR VALVE, INSTRUMENT SAMPLING PIPE MATERIAL AND OTHER SYMBOLS NOT EXPLAINED ON THIS DWG., AND FOR MARK NUMBER CODES, SEE DWG. 5104

(M) BY WESTINGHOUSE

EQUIPMENT SUPPLIED BY (M) AS NOTED

ALL PIPING TO BE EXCEPT AS NOTED

ALL EQUIPMENT SEISMIC CLASS EXCEPT AS NOTED

NOTE "A" - E-75 CMO-417 & 429 TO HAVE INTERMEDIATE UNIT SWITCH TO LIMIT FLOW ON SAFETY INJECTION SIGNAL

NOTE: (1) FOR COOLING WATER FROM THE 131 BAROMETRIC STORAGE TANK INCLUDES THE PIPE AND VALVE. (2) FOR COOLING WATER FROM THE 131 BAROMETRIC STORAGE TANK INCLUDES THE PIPE AND VALVE. (3) FOR COOLING WATER FROM THE 131 BAROMETRIC STORAGE TANK INCLUDES THE PIPE AND VALVE.

THE UNIT PREFIX DESIGNATION FOR EACH COMPONENT IDENTIFICATION NUMBER IS "U" UNLESS OTHERWISE NOTED

**HAND OPERATED VALVE IDENTIFICATION NUMBERS**

- ONLY "UNIQUE VALVE NUMBERS" APPEAR ON THIS DRAWING. SEE SEPARATE VALVE IDENTIFICATION LIST FOR EQUIVALENT DESIGN (MCR) NUMBERS.
- "TAG" NUMBERS MODIFIED FOR DRAWING USE AS FOLLOWS:  
 TAG NO: 2-NOM-100-01 APPEARS AS: 100-01
- INSTRUMENT ROOT VALVE MARKING IS NOT SHOWN ON DRAWING (SEE VALVE IDENTIFICATION LIST) DERIVED BY ADDING TO INSTRUMENT NUMBER:  
 FOR SINGLE IMPLUSE VALVESTREAM FOR DOUBLE IMPLUSE VALVESTREAM VZ00000000

(1) FOR MICROFILM STATUS SEE REVISION RECORD FOR THIS DWG.

|        |    |       |
|--------|----|-------|
| DATE   | BY | APP'D |
| 5-9-85 | 25 | JL    |

FOR REVISION DESCRIPTION SEE SEPARATE REVISION RECORD FOR THIS DRAWING

THIS DRAWING IS THE PROPERTY OF THE UNITED STATES GOVERNMENT. IT IS MADE AVAILABLE TO THE PUBLIC AS A SERVICE OF THE NATIONAL ARCHIVES. IT IS NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT PERMISSION IN WRITING FROM THE NATIONAL ARCHIVES.

INDIANA & BIRMINGHAM ELECTRIC CO.  
 DONALD C. COOK  
 NUCLEAR PLANT

**FLOW DIAGRAM COMPONENT COOLING UNIT NO. 2 SHEET 2 OF 3**

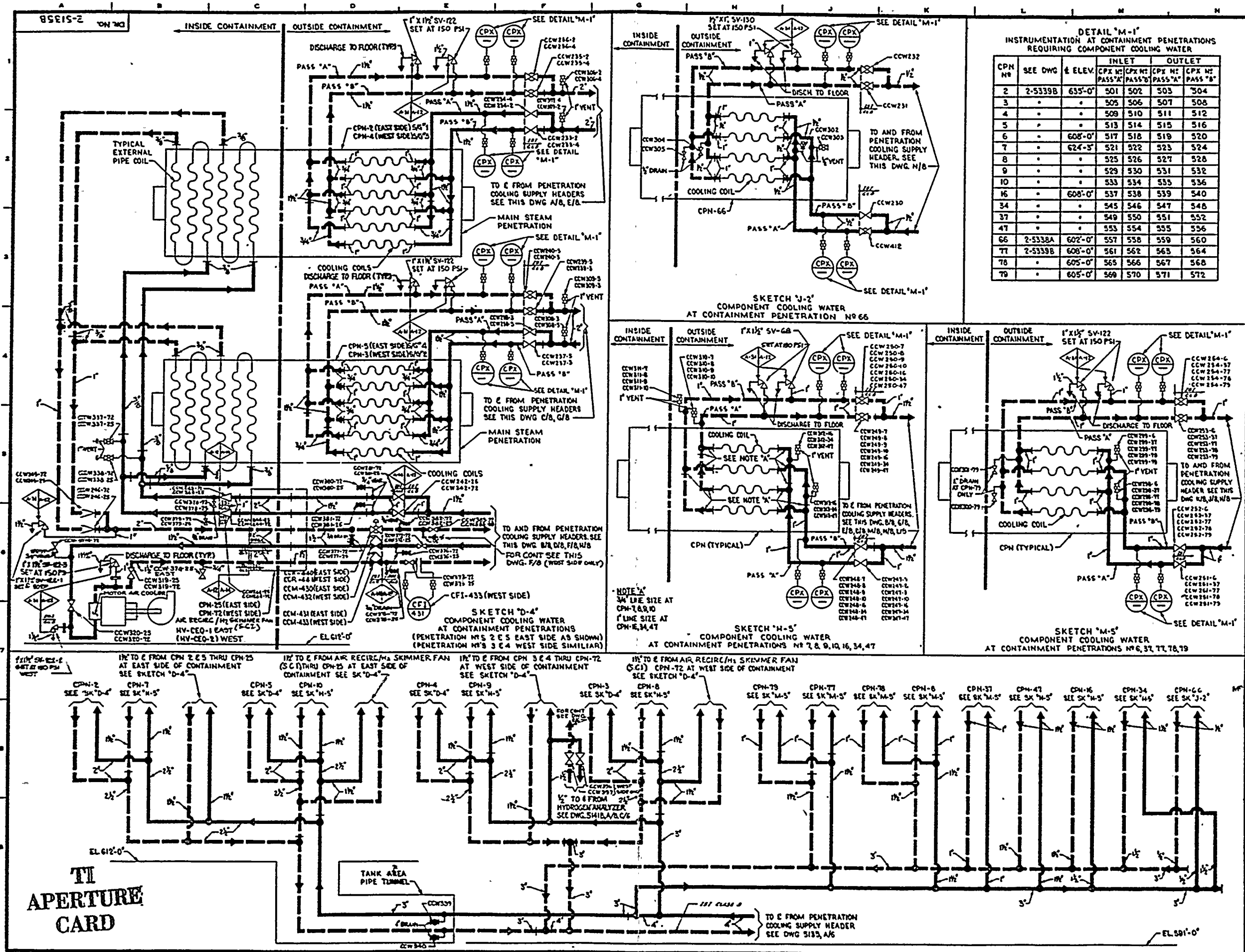
DR. NO. 2-5135A-25

NOTE 1: THIS DWG. MADE UNIQUE FOR UNIT 2 AND SUPERSEDES DWG. 2-5135A REV 18

AMERICAN ELECTRIC POWER SERVICE CORP. 1 BROADWAY NEW YORK

6451311348

RECEIVED  
FEB 11 1964  
U.S. AIR FORCE  
HEADQUARTERS  
WASHINGTON, D.C.



**DETAIL 'M-1'**  
INSTRUMENTATION AT CONTAINMENT PENETRATIONS REQUIRING COMPONENT COOLING WATER

| CPN No | SEE DWG & ELEV. | INLET   |        |        |        | OUTLET |        |        |        |
|--------|-----------------|---------|--------|--------|--------|--------|--------|--------|--------|
|        |                 | CPX No  | CPX No | CPX No | CPX No | CPX No | CPX No | CPX No | CPX No |
| 2      | 2-5339B         | 635'-0" | 501    | 502    | 503    | 504    |        |        |        |
| 3      | "               | "       | 505    | 506    | 507    | 508    |        |        |        |
| 4      | "               | "       | 509    | 510    | 511    | 512    |        |        |        |
| 5      | "               | "       | 513    | 514    | 515    | 516    |        |        |        |
| 6      | "               | 605'-0" | 517    | 518    | 519    | 520    |        |        |        |
| 7      | "               | 624'-3" | 521    | 522    | 523    | 524    |        |        |        |
| 8      | "               | "       | 525    | 526    | 527    | 528    |        |        |        |
| 9      | "               | "       | 529    | 530    | 531    | 532    |        |        |        |
| 10     | "               | "       | 533    | 534    | 535    | 536    |        |        |        |
| 16     | "               | 608'-0" | 537    | 538    | 539    | 540    |        |        |        |
| 34     | "               | "       | 545    | 546    | 547    | 548    |        |        |        |
| 37     | "               | "       | 549    | 550    | 551    | 552    |        |        |        |
| 47     | "               | "       | 553    | 554    | 555    | 556    |        |        |        |
| 66     | 2-5338A         | 602'-0" | 557    | 558    | 559    | 560    |        |        |        |
| 77     | 2-5339B         | 608'-0" | 561    | 562    | 563    | 564    |        |        |        |
| 78     | "               | 605'-0" | 565    | 566    | 567    | 568    |        |        |        |
| 79     | "               | 605'-0" | 569    | 570    | 571    | 572    |        |        |        |

**GENERAL NOTES**

**LEGEND**

- COMPONENT COOLING SUPPLY
- COMPONENT COOLING RETURN
- AUXILIARY PIPING

FOR VALVE, INSTRUMENT SAMPLING PIPE MATERIAL AND OTHER SYMBOLS NOT EXPLAINED ON THIS DWG., AND FOR MARK NUMBER CODES, SEE DWG. 5104

PENETRATION COOLING COILS ARE SEISMIC CLASS I

**NOTE:**  
FROM CODE CLASS 2E-3, INSTRUMENT COOLING COILS SHALL BE SEISMIC CLASS I VALVES.  
FROM CODE CLASS 2E-3, VALVES SHALL BE SEISMIC CLASS I VALVES.

THE UNIT PREFIX DESIGNATION FOR EACH COMPONENT IS: 10, 15, 20, UNLESS OTHERWISE LISTED

**NOTE**  
THIS DWG MADE UNIQUE FOR UNIT #2 AND SUPERSEDES DWG. 1-2-5135 B REV. 7

**VALVE OPERATED VALVE IDENTIFICATION NUMBERS**

- ONLY "UNIQUE VALVE NUMBERS" APPEAR ON THIS DRAWING. SEE SEPARATE VALVE IDENTIFICATION LIST FOR EQUIVALENT DESIGN (MCR) NUMBERS.
- "TAG" NUMBERS MODIFIED FOR DRAWING USE AS FOLLOWS:  
TAG NO. 2-NOW-100-W APPEARS AS: NSW100
- INSTRUMENT ROOT VALVE MARKINGS NOT SHOWN ON DRAWING (SEE VALVE IDENTIFICATION LIST) DERIVED BY ADDING TO INSTRUMENT NUMBER FOR SINGLE IMPULSE/STREAM FOR DOUBLE IMPULSE/STREAM V22222222

FOR SYMBOLIC STATUS SEE REVISION RECORD FOR THIS DWG.

Also Available On Aperture Card

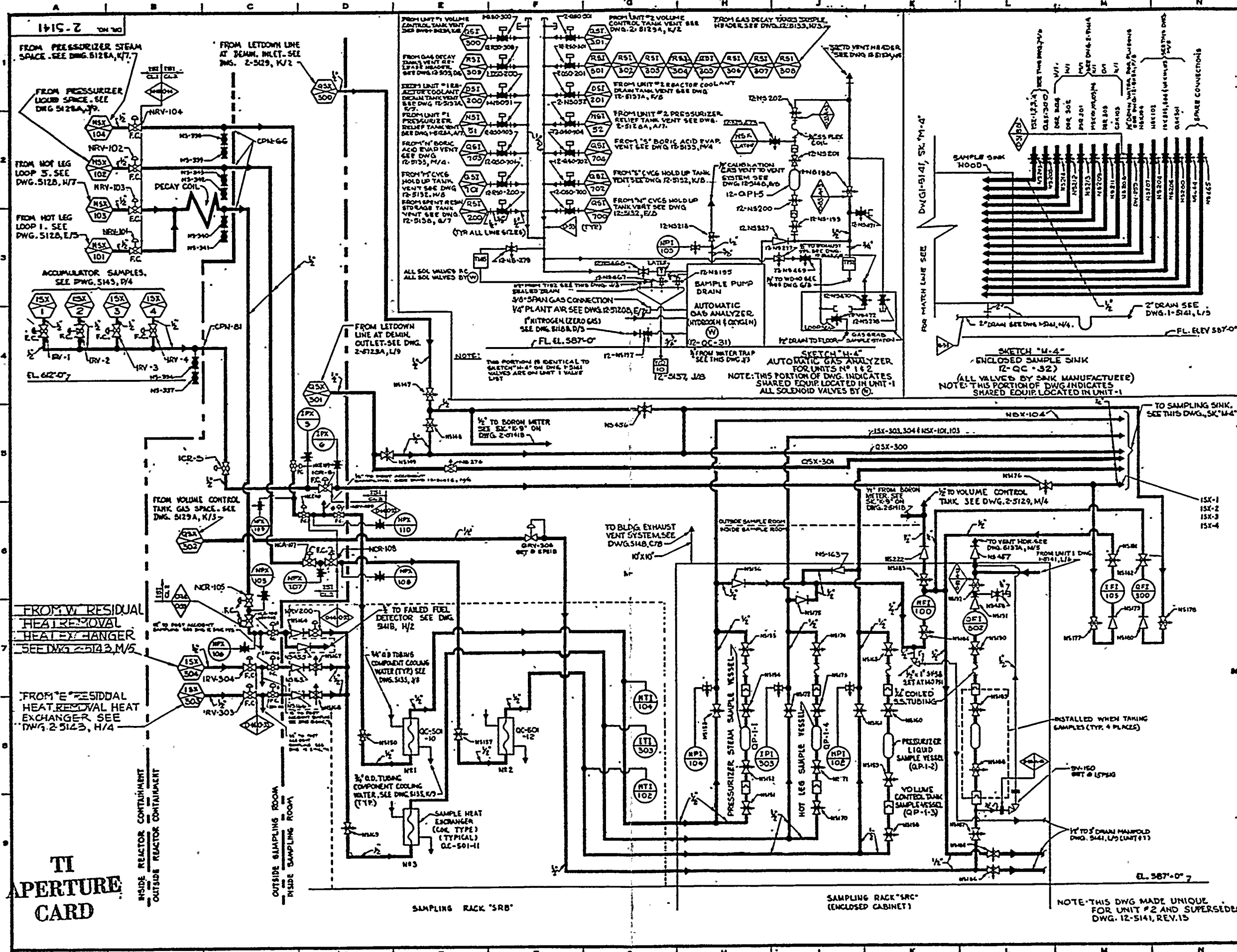
8601080550-15

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**GENERAL NOTES**

**LEGEND**

— MAIN FLOW  
 - - - AUX FLOW

FOR VALVE, INSTRUMENT, SAMPLING, PIPE MATERIAL, AND OTHER SYMBOLS NOT EXPLAINED ON THIS DWG., AND FOR MARK NUMBER CODES, SEE DWG. 5104.

**SYMBOLS**

☐ QUICK DISCONNECT COUPLING

⊙ BY WESTINGHOUSE

ALL PIPING TO BE EXCEPT AS NOTED

ALL EQUIPMENT S.C. III

THE UNIT PREFIX DESIGNATION FOR EACH COMPONENT IDENTIFICATION NUMBER IS "2" UNLESS OTHERWISE NOTED

**CODE CLASS NOTES**

FOR CODE CLASS 2 INSTRUMENT CONNECTIONS, THE FIRST INSTRUMENT IDENTIFICATION NUMBER IS THE FIRST ROOT VALVE.

FOR CODE CLASS 2 EVENTS, THE FIRST INSTRUMENT IDENTIFICATION NUMBER IS THE FIRST ROOT VALVE.

FOR CODE CLASS 2 EVENTS, THE FIRST INSTRUMENT IDENTIFICATION NUMBER IS THE FIRST ROOT VALVE.

**HAND OPERATED VALVE IDENTIFICATION NUMBERS**

1. ONLY "UNIQUE VALVE NUMBERS" APPEAR ON THIS DRAWING. SEE SEPARATE VALVE IDENTIFICATION LIST FOR EQUIVALENT DESIGN (MCR) NUMBERS.

2. "TAG" NUMBERS MODIFIED FOR DRAWING USE AS FOLLOWS:  
 TAG IS: 2-NR-100-W APPEARS AS: NS100W

3. INSTRUMENT ROOT VALVE MARK IS NOT SHOWN ON DRAWING (SEE VALVE IDENTIFICATION LIST) DERIVED BY ADDING TO INSTRUMENT NUMBER:  
 FOR SINGLE IMPULSE: V  
 FOR DOUBLE IMPULSE: V/ST  
 FOR STREAM: V/ST/ST

FOR MICROFILM STATUS SEE REVISION RECORD FOR THIS DWG.

|          |     |          |
|----------|-----|----------|
| DATE     | REV | APPROVED |
| 12-23-55 | 23  | ASL/PFF  |

FOR REVISION DESCRIPTION SEE SEPARATE REVISION RECORD FOR THIS DRAWING

INDIANA & MICHIGAN ELECTRIC CO.  
 DONALD C. COOK  
 NUCLEAR PLANT

BRIDGMAN MICHIGAN

**FLOW DIAGRAM  
 NUCLEAR SAMPLING  
 UNIT NO. 2  
 SHEET 1 OF 3**

DR. NO. 2-5141-23

NOTE: THIS DWG MADE UNIQUE FOR UNIT #2 AND SUPERSEDES DWG. 12-5141, REV. 15

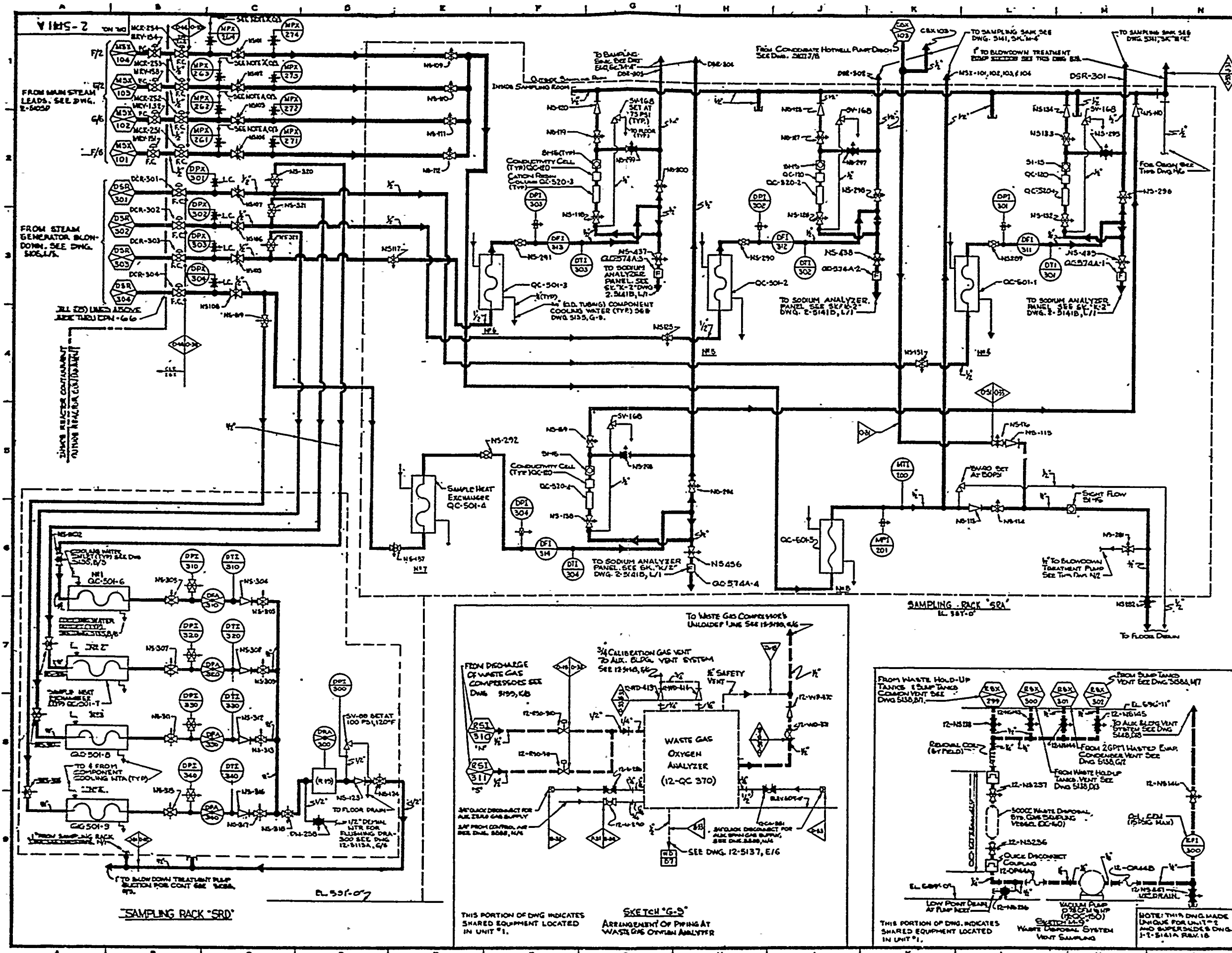
Also Available On Aperture Card

8601080550-16

830.000.000

1950

1950



**GENERAL NOTES**

**LEGEND**  
 — MAIN FLOW  
 - - - - - AUX. FLOW

FOR VALVE, INSTRUMENT SAMPLING, PIPE MATERIAL AND OTHER SYMBOLS NOT EXPLAINED ON THIS DWG., AND FOR MARK NUMBER CODES SEE DWG. 5104

ALL PIPING TO BE EXCEPT AS NOTED  
 ALL EQUIPMENT S.C. II

NOTE: CH. CO. SUPPLY FOR DRAWING STEAM GENERATOR FOR CONTINUATION SEE DWG. 5166A, D1

NOTE: B  
 [Symbol] THIS SYMBOL DENOTES A FILTER

THE UNIT PREFIX DESIGNATION FOR EACH COMPONENT IDENTIFICATION NUMBER IS "2" UNLESS OTHERWISE NOTED.

**API APERTURE CARD**

Also Available On Aperture Card

**HAND OPERATED VALVE IDENTIFICATION NUMBERS**  
 1. ONLY UNIQUE VALVE NUMBERS APPEAR ON THIS DRAWING. SEE SEPARATE VALVE IDENTIFICATION LIST FOR EQUIVALENT DESIGN (MCR) NUMBERS.  
 2. TAG NUMBERS MODIFIED FOR DRAWING USE AS FOLLOWS:  
 TAG NO: 2-NB-1000-W APPEARS AS: NS1000W  
 INSTRUMENT ROOT VALVE MARKING IS NOT SHOWN ON DRAWING (SEE VALVE IDENTIFICATION LIST) DERIVED BY ADDING TO INSTRUMENT NUMBER:  
 FOR SINGLE SUPPLY: V  
 FOR DOUBLE SUPPLY: V1, V2

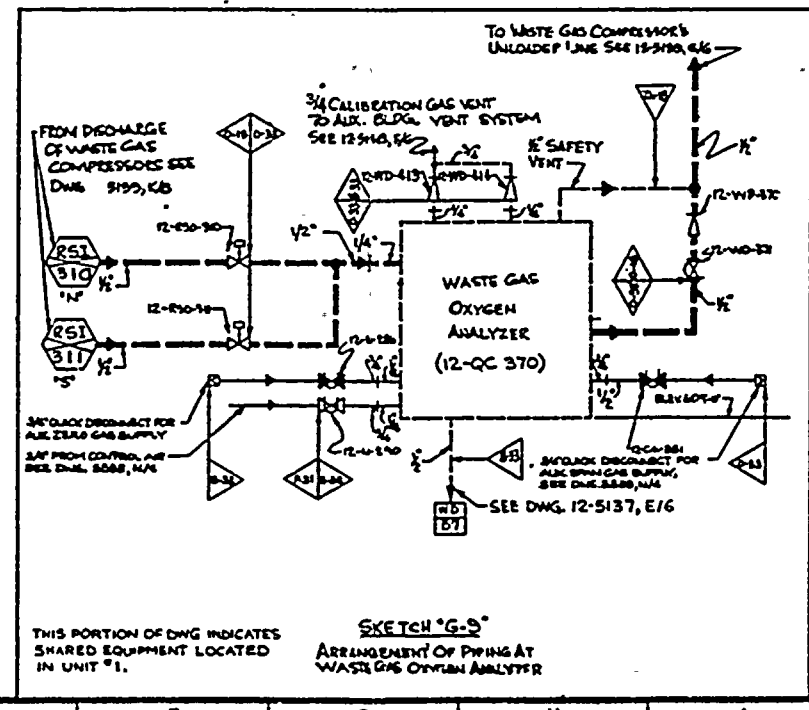
|      |         |    |          |
|------|---------|----|----------|
| DATE | 11-7-85 | 27 | APPROVED |
| DATE |         |    | APPROVED |

FOR REVISION DESCRIPTION SEE SEPARATE REVISION RECORD FOR THIS DRAWING

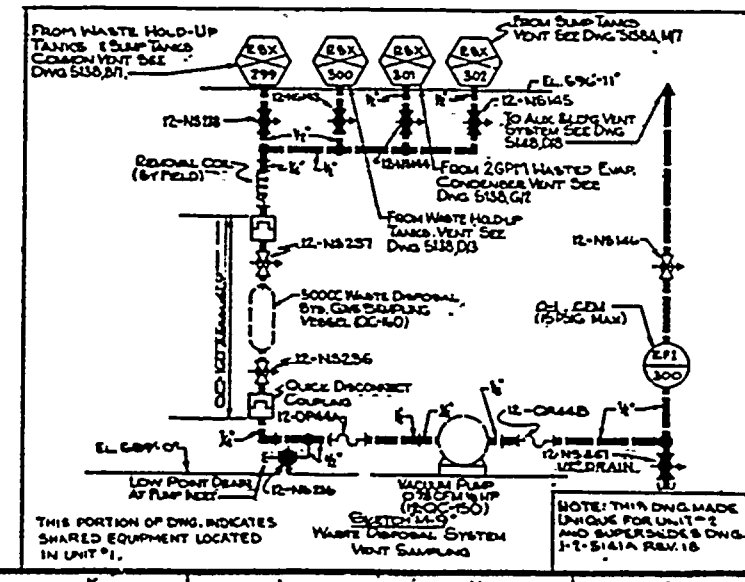
INDIANA & MIDWAY ELECTRIC CO.  
**DONALD C. COOK**  
 NUCLEAR PLANT

**FLOW DIAGRAM NUCLEAR SAMPLING UNIT NO. 2 SHEET 2 OF 3**

|          |             |
|----------|-------------|
| DR. NO.  | 2-5141A-27  |
| DATE     | 11-7-85     |
| BY       | [Signature] |
| CHECKED  | [Signature] |
| APPROVED | [Signature] |



THIS PORTION OF DWG INDICATES SHARED EQUIPMENT LOCATED IN UNIT #1.  
**SKETCH 'G-9'**  
 ARRANGEMENT OF PIPING AT WASTE GAS OXYGEN ANALYZER



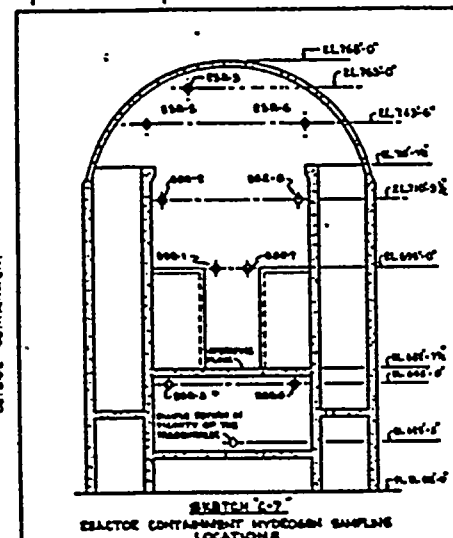
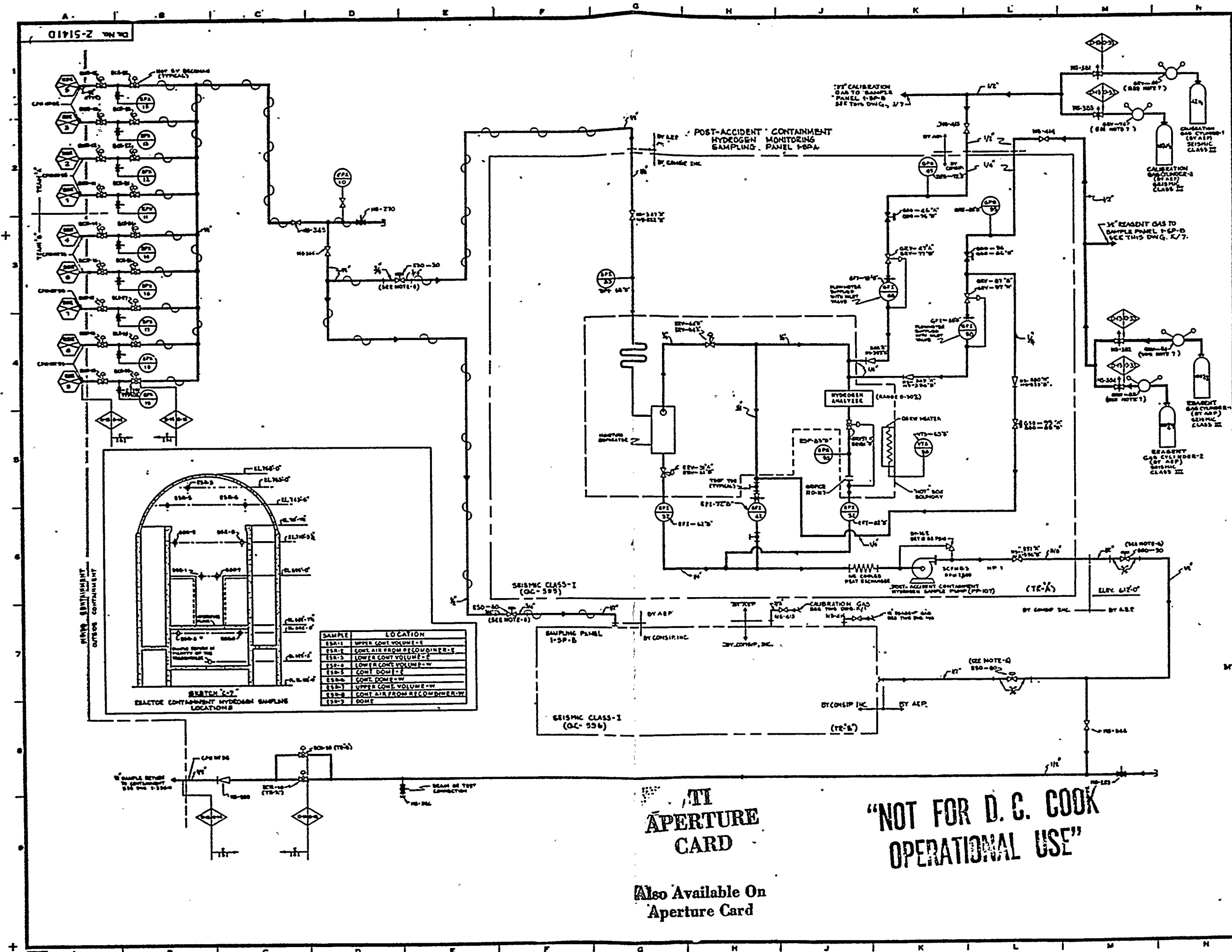
THIS PORTION OF DWG. INDICATES SHARED EQUIPMENT LOCATED IN UNIT #1.  
 WASTE DISPOSAL SYSTEM VENT SAMPLING

357 203022

RECEIVED  
MAY 10 1964







| SAMPLE | LOCATION                     |
|--------|------------------------------|
| ESA-1  | UPPER CONT VOLUME - E        |
| ESA-2  | CONT AIR FROM RECOMBINER - E |
| ESA-3  | LOWER CONT VOLUME - E        |
| ESA-4  | LOWER CONT VOLUME - W        |
| ESA-5  | CONT DOME - E                |
| ESA-6  | CONT DOME - W                |
| ESA-7  | UPPER CONT VOLUME - W        |
| ESA-8  | CONT AIR FROM RECOMBINER - W |
| ESA-9  | CONT DOME - E                |
| ESA-10 | CONT DOME - W                |

**GENERAL NOTES**

**LEGEND**

— MAIN FLOW  
 - - - - - ASSEMBLY

**NOTES**

1. LOCATION OF NEW POST-ACCIDENT CONTAINMENT HYDROGEN MONITORING SYSTEMS AS PER 1-SP-A-001 AND 1-SP-A-002.
2. ALL EQUIPMENT IS SEISMIC CLASS II EXCEPT AS NOTED.
3. CONTROL SWITCH LOCATED ON 1-SP-A-001 AND 1-SP-A-002 SHALL BE OPERATED WITH TOP AND BOTTOM OPERATING HANDLE LOCKED AND SAFETY TAGS.
4. ALL PIPING IS 1/2" EXCEPT AS NOTED.
5. EXTENDED LENGTH OF TUBING - TAG WITH SAMPLE TIME TO REACH.
6. TEMPERATURE INSIDE OF BOX.

THE UNIT PREFIX DESIGNATION FOR EACH COMPONENT IDENTIFICATION NUMBER IS "E" UNLESS OTHERWISE NOTED.

**HAND OPERATED VALVE IDENTIFICATION NUMBERS**

1. ONLY "HOLE VALVE NUMBERS" APPEAR ON THIS DRAWING. SEE SEPARATE VALVE IDENTIFICATION LIST FOR EQUIVALENT DESIGN (HOLE) NUMBERS.
2. TAG NUMBERS MODIFIED FOR DRAWING USE AS FOLLOWS:  
 TAG NO. E-40000000 APPEARS AS: H00000W
3. INSTRUMENT ROOT VALVE MARKINGS NOT SHOWN ON DRAWING (SEE VALVE IDENTIFICATION LIST) DERIVED BY ADDING TO INSTRUMENT NUMBER:  
 FOR SINGLE BR/LS/VI FOR DOUBLE BR/LS/VI/STREAM/VELOCIMETER

7-11-85 7  
 DATE NO. APPROVED

FOR REVISION DESCRIPTION SEE SEPARATE REVISION RECORD FOR THIS DRAWING

THIS DRAWING IS THE PROPERTY OF THE AMERICAN ELECTRIC POWER SERVICE CORP. AND IS LOANED TO DONALD C. COOK NUCLEAR PLANT AS PART OF THE CONTRACT. IT IS TO BE RETURNED TO THE AMERICAN ELECTRIC POWER SERVICE CORP. UPON COMPLETION OF THE PROJECT. NO REPRODUCTION OR TRANSMISSION OF THIS DRAWING IS TO BE MADE WITHOUT THE WRITTEN PERMISSION OF THE AMERICAN ELECTRIC POWER SERVICE CORP.

INDIANA & MIDWESTERN ELECTRIC CO.  
 DONALD C. COOK  
 NUCLEAR PLANT

FLOW DIAGRAM  
 POST-ACCIDENT SAMPLING  
 CONTAINMENT HYDROGEN  
 UNIT #02

DR. NO. 2-51410-7

AMERICAN ELECTRIC POWER SERVICE CORP.

TI  
 APERTURE  
 CARD

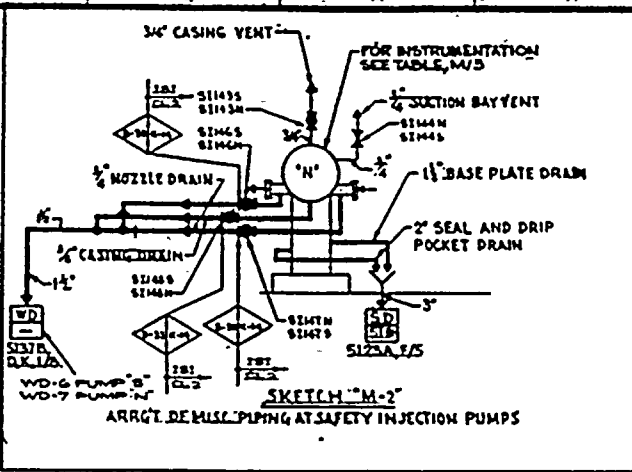
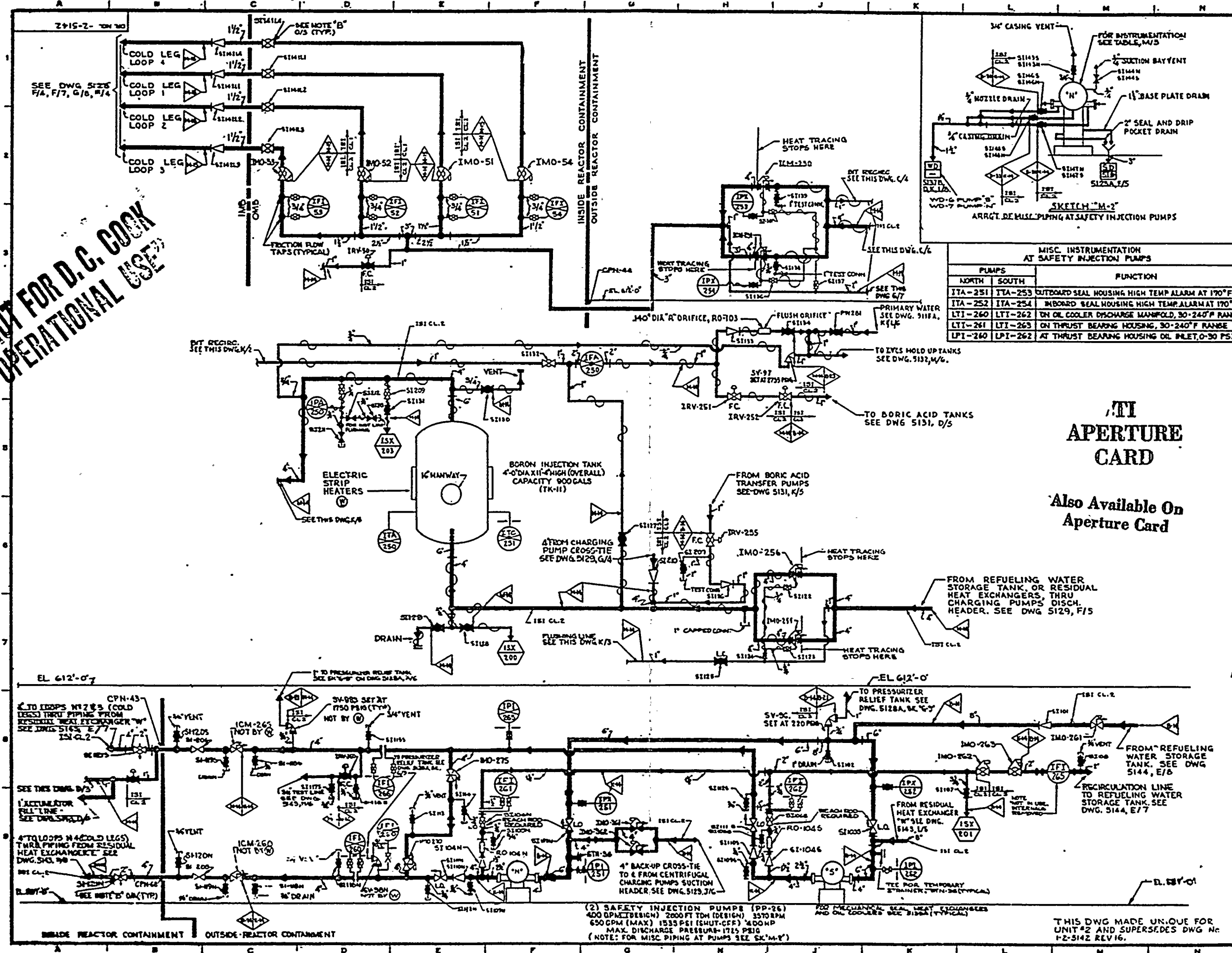
Also Available On  
 Aperture Card

**"NOT FOR D. C. COOK  
 OPERATIONAL USE"**

1650001018

1650001018

**NOT FOR D.C. COOK  
OPERATIONAL USE**



**MISC. INSTRUMENTATION AT SAFETY INJECTION PUMPS**

| PUMPS   | FUNCTION   |
|---------|--|
| ITA-251 | OUTBOARD SEAL HOUSING HIGH TEMP ALARM AT 170°F   |
| ITA-252 | INBOARD SEAL HOUSING HIGH TEMP ALARM AT 170°F    |
| LTI-260 | ON OIL COOLER DISCHARGE MANIFOLD, 30-240°F RANGE |
| LTI-261 | ON THRUST BEARING HOUSING, 30-240°F RANGE        |
| LPI-260 | AT THRUST BEARING HOUSING OIL INLET, 0-30 PSI    |

**GENERAL NOTES.**

**LEGEND**  
 — MAIN FLOW  
 - - - AUXILIARY FLOW

Ⓜ BY WESTINGHOUSE

FOR VALVE, INSTRUMENT, SAMPLING PIPE MATERIAL AND OTHER SYMBOLS NOT EXPLAINED ON THIS DWG AND FOR MARK NUMBER CODES - SEE DWG 5104

**NOTE: A**  
 ALL EQUIPMENT VALVES & INSTRUMENTS SUPPLIED BY W EXCEPT AS NOTED

**NOTE: B**  
 ALL VALVES IN FIELD TO LIMIT PUMP RUN OUT THEN LOCK IN POSITION.

**NOTE: C**  
 ALL EQUIPMENT SEISMIC CLASS 2 EXCEPT AS NOTED.

**NOTE: D**  
 FOR CODE CLASS 2 INSTRUMENT CONNECTIONS, THE T&I BOUNDARY EXTENDS TO & INCLUDES THE FIRST NORMALLY CLOSED VALVE.

**NOTE: E**  
 REFER TO DWG 2-5123 FOR PORTIONS OF PIPING CONTAINED WITHIN LEAK DETECTION ENCLOSURE.

**HAND OPERATED VALVE IDENTIFICATION NUMBERS**

1. ONLY "UNIQUE VALVE NUMBERS" APPEAR ON THIS DRAWING. SEE SEPARATE VALVE IDENTIFICATION LIST FOR EQUIVALENT DESIGN (MCR) NUMBERS.

2. "TAG" NUMBERS MODIFIED FOR DRAWING USE AS FOLLOWS:  
 TAG #1: 2-HOB-VIS-W APPEARS AS: REVISION

3. INSTRUMENT ROOT VALVE MARK #1'S NOT SHOWN ON DRAWING (SEE VALVE IDENTIFICATION LIST) DERIVED BY ADDING TO INSTRUMENT NUMBER:  
 FOR SINGLE PULSE (V) FOR DOUBLE PULSE (VP) FOR VIBRATION (VIB)

FOR MICROFILM STATUS SEE REVISION RECORD FOR THIS DWG

3-21-85 26

FOR REVISION DESCRIPTION SEE SEPARATE REVISION RECORD FOR THIS DRAWING

THIS DRAWING IS THE PROPERTY OF THE AMERICAN ELECTRIC POWER SERVICE CORP. AND IS LOANED TO YOU FOR YOUR INFORMATION. IT IS NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM.

MOORE & MOORE ELECTRIC CO.  
 DONALD C. COOK  
 NUCLEAR PLANT

**FLOW DIAGRAM EMERG. CORE COOLING SYS. UNIT NO. 2**

DR. NO. 2-5142-26

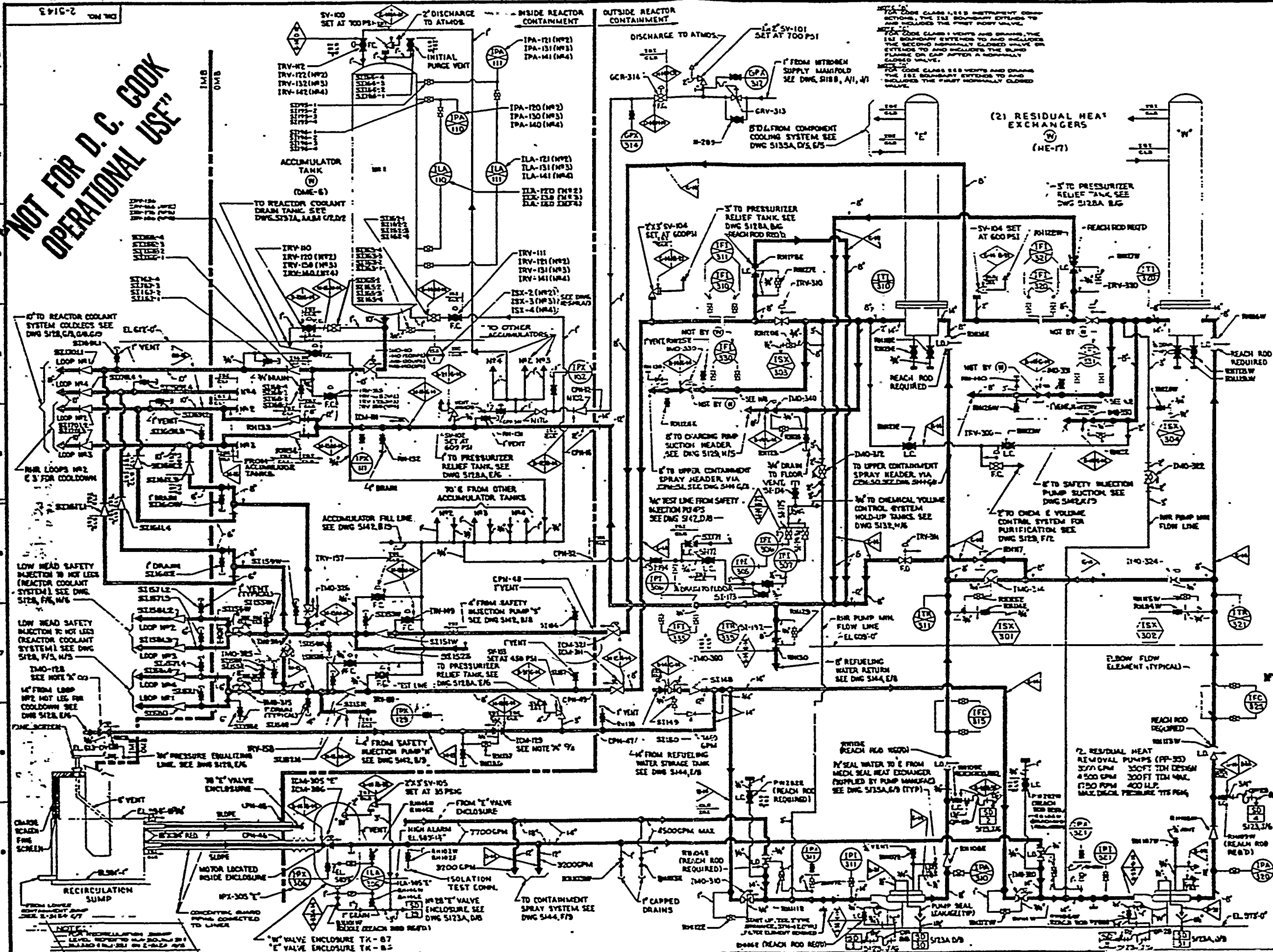
THIS DWG MADE UNIQUE FOR UNIT #2 AND SUPERSEDES DWG No. 2-5142 REV 16.

8601080550-19

300 000 000

RECEIVED  
MAY 10 1964

RECEIVED  
MAY 10 1964



**GENERAL NOTES**

**LEGEND**

— MAIN FLOW  
 - - - - - AUXILIARY FLOW

FOR VALVE, INSTRUMENT, SAMPLING PIPE MATERIAL AND OTHER SYMBOLS NOT EXPLAINED ON THIS DWG. AND FOR MARK NUMBER CODES SEE DWG-5104.

ALL EQUIPMENT SEEING CLASS I EXCEPT AS NOTED BY WESTINGHOUSE.

ALL EQUIPMENT VALVES EXCEPT SUPPLIED BY © EXCEPT AS NOTED.

NOTE: VALVE INTERLOCKED WITH REACTOR COOLANT SYSTEM PRESSURE SIGNAL G. A/7.

**APERTURE CARD**

Also Available On Aperture Card

THIS DWG MADE UNUSABLE FOR UNIT #2 AND SUPERSEDED BY P-2-5143, REV. 22.

**HAND OPERATED VALVE IDENTIFICATION NUMBERS**

1. ONLY "UNIQUE VALVE NUMBERS" APPEAR ON THIS DRAWING. SEE SEPARATE MARK IDENTIFICATION LIST FOR EQUIVALENT NUMBERS (MCR) NUMBERS.

2. "H" NUMBERS MODIFIED FOR DRAWING USE AS FOLLOWS: TAG BY 2-5143-00-00 APPEARS AS: H25000.

3. INSTRUMENT ROOT VALVE MARKS NOT SHOWN ON DRAWING. SEE VALVE IDENTIFICATION LIST DERIVED BY ADDING TO INSTRUMENT NUMBER: FOR SINGLE BRANCH - EL CODE; FOR DOUBLE BRANCH - EL CODE AND CONNECTION.

FOR INCOMPLETE STATUS SEE DESIGN RECORD FOR THIS DWG.

NO. 25-4429

FOR REVISION DESCRIPTION SEE SEPARATE REVISION RECORD FOR THIS DRAWING.

THE DESIGN IS THE PROPERTY OF THE ABOVE NAMED ORGANIZATION AND IS TO BE KEPT IN CONFIDENCE. IT IS TO BE USED ONLY FOR THE PURPOSES AND UNDER THE CONDITIONS SPECIFIED IN THE CONTRACT UNDER WHICH IT WAS MADE. IT IS NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT THE WRITTEN PERMISSION OF THE ABOVE NAMED ORGANIZATION.

WESTINGHOUSE ELECTRIC CO.  
 DONALD C. COOK  
 NUCLEAR PLANT

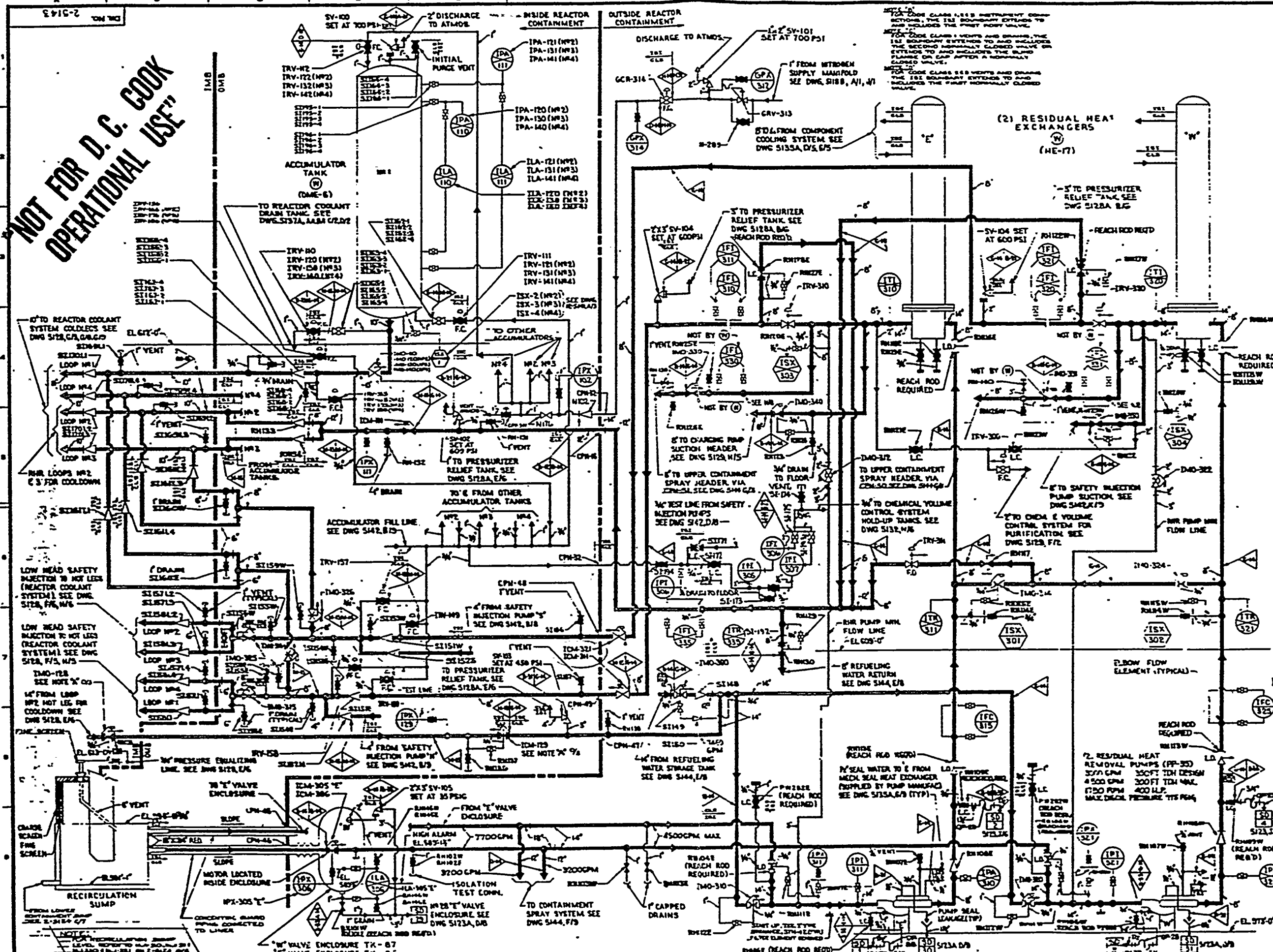
**FLOW DIAGRAM EMERG. CORE COOLING UNIT NO. 2**

DR. NO. 2-5143-29

RECEIVED  
MAY 19 1964

100-100000

NOT FOR D.C. COOK  
OPERATIONAL USE



**GENERAL NOTES**

**LEGEND**

— MAIN FLOW  
- - - AUXILIARY FLOW

FOR VALVE, INSTRUMENT, SAMPLING PIPE MATERIAL AND OTHER SYMBOLS NOT EXPLAINED ON THIS DWG. AND FOR MARK NUMBER CODES SEE DWG-5104. ALL EQUIPMENT SEEING CLASS I, EXCEPT AS NOTED BY WESTINGHOUSE. ALL EQUIPMENT VALVES EXCEPT SUPPLIED BY © EXCEPT AS NOTED.

NOTE: VALVE INTERLOCKED WITH REACTOR COOLANT SYSTEM PRESSURE SIGNAL @ A/7

**APERTURE CARD**

Also Available On Aperture Card

THIS DWG MADE UNUSABLE FOR UNIT #2 AND SUPERSEDED BY P-2-5143, REV. 22

**HAND OPERATED VALVE IDENTIFICATION NUMBERS**

1. ONLY "UNIQUE VALVE NUMBERS" APPEAR ON THIS DRAWING. SEE SEPARATE MARK IDENTIFICATION LIST FOR EQUIVALENT NUMBERS (MCR) NUMBERS.

2. "H" NUMBERS MODIFIED FOR DRAWING USE AS FOLLOWS: TAG BY 2-5143-00-00 APPEARS AS: H25000

3. INSTRUMENT ROOT VALVE MARKS NOT SHOWN ON DRAWING. SEE VALVE IDENTIFICATION LIST DERIVED BY ADDING TO INSTRUMENT NUMBER: FOR SINGLE BRANCH - EL CODE; FOR DOUBLE BRANCH - EL CODE WITH CONNECTION

FOR INCOMPLETE STATUS SEE SECTION RECORD FOR THIS DWG

NO-25-0429

FOR REVISION DESCRIPTION SEE SEPARATE REVISION RECORD FOR THIS DRAWING

THE DESIGN IS THE PROPERTY OF THE ABOVE NAMED ORGANIZATION AND IS LOANED TO YOU ON THE UNDERSTANDING THAT IT IS TO BE KEPT IN CONFIDENTIALITY AND NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM.

WESTINGHOUSE ELECTRIC CO.  
DONALD C. COOK  
NUCLEAR PLANT

**FLOW DIAGRAM**  
EMERG. CORE COOLING UNIT NO. 2

DR. NO. 2-5143-29

|      |    |          |
|------|----|----------|
| DATE | BY | APPROVED |
|      |    |          |
|      |    |          |

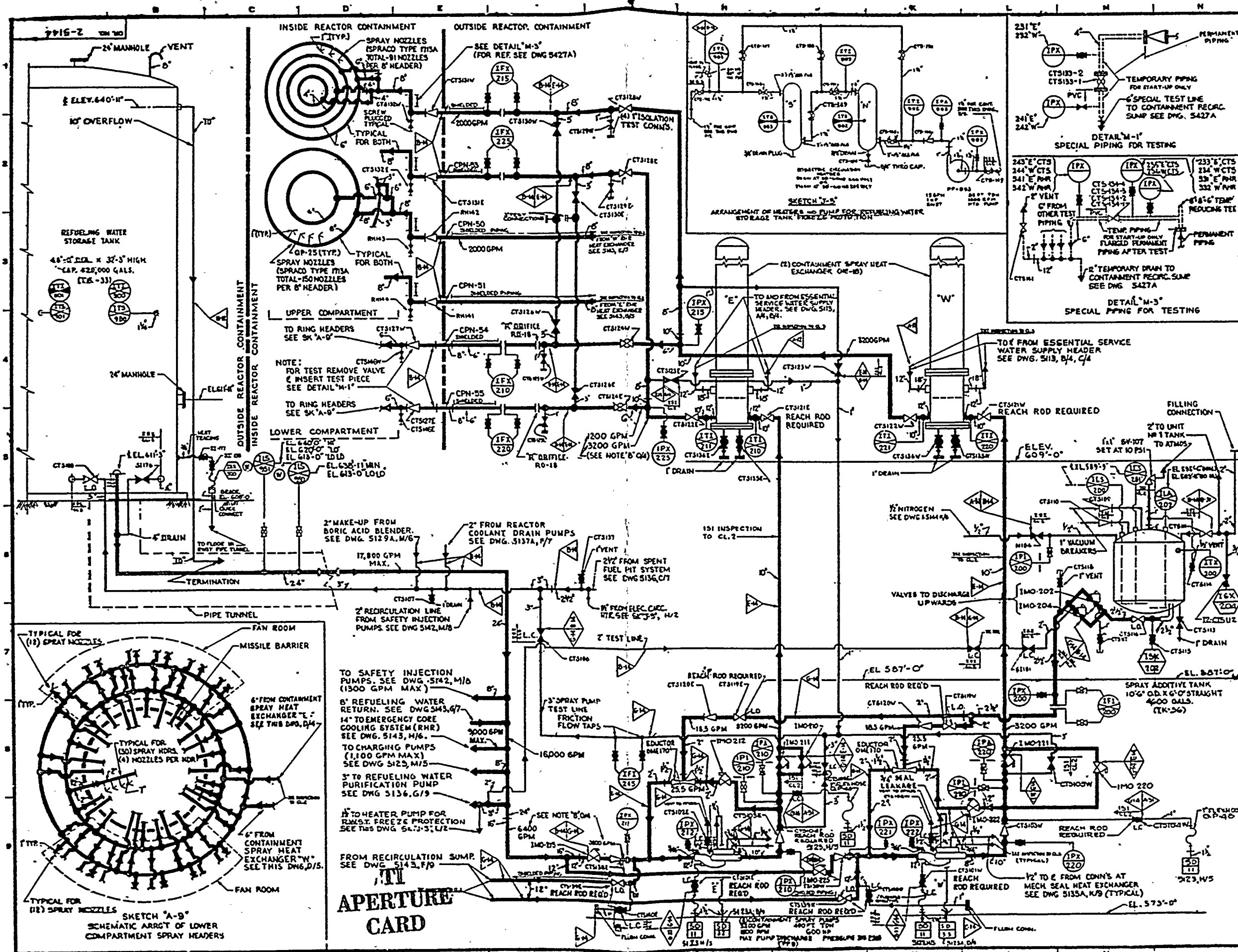
AMERICAN ELECTRIC POWER SERVICE CORP.  
1 BROADWAY

RECEIVED  
MAY 19 1964

100-100000



FOR U. S. GOVERNMENT OPERATIONAL USE



**GENERAL NOTES**

**LEGEND**

— MAIN FLOW  
--- AUXILIARY FLOW

FOR VALVE, INSTRUMENT, SAMPLING, PIPE MATERIAL AND OTHER SYMBOLS NOT EXPLAINED ON THIS DWG., AND FOR MARK NUMBER CODES, SEE DWG. 5104.

ALL EQUIPMENT AND PIPING SEISMIC CLASS 1 EXCEPT AS NOTED

(W) BY WESTINGHOUSE

REFUELING WATER STORAGE TANK FREEZE PROTECTED

DRAINS FROM SPRAY ADDITIVE TANKS TO SPRAY ADDITIVE TANK ROOM SLUMP 5137 MD

NOTE 'B' GPM... FLOWS SHOWN ARE REDUCED BY 25.5 GPM WHEN NGRM EDUCTORS ARE IN SERVICE

THE UNIT PREPARED FOR EACH COMPONENT IDENTIFICATION NUMBER IS 15. 2" UNLESS OTHERWISE NOTED.

NOTE THIS DWG MADE UNIQUE FOR UNIT #2 AND SUPERSEDES DWG 512544 REV 10

MAND OPERATED VALVE IDENTIFICATION NUMBERS ONLY SINGLE VALVE NUMBERS APPEAR ON THIS DRAWING. SEE SEPARATE VALVE IDENTIFICATION LIST FOR EQUIVALENT DESIGN (MCR) NUMBERS.

"TAG" NUMBERS INDICATED FOR DRAWING USE AS FOLLOWS: TAG #1: 2-NR-100-W APPEARS AS: 2NR100W

EXTRUMENT ROOT VALVE MARKING IS NOT SHOWN ON DRAWING (SEE VALVE IDENTIFICATION LIST) DERIVED BY ADDING TO INSTRUMENT NUMBER: FOR SINGLE IMPULSE: VILPSTREAM/V

FOR MICROFILM STATUS SEE REVISION RECORD FOR THIS DWG

5-20-65 27 RLL CU

FOR REVISION DESCRIPTION SEE SEPARATE REVISION RECORD FOR THIS DRAWING

INDIANA & MICHIGAN ELECTRIC CO.,  
DONALD C. COOK  
NUCLEAR PLANT

**FLOW DIAGRAM  
CONTAINMENT SPRAY  
UNIT NO. 2**

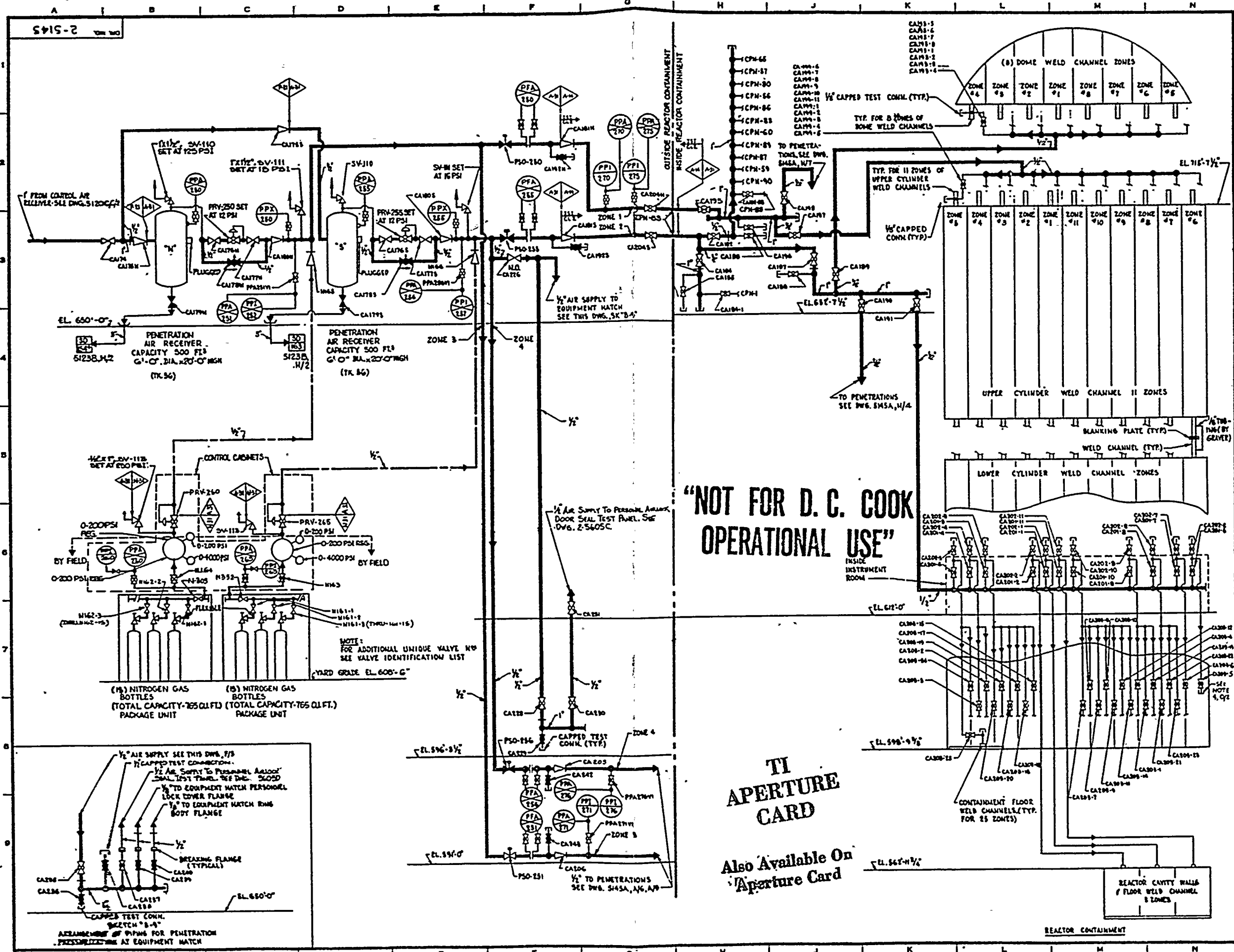
DA No. 2-5784-27

Also Available On Aperture Card.

8601080550-21

610.0.0300

251 2005 10 1  
2005 10 10 10 10  
10 10 10 10  
10 10 10 10



**GENERAL NOTES**

**LEGEND**

--- NITROGEN  
 --- CONTROL AIR  
 --- AUX. PIPING

FOR VALVE, INSTRUMENT, SAMPLE, PIPE MATERIAL AND OTHER SYMBOLS NOT EXPLAINED ON THIS DWG. AND FOR MARK NUMBER CODES, SEE DWG. 5104.

ALL EQUIPMENT SEISMIC CLASS X.

NOTE 1 REFER TO DWGS. 5336 E, 5337 FOR LIST OF PIPING PENETRATIONS ALL PIPING CLASS A-31

NOTE 2 UNIQUE VALVE NUMBERS ARE DERIVED FOR CONTAINMENT PENETRATIONS BY USING THE HEADER VALVE NUMBER PLUS THE CPM NUMBER.

NOTE 3 FOR ADDITIONAL UNIQUE VALVE NUMBERS SEE VALVE IDENTIFICATION LIST.

NOTE 4 FOR CODE CLASS 2 INSTRUMENT CONNECTIONS, THE 151 BOUNDARY EXTENDS TO AND INCLUDES THE FIRST ROOT VALVE.

NOTE 5 THE UNIT PREFIX DESIGNATION FOR EACH COMPONENT IDENTIFICATION NUMBER IS "2" UNLESS OTHERWISE NOTED.

NOTE: THIS DWG. MADE UNIQUE FOR UNIT #2 AND SUPERSEDES DWG. 2-5145-2A AND 2-5145-2B.

**MANU OPERATED VALVE IDENTIFICATION NUMBERS**

1. ONLY "UNIQUE VALVE NUMBERS" APPEAR ON THIS DRAWING. SEE SEPARATE VALVE IDENTIFICATION LIST FOR EQUIVALENT DESIGN (MOR) NUMBERS.

2. "TAG" NUMBERS MODIFIED FOR DRAWING USE AS FOLLOWS:  
 TAG NO: 2-NON-VIS-W APPEARS AS: NSW100W

3. INSTRUMENT ROOT VALVE MARK #S NOT SHOWN ON DRAWING CHECK VALVE IDENTIFICATION LIST DERIVED BY ADDING TO INSTRUMENT NUMBER:  
 FOR SINGLE IMPULSE: V1  
 FOR DOUBLE IMPULSE: V2

MF FOR MICROFILM STATUS SEE REVISION RECORD FOR THIS DWG.

9-12-85 17 *[Signature]*  
 DATE NO. APPROVED

FOR REVISION DESCRIPTION SEE SEPARATE REVISION RECORD FOR THIS DRAWING

THIS DRAWING IS THE PROPERTY OF THE AMERICAN ELECTRIC POWER SERVICE CORP. AND IS LOANED TO YOU UNDER THE CONDITION THAT IT IS TO BE RETURNED TO THE AMERICAN ELECTRIC POWER SERVICE CORP. OR TO THE AMERICAN ELECTRIC POWER SERVICE CORP. AT THE ADDRESS SHOWN HEREON.

INDIANA & MICHIGAN ELECTRIC CO.  
 DONALD C. COOK  
 NUCLEAR PLANT

BREDSMAN INORGANIC

FLOW DIAGRAM  
 CONTAINMENT PENETRATIONS & WELD CHANNEL PRESSURIZATION  
 UNIT #2 SHEET 1 OF 2

DR. NO. 2-5145-17

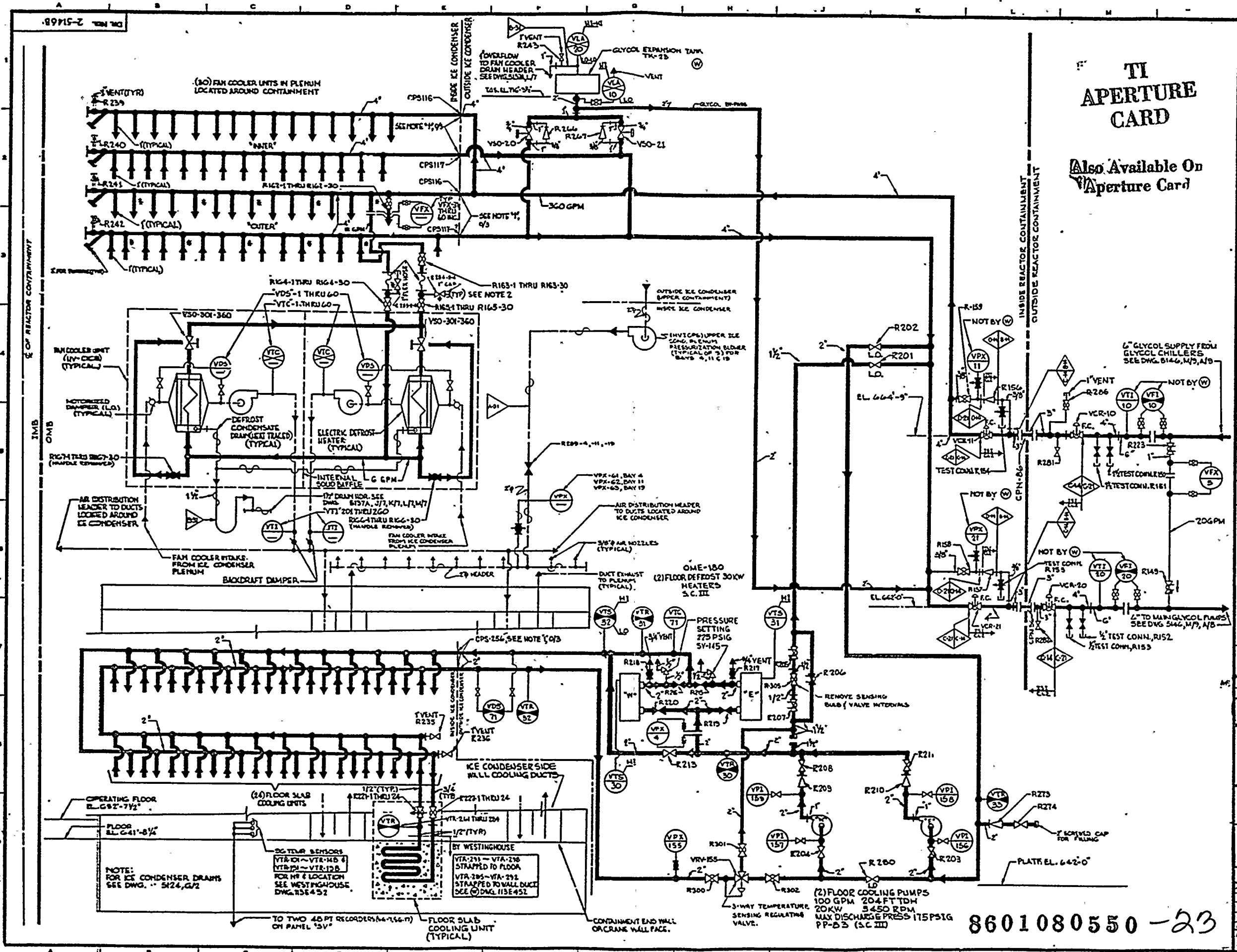
AMERICAN ELECTRIC POWER SERVICE CORP.  
 BROADWAY NEW YORK

8601080550-22

8-10-1963

100-100000-100000

100-100000-100000



**GENERAL NOTES**

**LEGEND**

- ETHYLENE GLYCOL
- AIR
- AUXILIARY PIPING

FOR VALVE, INSTRUMENT SAMPLING, PIPE MATERIAL AND OTHER SYMBOLS NOT EXPLAINED ON THIS DWG AND FOR MARK NUMBER CODES, SEE DWG 8004.

ALL EQUIPMENT VALVES AND INSTRUMENTATION, BY WESTINGHOUSE UNLESS OTHERWISE NOTED.

ALL PIPING C-21 EXCEPT AS NOTED.

ALL EQUIPMENT SEISMIC CLASS E EXCEPT AS NOTED.

**NOTE 1:** 1/2, E/7 GLYCOL PIPING PENETRATES 125° END WALL ONLY.

**NOTE 2:** D/3, C/3 GLYCOL CONNECTIONS FOR ICE BASKET WATER ADDITION EQUIPMENT SEE PH. 5707, M/1 1-4, 2-4, 3-3, 4-4.

**NOTE 3:** FOR CODE CLASS 1 & 2 INSTRUMENT CONNECTIONS, THE IS1 BOUNDARY EXTENDS TO AND INCLUDES THE FIRST NORMALLY CLOSED VALVE.

**NOTE 4:** FOR CODE CLASS 1 VENTS AND DRAINS, THE IS1 BOUNDARY EXTENDS TO AND INCLUDES THE SECOND NORMALLY CLOSED VALVE OR EXTENDS TO AND INCLUDES THE BOUNDARY OF CAP AFTER A NORMALLY CLOSED VALVE.

**NOTE 5:** FOR CODE CLASS 2 & 3 VENTS AND DRAINS, THE IS1 BOUNDARY EXTENDS TO AND INCLUDES THE FIRST NORMALLY CLOSED VALVE.

**NOTE 6:** THIS DWG MADE UNIQUE FOR UNIT 2 AND SUPERSEDES DWG 1-2-5146B-21.

**HAND OPERATED VALVE IDENTIFICATION NUMBERS**

1. ONLY "UNIQUE" VALVE NUMBERS APPEAR ON THIS DRAWING. SEE SEPARATE VALVE IDENTIFICATION LIST FOR EQUIVALENT DESIGN (MCR) NUMBERS.

2. "TAG" NUMBERS MODIFIED FOR DRAWING USE AS FOLLOWS:  
 TAG NO: 2-NSW-VI00-W APPEARS AS: NSW00W

3. INSTRUMENT ROOT VALVE MARK NOT SHOWN ON DRAWING (SEE VALVE IDENTIFICATION LIST) DERIVED BY ADDING TO INSTRUMENT NUMBER:  
 FOR SINGLE IMPULSE: VZDOWNSTREAM  
 FOR DOUBLE IMPULSE: VZDOWNSTREAM

FOR MICROFILM STATE: SEE REVISION RECORD FOR THIS DWG.

DATE: 8-30-85  
 BY: [Signature]  
 APPROVED: [Signature]

FOR REVISION DESCRIPTION SEE SEPARATE REVISION RECORD FOR THIS DRAWING.

INDIANA & MICHIGAN ELECTRIC CO.  
 DONALD C. COOK  
 NUCLEAR PLANT

FLOW DIAGRAM  
 ICE CONDENSER  
 REFRIGERATION

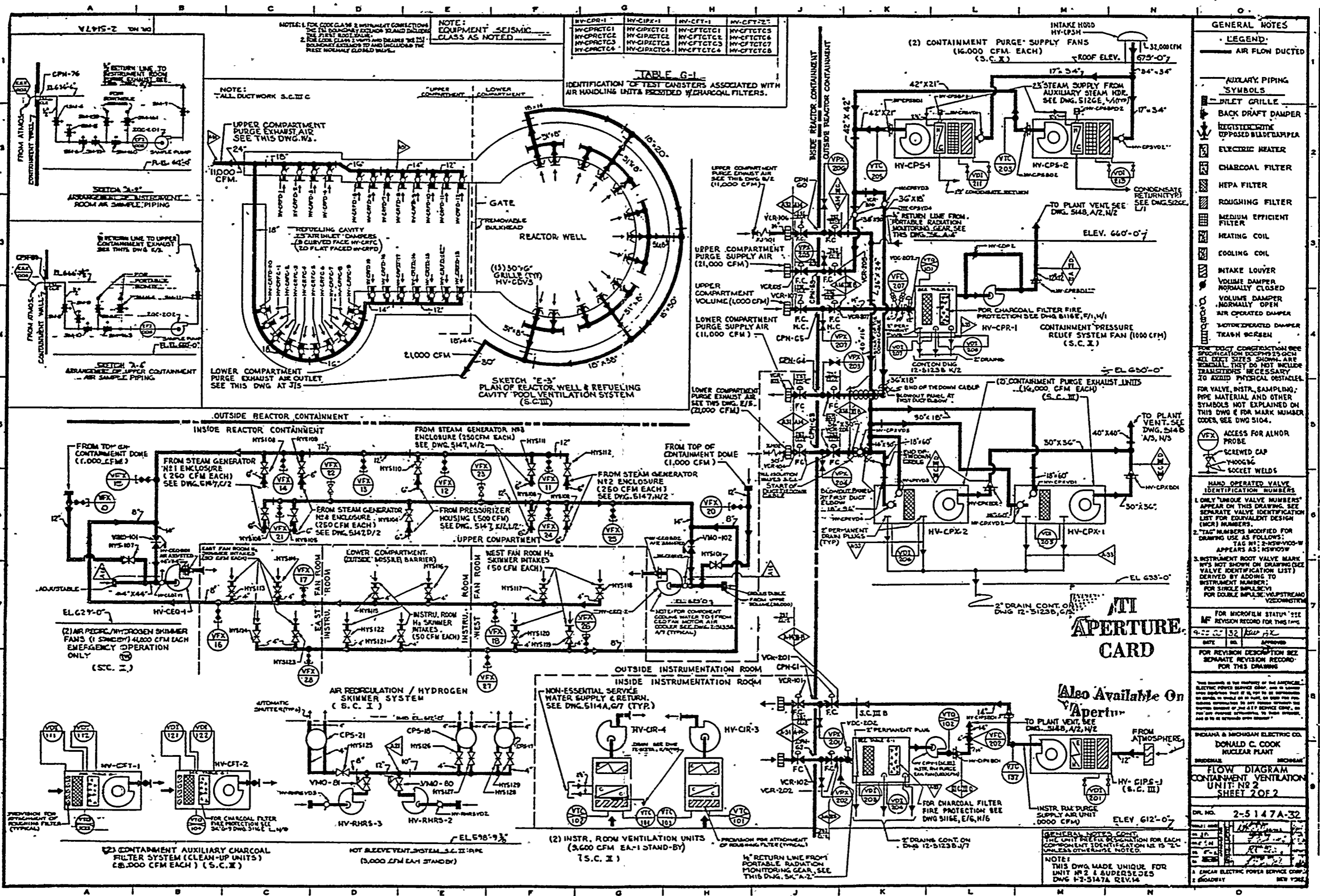
DWG NO. 2-5146B-21

8601080550-23

100-100-100

100-100-100



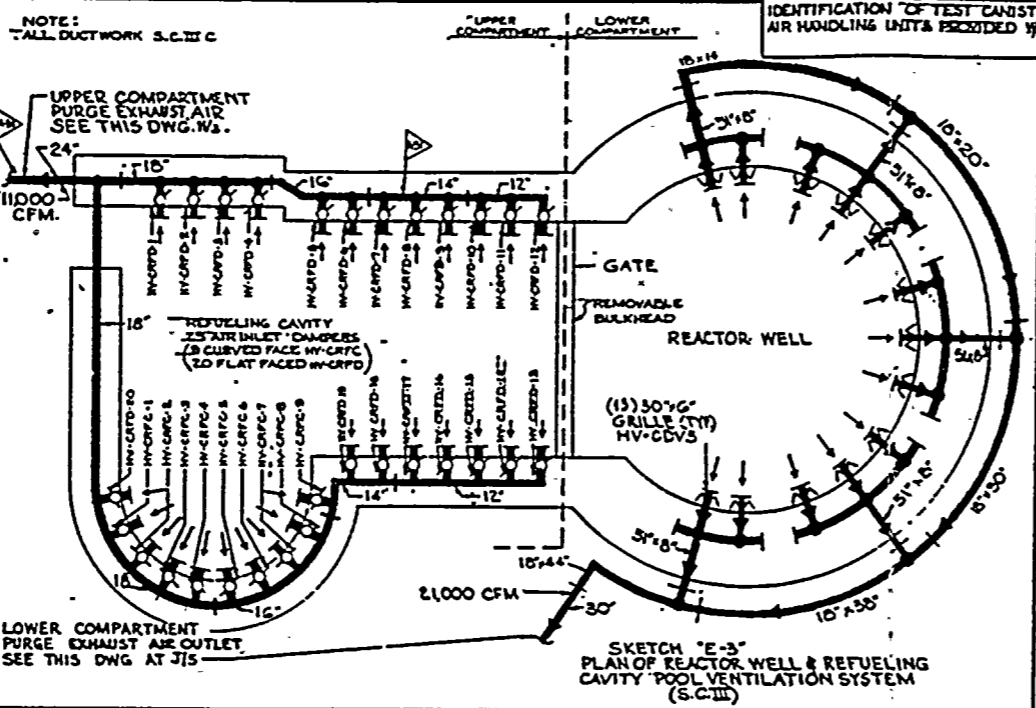


NOTE: 1. FOR CLASS 2 INSTRUMENT CONNECTIONS THE TUBING SHALL BE CLASS 2 AND SHALL BE THE FIRST ROOT VALVE.  
 2. FOR CLASS 1 INSTRUMENT CONNECTIONS THE TUBING SHALL BE CLASS 1 AND SHALL BE THE FIRST ROOT VALVE.

NOTE: EQUIPMENT SEISMIC CLASS AS NOTED

| HY-CPR-1 | HY-CPR-2 | HY-CPR-3 | HY-CPR-4 |
|----------|----------|----------|----------|
| HY-CFT-1 | HY-CFT-2 | HY-CFT-3 | HY-CFT-4 |
| HY-CFT-5 | HY-CFT-6 | HY-CFT-7 | HY-CFT-8 |

TABLE G-1  
 IDENTIFICATION OF TEST CANISTERS ASSOCIATED WITH AIR HANDLING UNITS PRECEDED BY CHARCOAL FILTERS.



- GENERAL NOTES
- LEGEND:
- AIR FLOW DUCTED
  - AUXILIARY PIPING SYMBOLS
  - INLET GRILLE
  - BACK DRAFT DAMPER
  - REGISTER WITH OPPOSED BLADE DAMPER
  - ELECTRIC HEATER
  - CHARCOAL FILTER
  - HEPA FILTER
  - ROUGHING FILTER
  - MEDIUM EFFICIENT FILTER
  - HEATING COIL
  - COOLING COIL
  - INTAKE LOUVER
  - VOLUME DAMPER NORMALLY CLOSED
  - VOLUME DAMPER NORMALLY OPEN
  - AIR OPERATED DAMPER
  - MOTOR OPERATED DAMPER
  - TRASH SCREEN
- FOR VALVE, INSTR., SAMPLING, PIPE MATERIAL AND OTHER SYMBOLS NOT EXPLAINED ON THIS DWG. FOR MARK NUMBER CODES, SEE DWG. 5104.
- (VFX) ACCESS FOR ALNOR PROBE
  - (VMO) SCREWED CAP
  - (VMO) SOCKET WELDS
- HAND OPERATED VALVE IDENTIFICATION NUMBERS
- ONLY "UNIQUE VALVE NUMBERS" APPEAR ON THIS DRAWING. SEE SEPARATE VALVE IDENTIFICATION LIST FOR EQUIVALENT DESIGN (MCR) NUMBERS.
  - "TAG" NUMBERS MODIFIED FOR DRAWING USE AS FOLLOWS:  
 TAG NO. 2-NH-1000-W APPEARS AS: 2-NH-1000-W
  - INSTRUMENT ROOT VALVE MARK "RVS" NOT SHOWN ON DRAWING. SEE VALVE IDENTIFICATION LIST DERIVED BY ADDING TO INSTRUMENT NUMBER; FOR SINGLE SUPPLY LINE FOR DOUBLE IMPULSE VALVESTREAM V2200000000
- MF FOR MICROFILM STATUS SEE REVISION RECORD FOR THIS DWG.
- DATE: 12/13/67
- BY: [Signature]
- APPROVED: [Signature]
- FOR REVISION DESCRIPTION SEE SEPARATE REVISION RECORD FOR THIS DRAWING.
- INDIANA & MICHIGAN ELECTRIC CO.  
 DONALD C. COOK  
 NUCLEAR PLANT
- FLOW DIAGRAM  
 CONTAINMENT VENTILATION  
 UNIT: NO. 2  
 SHEET 2 OF 2
- DR. NO. 2-5147A-32

APERTURE CARD

Also Available On Aperture

GENERAL NOTES CONT. THE UNIT PREFIX DESIGNATION FOR EACH COMPONENT IS IDENTIFIED ON AS 15 "2" UNLESS OTHERWISE NOTED.

NOTE: THIS DWG. MADE UNIQUE FOR UNIT NO. 2 & SUPERSEDES DWG. P-2-5147A REV. 14

0100000000

0100000000  
0100000000  
0100000000



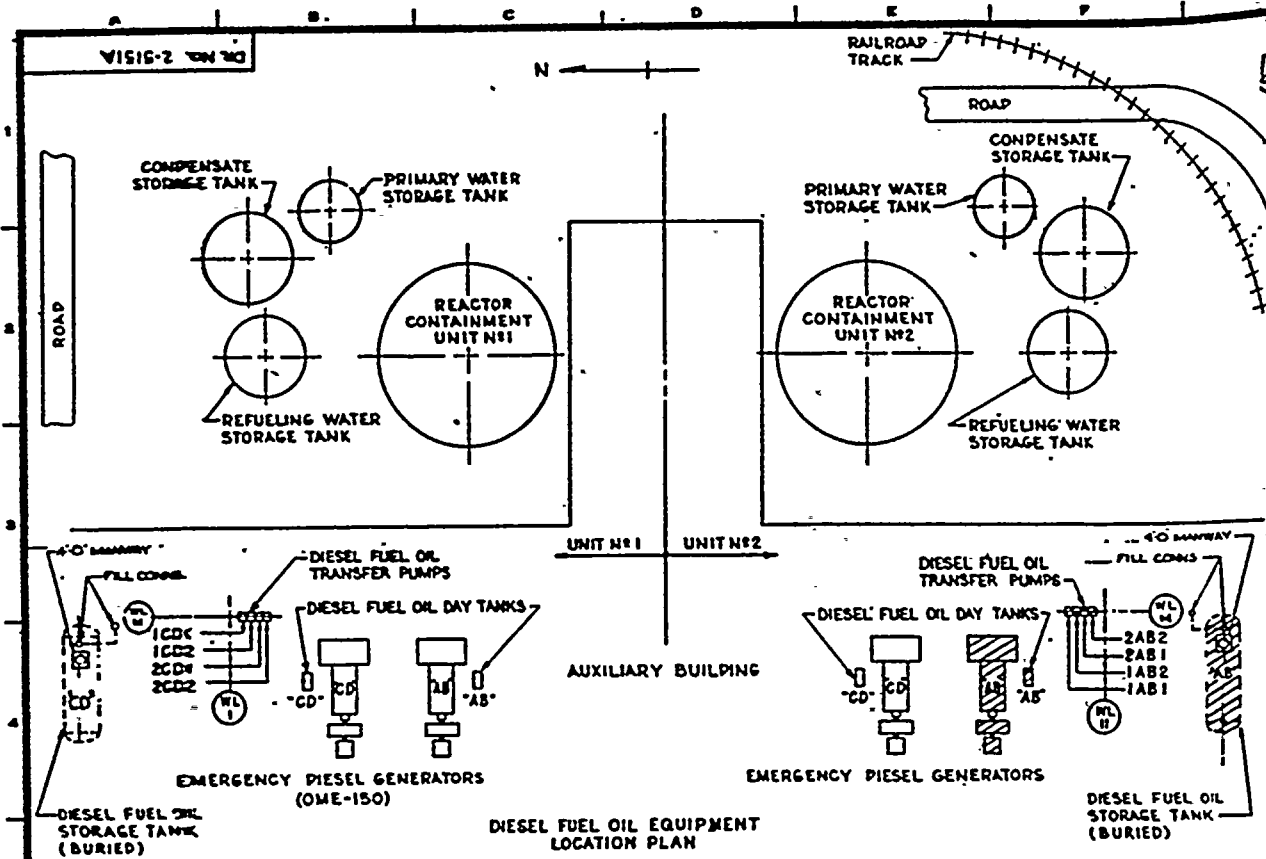




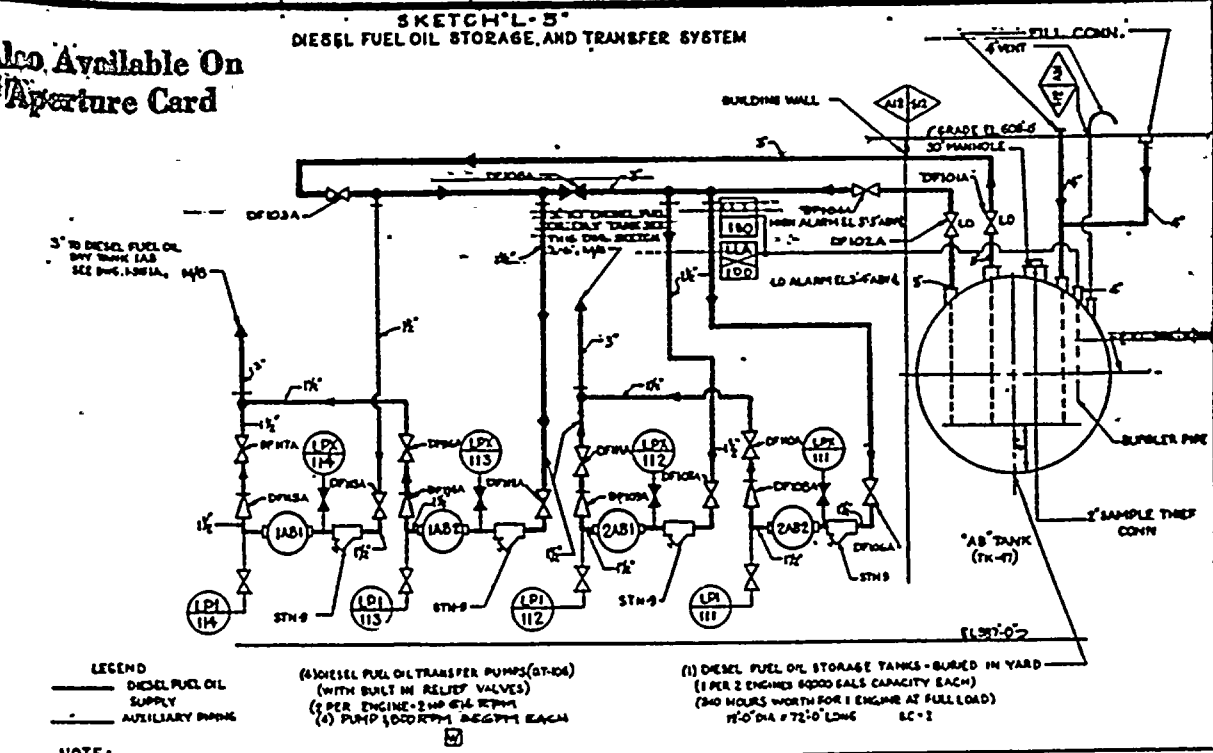
NO. 100-100000-10  
FBI - MEMPHIS  
MAY 1968



# TI APERTURE CARD



Also Available On  
Aperture Card



**GENERAL NOTES**

**LEGEND**  
AS NOTED

**SYMBOLS**  
BY WORTHINGTON

PIPING AND VALVES FURNISHED BY ARE NOTED.

FOR VALVE, INSTRUMENT, SAMPLING, PIPE MATERIAL AND OTHER SYMBOLS NOT EXPLAINED ON THIS DWG., AND FOR MARK NUMBER CODES, SEE DWG. 5104.

ALL DIESEL GENERATORS, INCLUDING THEIR AUXILIARIES, STORAGE TANKS AND PIPING ARE SEISMIC CLASS I EXCEPT AS NOTED.

NOTE: A, W'S ENCIRCLED LETTERS ARE SHOWN FOR ORIENTATION OF VALVE IN PIPING. THESE LETTERS REFLECT SIMILAR MARKINGS ON VALVE BODY.

ALL PIPING TO BE CLASS I OR II FOR EMBEDDED, EXCEPT AS NOTED.

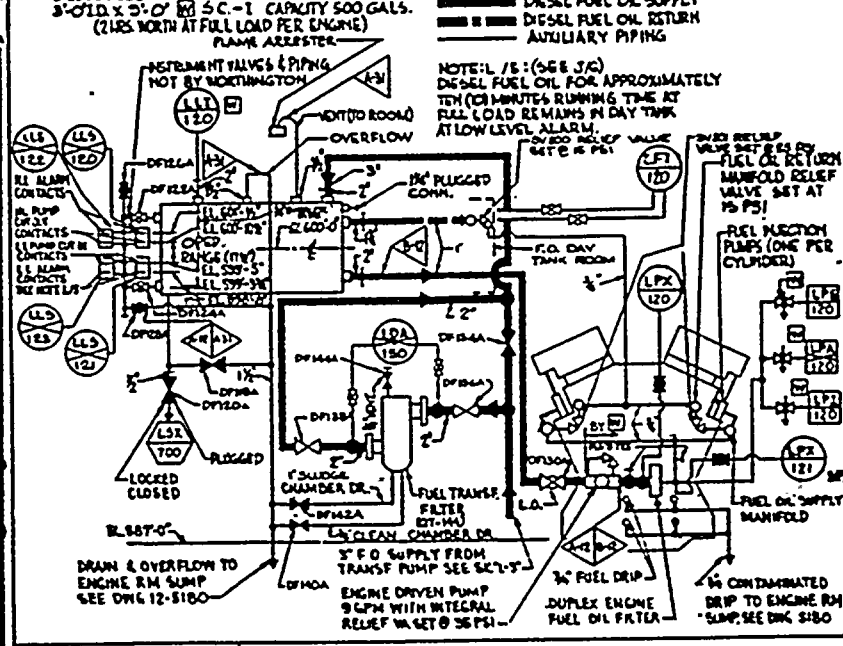
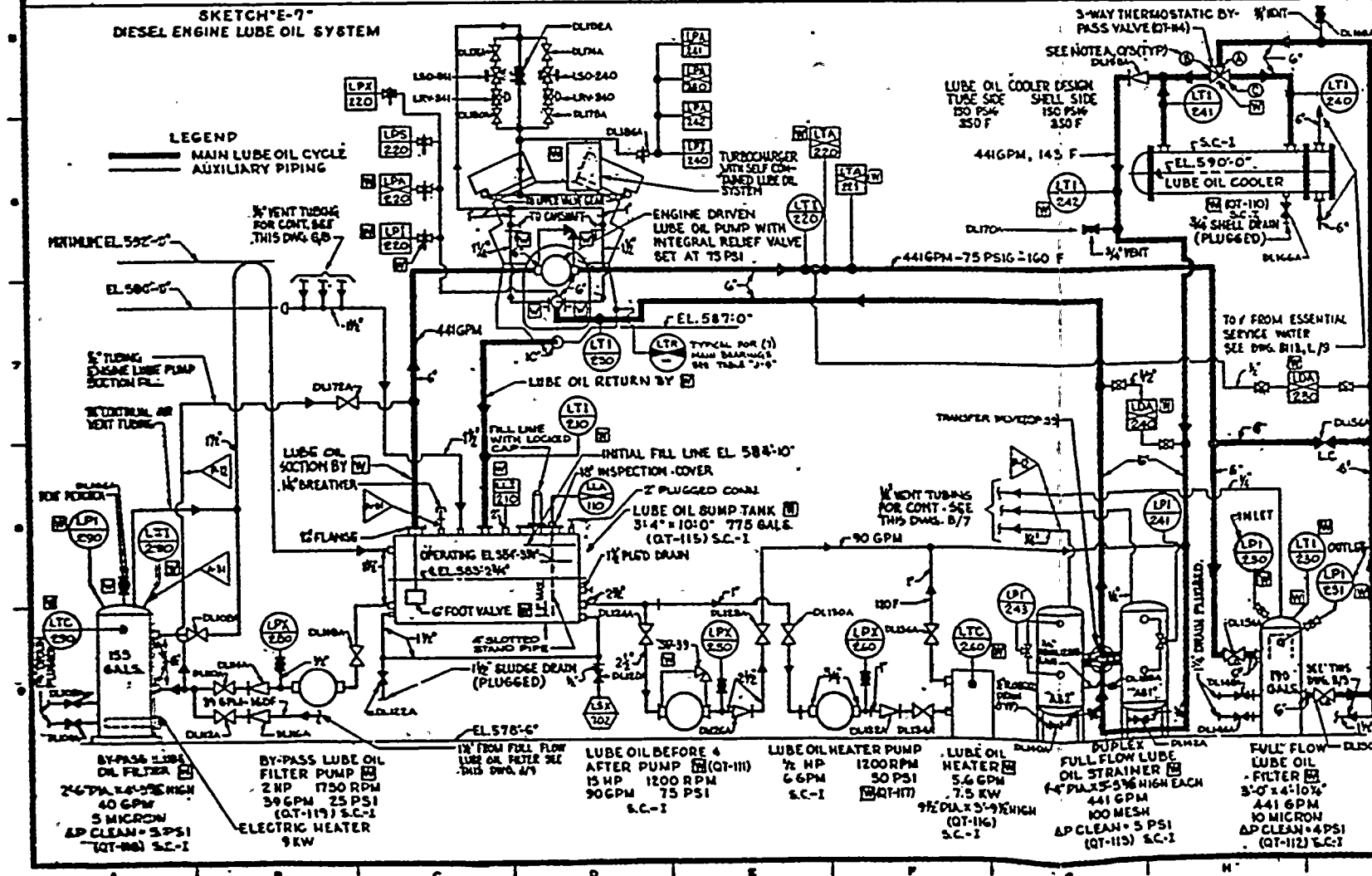
PIPE PIPING AND EQUIPMENT TO BE THE CLASS I EXCEPT AS NOTED.

PIPE CODE CLASS 3 INSTRUMENT SYMBOLS, THE SEE SYMBOLS EXTENDS TO 2 AND INCLUDES THE FIRST ROOT VALUE.

THE SEE CODE CLASS 3 VALVES AND DRINKS THE SEE SYMBOLS EXTENDS TO AND INCLUDES THE FIRST NORMALLY CLOSED VALVE.

NOTE: THE LIMIT DESIGNATION FOR EACH COMPONENT IDENTIFICATION NUMBER IS UNLESS OTHERWISE NOTED.

NOTE: THIS DWG. MADE UNIQUE FOR UNIT # 2 AND SUPERSEDDES 2-5150 REV. 80.



**LEGEND**  
DIESEL FUEL OIL SUPPLY  
DIESEL FUEL OIL RETURN  
AUXILIARY PIPING

NOTE: L / S (SEE J/C) DIESEL FUEL OIL FOR APPROXIMATELY TEN (10) MINUTES RUNNING TIME AT FULL LOAD REMAINS IN DAY TANK AT LOW LEVEL. ALARM: 20/100 RELIEF VALVE SET AT 44.7 PSIG.

NOTE: THIS DWG. MADE UNIQUE FOR UNIT # 2 AND SUPERSEDDES 2-5150 REV. 80.

**HAND OPERATED VALVE IDENTIFICATION NUMBERS**

1. ONLY "UNIQUE VALVE NUMBERS" APPEAR ON THIS DRAWING. SEE SEPARATE VALVE IDENTIFICATION LIST FOR EQUIVALENT DESIGN (MOR) NUMBERS.

2. "TAM" NUMBERS BOOVED FOR DRAWING USE AS FOLLOWS:  
TAS IS 2-5150-100-10  
APPEARS AS: 100/100

3. INSTRUMENT ROOT VALVE MARK RVS NOT SHOWN ON DRAWING (SEE VALVE IDENTIFICATION LIST) DERIVED BY ADDING TO INSTRUMENT NUMBER:  
FOR SINGLE IMPLIES: 100/100  
FOR DOUBLE IMPLIES: 100/100/100

FOR MICROFILM STATUS SEE REVISION RECORD FOR THIS DWG.

7-17-85 24

FOR REVISION DESCRIPTION SEE SEPARATE REVISION RECORD FOR THIS DRAWING

INDIANA MICHELAN ELECTRIC CO.  
DONALD C. COOK  
NUCLEAR PLANT

**FLOW DIAGRAM  
EMERGENCY DIESEL  
GENERATOR 'AB'**

UNIT NO. 2  
DR. NO. 2-5151A-24

"NOT FOR D. C. COOK  
OPERATIONAL USE"

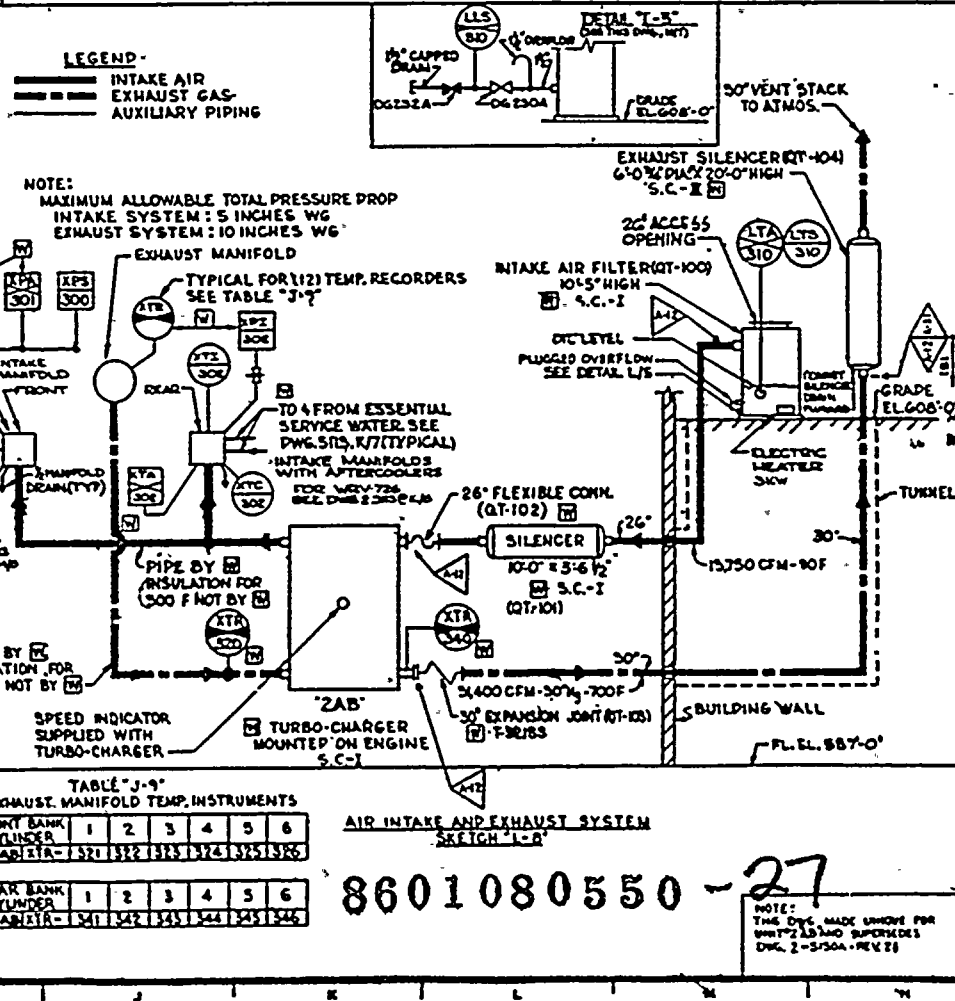
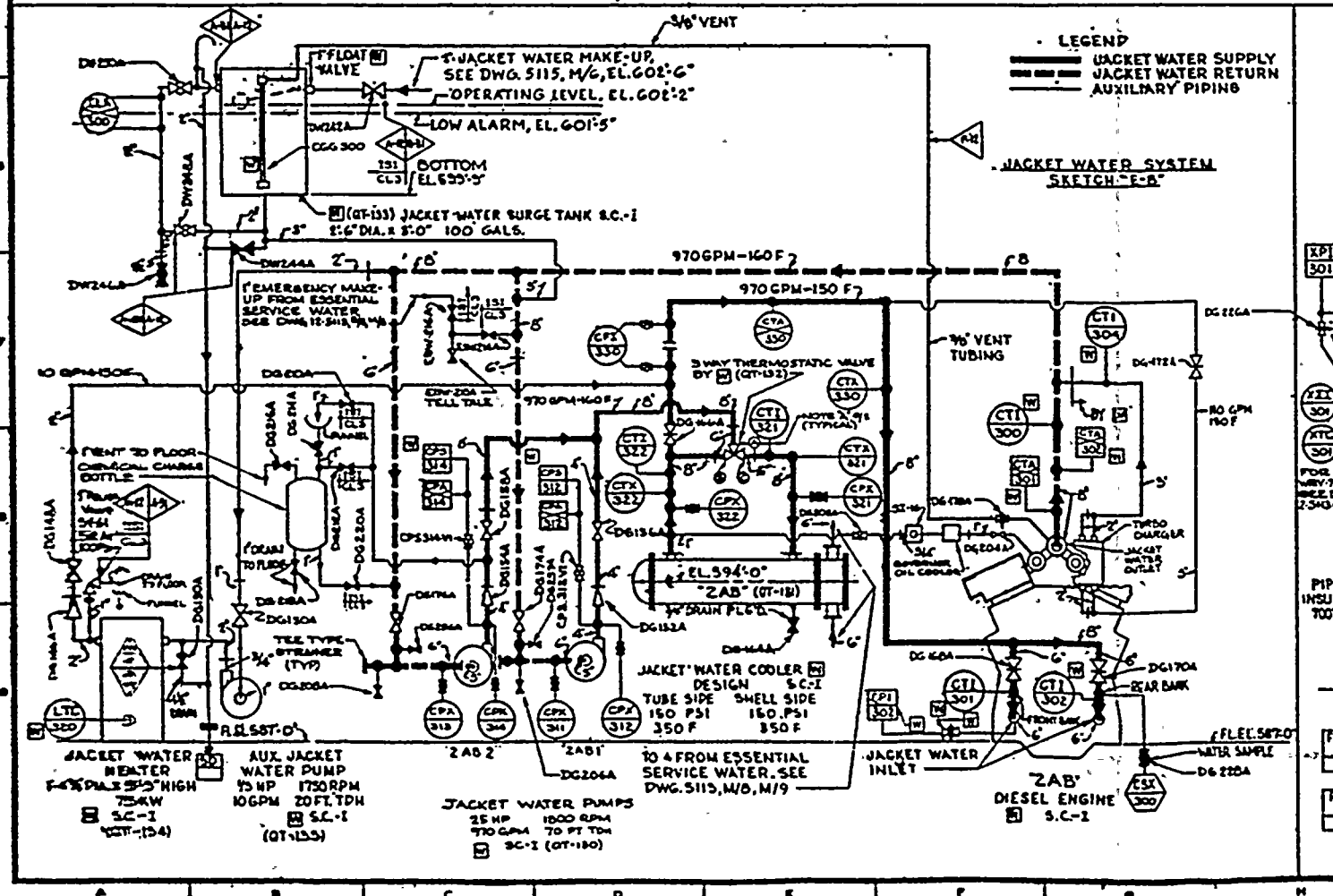
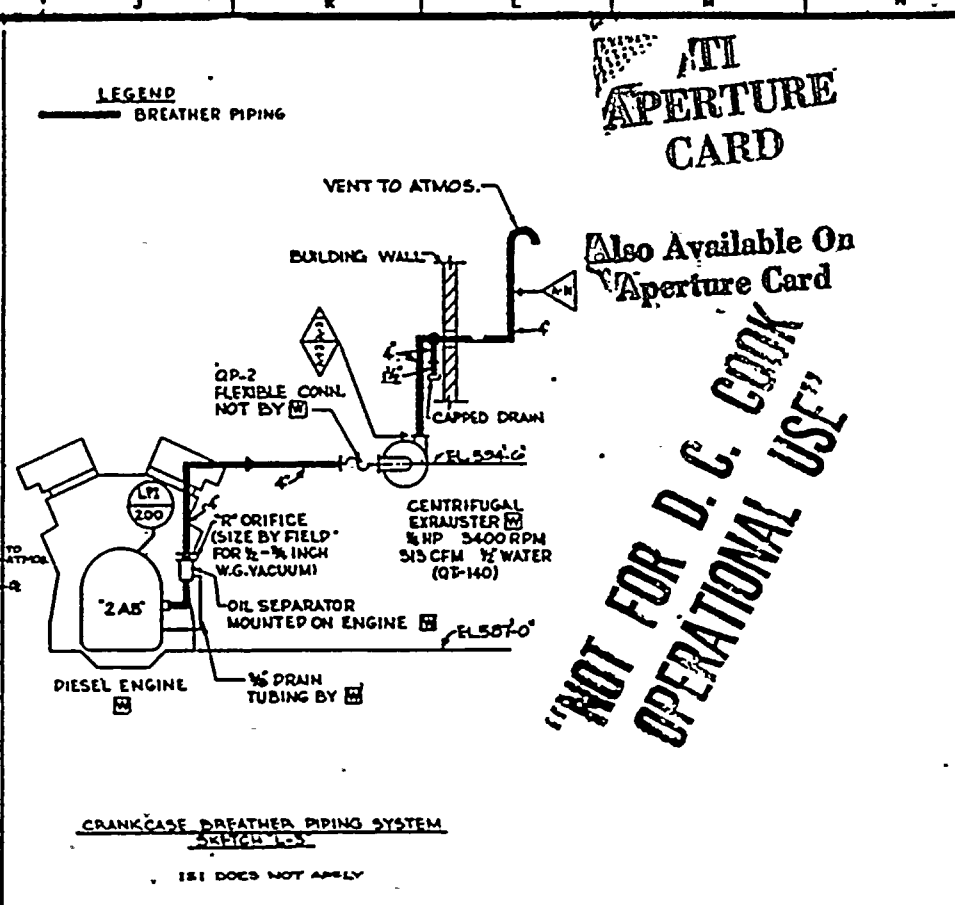
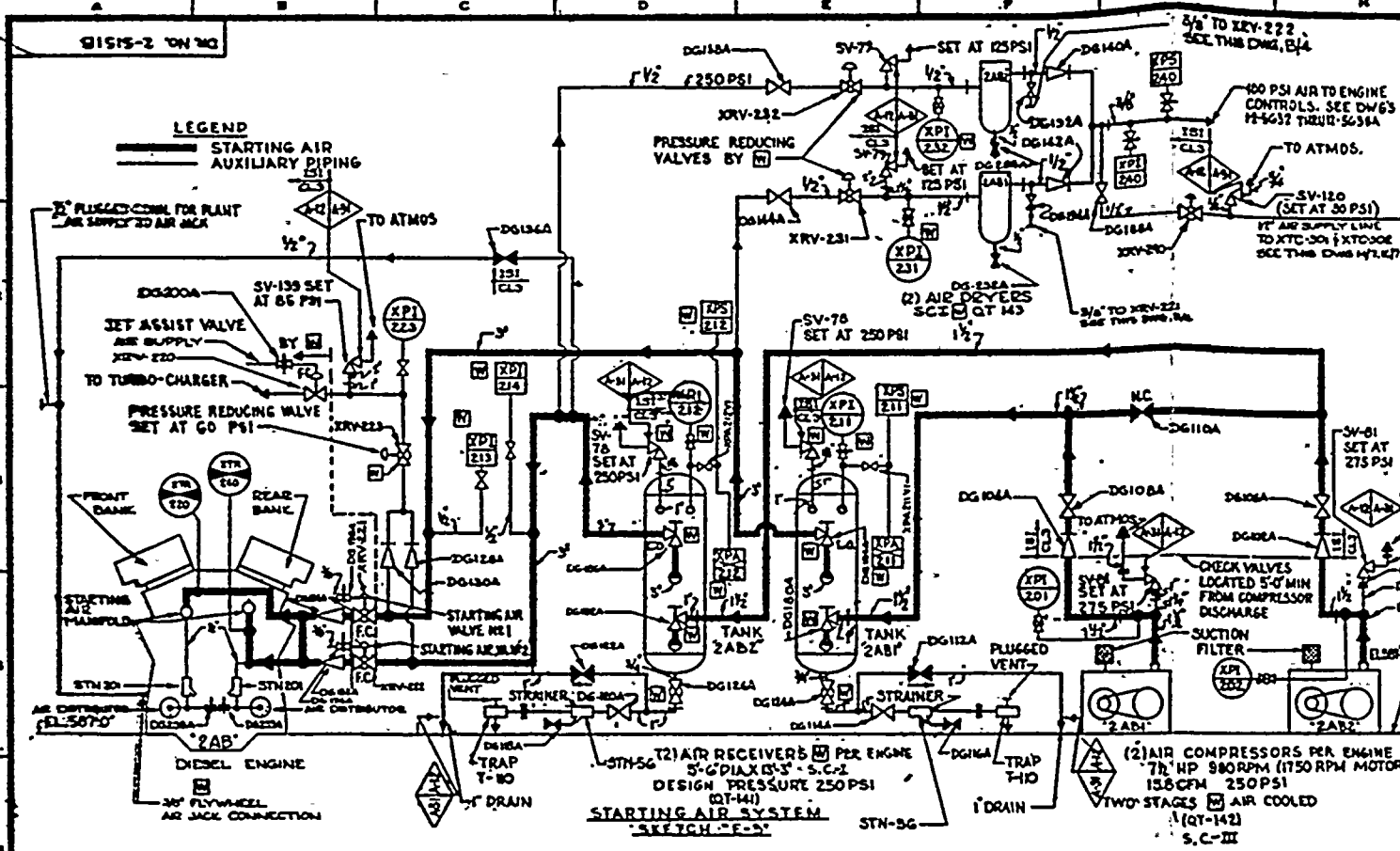
TABLE J-3  
MAIN DRIVING TEMPERATURE & INSTRUMENTS

| MAIN DR. NO. | LTR |
|--------------|-----|
| 1            | 201 |
| 2            | 202 |
| 3            | 203 |
| 4            | 204 |
| 5            | 205 |
| 6            | 206 |
| 7            | 207 |

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**ATI APERTURE CARD**

Also Available On Aperture Card

**"NOT FOR D. C. COOK OPERATIONAL USE"**

**GENERAL NOTES**

**LEGEND AS NOTED**

**SYMBOLS BY WORTHINGTON**

PIPING AND VALVES FURNISHED BY [ ] ARE NOTED.

FOR VALVE, INSTRUMENT, SAMPLING PIPE MATERIAL AND OTHER SYMBOLS NOT EXPLAINED ON THIS DWG., AND FOR MARK NUMBER CODES SEE DWG. 5104.

THE LAST PREFIX DESIGNATION FOR EACH COMPONENT IDENTIFICATION NUMBER IS "2" UNLESS OTHERWISE NOTED.

**NOTE A, E/B**  
 ENCIRCLED LETTERS ARE SHOWN FOR ORIENTATION OF VALVE IN PIPING. THESE LETTERS REFLECT SIMILAR MARKINGS ON VALVE BODY.

ALL DIESEL GENERATORS INCLUDING THEIR AUXILIARIES, STORAGE TANKS & PIPING ARE SEISMIC CLASS I EXCEPT AS NOTED.

ALL PIPING TO BE CLASS I OR CLASS II FOR EMBEDDED EXCEPT AS NOTED.

**COOK CLASS NOTES**  
 ALL PIPING & EQUIPMENT TO BE TO 1 COOK CLASS I EXCEPT AS NOTED.

**HAND OPERATED VALVE IDENTIFICATION NUMBERS**  
 1. ONLY TURBO VALVE NUMBERS APPEAR ON THIS DRAWING. SEE SEPARATE VALVE IDENTIFICATION LIST FOR EQUIVALENT DESIGN (MCR) NUMBERS.  
 2. TAG NUMBERS MODIFIED FOR DRAWING USE AS FOLLOWS:  
 TAG # 1321-1326-105-W APPEARS AS: 132105W  
 3. INSTRUMENT ROOT VALVE MARK IS NOT SHOWN ON DRAWING (SEE VALVE IDENTIFICATION LIST) SERVED BY ADDING TO INSTRUMENT NUMBER:  
 FOR SINGLE IMPULSE: VIMP/STREAM  
 FOR DOUBLE IMPULSE: VIMP/STREAM

FOR MICROFILM STATUS SEE REVISION RECORD FOR THIS DWG.

DATE: 5-16-25  
 BY: [ ]  
 APPROVED: [ ]

FOR REVISION DESCRIPTION SEE SEPARATE REVISION RECORD FOR THIS DRAWING.

INDIANA & MID-AMERICAN ELECTRIC CO.  
 DONALD C. COOK  
 NUCLEAR PLANT

**FLOW DIAGRAM EMERGENCY DIESEL GENERATOR "AB"**

DR. NO. 2-5151B-26

8601080550-27

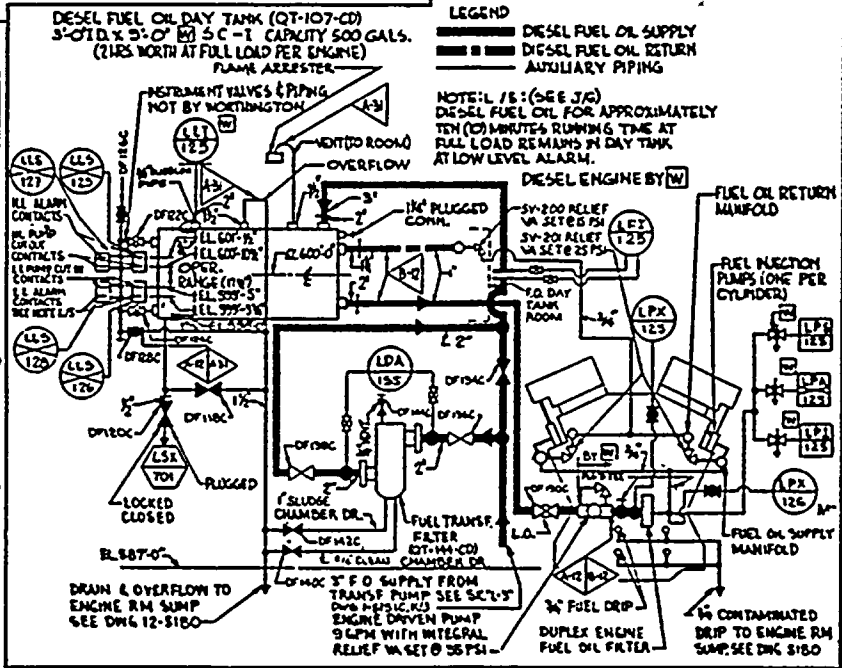
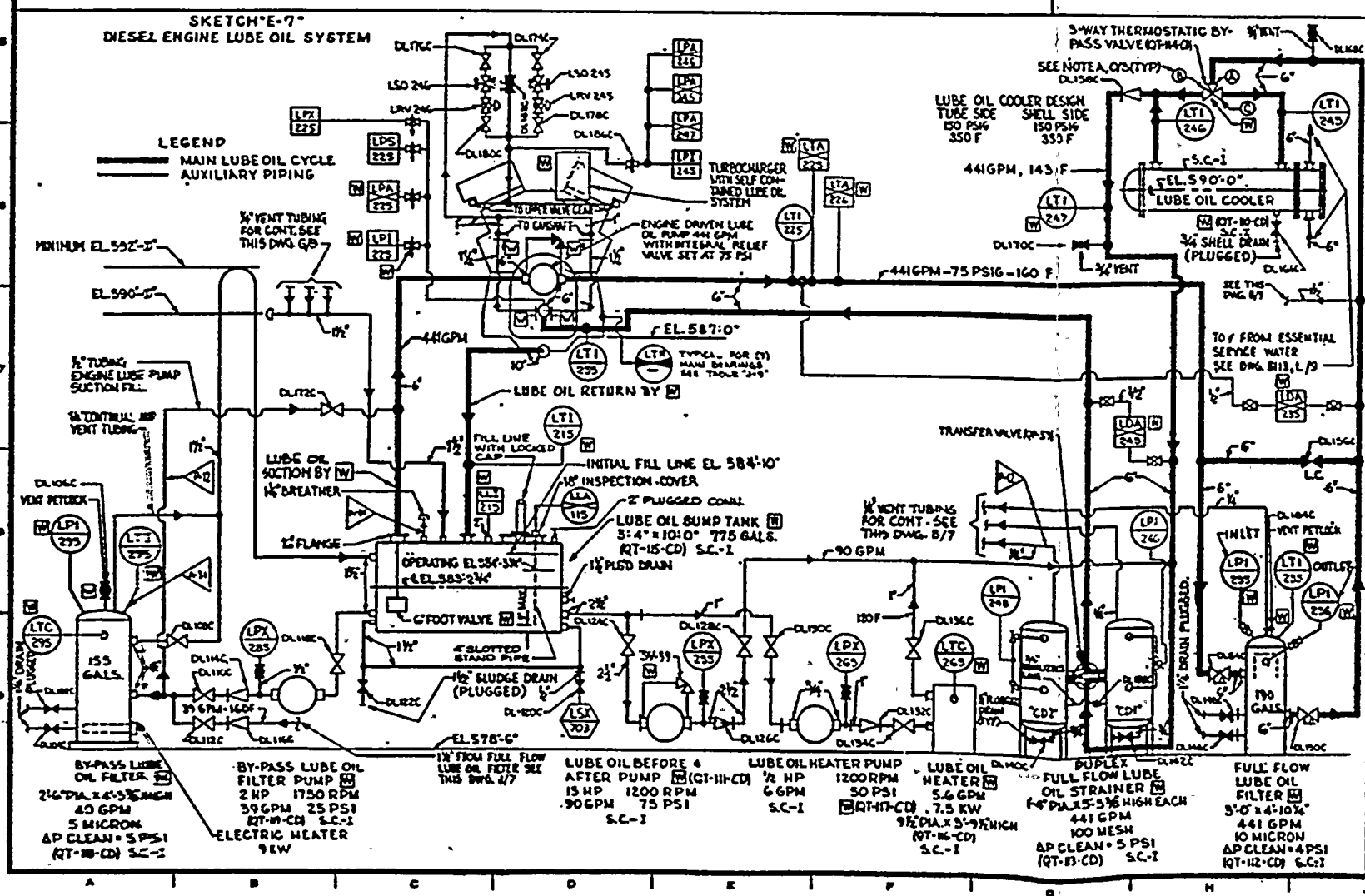
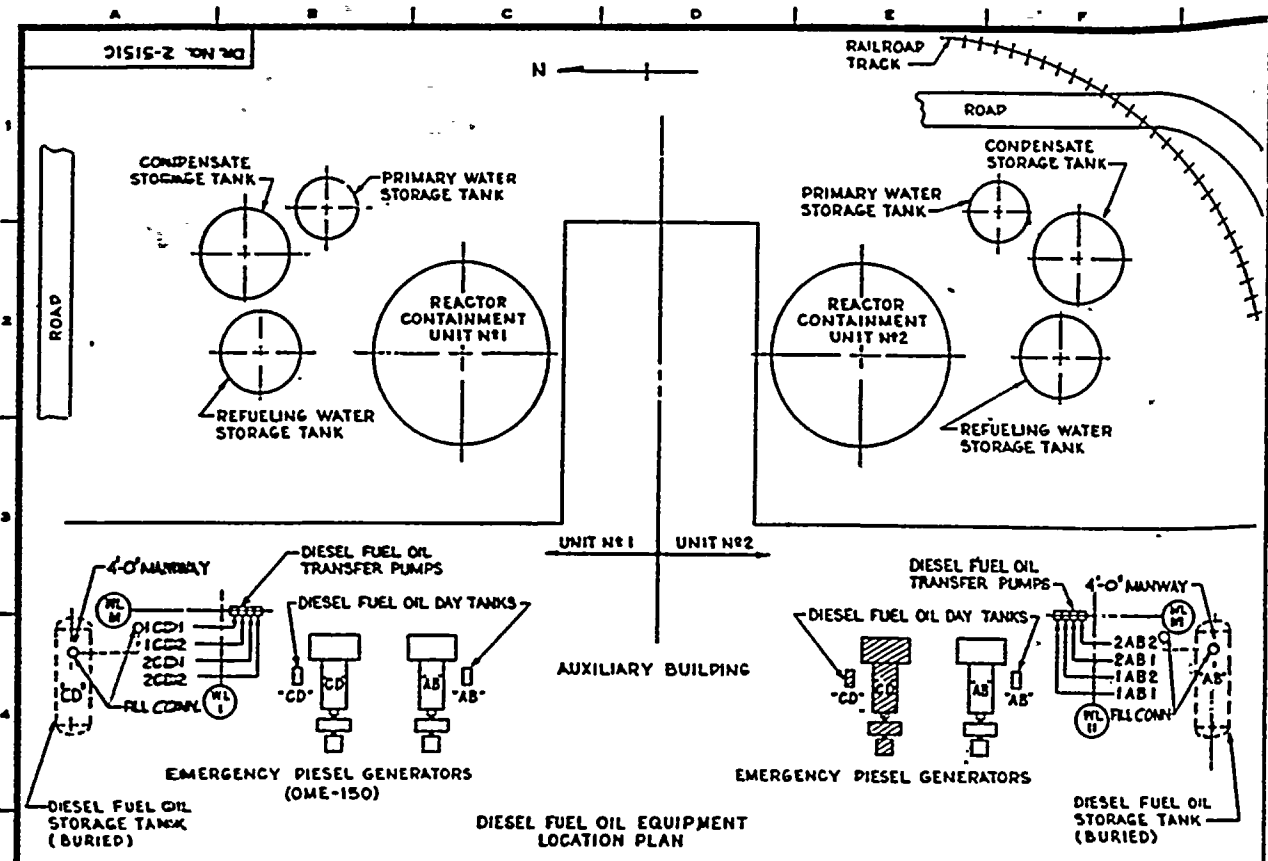
NOTE: THIS DWG. MADE UNDER FOR WORTHINGTON SUPERSEDES DWG. 2-5104A REV. 21

AMERICAN ELECTRIC POWER SERVICE CO.  
 2 BROADWAY  
 NEW YORK

860.02.2.1.038

1945  
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MAY 15 1945



TDS-1 'J-1' MAIN BEARING TEMPERATURE INSTRUMENTS

| MAIN BEARING NO. | LTR |
|------------------|-----|
| 1                | 211 |
| 2                | 212 |
| 3                | 213 |
| 4                | 214 |
| 5                | 215 |
| 6                | 216 |
| 7                | 217 |

8601080550-28

**GENERAL NOTES**

**LEGEND**  
AS NOTED

**SYMBOLS**  
BY WORTHINGTON  
PIPING AND VALVES FURNISHED BY ARE NOTED.  
FOR VALVE, INSTRUMENT, SAMPLING, PIPE MATERIAL AND OTHER SYMBOLS NOT EXPLAINED ON THIS DWG., AND FOR MARK NUMBER CODES, SEE DWG. 5104.

ALL DIESEL GENERATORS INCLUDING THEIR AUXILIARIES, STORAGE TANKS AND PIPING ARE SEISMIC CLASS I EXCEPT AS NOTED.

NOTE A, W5 ENCIRCLED LETTERS ARE SHOWN FOR ORIENTATION OF VALVE IN PIPING. THESE LETTERS REFLECT SIMILAR MARKINGS ON VALVE BODY.

ALL PIPING TO BE CLASS OR FOR EMBEDDED, EXCEPT AS NOTED.

ALL PIPING AND EQUIPMENT TO BE THE CODE CLASS 3 EXCEPT AS NOTED.

FOR THE CODE CLASS 3 INSTRUMENT CODES, THE TAG BOARD EXTENDS TO AND INCLUDES THE FIRST ROOT VALUE.

FOR THE CODE CLASS 3 VALVES AND DRAINS THE TAG BOARD EXTENDS TO AND INCLUDES THE FIRST NORMALLY CLOSED VALVE.

THE UNIT PREFIX DESIGNATION FOR EACH COMPONENT IDENTIFICATION NUMBER IS 'Z' UNLESS OTHERWISE NOTED.

NOTE THIS DWG. MADE UNIQUE FOR UNIT #1 AND SUPERSEDES 2-5150 REV. 2.

**HAND OPERATED VALVE IDENTIFICATION NUMBERS**  
1. ONLY 'UNIQUE VALVE NUMBERS' APPEAR ON THIS DRAWING. SEE SEPARATE VALVE IDENTIFICATION LIST FOR EQUIVALENT DESIGN (MCR) NUMBERS.  
2. TAG NUMBERS MODIFIED FOR DRAWING USE AS FOLLOWS:  
TAG IN: 2-NOR-VIO-W APPEARS AS: 2-NOR-VIO  
TAG OUT: 2-NOR-VIO-W APPEARS AS: 2-NOR-VIO

3. INSTRUMENT ROOT VALVE MARKING IS NOT SHOWN ON DRAWING CHECK VALVE IDENTIFICATION LIST DERIVED BY ADDING TO INSTRUMENT NUMBER:  
FOR SINGLE SUPPLY  
FOR DOUBLE SUPPLY  
FOR DOUBLE SUPPLY (STREAMLINE)

FOR INSTRUMENT STATUS SEE REVISION RECORD FOR THIS DWG.

10-14-85 24 [Signature] [Signature]

FOR REVISION DESCRIPTION SEE SEPARATE REVISION RECORD FOR THIS DRAWING

INDIANA & MICROMAN ELECTRIC CO.  
DONALD C. COOK  
NUCLEAR PLANT

**FLOW DIAGRAM EMERGENCY DIESEL GENERATOR 'CD'**

UNIT #1E

DR. NO. 2-5151C-24

SCALE: NONE

DATE: 10-14-85

DESIGNER: [Signature]

CHECKER: [Signature]

INSTRUMENTATION: [Signature]

OPERATION: [Signature]

AMERICAN ELECTRIC POWER SUPPLY CORP. 2 BROADWAY NEW YORK

**II APERTURE CARD**  
Also Available On Aperture Card

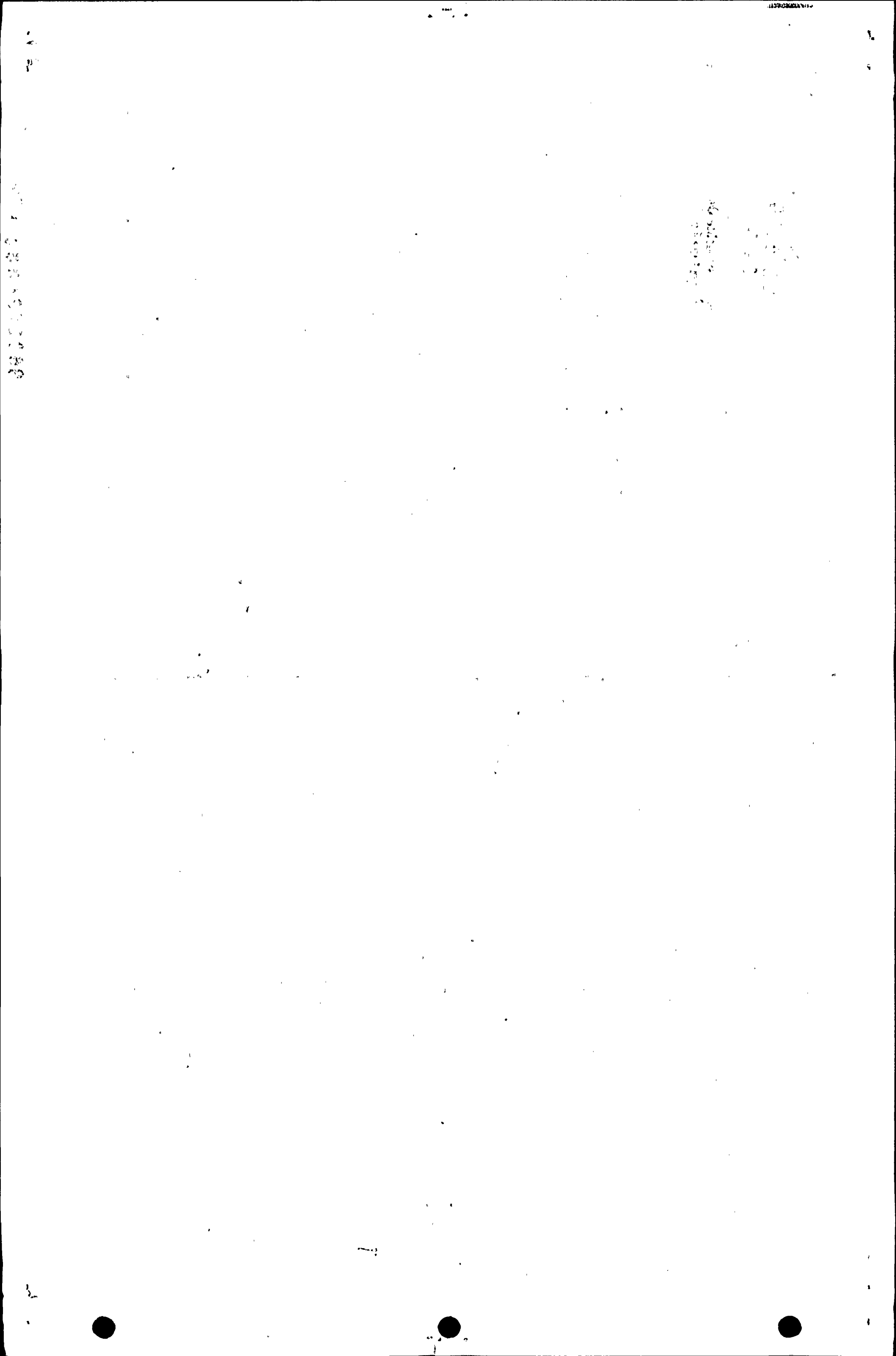
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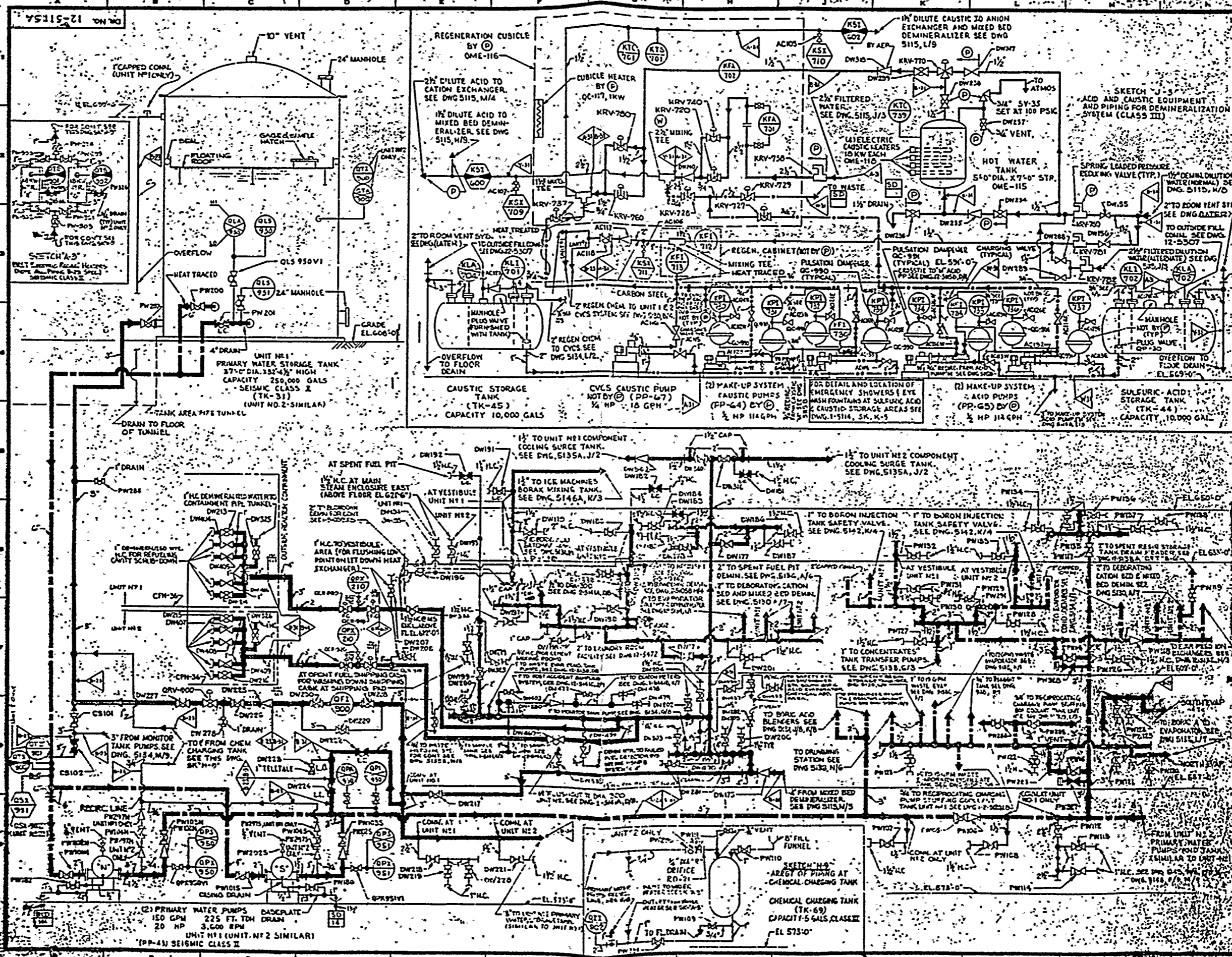
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**GENERAL NOTE**

**LEGEND**

— MAKE-UP WATER

— PRIMARY WATER

— REGEN. PIPING

— CONC. ACID

— CONC. CAUSTIC

— AUXILIARY PIPING

**SYMBOLS**

⊕ PERMIT

⊙ H.C. HOSE CONNECTIONS

FOR VALVE, INSTRUMENT, SAMPLING PIPE WATER AND OTHER SYMBOLS EXPLAINED ON THIS DWG AND FOR MARK NUMBER CODES, SEE DWG 51043

**EQUIPMENT SEISMIC CLASS AS NOTED**

**HAND OPERATED VALVE IDENTIFICATION NUMBERS**

ONLY UNIQUE VALVE NUMBERS APPEAR ON THIS DRAWING. SET SEPARATE VALVE IDENTIFICATION LIST FOR EQUIVALENT DESIGN VALVE IDENTIFICATION LIST DERIVED BY ADDING TO INSTRUMENT NUMBER FOR SINGLE BRANCHES FOR DOUBLE BRANCHES, INSTRUMENT NUMBER

12-27-93 31

DATE 01 APR 1993

FOR REVISION DESCRIPTION SEE SEPARATE REVISION SHEETS FOR THIS DRAWING

FOR THIS DRAWING

DESIGNED BY DONALD C. COOK

PROJECT: FLOW DIAGRAM

MAKE-UP WATER

PRIMARY WATER SYSTEM

REGENERATIONS ARE NOTED

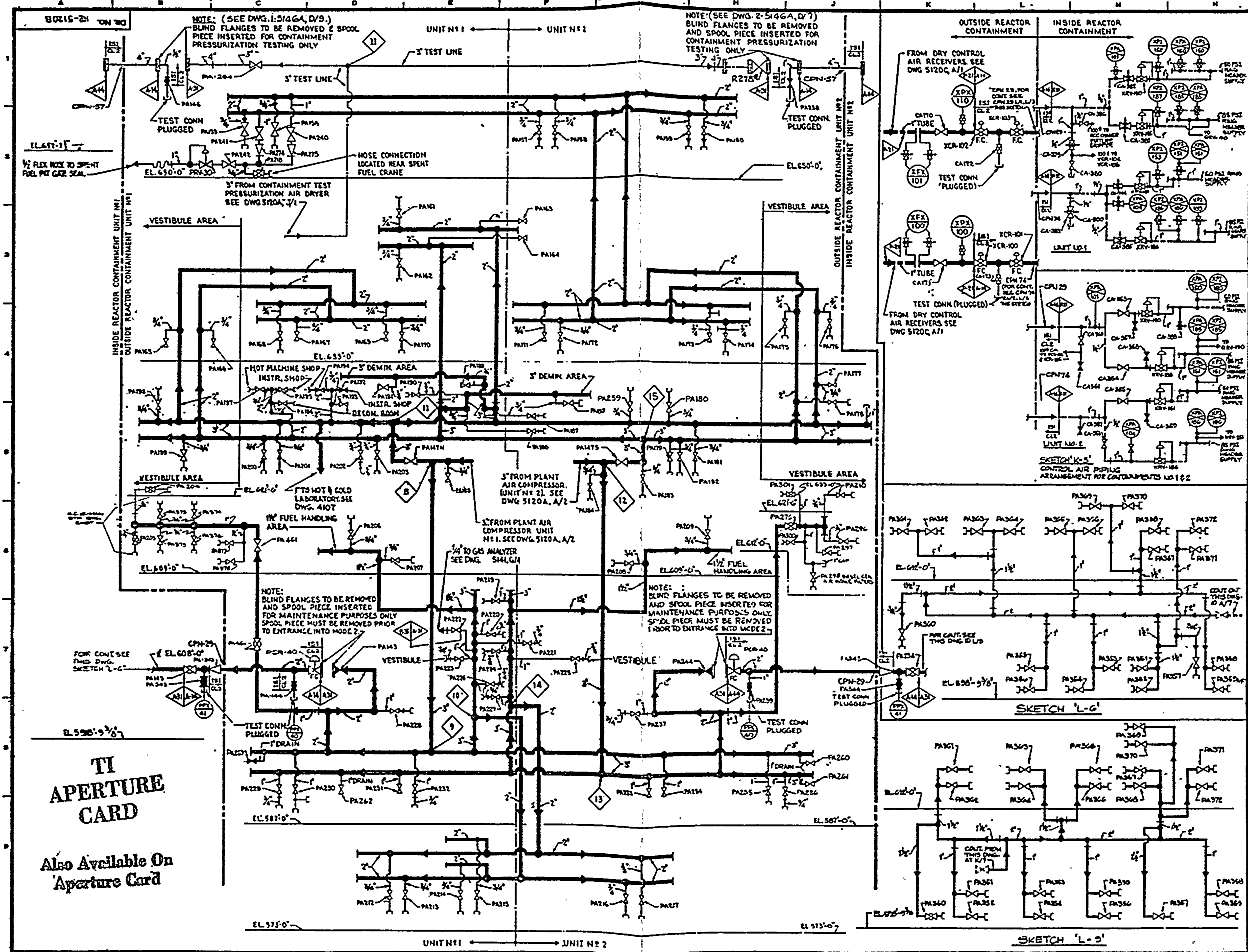
DWG NO. 12-3154-37

**TI APERTURE CARD**

Also Available On Aperture Card

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**GENERAL NOTES**

**LEGEND**

- PLANT AIR
- DEHUMIDIFIED CONTROL AIR PIPING
- CONTAINMENT TEST PRESSURIZATION AIR PIPING
- AUXILIARY PIPING

**SYMBOLS**

- HOSE CONN.
- TYPICAL FOR CONN'S EXCEPT AS NOTED

FOR VALVE, INSTRUMENT, SAMPLING, PIPE MATERIAL AND OTHER SYMBOLS NOT EXPLAINED ON THIS DWG. AND FOR MARK NUMBER CODES. SEE DWG. 5104

ALL PIPING TO BE A-31 UNLESS OTHERWISE NOTED

NO EQUIPMENT SHOWN FOR SEISMIC CLASS DESIGNATION

**REVISIONS**

|   |   |
|---|---|
| 1 | FOR CODE CLASS 2 INSTRUMENT CONNECTIONS THE 1ST BOUNDARY EXTENDED TO INCLUDE THE FIRST ROOT VALVE.      |
| 2 | FOR CODE CLASS 3 VENTS & SAMPLES, THE 1ST BOUNDARY EXTENDED TO INCLUDE THE FIRST NORMALLY CLOSED VALVE. |
| 3 | VALVES MARKED ARE ALSO SHOWN ON DIAGRAM ON WHICH THEY OPERATE AND ARE NOT TO BE DUPLICATED.             |

THE LAST PREFIX DESIGNATION FOR EACH COMPONENT IDENTIFICATION NUMBER IS '12' UNLESS OTHERWISE NOTED.

**HAND OPERATED VALVE IDENTIFICATION NUMBERS**

- ONLY "TRUCK VALVE NUMBERS" APPEAR ON THIS DRAWING. SEE SEPARATE VALVE IDENTIFICATION LIST FOR EQUIVALENT DESIGN (MCR) NUMBERS.
- "TAG" NUMBERS MODIFIED FOR DRAWING USE AS FOLLOWS: TAG # 2-NOW-VIS-W APPEARS AS: NSWVW
- INSTRUMENT ROOT VALVE MARKS NOT SHOWN ON DRAWING (SEE VALVE IDENTIFICATION LIST) DERIVED BY ADDING TO INSTRUMENT NUMBER FOR SINGLE IMPULSE, VI FOR DOUBLE IMPULSE, VSP/STREAM FOR DOUBLE IMPULSE, VSP/STREAM.

MF FOR MICROFILM STATUS SEE REVISION RECORD FOR THIS DWG.

DATE: 12-22-65 BY: [Signature] APPROVED: [Signature]

FOR REVISION DESCRIPTION SEE SEPARATE REVISION RECORD FOR THIS DRAWING

INDIANA & MICHIGAN ELECTRIC CO.  
DONALD C. COOK  
NUCLEAR PLANT

**FLOW DIAGRAM COMPRESSED AIR SYSTEM PLANT AIR AUX. BLDG. & CONTAINMENT CONTROL AIR FOR CONTAINMENT UNIT #1 & 2**

DWG. NO. 12-5120B-21

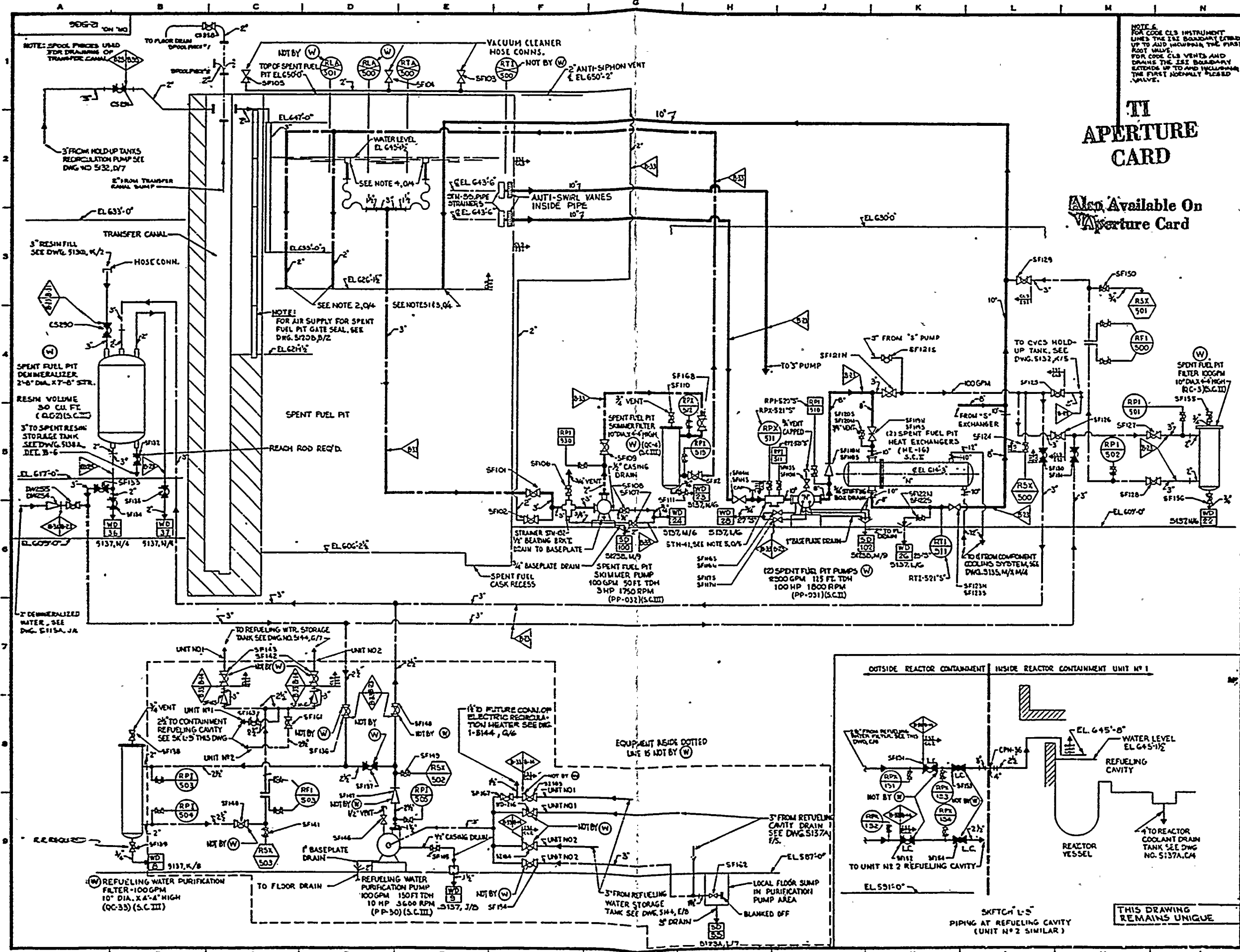
AMERICAN ELECTRIC POWER SERVICE CORP. BROADWAY NEW YORK

**TI APERTURE CARD**

Also Available On Aperture Card

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**TI APERTURE CARD**  
 Also Available On Aperture Card

**GENERAL NOTES**  
**LEGEND**  
 — SPENT FUEL PIT COOLING WATER  
 — SKIMMER CLEAN-UP  
 — AUX. PIPING  
 — WATER PURIFICATION

FOR VALVE, INSTRUMENT, SAMPLING, PIPE MATERIAL AND OTHER SYMBOLS NOT EXPLAINED ON THIS DWG., AND FOR MARK NUMBER CODES SEE DWG. 5104

EQUIPMENT SEISMIC CLASS AS NOTED

(W) BY WESTINGHOUSE

ALL VALVES & INSTRUMENTATION BY (W) EXCEPT AS NOTED

EQUIPMENT SUPPLIED BY (W) AS NOTED

**NOTE 1** 5/3 LOCATE 1/2" HOLE IN PIPE 4" BELOW WATER LINE

**NOTE 2** 5/3 LOCATE 1/2" HOLE IN PIPE 4" BELOW WATER LINE

**NOTE 3** 5/3 TERMINATE PIPE 6" ABOVE FUEL ASSEMBLIES

**NOTE 4** 5/2 SET ADJUSTABLE SUPPORT ON SKIMMERS TO LIMIT DOWN TRAVEL TO 6" BELOW NORMAL WATER LEVEL

**NOTE 5** W/6 "TEE-TYPE" STRAINER WITH TEMPORARY SCREEN FOR USE DURING PREOPERATIONAL FLUSHING. (LOCATE AS CLOSE TO PUMP AS POSSIBLE)

**NOTE 6** THE LAST PEEKER DRAWING FOR EACH COMPONENT IDENTIFICATION NUMBER IS THE LATEST CHANGES NOTED.

**NOTE 7** HAND OPERATED VALVE IDENTIFICATION NUMBERS

1. ONLY "UNIQUE VALVE NUMBERS" APPEAR ON THIS DRAWING. SEE SEPARATE VALVE IDENTIFICATION LIST FOR EQUIVALENT DESIGN (MCR) NUMBERS.

2. "TAG" NUMBERS MODIFIED FOR DRAWING USE AS FOLLOWS: TAG NO. 2501005-W APPEARS AS: 2501005

3. INSTRUMENT ROOT VALVE MARK IS NOT SHOWN ON DRAWING (SEE VALVE IDENTIFICATION LIST) DERIVED BY ADDING TO INSTRUMENT NUMBER:

FOR SINGLE IMPULSE: V FOR DOUBLE IMPULSE: VIMPSTREAM V2 (DOWNSTREAM)

DATE: 1-5-85 22

FOR REVISION DESCRIPTION SEE SEPARATE REVISION RECORD FOR THIS DRAWING

INDIANA & MORGAN ELECTRIC CO.  
 DONALD C. COOK  
 NUCLEAR PLANT

BRIDGEMAN MORGAN

FLOW DIAGRAM  
 SPENT FUEL PIT  
 COOLING & CLEAN-UP  
 UNIT NO. 1

EXCEPTIONS ARE NOTED

DWG. NO. 12-5136-22

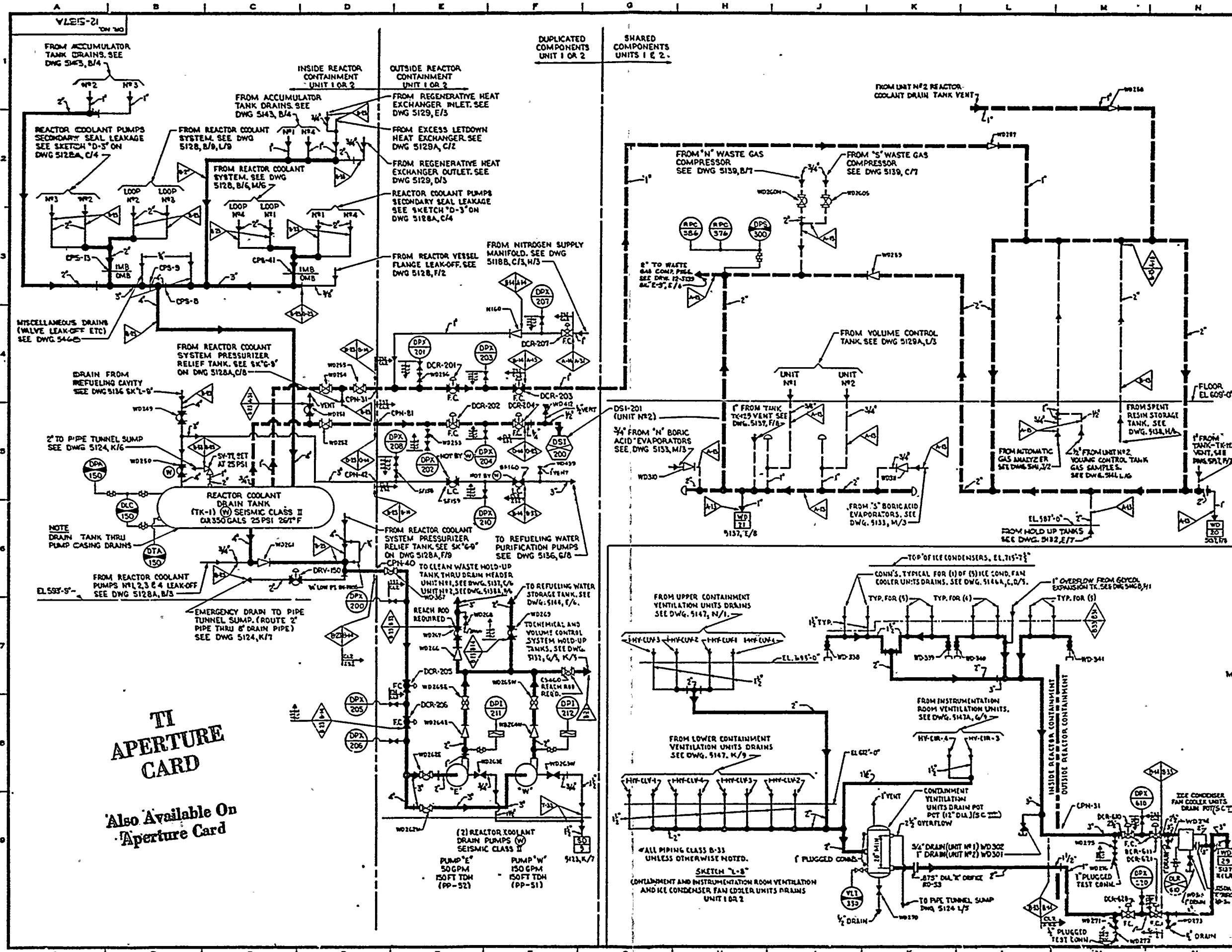
AMERICAN ELECTRIC POWER SERVICE CORP.  
 BROADWAY NEW YORK

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**GENERAL NOTES**

**LEGEND**

--- VENT PIPING  
 --- DRAIN PIPING

**SYMBOLS**

☐ DIAPHRAGM SEAL

FOR VALVE, INSTRUMENT SAMPLING, PIPE MATERIAL AND OTHER SYMBOLS NOT EXPLAINED ON THIS DWG. AND FOR MARK NUMBER CODES, SEE DWG. 5104

⊙ BY WESTINGHOUSE

ALL INSTRUMENTATION BY ⊙

ALL VALVES BY ⊙ EXCEPT AS NOTED. ALSO, NOTE THAT IN DRAIN EVENT LINES ⊙ SUPPLIES ONLY THE FIRST SHUT-OFF VALVE NEAREST ORIGIN

EQUIPMENT SUPPLIED BY ⊙ AS NOTED

**NOTE: 8" EQUIPMENT SEISMIC CLASS AS NOTED.**

**MANU OPERATED VALVE IDENTIFICATION NUMBERS**

1. ONLY "UNIQUE VALVE NUMBERS" APPEAR ON THIS DRAWING. SEE SEPARATE VALVE IDENTIFICATION LIST FOR EQUIVALENT DESIGN (MCR) NUMBERS.

2. "TAG" NUMBERS MODIFIED FOR DRAWING USE AS FOLLOWS:  
 TAG NO. 2-NDP-V000-W APPEARS AS: RW000W

3. INSTRUMENT ROOT VALVE MARK NO'S NOT SHOWN ON DRAWING (SEE VALVE IDENTIFICATION LIST) DERIVED BY ADDING TO INSTRUMENT NUMBER:  
 FOR SINGLE IMPLUSE: V  
 FOR DOUBLE IMPLUSE: VDP  
 FOR STREAM: VDP  
 FOR DOUBLE IMPLUSE: VDP  
 FOR DOUBLE IMPLUSE: VDP

**DATE: 3-21-95** **REVISED: 20** **APPROVED: [Signature]**

FOR REVISION DESCRIPTION SEE SEPARATE REVISION RECORD FOR THIS DRAWING

INDIANA & MICHIGAN ELECTRIC CO.  
 DONALD C. COOK  
 NUCLEAR PLANT

**FLOW DIAGRAM**  
**WD, VENTS & DRAINS**  
**EXCEPTIONS ARE NOTED**

**12-5137A-20**

AMERICAN ELECTRIC POWER SERVICE CORP.  
 200 MADWAY

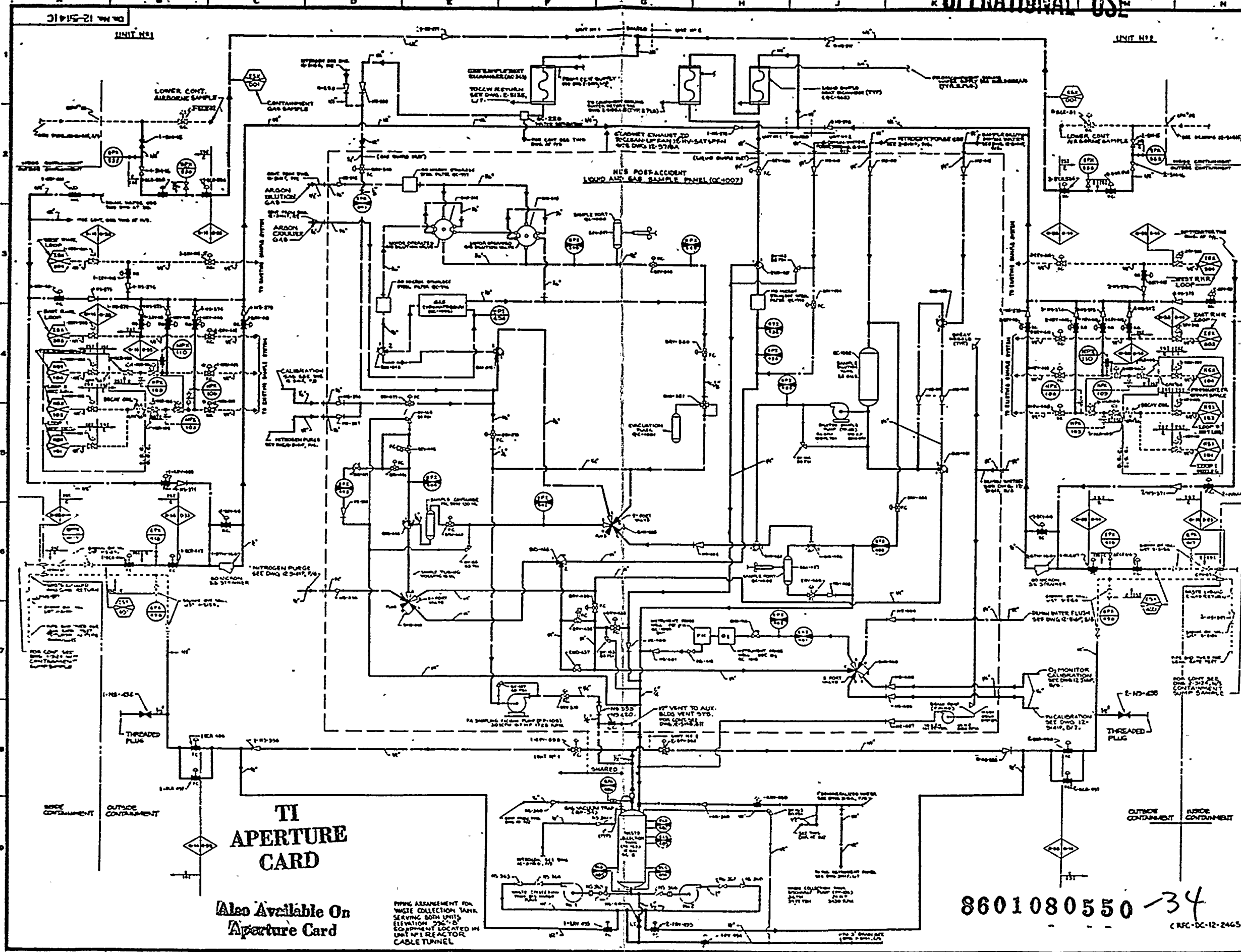
**TI**  
**APERTURE**  
**CARD**

Also Available On  
 Aperture Card

820 350 028

DEPARTMENT OF THE ARMY  
HEADQUARTERS  
WASHINGTON, D. C.

OFFICE OF THE  
CHIEF OF STAFF  
WASHINGTON, D. C.



**GENERAL NOTES**  
**LEGEND**

- LIQUID PIPING
  - - - - - GAS PIPING
  - AIRBORNE PIPING
  - AIRBORNE PIPING
- NOTES:**
1. THE FLOW DIRECTION AS SHOWN BY THE ARROWS IS THE NORMAL FLOW DIRECTION.
  2. ALL INSTRUMENTS AND VALVES ARE TO BE OPERATED IN THE NORMAL POSITION UNLESS OTHERWISE NOTED.
  3. ALL INSTRUMENTS AND VALVES ARE TO BE OPERATED IN THE NORMAL POSITION UNLESS OTHERWISE NOTED.
  4. ALL INSTRUMENTS AND VALVES ARE TO BE OPERATED IN THE NORMAL POSITION UNLESS OTHERWISE NOTED.
  5. ALL INSTRUMENTS AND VALVES ARE TO BE OPERATED IN THE NORMAL POSITION UNLESS OTHERWISE NOTED.
  6. ALL INSTRUMENTS AND VALVES ARE TO BE OPERATED IN THE NORMAL POSITION UNLESS OTHERWISE NOTED.
  7. ALL INSTRUMENTS AND VALVES ARE TO BE OPERATED IN THE NORMAL POSITION UNLESS OTHERWISE NOTED.
  8. ALL INSTRUMENTS AND VALVES ARE TO BE OPERATED IN THE NORMAL POSITION UNLESS OTHERWISE NOTED.
  9. ALL INSTRUMENTS AND VALVES ARE TO BE OPERATED IN THE NORMAL POSITION UNLESS OTHERWISE NOTED.
  10. ALL INSTRUMENTS AND VALVES ARE TO BE OPERATED IN THE NORMAL POSITION UNLESS OTHERWISE NOTED.

| UNIT NO. | COMPONENT IDENTIFICATION | LOCATION |
|----------|--------------------------|----------|
| 12-5141C | 1-100                    | LD       |
| 12-5141C | 1-101                    | LD       |
| 12-5141C | 1-102                    | LD       |
| 12-5141C | 1-103                    | LD       |
| 12-5141C | 1-104                    | LD       |
| 12-5141C | 1-105                    | LD       |
| 12-5141C | 1-106                    | LD       |
| 12-5141C | 1-107                    | LD       |
| 12-5141C | 1-108                    | LD       |
| 12-5141C | 1-109                    | LD       |
| 12-5141C | 1-110                    | LD       |
| 12-5141C | 1-111                    | LD       |
| 12-5141C | 1-112                    | LD       |
| 12-5141C | 1-113                    | LD       |
| 12-5141C | 1-114                    | LD       |
| 12-5141C | 1-115                    | LD       |
| 12-5141C | 1-116                    | LD       |
| 12-5141C | 1-117                    | LD       |
| 12-5141C | 1-118                    | LD       |
| 12-5141C | 1-119                    | LD       |
| 12-5141C | 1-120                    | LD       |

**NOTE:** THE UNIT PREFIX DESIGNATION FOR EACH COMPONENT IDENTIFICATION IS '12' UNLESS OTHERWISE NOTED.

**HAND OPERATED VALVE IDENTIFICATION NUMBERS:** ONLY UNIQUE VALVE NUMBERS APPEAR ON THIS DRAWING. SEE SEPARATE VALVE IDENTIFICATION LIST FOR EQUIVALENT DESIGN (MCA) NUMBERS.

**TAG NUMBERS MODIFIED FOR DRAWING USE AS FOLLOWS:** TAG NO. 12-5141C-1000 APPEARS AS: NSW-1000SW.

**INSTRUMENT ROOT VALVE MARKING:** NOT SHOWN ON DRAWING. SEE VALVE IDENTIFICATION LIST DERIVED BY ADDING TO INSTRUMENT NUMBER: FOR SINGLE IMPULSE: VI/SP/ST/AD FOR DOUBLE IMPULSE: VI/SP/ST/AD/2

| DATE    | NO. | APPROVED |
|---------|-----|----------|
| 12-55-7 |     |          |

FOR REVISION DESCRIPTION SEE SEPARATE REVISION RECORD FOR THIS DRAWING.

INDIANA & MICHIGAN ELECTRIC CO.  
 DONALD C. COOK  
 NUCLEAR PLANT

BRIDGMAN BIRMINGHAM

FLOW DIAGRAM  
 POST-ACCIDENT LIQUID AND GAS SAMPLING  
 UNIT NO. 12-5141C-7

| DATE    | NO. | APPROVED |
|---------|-----|----------|
| 12-55-7 |     |          |

Also Available On  
 Aperture Card

PIPING ARRANGEMENT FOR WASTE COLLECTION TANKS SERVING BOTH UNITS ELEVATION 295'-0" EQUIPMENT LOCATED IN UNIT NO. 1 REACTOR CABLE TUNNEL

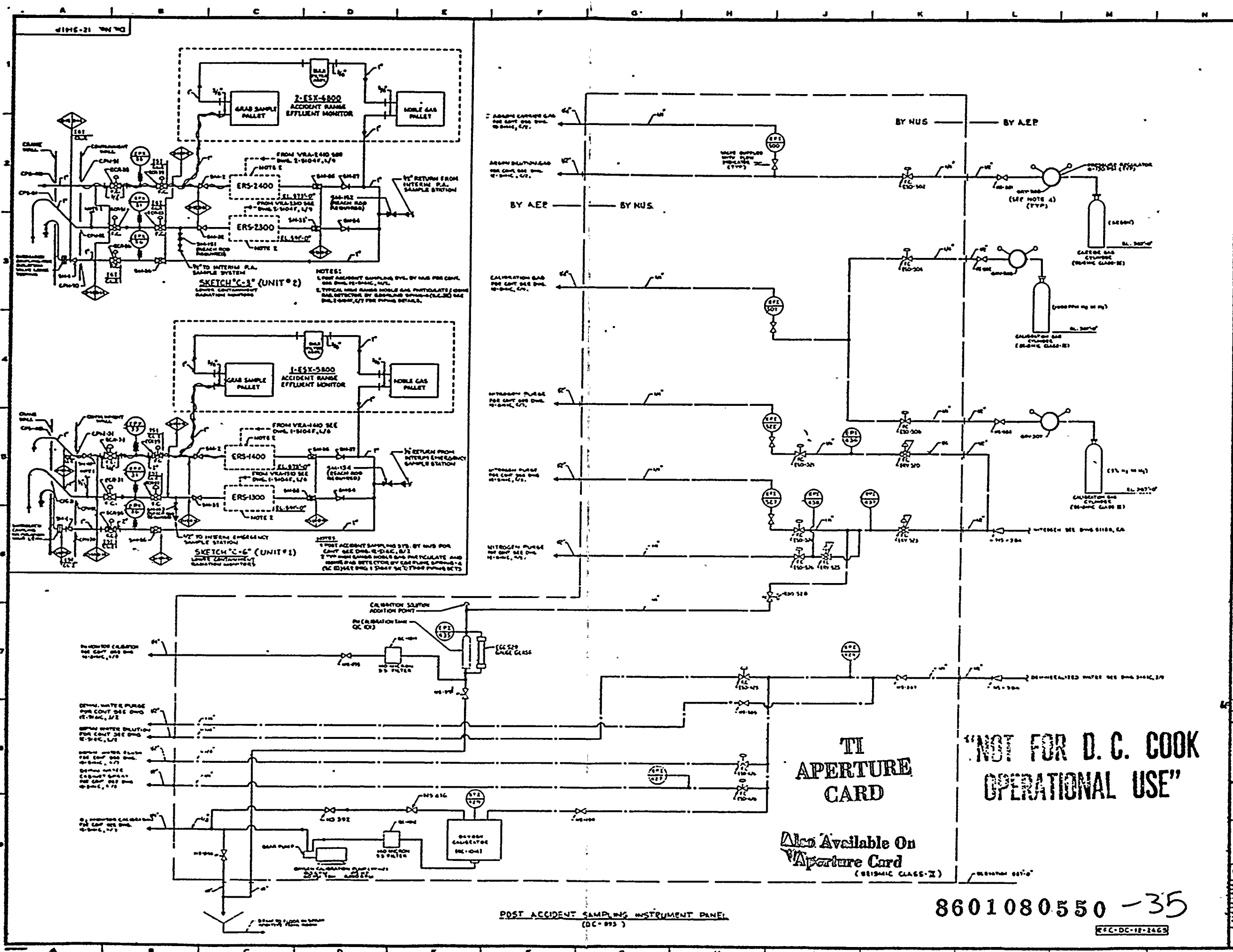
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(RFC-DC-12-2465)

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**GENERAL NOTES**

**LEGEND**

— LIQUID PIPING

— GASEOUS PIPING

— AIR

— VACUUM

**NOTES:**

1. ALL EQUIPMENT IS SEISMIC CLASS-II UNLESS OTHERWISE NOTED.

2. ALL INSTRUMENTS SHALL BE OF THE "INDUSTRY STANDARD" TYPE UNLESS OTHERWISE NOTED.

3. OPERATING AND MAINTENANCE MANUALS SHALL BE AVAILABLE AT ALL TIMES.

THE UNIT PREFIX DESIGNATION FOR EACH COMPONENT IDENTIFICATION NUMBER IS "I" UNLESS OTHERWISE NOTED.

**MANU OPERATED VALVE IDENTIFICATION NUMBERS**

1. ONLY "INDUSTRY VALVE NUMBERS" APPEAR ON THIS DRAWING. SEE SEPARATE VALVE IDENTIFICATION LIST FOR EQUIVALENT DESIGN (WCR) NUMBERS.

2. TAG NUMBERS MODIFIED FOR DRAWING USE AS FOLLOWS:  
TAG # 1 - 2 NSW VCS-W APPEARS AS: NSWVCSW

3. INSTRUMENT ROOM VALVE MAPS ARE NOT SHOWN ON DRAWING. SEE VALVE IDENTIFICATION LIST. IDENTIFY BY ADDING TO INSTRUMENT NUMBER.  
FOR SINGLE INFLUX VALVE: IAV  
FOR DOUBLE INFLUX VALVE: IAV1/2

4-6-85 | 3 | 1/2/115

6414 | 10 | 11/11/11

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INDIANA & MICHIGAN ELECTRIC CO  
DONALD C. COOK  
NUCLEAR PLANT

MECHANICAL  
MECHANICAL

FLOW DIAGRAM  
POST ACCIDENT LIQUID  
SAMPLING INSTRUMENT  
PANEL

DR. NO. 12-3141E-3

1/12/11

1/12/11

1/12/11

AMERICAN ELECTRIC POWER SERVICE COMPANY

**"NOT FOR D. C. COOK  
OPERATIONAL USE"**

**TI  
APERTURE  
CARD**

Also Available On  
**Aperture Card**  
(SEISMIC CLASS-II)

8601080550 - 35

POST ACCIDENT SAMPLING INSTRUMENT PANEL  
(DC-893)

EFC-DC-12-2463

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U.S. DEPARTMENT OF AGRICULTURE  
WASHINGTON, D.C.

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U.S. DEPARTMENT OF AGRICULTURE  
WASHINGTON, D.C.