LEAKAGE REDUCTION PROGRAM SUMMARY REPORT

FOR

REACTOR WATER CLEAN-UP SYSTEM (G33-00)

DETROIT EDISON COMPANY

FERMI-2 POWER PLANT

REPORT NO G3300-87-01

Prepared by: Same Supervisor

Approved By: Date: 7-31-87

Plant Manager

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REACTOR WATER CLEAN-UP SYSTEM (G33-00)

INTRODUCTION: Both the Fermi 2 1. 'val Specifications, paragraph 6.8.4.a. and Fermi 2 UFSAR, Sect. 5.2.7.8, require that leakage from radioactive fluids, be reduced and maintained to as-low-as practical levels. To demonstrate the leak tight integrity of the Reactor Water Cleanup System, a system leakage test is conducted once per reactor refueling (approximately once every 18 months). This report is for the initial leakage test.

- REFERENCES: 1) DMG. No. 6M721-5711-1, "Reactor Water Clean-up System" -Functional Operating Sketch.
 - 2) DWG. No. 6M721-5711-2 "Reactor Water Clean-up Filter Demineralizer System" Functional Operating Sketch.
 - 3) Plant Operations Manual 43.707.01 "Reactor Water Clean-up Monitoring Test.

and the Reactor Water Clean-up (R-KU) System in operation, all piping, instrumentation and pumps outside of containment were walked down with all leakage noted and measured.

TEST RESULTS: Two complete surveillance tests were conducted on the Reactor Water Clean-up System. The first test was conducted on October 15, 1986. This initial test identified leakage which was subject to corrective maintenance. Results for both tests are presented below.

Components	Leakage Anount	Remarks
Components G33-F165A G33-F167A Pump A Seals G33-F042 G33-F104 G33-F166A G33-F120 G33-F121 G33-F090A G33-F154B G33-F158B G33-F090A G33-F090A G33-F090A	Leakage Amount 500 dpm 25 dpm 20 dpm 8 dpm 6 dpm 5 dpm 5 dpm 2 dpm	Packing Packing Packing Pump Saal Packing Packing Packing Indicator Packing Actuator Packing
G33-F091B G33-F159A G33-F130A G33-F131A	2 dom 2 dom 1 dom 1 dom 1 dom Total Leakage 596 dom	Packing Packing Packing Packing

Results of Post Maintenance Test Completed May 29, 1987.

Components	Leakage Amount	Remarks
G33-F166B	122 dpm	Packing
G33-F114	45 dpm	Packing
G33-F167A	38 dpm	Packing
G33-F157A	24 dpm	Packing
G33-F159A	18 dom	Packing
Pump "A" Seal	12 dpm	Pump Seal
G33-F121	10 dpm	Actuator Leakoff
		Nipple
G33-F004	8 dpm	Packing
G33-F044	8 dpm	Packing
G33-F405	5 dpm	Packing
G33-F165B	4 dpm	Pacl:ing
Pumo "B" Seal	4 dpm	Pump Seal
G33-F162A	3 dom	Packing Packing
G33-F154A	2.1 dpm	Packing
Instrument Tap to	1.3 dpm	Fitting
(PDIS-N187A)		
G33-F162B	1.8 dpm	Packing
G33-F091B	0.5 dpm	Packing
G33-F130A	0.5 dpm	Packing
Instrument Tap to (FXP-N1898)	0.5 cpm	Fitting
Total Leak	age 304.2 dpm	

TEST RESULTS SUMMARY: Corrective Maintenance yielded a net reduction in total system leakage of 291.8 drops per min.

		LEAKAGE REDUCED BY
AS FOUND LEAKAGE	AS LIFT LEAKAGE	MAINTENANCE ACTIVITY
596 dpm	304.2 dpm	291.8 dpm

ACCEPTANCE CRITERIA: The general leakage criteria to be applied during the first fuel cycle as the basis for instituting corrective action in the form of corrective maintenance shall be 1000 drops per min. Per the EF-2 UPSAR, this leakage criteria will be further evaluated at the end of the first refueling cycle to determine the long-range leakage reduction program critieria. This will allow experience gained during the initial fuel cycle to be factored into the long-range criteria.