

APPENDIX

U. S. NUCLEAR REGULATORY COMMISSION  
REGION IV

NRC Inspection Report: 50-382/84-13

Construction Permit: CPPR-103

Docket: 50-382

Licensee: Louisiana Power and Light Company (LP&L)  
142 Delaronde Street  
New Orleans, Louisiana 70174

Facility Name: Waterford 3

Inspection At: Taft, Louisiana

Inspection Conducted: March 26-30, 1984

Inspector: Blaine Murray 4/18/84  
for J. Blair Nicholas, Radiation Specialist Date

Approved: Blaine Murray 4/18/84  
Blaine Murray, Chief, Facilities Radiation Date  
Protection Section

W. A. Crossman 4/18/84  
W. A. Crossman, Team Leader, Region IV Task Force Date

Inspection Summary

Inspection Conducted March 26-30, 1984 (Report 50-382/84-13)

Areas Inspected: Routine, announced inspection of the licensee's chemistry/radiochemistry program including review of outstanding open items, organization, staff qualifications, training, chemistry/radiochemistry programs, facilities and equipment, postaccident sampling system (PASS), audits of chemistry/radiochemistry activities, and procedures. The inspection involved 40 inspector-hours onsite by one NRC inspector.

Results: Within the eight areas inspected, no violations or deviations were identified.

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PDR ADOCK 05000382  
Q PDR

DETAILS1. Persons ContactedLP&L

- \*R. S. Leddick, Sr. Vice President - Nuclear
- \*R. P. Barkhurst, Plant Manager - Nuclear
- \*D. E. Adams, Chemistry/Radiochemistry Engineer - Nuclear Services
- \*S. A. Alleman, Assistant Plant Manager
- \*R. E. Allen, Chemistry Engineer
- \*C. R. Booth, Chemist
- \*G. E. Butts, Engineering & Nuclear Safety
- \*P. Christofakis, Licensing Engineer - Corporate
- \*K. W. Cook, Nuclear Support and Licensing Manager
- \*G. L. Dolese, Radiochemistry Supervisor
- \*F. J. Englebracht, Manager - Plant Administration
- \*C. B. Hawkins, Radiochemist
- \*D. W. Herrin, Licensing - Onsite
- \*M. D. Llewellyn, Secondary Chemistry Supervisor
- \*J. V. Messina, Operations Quality Assurance
- \*B. G. Morrison, Licensing Engineer - Corporate
- \*J. B. Perez, Quality Assurance Support Supervisor
- \*P. V. Prasankumar, Technical Support Superintendent
- \*J. Woods, Plant Quality Manager

Others

- \*T. A. Flippo, NRC Resident Inspector
- \*K. A. Whittlesey, NRC Inspector

\*Denotes those present during the exit briefing on March 30, 1984.

The NRC inspector also interviewed several other Waterford 3 station personnel during the inspection.

2. Scope of Inspection

The purpose of this routine, preoperational inspection was to continue the review of the licensee's status on outstanding open items and progress in the chemistry/radiochemistry program for the period December 1, 1983, through March 30, 1984.

3. Licensee Action on Previous Inspection Findings

(Closed) Open Item (382/8212-03): Chemistry/Radiochemistry Personnel Qualification - This item involved the lack of approved chemistry department position descriptions which provided a detailed analysis of

job requirements and qualifications in accordance with ANSI N18.1-1971 requirements and the lack of sufficient qualified personnel as committed to in the Final Safety Analysis Report (FSAR) and draft Technical Specifications. The NRC inspector reviewed the licensee's revised approved position descriptions, current amendment to the FSAR, and qualifications of the chemistry/radiochemistry personnel to resolve the open item and found the position descriptions and qualification criteria for the chemistry/radiochemistry department personnel acceptable. Seven of ten designated chemistry/radiochemistry technician positions were filled with ANSI N18.1-1971 qualified personnel. The licensee was supplementing the chemistry/radiochemistry technical staff with ANSI N18.1-1971 qualified contract personnel. The approved position descriptions for the chemistry supervisor and radiochemistry supervisor gave these positions the responsibility to ensure that an ANSI qualified person was assigned as the responsible person on each shift. The licensee's staff appeared to be adequate to provide qualified shift chemistry coverage. The licensee's actions were considered satisfactory. This item is considered closed.

(Closed) Open Item (382/8212-04): Chemistry/Radiochemistry Training Program - This item involved the lack of completed qualification training of the seven chemistry technicians who were onsite prior to June 1, 1983. The NRC inspector reviewed the chemistry/radiochemistry individual staff training records and qualification cards and found that the seven chemistry technicians who were assigned to the chemistry department prior to June 1, 1983, had completed the required systems training, theoretical math and chemistry training, departmental procedures training, postaccident training, and general employee training to meet the requirements for performing shift chemistry responsibilities. This item is considered closed.

(Closed) Open Item (382/8212-05): Primary Chemistry Program - This item involved the lack of final approval and verification of the testing of tank recirculation times and sample line flush volumes to provide representative samples and the completion of the installation of sample sinks for chemistry samples. The NRC inspector reviewed the licensee's test results for tank recirculation times and found the results to be satisfactory. The tank recirculation times and sample line flush volumes had been added to the attachment to Chemistry Department Standing Instruction No. 5, "Sampling of Tanks and Plant Systems." The NRC inspector toured the plant and verified that the 16 sample sinks had been installed and sample points properly identified. This item is considered closed.

#### 4. Onsite Chemistry/Radiochemistry Organization

The NRC inspector reviewed the Waterford 3 staff assignments in regard to chemistry/radiochemistry responsibilities. The staff organization and

assignments were found to be the same as reported in NRC Inspection Report 50-382/82-12 with two exceptions. The technical support superintendent is now filled by P. V. Prasankumar and R. E. Allen is now the chemistry engineer.

No violations or deviations were identified.

5. Postaccident Sampling System

The NRC inspector reviewed the licensee's PASS status to determine compliance with FSAR commitments and the recommendations of NUREG-0737.

The licensee had completed the initial installation of the PASS hardware and the system had been turned over from construction to startup. The startup preoperational testing had been performed but final approval and site acceptance had not been completed. PASS operating procedures had been written and approved and seven chemistry technicians had been trained on the current revisions of the procedures. Postaccident effluent sampling procedures had been approved. The licensee was modifying the PASS at the time of the inspection to resolve identified NRC concerns. These modifications are scheduled to be completed by April 30, 1984, depending on availability of parts. The licensee stated that the in-line pH, dissolved oxygen, hydrogen instruments, system flow meters, and pressure indicators had been calibrated. The licensee had issued a plant change request to complete particulate and iodine transmission studies in the sample lines from the plant stack, fuel handling building vent, and containment atmosphere. The study was in progress. The licensee stated that verification of system operation could not be completed until additional hot functional testing could be performed which would be after fuel loading. The NRC inspector stated that this hot functional testing would not be a constraint to issuance of an operating license. However, the PASS must be tested and operational in accordance with NUREG-0737 requirements before the plant exceeds power above 5 percent.

Open Item 382/8212-10, Postaccident Sampling System, will remain open pending:

- . Completion and approval of preoperational testing
- . Verification of system operation by collecting samples from the containment atmosphere and the reactor coolant system under simulated accident conditions and performing required comparative analyses
- . Training of chemistry/radiochemistry technicians on the operation of the PASS after equipment modifications and procedure revisions have been completed

No violations or deviations were identified.



## 6. Facilities and Equipment

The NRC inspector toured the chemistry and radiochemistry laboratories, counting room, and chemistry personnel work areas. The laboratories were equipped with the necessary chemicals, labware, and analytical instrumentation to perform the required analytical procedures and were occupied and operational. The counting room was completed, equipped, and operational. The chemical storage area was completed and in use for storage of chemicals and flammable solvents. The chemistry and radiochemistry supervisors' office was completed, equipped, and occupied. The chemistry staff had moved into their study area in the reactor access building on the +7-foot elevation. The chemistry/radiochemistry facilities appeared to be complete and ready to support plant operation.

No violations or deviations were identified.

## 7. Audits and Review

The NRC inspector reviewed the licensee's internal audit program regarding chemistry/radiochemistry activities to determine the scope of the audit program and what progress had been made in the development and implementation of such a program since the previous inspection. The NRC inspector interviewed the quality assurance manager for operations and the lead auditor for the two audits performed in the area of chemistry/radiochemistry during March 1984. The two audits addressed the areas of primary chemistry and instrument calibration, chemical inventory, and reagent control. The licensee had written approved audit procedures and checklists for conducting the audits. The NRC inspector found that the audit procedures and audit checklists appeared to be adequate to monitor the chemistry/radiochemistry activities. Since the audits had just been completed at the time of this inspection, the NRC inspector was unable to review the final reports. However, the NRC inspector noted that the two audits resulted in only one minor procedural noncompliance due to a lack of installation of a computer terminal in the chemistry and radiochemistry supervisors' office. The installation of the computer terminal is scheduled as soon as the terminal is available on site.

No violations or deviations were identified.

## 8. Procedures

The NRC inspector reviewed the licensee's chemistry/radiochemistry procedures to determine compliance with 10 CFR Part 20 requirements, FSAR commitments, and draft Technical Specification requirements.

INSPECTOR'S REPORT  
Office of Inspection and Enforcement

Nicholas, J. Blair  
REVIEWER  
Murray, Blaine

INSPECTORS

LICENSEE/VENDOR <u>Louisiana Power + Light Waterford-3 Gen. Station</u>	TRANSACTION TYPE X I - INSERT M - MODIFY D - DELETE R - REPLACE	DOCKET NO. (8 digits) OR LICENSE NO. (BY PRODUCT) (13 digits) <u>05000382</u>	REPORT		NEXT INSP. DATE	
			NO. <u>8413</u>	SEQ. A	MO.	YR.

PERIOD OF INVESTIGATION/INSPECTION			INSPECTION PERFORMED BY			ORGANIZATION CODE OF REGION/HQ CONDUCTING ACTIVITY (See IEMC 0530 Manpower Reporting—Weekly Manpower Reporting for code.)				
FROM		TO	1 - REGIONAL OFFICE STAFF		OTHER	REGION		DIVISION	BRANCH	
MO.	DAY	YR.	MO.	DAY	YR.	2 - RESIDENT INSPECTOR				
<u>03</u>	<u>26</u>	<u>84</u>	<u>03</u>	<u>30</u>	<u>84</u>	3 - PERFORMANCE APPRAISAL TEAM		<u>4</u>	<u>B</u>	<u>A</u>

REGIONAL ACTION (Check one box only)		TYPE OF ACTIVITY CONDUCTED (Check one box only)							
1 - NRC FORM 591		X 02 - SAFETY		06 - MGMT. VISIT		10 - PLANT SEC.		14 - INQUIRY	
X 2 - REGIONAL OFFICE LETTER		03 - INCIDENT		07 - SPECIAL		11 - INVENT. VER.		15 - INVESTIGATION	
		04 - ENFORCEMENT		08 - VENDOR		12 - SHIPMENT/EXPORT			
		05 - MGMT. AUDIT		09 - MAT. ACCT.		13 - IMPORT			

INSPECTION/INVESTIGATION FINDINGS (Check one box only)				TOTAL NUMBER OF VIOLATIONS AND DEVIATIONS				ENFORCEMENT CONFERENCE HELD				REPORT CONTAIN 2796 INFORMATION				LETTER OR REPORT TRANSMITTAL DATE															
A	B	C	D	A		B		C		D		A		B		C		D		MO.		DAY		YR.		MO.		DAY		YR.	
X				1 - CLEAR		1 - YES						1 - YES		APR		24		1984													
				2 - VIOLATION																											
				3 - DEVIATION																											
				4 - VIOLATION & DEVIATION																											

MODULE INFORMATION													MODULE INFORMATION																		
REC. ORD.	MODULE NUMBER INSP.					PRIORITY	DIRECT INSPEC. EFFORT IN STAFF HOURS EXPENDED THIS INSPECTION	PERCENTAGE COMPLETED	TO DATE	STATUS	MODULE REQ. FOLLOWUP					REC. ORD.	MODULE NUMBER INSP.					PRIORITY	DIRECT INSPEC. EFFORT IN STAFF HOURS EXPENDED THIS INSPECTION	PERCENTAGE COMPLETED	TO DATE	STATUS	MODULE REQ. FOLLOWUP				
TYPE	NUMBER	PHASE	MANUAL	CHAPTER	PROCEDURE NUMBER						LEVEL	PHASE	MANUAL	CHAPTER	PROCEDURE NUMBER	LEVEL	TYPE	NUMBER	PHASE	MANUAL	CHAPTER						PROCEDURE NUMBER	LEVEL	PHASE	MANUAL	CHAPTER
B	13	310	71013	B	A	01012						B																			
B	13	912	71011	B	A	01218				3	84	31312	B																		
B	13	845	215	A	A	01110	01115					B																			
B					A							B																			

\* CIRCLE SEQUENCE IF VIOLATION OR DEVIATION

TBW

03/15/84

REGION IV OUTSTANDING OPEN ITEMS REPORT  
 TYPE CODES: U=UNRESOLV, C=OPEN, B=BULLETINS,  
 L=LET'S, C=CIRCULARS, D=DEVIATIONS  
 A=ALLEGATIONS, E=CCM, V=VIOLATIONS  
 M=MISC, R=PART 21, T=TEMP INSTR  
 X=EXERCISE (EP), F=APPRAISAL (EP)  
 N=NONCONFORMANCE (VID)  
 RECORDS SORTED BY RLSP SECTION, DOCKET, TYPE, ITEM

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T-RP

DOCKET	TYPE	ITEM NO.	REPORT	MODUL	DESCRIPTION	REPORT SECT.	UPDATE/CLOSE REPCRT	STATUS CODE
05G00362	C	8211-11	12		DEVELOP TECHNICAL SPECIFICATIONS FOR RADWASTE AND TRANSPORTATION ACTIVITIES		(83C7)(8322)	
	0	8211-12	13		DEFINE RESPONSIBILITIES FOR TRANSPORTATION ACTIVITIES, DEVELOP PROCEDURES, TRAINING PROGRAM, ESTABLISH AUDIT PROGRAM		(83C7)(8322)	
	0	8211-13	14		DEVELOP AUDIT & REVIEW PROGRAM FOR WASTE HANDLING, STORAGE, TRANSPORTATION, OPERATION OF LIQUID, GASEOUS AND SOLID WASTE SYSTEMS, RADIATION MONITOR CALIBRATION		(83C7)(8322)	
	0	8211-14	15		COMPLETE PROCEDURES TO IMPL MENT RADWASTE AND TRANSPORTA TION PROGRAM		(83C7)(8322)	
	0	8212-13	5	843321	LICENSEE HAD NOT DEVELOPED SELECTION AND QUALIFICATION CRITERIA FOR CHEMISTRY/ RADIOCHEMISTRY STAFF		(8310)(8333) (8413)	C

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## REGION IV OUTSTANDING OPEN ITEMS REPORT

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RECCROS SORTED BY WESP SECTION, DOCKET, TYPE, ITEM

T-RP

DOCKET	TYPE	ITEM NO.	REPORT MODULE	DESCRIPTION	REPORT SECT.	UPDATE/CLOSE REPORT	STATUS CODE
G5000382	G	8212-04	6	843320 LICENSEE HAD NOT IMPLEMENTED AN OFFICIAL TRAINING PROGRAM FOR CHEM/RADIOCHEMISTRY PERSONNEL		(2310)(F333) (8413)	C
	G	8212-05	7	843320 LICENSEE HAD NOT COMPLETED PRIMARY CHEMISTRY PROGRAM PROCEDURES		(2310)(F333) (8413)	C
	G	8212-10	10	843320 LICENSEE HAD NOT COMPLETED CONSTRUCTION OF FIRST ACCIDENT SAMPLING SYSTEM		(2310)(F333) (8413)	
	G	8322-01	1	84330 AUXILIARY OPERATOR RADWASTE TRAINING			
	G	8322-02	2	84330 GASEOUS & LIQUID RADWASTE ALARA REVIEW			