

U.S. NUCLEAR REGULATORY COMMISSION
REGION I

Docket No. 50-309

License No. DPR-36

Licensee: Maine Yankee Atomic Power Company
83 Edison Drive
Augusta, Maine 04336

Facility Name: Maine Yankee Nuclear Generating Station

Type Meeting: Management Meeting to Discuss the Radiation Protection Program Self Assessment

Time and Date: 10:00 a.m., April 19, 1994

Meeting Location: NRC Region I Office, King of Prussia PA

Inspector: Randolph C. Ragland, Jr. 5/18/94
R. Ragland, Radiation Specialist date

Approved by: Long Echut 5/18/94
R. Bores, Chief, Facilities Radiation Protection Section (FRSSB) date

Meeting Summary: A management meeting was held at the NRC Region I office in King of Prussia, Pennsylvania on April 19, 1994. The major topics discussed included the results from an annual assessment and from a Management Oversight & Risk Tree (MORT) assessment of the radiation protection program at Maine Yankee Atomic Power Company. Other topics included a discussion of the revised 10 CFR 20 regulations, the major projects planned for the January 1995 Refueling Outage, and the radiation protection program initiatives that will be implemented for the outage. In attendance were Mr. G. Leitch, Vice President, Operations Maine Yankee Atomic Power Company, and members of his staff, and Susan F. Shankman, NRC Region I Deputy Director, Division of Radiation Safety and Safeguards, and members of her staff. Although the meeting was open to public observation, no members of the public attended the meeting.

The NRC staff found this meeting useful in understanding the status of Maine Yankee's radiation protection program. In addition, the recent improvements made in the radiation protection program, and Maine Yankee's commitment to the performance of critical self-assessments resulting in continued improvements were noted as commendable.

DETAILS

1.0 Meeting Attendees

1.1 Licensee Personnel

J. Bourasa, Quality Assurance Engineer
J. Frothingham, Quality Programs Manager
G. Leitch, Vice President, Operations
S. Nichols, Technical Support Manager
G. Pillsbury, Radiation Protection Manager
W. Tracy, Quality Assurance Engineer

1.2 NRC Personnel

R. Bores, Chief, Facilities Radiation Protection Section, Division of Radiation Safety and Safeguards (DRSS)
R. Ragland, Radiation Specialist, DRSS
S. Shankman, Deputy Division Director, DRSS

1.3 Members of the Public

None in attendance

2.0 Summary of Discussion

Mr. Graham Leitch, Vice President, Operations opened the meeting by introducing himself and members of his staff. He stated that the purpose of the meeting was to update the NRC staff on the status of Maine Yankee's radiation protection program, and invited NRC staff to ask questions at any time during the presentation.

Attachment I is a handout provided by the licensee and it summarizes topics discussed during the briefing. Mr. Leitch pointed out that Maine Yankee Atomic Power Company committed significant resources to the improvement of the radiation protection program, and that this effort had resulted in significant changes and improvements in the quality of the radiation protection program.

Mr. Steve Nichols, Manager Technical Support, provided an overview of the changes brought about by the Radiological Controls Improvement Program (RCIP). This included staff upgrades and the creation or revision to 167 procedures and 50 lesson plans. Mr. Nichols also outlined the radiation protection program corporate and department goals for 1994. These goals were noted by the NRC staff as challenging and indicative of a strong radiation protection program.

Mr. John Frothingham, Manager Quality Programs, provided an overview of the Maine Yankee RCIP and the independent MORT assessment of the radiation protection program. Members of the assessment team were identified and their individual qualifications were listed. Mr. Frothingham then described the methodology, scope, and results of the independent assessment. This assessment was recognized by the NRC staff as a very valuable and fundamental step towards self-improvement.

Mr. George Pillsbury, Manager Radiation Protection, described the 1993 Annual Assessment of the Maine Yankee radiation protection program. The documents, reports, and assessments used to evaluate the program were listed, and the evaluation of the radiation protection program content and program implementation was described. The results of the assessment were then discussed including elements that were found to be adequate, very good, and needing improvement. Planned corrective actions were cited, and noteworthy observations were highlighted. Mr. Pillsbury stressed that the results of the annual assessments indicated that the content of the program was appropriate, and the implementation of the program was adequate and improving.

Mr. Steve Nichols stated that the next refueling outage was scheduled for January 1995. He then listed the major projects planned for the outage. He noted that the outage would be challenging for the radiation protection staff and discussed radiation protection initiatives for the outage.

The meeting was then opened up for general discussions. Topics included the status of the proposed Low Level Radioactive Waste compact with the state of Texas, experiences with the implementation of the revised 10 CFR 20 regulations, and Maine Yankee's commitment to maintaining occupational exposures As Low As Reasonably Achievable (ALARA).

3.0 Conclusions

The NRC staff found this meeting useful in understanding the status of Maine Yankee's radiation protection program. In addition, the recent improvements made in the radiation protection program, and Maine Yankee's commitment to the performance of critical self assessments resulting in continued improvements were noted as commendable. Dr. Shankman concluded the meeting by thanking the members of the Maine Yankee staff for taking the opportunity to meet with and update the NRC on the status of the radiation protection program at Maine Yankee.

**1993 ANNUAL ASSESSMENT OF THE
MAINE YANKEE
RADIATION PROTECTION PROGRAM**

I. INPUTS USED

- QPD AUDITS
- QPD SURVEILLANCES
- QPD FUNCTIONAL AREA ASSESSMENT
- RP PROGRAM SELF-ASSESSMENTS
- NRC INSPECTION REPORTS
- INPO EVALUATION REPORTS
- TREND DATA FROM RADIOLOGICAL EVENTS
- PERSONNEL CONTAMINATION DATA
- COMPLETED MORT ASSESSMENT MODULES

II. RPM EVALUATION OF

- PROGRAM CONTENT
- PROGRAM IMPLEMENTATION

III. EVALUATION OF PROGRAM CONTENT

A. PAP'S PERFORMED ON EACH ELEMENT BY SPECIALIST/SUPERVISOR

- **VERIFIED CONSISTENCY WITH FEDERAL REGULATIONS, INPO, ANSI STANDARDS, NUREGS**
- **VERIFIED PROGRAM AND IMPLEMENTING PROCEDURES CONSISTENT**
- **VERIFIED CONSISTENCY BETWEEN PROGRAMS**
- **VERIFIED PROPER ASSIGNMENT OF RESPONSIBILITY**

B. MOST EVALUATION BEGUN ON EACH ELEMENT BY QPD

- **VERIFIED CONTENTS AS REFERENCED BY NUREG-0855**
- **VERIFIED CONSISTENT WITH OTHER CURRENT OUTSTANDING PROGRAMS**
- **VERIFIED ALL WESTINGHOUSE CONCERNS ADDRESSED**
- **OBTAINED SOME NEW PERSPECTIVES**

C. RESULTS

- **CONTENT IS PROPER FOR A HIGH QUALITY RP PROGRAM**

IV. EVALUATION OF PROGRAM IMPLEMENTATION

A. USED MULTIPLE INPUTS

- **QPD AUDITS**
- **QPD SURVEILLANCES (ESPECIALLY POST IMPLEMENTATION)**
- **NRC INSPECTIONS**
- **INPO EVALUATIONS**
- **TREND DATA FROM RADIOLOGICAL EVENTS**
- **DATA FROM PER CON EVALUATIONS**
- **PAP FINDINGS RELATED TO IMPLEMENTATION**

B. RESULTS

1. ADEQUATE IMPLEMENTATION OF:

- **SURVEILLANCE PROGRAM**
- **RESPIRATORY PROTECTION (RADIOLOGICAL PROGRAM)**
- **ACCESS CONTROL AND RWP PROGRAM**
- **RADIOACTIVE WASTE AND PCP PROGRAM**
- **DOSIMETRY PROGRAM**
- **REMP**
- **AIRBORNE RADIOACTIVITY PROGRAM**

2. VERY GOOD IMPLEMENTATION OF:

- **ALARA PROGRAM**
- **NON-OUTAGE CONTAMINATION CONTROL**

3. IMPROVEMENTS NEEDED IN:

- **OUTAGE CONTAMINATION CONTROL**
- **INSTRUMENT AND SOURCES SUPERVISORY OVERSIGHT**
- **RADIOLOGICAL WORK PRACTICES OF RAD WORKERS**
- **NON-RADIOLOGICAL RESPIRATORY PROTECTION**
- **HOT SPOT REMEDIATION**

C. CORRECTIVE ACTIONS

- **TASK LIST WITH 64 IMPROVEMENT ITEMS LISTED**
- **SPECIAL CLOSEOUT PLAN DEALING WITH SUPERVISORY OVERSIGHT**
- **CROSS-FUNCTIONAL TEAM TO EVALUATE CONTAMINATION CONTROLS**
- **MANAGEMENT REVIEW OF CONTRACTOR TRAINING AND SUPERVISION**
- **SPECIAL INDUSTRIAL SAFETY UPGRADE**

V. NOTEWORTHY OBSERVATIONS FROM THE ANNUAL ASSESSMENT

- A. EARLY, SUCCESSFUL IMPLEMENTATION OF 10CFR20**
- B. IMPROVED COMPUTERIZED DOSIMETRY SYSTEM RESULTED IN FEWER CONTRACTORS DURING REFUELING**
- C. FEWER RESPIRATORS ISSUED DURING REFUELING**
- D. MORE FACIAL CONTAMINATIONS DURING REFUELING**
- E. NO INSTRUMENT SOURCE CHECKING PROBLEM DURING REFUELING**
- F. TOOK OVER REMP PROGRAM**
 - ELIMINATED ON-SITE TLD PROCESSING**
 - ESTABLISHED AN RMS OVERSIGHT COMMITTEE**
- G. RC TECH POST JOB CRITIQUES**

VI. SUMMARY

- PROGRAM CONTENT IS APPROPRIATE**
- PROGRAM IMPLEMENTATION IS ADEQUATE AND IMPROVING**

1995 REFUELING PLANS

- **SCHEDULED EARLY START: JANUARY, 1995**

- **MAJOR PROJECTS PLANNED:**
 - **LOOP DECONTAMINATION**
 - **10 YEAR ISI - REACTOR VESSEL EXAM**
 - **100% ECT OF THREE STEAM GENERATORS**
 - **1/3 CORE REPLACEMENT**
 - **REMOVAL OF LOOP 2 HOT SPOT**
 - **MOTOR OPERATOR VALVE WORK**
 - **CONTINUED IMPLEMENTATION OF COBALT REDUCTION PROGRAM**

- **RADIATION PROTECTION PLANS:**
 - **OUTAGE PLANNING & IMPLEMENTATION TEAM (OPIT) PARTICIPATION**
 - **SECURE QUALIFIED RP CONTRACTED STAFF**
 - **IMPLEMENT ENHANCED, ADVANCED RAD WORKER TRAINING PROGRAM**
 - **CONTINUE QPD AND INCREASE SUPERVISORY FIELD PRESENCE**

NRC MEETING W/REGION 1

RADIATION PROTECTION PROGRAM UPDATE

APRIL 19, 1994 - 10:00 A.M.

Opening

G. M. Leitch

Introduction

S. E. Nichols

**RP MORT
Assessment**

J. C. Frothingharn

**RP Annual
Assessment**

G. D. Pillsbury

**'95 Refueling Plans
& Other Activities**

S. E. Nichols

Wrap-up & Close

G. M. Leitch

RADIATION PROTECTION
IMPROVEMENT INITIATIVE

- **RADIOLOGICAL CONTROLS PROGRAM ASSESSMENT - WESTINGHOUSE, MARCH, 1990**
- **RP IMPROVEMENT PLAN:**
 - **167 PROCEDURES DEVELOPED**
 - **50 LESSON PLANS CREATED/REVISED**
 - **SIGNIFICANT VERIFICATION/VALIDATION PROGRAM COMPLETED**
 - **STAFF UPGRADES AUTHORIZED**
 - **COMPLETED SPRING, 1993**
- **INDEPENDENT PROGRAMMATIC ASSESSMENT OF RP IMPROVEMENT PLAN**
 - **BASED ON NRC RP GUIDANCE (NUREG-0855)**

RADIATION PROTECTION PROGRAM -

GOALS FOR 1994

CORPORATE

- STATION DOSE LESS THAN 48 PERSON REM
- MAINTAIN EMPLOYEE AVERAGE EXPOSURE LESS THAN 1 REM PER YEAR AND ALARA
- OBTAIN CONGRESSIONAL APPROVAL FOR LLRW COMPACT WITH TEXAS
- GENERATE LESS THAN 6100 CUBIC FEET DAW

DEPARTMENT

- ESTABLISH IMPROVED CONTAMINATION CONTROL PROGRAM
- REDUCE TECHNICIAN DOSE BY 3%
- ENHANCE WORK ORDER/RWP PROCESSES
- EXTEND OUTAGE ALARA PLANNING PROCESS TO DAILY WORK ACTIVITIES
- BE PREPARED FOR 1995 REFUELING AND S/G REPAIRS IF NECESSARY
- ADDRESS ISSUES ARISING FROM MORT & RP ASSESSMENTS
- DEVELOP PLANS FOR IMPROVEMENT BEYOND RP IMPROVEMENT PROGRAM

INDEPENDENT MORT ASSESSMENT
OF
MAINE YANKEE RADIOLOGICAL CONTROLS
IMPROVEMENT PROGRAM (RCIP)
OCTOBER 15, 1993 TO MARCH 30, 1994

- o 1990 WESTINGHOUSE ASSESSMENT

- o RADCON IMPROVEMENT PROGRAM (RCIP) 1990-1993

- o PM REQUESTS FOLLOW-UP INDEPENDENT PROGRAMMATIC ASSESSMENT
 - EFFECTIVENESS OF RCIP PROCESS

 - ASSESS RAD PROGRAMS STATUS

o TEAM LEADER

- WILLIAM TRACY

MORT TRAINING

RADIATION PROTECTION FUNCTIONAL AREA SPECIALIST

CERTIFIED LEAD AUDITOR

12 YEARS MAINE YANKEE QUALITY PROGRAMS

o **TEAM MEMBERS**

- **JOE BOURASSA**

CERTIFIED NRRPT

FOUR YEARS AUDITOR FOR YNSD

FIVE YEARS RAD PROTECTION TECHNICIAN VERMONT YANKEE

- **DICK TRUDEAU**

SENIOR ENGINEER AT YNSD

FORMER RADIATION PROTECTION MANAGER, PILGRIM STATION

20 YEARS RADIATION PROTECTION EXPERIENCE

- **JOE LAUGHNEY**

FOUR YEARS QA ENGINEER

AUDITS AND SURVEILLANCES IN RADIATION PROTECTION

NAVY ELT

- o MANAGEMENT OVERSIGHT AND RISK TREE (MORT) METHODOLOGY
- o PROGRAMMATIC REVIEW AGAINST SOURCE DOCUMENTS
 - NUREGs 0855, 0761
 - REG GUIDES 8.8, 8.15
 - INPO 91-014
 - WESTINGHOUSE REPORT
- o 13 PROGRAMS, 424 PROGRAM ELEMENTS
- o TEAM LEADER PLUS THREE TECHNICAL SPECIALISTS
 - INSPECTION HOURS 1,506
 - FIVE MONTH PERIOD OCT. 15, 1993 - MARCH 30, 1994
- o CLASSIFICATIONS
 - ACCEPTABLE
 - SATISFACTORY, IMPROVEMENT REQUIRED
 - UNACCEPTABLE

RESULTS

(6)

	<u>1990</u>		<u>1994</u>	
	<u>PROGRAMS</u>	<u>ELEMENTS</u>	<u>PROGRAMS</u>	<u>ELEMENTS</u>
ACCEPTABLE	1	29.5%	10	77.6%
SATISFACTORY, IMPROVEMENT REQUIRED	7	41.2%	3	22.2%
UNACCEPTABLE	5	29.3%	0	* 0.2%

* ONE OF 424 PROGRAM ELEMENTS UNACCEPTABLE

RESULTS

(7)

- o THE RCIP WAS AN EFFECTIVE PROCESS
- o OVERALL, THE MAINE YANKEE PROGRAM MEETS CURRENT REGULATORY GUIDANCE
- o 44 FINDINGS
 - PRIMARILY PROGRAMMATIC IMPROVEMENT OPPORTUNITIES
 - ONE UNACCEPTABLE PROGRAM ELEMENT
 - FIVE CORRECTIVE ACTION REQUESTS
 - REMAINDER ON CLOSE-OUT PLAN (COP)

4.0 RADWORKER AND GENERAL EMPLOYEE TRAINING

SOME OPERATIONS PERSONNEL INVOLVED IN THE HANDLING OF RADWASTE ARE NOT INCLUDED IN RADWASTE PROCESSOR TRAINING

6.0 RADIOACTIVE MATERIALS CONTROL

SUPERVISORY OVERSIGHT AND PROCESS CONTROL OF THE SOURCE CONTROL PROGRAM ARE WEAK BASED ON THE NUMBER OF INACCURACIES IN THE SOURCE INVENTORY RECORDS

8.0 RADIOACTIVE WASTE MANAGEMENT

- o SEVERAL PROBLEMS WERE IDENTIFIED WITH WASTE STREAM MONITORING WHICH MAY JEOPARDIZE COMPLIANCE WITH REGULATORY REQUIREMENTS

- o 50.59 SAFETY EVALUATIONS FOR THE LOW LEVEL WASTE STORAGE BUILDING AND HIGH RAD BUNKER DID NOT CONSIDER ALL ASPECTS OF RESIN STORAGE

12.0 RESPIRATORY PROTECTION PROGRAM

SEVERAL PROBLEMS WERE IDENTIFIED WITH ADMINISTRATIVE CONTROLS FOR ISSUANCE AND CONTROL OF NON-RADIOLOGICAL RESPIRATORY PROTECTION AS WELL AS THE MONITORING OF NON-RADIOLOGICAL CONTAMINATES