

3843070090

*Q107*  
*9/9/84*

PHILADELPHIA ELECTRIC COMPANY  
LIMERICK GENERATING STATION  
SURVEILLANCE TEST

ST-1-052-702-1 "B" CORE SPRAY LOOP CONTAMINATED PIPING INSPECTION

Test Freq.: 18 Months -OR- Initiating Events: 1. Reason Initial Run  
Tech. Spec.: 6.8.4.a 2. MRF No. \_\_\_\_\_  
FSAR 6.2.8.1.b  
FSAR 6.2.8.3

TEST RESULTS:

A. All Asterisked(\*) Steps Completed SATISFACTORILY.

Performed By: (Sign/Date) *Keith Kuyper* 9/9/84  
Performed By: (Sign/Date) \_\_\_\_\_  
Informed Test Complete: (ACO or CO) (Sign/Date) *R.W. Vahla* 9-9-84  
(Time) 18:00  
Reviewed By: (SSVN or STA) (Sign/Date) *Roy Bennett* 9/9/84

B. One or More Asterisked(\*) Steps Test Results UNSATISFACTORY.

Performed By: (Sign/Date) \_\_\_\_\_  
Informed of Test Results: (CO or ACO) (Sign/Date) \_\_\_\_\_  
(Time) \_\_\_\_\_  
Shift Supervision: (Sign/Date) \_\_\_\_\_  
Corrective Action: MRF No.: \_\_\_\_\_  
Initiated By: (Sign/Date) \_\_\_\_\_  
IMMEDIATELY NOTIFY SENIOR PLANT STAFF MEMBER  
Person Notified: (Name) \_\_\_\_\_  
Date/Time Notified: (Date/Time) \_\_\_\_\_  
Notified By: (Sign) \_\_\_\_\_

ADDITIONAL ACTION/TEST COMMENTS:

If any entry is made in Additional Action/Test Comments Section,  
person making initial entry sign here

(Sign/Date) *W A Reikito* 9/9/84

## 1.0 PURPOSE

To inspect and measure any leakage from Core Spray System components that are directly associated with system piping that could carry contaminated water during a serious accident or transient. This procedure will be implemented while the system is at operating pressure with the pump(s) running.

## 2.0 REFERENCES

- 2.1 8031-M-52, Core Spray
- 2.2 NUREG 0737

## 3.0 TEST EQUIPMENT

- 3.1 Graduated Cylinder(s)
- 3.2 One-liter bottle(s)
- 3.3 Funnels
- 3.4 Stopwatch
- 3.5 Inspection mirror with handle

## 4.0 PRECAUTIONS & LIMITATIONS

- 4.1 If a procedural step cannot be completed, make a comment in the Additional Action/Test Comments section of the Data Sheet.
- 4.2 Signoff steps marked "SO" in the left-hand margin of the body of the procedure require a signoff on the Data Sheet or Procedure Cover Sheet.
- 4.3 Leak Rates of greater than 5 drops per min. (.25 cc/min) shall be quantified. Put " $\leq$  .25 cc/min" on the Data Sheet, Attachment A, in the space provided for components with leak rates less than or equal to 5 drops per min..

4.4 Data Sheet steps marked (\*) are specific Tech. Spec. requirements which will fail the test if not completed satisfactorily.

4.5 If any component is found to be exhibiting excessive leakage notify ESVN immediately.

## 5.0 PREREQUISITES

5.1 Request RWP & HP assistance when required.

5.2 Inspector is familiar with the system layout and location.

5.3 Copy of the last test's Data Sheet is available for comparison.

5.4 Core Spray Loop must be running for Surveillance Test ST-6-052-232-1 or per operating procedure S52.9.A for the inspection.

5.5 Coordinate with operator running the system to allow pump run durations to be extended for the inspection.

## 6.0 PROCEDURE

IT IS THE RESPONSIBILITY OF THE PERSON OR PERSONS PERFORMING THIS TEST TO ENSURE ALL BLANKS AND DATA SHEETS ARE CORRECTLY AND COMPLETELY FILLED IN.

### 6.1 Preparation

SO 6.1.1 Verify all prerequisites are satisfied.

6.1.2 Record appropriate information for each piece of measurement and test equipment used with a PECO number on the Data Sheet.

### 6.2 Shift Permission to Test

SO 6.2.1 Obtain Shift Supervision's (SSVN's) permission to start test.

SO 6.2.2 Obtain Control Room Operator's permission to start test.

### 6.3 Core Spray Loop "B" Contaminated Piping Inspection.

THE ACTUAL LEAKAGE RATE MEASUREMENT METHODS WILL BE LEFT TO THE DISCRETION OF THE INSPECTOR(S). THE ONLY GUIDELINES BEING THAT ALL DATA WILL BE A MEASURED QUANTITY OF FLUID OVER TIME USING A STOPWATCH. DROPS PER MINUTE CAN BE USED AS A MEASUREMENT WHERE 20 DROPS = 1CC. ALL RECORDED DATA SHALL BE IN CUBIC CENTIMETERS PER MINUTE.

6.3.1 For all In Line components, within the boundaries of Attachment B, that exhibit leakage, record on the Data Sheet their leakage rate and a description of the location of the leak. Pay particular attention to system components identified as having exhibited measurable leakage during the previous inspection.

6.3.2 From the leakage rate data on Attachment A, calculate the total system leakage rate and document the results on the Data Sheet section 6.3

### 6.4 Test Result Evaluation

- SO
- 6.4.1 Compare the leakage limit in 8.1 to the total system leakage rate. If the limit is exceeded prepare a MRF to reduce the system leakage rate so that it is within the limit.
  - 6.4.2 If any component's leakage rate has increased significantly since the last inspection prepare a MRF to repair the component.
  - 6.4.3 If any component's leakage is a major portion of the overall system leakage limit prepare a MRF for its repair.

| NA

7.0 RETURN TO NORMAL

SO 7.1 Inform SSVN and ACO test is complete

8.0 ACCEPTANCE CRITERIA

8.1 Loop "B" of the Core Spray System shall not exhibit a  
total leakage rate of greater than (Later)

AT TEST COMPLETION, ENSURE COVER SHEET IS CORRECTLY AND  
COMPLETELY FILLED IN.



"B" CORE SPRAY LOOP CONTAMINATED PIPING INSPECTION

DATA SHEET (1 of 3)

ACTION REQUIRED

INITIALS

6.0 PROCEDURE

6.1 Preparation

6.1.1 All prerequisites satisfied

KSK

6.1.2 Test Equipment

<u>INSTRUMENT</u>	<u>MFR./MODEL</u>	<u>SER. NO.</u>	<u>CAL. DUE DATE</u>
<u>stop watch</u>	<u>Victor Wylor</u>	<u>53-0030</u>	<u>8/5/85</u>
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

6.2 Shift Permission to Test

6.2.1 SSVN permission obtained

KSK

6.2.2 ACO permission to test

Rca  
ACO

9-9-85/10:15 AM  
Date Time

6.3 Core Spray System Contaminated Piping Inspection

6.3.2 "B" Core Spray Loop Total  
Leakage Rate: 1.85 cc/min

.0004864 gal/min

(1 cc/min - .000264 gal/min)

"B" CORE SPRAY LOOP CONTAMINATED PIPING INSPECTIONDATA SHEET (2 of 3)ACTION REQUIREDINITIALS

## 6.4 Test Results Evaluation

6.4.1 The total Loop "B" Core Spray System Leakage is within Acceptable Limits.

NA (\*) Initial Test

6.4.2 All individual Core Spray System Component Leakage Rates are within Acceptable Limits for both total leak rate and increase over previous leakage rate.

KSK

7.0 RETURN TO NORMAL

7.1 CO/ACO informed of test completion

KSK

IF ANY ENTRY IS MADE IN THIS SECTION, SIGN COVER SHEET IN APPROPRIATE SPACE.

ADDITIONAL ACTION/TEST COMMENTS ① Leakage limits noted in para(s) 6.4.1, 6.4.2, and 8.1 are not applicable for this initial test performance. Data obtained will be used to develop limits for future tests.

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

"B" CORE SPRAY LOOP CONTAMINATED PIPING INSPECTION

DATA SHEET (3 of 3)

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## ATTACHMENT A

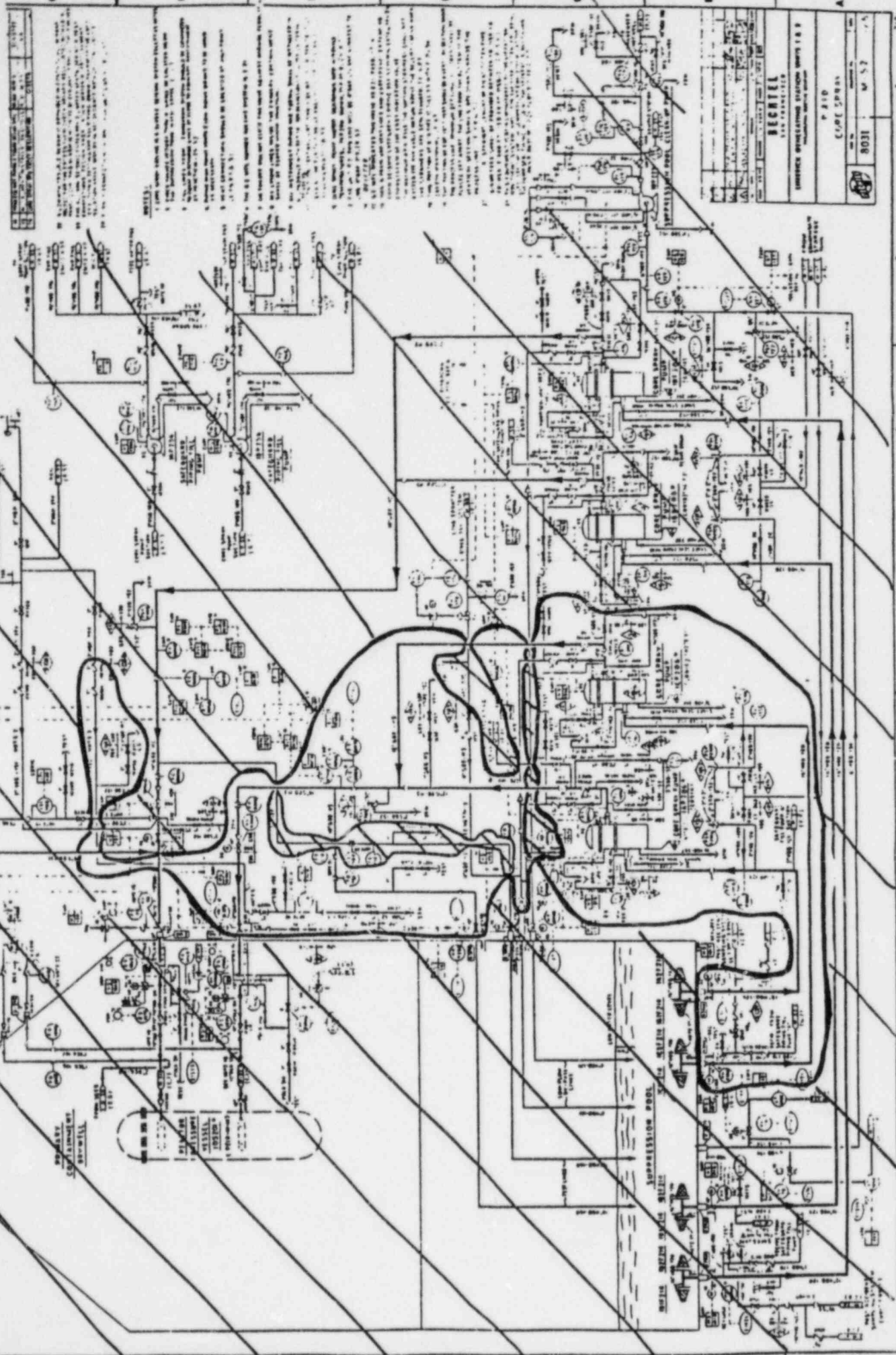
Inspector: \_\_\_\_\_

System Mode \_\_\_\_\_ Date: \_\_\_\_\_

Component No.	Component Description	Comp. Mode (on/Off (open/shut)	Leak Rate	Corrective Action Date	Remarks
18P206 Seal	B cs Pump shaft seal	Pump on	.6 "/min		
<del>18P206</del> S2-1F002B	Suction Valve	open	<.25 "/min		
S2-1F003B	Discharge Check	open	<.25 "/min		
S2-1F010B	min flow manual block	open	<.25 "/min		
S2-1F020D	Hi pt vent test valve	closed	<.25 "/min		
S2-1F003D	Discharge check	open	.25 "/min		



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RECHTEL	
CORPORATION	
P. 210	
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M. 57	
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