



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION II  
SAM NUNN ATLANTA FEDERAL CENTER  
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ATLANTA, GEORGIA 30303-8931

October 30, 2000

Virginia Electric and Power Company  
ATTN: Mr. David A. Christian  
Senior Vice President and  
Chief Nuclear Officer  
Innsbrook Technical Center - 2SW  
5000 Dominion Boulevard  
Glen Allen, VA 23060-6711

SUBJECT: NORTH ANNA POWER STATION - NRC INTEGRATED INSPECTION  
REPORT NOS. 50-338/00-04, 50-339/00-04 AND INDEPENDENT SPENT FUEL  
STORAGE INSTALLATION INSPECTION REPORT NO. 72-016/00-03

Dear Mr. Christian:

On September 30, 2000, the NRC completed an inspection at your North Anna Power Station Units 1 and 2 and North Anna Independent Spent Fuel Storage Installation. The enclosed report presents the results of that inspection which were discussed with Mr. D. Heacock and other members of your staff on October 6, 2000.

The inspection was an examination of activities conducted under your license as they relate to safety and compliance with the Commission's rules and regulations and with the conditions of your license. Within these areas, the inspection consisted of a selective examination of procedures and representative records, observations of activities, and interviews with personnel. As identified in the report, no findings of significance were identified during the inspection.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be available **electronically** for public inspection in the NRC Public Document Room **or** from the Publicly Available Records (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/NRC/ADAMS/index.html> (the Public Electronic Reading Room).

Sincerely,

/RA/

Robert C. Haag, Chief  
Reactor Projects Branch 5  
Division of Reactor Projects

Docket Nos.: 50-338, 50-339, 72-016  
License Nos.: NPF-4, NPF-7, SNM-2507

Enclosure: NRC Integrated Inspection Report Nos. 50-338/00-04, 50-339/00-04, 72-016/00-03

cc w/encl.: See page 2

VEPCO

2

cc w/encl.:

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DATE	10/27/2000	10/30/2000	10/30/2000	10/27/2000	10/27/2000	10/27/2000	10/27/2000
E-MAIL COPY?	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO

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U.S. NUCLEAR REGULATORY COMMISSION

REGION II

Docket Nos.: 50-338, 50-339, 72-016  
License Nos.: NPF-4, NPF-7, SNM-2507

Report Nos.: 50-338/00-04, 50-339/00-04, 72-016/00-03

Licensee: Virginia Electric and Power Company (VEPCO)

Facilities: North Anna Power Station, Units 1 & 2  
North Anna Independent Spent Fuel Storage Installation

Location: 1022 Haley Drive  
Mineral, Virginia 23117

Dates: July 2 through September 30, 2000

Inspectors: M. Morgan, Senior Resident Inspector  
J. Canady, Resident Inspector  
J. Blake, Senior Project Manager, RII (Sections 1R02 and 1R17)  
S. Vias, Senior Reactor Inspector, RII (Sections 1R02 and 1R17)  
J. Coley, Reactor Inspector, RII (Sections 1R02 and 1R17)  
T. Johnson, Senior Resident Inspector, Farley (Section 1R04)  
M. King, Resident Inspector, Summer (Sections 1R05 and 1R12)  
F. Wright, Senior Health Physicist, RII (Sections 2OS2, 2OS3.1, 2OS3.2  
and 4OA5)

Approved by: R. Haag, Chief, Reactor Projects Branch 5  
Division of Reactor Projects

Enclosure

## SUMMARY OF FINDINGS

IR 05000338-00-04, IR 05000339-00-04, IR 07200016-00-03 on 7/02-09/30/2000; Virginia Electric and Power Co., North Anna Power Station Units 1 & 2 and ISFSI.

The inspection was conducted by resident inspectors, a regional project manager, a health physicist, and two reactor inspectors. No findings of significance were identified.

## Report Details

Unit 1 operated at near full power during the reporting period with the exception of August 16 when the power was reduced to 89% due to high main generator temperatures. The high temperatures resulted from a trip of the bearing cooling tower fan due to a faulty fire detection relay. The relay was bypassed and reactor power was returned to 100% later that day. Unit 2 operated at or near full power the entire reporting period.

### 1. REACTOR SAFETY

#### **Cornerstones: Initiating Events, Mitigating Systems, Barrier Integrity**

#### 1R02 Evaluations of Changes, Tests or Experiments

##### a. Inspection Scope

The inspectors reviewed selected samples of safety evaluations to verify that the licensee had appropriately considered the conditions under which changes to the facility or procedures may be made, and tests conducted, without prior NRC approval. The inspectors reviewed safety evaluations (SEs) for ten design and procedure changes and one special test. There were no experiments performed. The inspectors verified, through review of additional information, such as calculations and supporting analyses, that the licensee had appropriately concluded that the changes could be accomplished without obtaining a license amendment. The 11 safety evaluations reviewed are listed in the Documents Reviewed section.

The inspectors also reviewed samples of design/engineering transmittals and procedure changes for which the licensee had determined that evaluations were not required, and verified that the licensee's conclusions to "screen out" these changes were correct and consistent with 10 CFR 50.59. The 19 "screened out" changes reviewed are listed in the Documents Reviewed section.

The inspectors reviewed the licensee's corrective action program and noted that no significant problems had been identified in the area of 10 CFR 50.59 evaluations.

##### b. Findings

No findings of significance were identified.

#### 1R04 Equipment Alignment

##### a. Inspection Scope

For the systems or components identified below, the inspectors reviewed the listed plant documents to determine correct system lineup, and observed equipment to verify that the system was correctly aligned:

- Unit 1 A Charging Pump System (1-OP-8.1A, "Valve Checkoff - Chemical and Volume Control," Revision 22, A Charging Pump Cubicle Section);
- Unit 1 B Charging Pump System (1-OP-8.1A, "Valve Checkoff - Chemical and Volume Control," Revision 22, B Charging Pump Cubicle Section);

- Unit 1 B Component Cooling Heat Exchanger (1-OP-51.1A, "Valve Checkoff - Component Cooling Water - Auxiliary Building, Fuel Building, Decontamination Building, and Main Steam Valve House," Revision 17); and,
- Unit 1 B Outside Recirculation Spray Pump (1-OP-7.5A, "Valve Checkoff - Outside Recirc Spray System," Revision 9).

b. Findings

No findings of significance were identified.

1R05 Fire Protection

a. Inspection Scope

The inspectors conducted tours of areas to assess the adequacy of the fire protection program implementation. The inspectors checked for transient combustibles and the condition of the fire detection and fire suppression systems (using "NAPS Appendix R Report," Revision 18 and Virginia Power Administrative Procedure (VPAP)-2401, "Fire Protection Program," Revision 15). The inspectors conducted routine inspections of the following areas:

- Units 1 and 2 Safeguards and Quench Spray Pump Houses;
- Safety Systems Material Storage Warehouse No. 5, Fire Pump House;
- Technical Support Center Heating and Ventilation Area;
- Unit 1 Low Head Safety Injection Pump House;
- Units 1 and 2 Auxiliary Feedwater Pump Houses; and,
- Unit 1 Equipment/Battery Room Areas.

b. Findings

No findings of significance were identified.

1R11 Licensed Operator Requalification

a. Inspection Scope:

On August 21 and 24, the inspectors observed the performance of senior reactor operators and reactor operators on the plant simulator. The operators performed simulator lesson SEG-9B, "Instrument Failures While At Power," Revision 0. The inspectors verified that the training program included risk-significant operator actions, implementation of abnormal procedures, and previous lessons learned. The inspectors assessed individual and crew performance and the critiques performed by the licensee's training evaluator. Additionally, the inspectors noted the following attributes of the crews:

- familiarity with procedures associated with recognizing and recovering from transmitter failures related to the volume control tank and auxiliary steam system;
- ability to correctly implement the procedures associated with the above transmitter failures; and,
- familiarity with the various charging pump interlocks.

b. Findings

No findings of significance were identified.

1R12 Maintenance Rule Implementation

a. Inspection Scope

For the equipment issues described in the plant issues listed below, the inspectors reviewed the licensee's implementation of the Maintenance Rule (10 CFR 50.65) using VPAP 0815, "Maintenance Rule Program," Revision 11, and the North Anna Maintenance Rule Scoping and Performance Criteria Matrix, Revision 12. The reviews focused on the characterization of failures, the appropriateness of the associated a(1) or a(2) classification, and the appropriateness of either the associated a(2) performance criteria or the associated a(1) goals and corrective actions:

- N-2000-0747, B Main Steam Line Radiation Monitor Failed High;
- N-2000-1479, Blown Fuse On Vital Bus Distribution Panel 1-III Inverter;
- N-2000-1906, Exceeded Maintenance Rule Unavailability Performance Criteria For Two Charging Pumps Being Out-Of-Service;
- N-2000-1940, Exceeded Maintenance Rule Unavailability Performance Criteria For Relay Room Heating and Ventilation Unit 2-HV-AC-7;
- N-2000-1027, Packing Leak On Unit 1 Low Head Safety Injection Pump to High Head Safety Injection Pump Suction Vent Valve;
- N-2000-1981, High Unavailability Hours for Unit 1 A Low Head Safety Injection Pump; and,
- N-1999-2148, Exceeded Maintenance Rule Unavailability Performance Criteria For Unit 1 AMSAC.

b. Findings

No findings of significance were identified.



### 1R13 Maintenance Risk Assessments and Emergent Work Control

#### a. Inspection Scope

The inspectors reviewed the licensee's assessment of the risk impact of removing components from service. The inspectors reviewed the following work items to verify that the activities were adequately planned and controlled to avoid initiating events and that the functional capability of accident mitigation systems was maintained:

- WO 004434918-01, Trouble Shoot and Repair of Unit 1 125V Bus 1-I Battery Charger 1-BY-C-02;
- WR 105221, Trouble Shoot and Repair of Unit 1 A and B Bearing Cooling Water Tower Fan (power reduction required due to increased main generator temperatures);
- WO 00434171-01, Repair of Unit 1 Service Water Header Flow Computer;
- WO 00434489-01, Repair of Unit 2 Boric Acid Blender to VCT Flow Control Valve, 2-CH-FCV-2113B;
- WO 00428538-01, Replacement of Unit 1 1C Charging Pump Discharge Header Check Valve, 1-CH-279 CKVALV;
- WR 00065940, Inspect and Replace Unit 1 Quench Spray Pump 1B, Pump Bearings and Oil Flinger Ring;
- WR 113924, Replacement of Unit 2 Patchcord Associated With 2J Emergency Diesel Generator DC Ground Alarm; and,
- WO 00437144-01, Repair MIC leaks on SW 4" Piping to and from Charging Pumps and Instrument Air Compressors.

#### b. Findings

No findings of significance were identified.

### 1R14 Personnel Performance During Nonroutine Plant Evolutions

#### a. Inspection Scope

The inspectors reviewed the plant issues listed below to determine whether operator response to the event was in accordance with licensee's procedures and training:

- N-2000-1855, Unit 1 Containment Sump In-Leakage Rate Increase; and,
- N-2000-1950, Unit 2 Boric Acid Blender to VCT Flow Control Valve (2-CH-FCV-2113B) Packing Leakage.

b. Findings

No findings of significance were identified.

1R15 Operability Evaluationsa. Inspection Scope

The inspectors evaluated the technical adequacy of operability evaluations to ensure that operability was properly justified and the subject component or system remained available such that no unrecognized increase in risk occurred. The operability evaluations were described in the plant issues listed below:

- N-2000-2107, Partial Blockage of Technical Support Center Area Fire Damper (1-FP-FDMP-1054-DAMPER);
- N-2000-2092, Separated Strainer “O” Rings for the 1H Emergency Diesel Generator Engine;
- N-2000-1925, Primary Ventilation System Potentially Not in Full Compliance With Regulatory Guide 1.52 and UFSAR Sections 9.4.6.3 and 9.4.8.2;
- N-2000-1924, Spalling of Main Dam Spillway Concrete Structure;
- N-2000-1918, Control Room Habitability Air Bottle Systems Potentially Not in Full Compliance With NUREG-0800, Section 6.4 and USFAR Sections 6.4 and 9.4.1; and,
- N-2000-2121, Arc Shute for the SBO 4160V Spare Breaker Damaged.

b. Findings

No findings of significance were identified.

1R16 Operator Work-Arounds (OWAs)a. Inspection Scope

The inspectors reviewed OWA 98-OWA-C38 B, Abnormal Procedure 0-AP-41.1, “Service Water Spray Array Nozzle Icing,” Revision 1. The OWA was evaluated to determine whether the work-around affected either the functional capability of the related system or human reliability in responding to an initiating event. The inspectors specifically considered whether the OWA affected the operators’ ability to implement abnormal or emergency operating procedures.

b. Findings

No findings of significance were identified.

## 1R17 Permanent Plant Modifications

### a. Inspection Scope

The inspectors evaluated design change packages (DCPs) for 22 modifications, in three cornerstone areas, to verify that the modifications did not affect system availability, reliability, or functional capability, and that the modifications had not left the plant in an unsafe condition. The DCPs reviewed are listed in the Document Reviewed section.

The inspectors also reviewed the results of the licensee's recent self assessment of the design change process. The self assessment focus was a review of installation problem reports and field changes required to complete selected modifications, with an assessment of which changes could have been precluded by better planning and/or communication. The self assessment did not identify problems in the modification area.

### b. Findings

No findings of significance were identified.

## 1R19 Post Maintenance Testing

### a. Inspection Scope

The inspectors reviewed the following post-maintenance test procedures and activities, associated with the repair or replacement of components, to determine that they were adequate to verify operability and functional capability following maintenance:

- Station Blackout Diesel Testing Following Periodic Maintenance (0-PT-82.12, "Quarterly Test of 0-AAC-DG-OM, Alternate AC Diesel Generator," Revision 10);
- 1H Emergency Diesel Generator Testing Following Lube Oil Strainer "O" Ring Replacement (1-OP-6.8, "Slow Start Procedure for the 1H Emergency Diesel Generator," Revision 15);
- Low Head Safety Injection Pump, 1-SI-P-1A, Testing Following Planned Maintenance (1-PT-57.1A, "Emergency Core Cooling Subsystem - Low Head Safety Injection Pump," Revision 39);
- Testing of Unit 2 B Outside Recirculation Spray Pump Breaker Following Planned Maintenance (2-PT-64.1.2, "Outside Recirculation Spray Pump," Revision 16);
- Testing of Unit 1 1A Charging Pump Following Motor Replacement (1-PT-14.1, "Unit 1 Charging Pump 1A Periodic Test," Revision 39); and,
- Pressure Test Following MIC Socket Weld Repair of Service Water Piping 1-SW-PP-2.00-WS-PIPE-C79-153AQ3 (0-PT-171.4, "Alternate Pressure Tests for Hydrostatic/Pneumatic Testing," Revision 3).

b. Findings

No findings of significance were identified.

1R22 Surveillance Testinga. Inspection Scope

For the surveillance tests listed below, the inspectors examined the test procedure and either witnessed the testing and/or reviewed test records to determine whether the scope of testing adequately demonstrated that the affected equipment was functional and operable:

- 1-PT-30.2.4, "NIS Power Range Channel IV (N-44) Channel Functional Test," Revision 32;
- 1-PT-36.9.1L, "Degraded Voltage/Loss of Voltage Functional Test; 1J Bus," Revision 3;
- 1-PT-46.4.4, "N-16 Leak Rate Monitor (1-MS-RM-1193) Channel Functional Test," Revision 11;
- 2-PT-82J, "2J Emergency Diesel Generator Slow Start Test," Revision 23;
- 2-PT-24.1, "Calorimetric Heat Balance (Computer Calculation)," Revision 15;
- 2-PT-17.1, "Rod Operability," Revision 19; and,
- 0-ICP-RMS-RM-157, "Control Room Area Radiation Monitor (RM-RMS-157) Calibration," Revision 4.

b. Findings

No findings of significance were identified.

1R23 Temporary Plant Modificationsa. Inspection Scope

The inspectors reviewed the following temporary modifications to determine whether system operability/availability was affected, that configuration control was maintained, and that the associated safety evaluation adequately justified implementation:

- 0-ECM-0101-02, "Installation or Removal of Jumper Cables Over Individual Cells of Main Station and Emergency Diesel Generator Stationary Batteries," Revision 7 (Jumpered out cell #14 in the 2-IV Station Battery, WO 00422754-01); and,
- 00-SE-TM-08 (TM-1687), "Patch Cord #795 Removed to Defeat the Incore Sump HI/HI Input Due to a Bad Resistor."

b. Findings

No findings of significance were identified.

**2. RADIATION SAFETY**

**Cornerstone: Occupational Radiation Safety**

2OS2 Problem Identification and Resolution

a. Inspection Scope

The inspectors reviewed licensee self-assessments, audits, and licensee event reports and focused on radiological incidents that involved personal contamination, monitor alarms due to personnel internal exposures and incidents that involved radiation monitoring instrument deficiencies.

The inspectors verified that the licensee has radiation protection reviews on several levels and performs assessments on plant and portable radiation monitoring equipment.

b. Findings

No findings of significance were identified.

2OS3 Radiation Monitoring Instrumentation

.1 Instrumentation

a. Inspection Scope

The inspectors evaluated the accuracy and operability of radiation monitoring instruments used for the protection of occupational radiation workers. The review included the operability of plant area radiation monitors (ARMs) identified in the Updated Final Safety Analysis Report (UFSAR) and remote monitoring included the digital alarming dosimeters (DADs) in place throughout the radiological control area. The availability and operability of portable radiation monitoring instruments for use in high radiation and neutron fields were evaluated.

The inspectors observed ARM equipment material conditions and verified local, remote, and control room radiation monitor readouts were in agreement with the radiation levels at the detectors as measured by the inspectors. The inspector reviewed recently completed calibration records for other instruments capable of measuring high radiation areas.

b. Findings

No findings of significance were identified.

.2 Self Contained Breathing Apparatus (SCBA)

a. Inspection Scope

The inspectors evaluated the adequacy of the licensee's SCBA respiratory protection program for providing SCBAs to radiation workers entering and working in areas of unknown radiological conditions and areas where the atmosphere could be immediately dangerous to life and health.

The inspectors verified the licensee had reviewed and evaluated the personnel safety issues documented in NRC Information Notice (IN) 98-20, "Respiratory Protection Programs," and IN 99-05, "Inadvertent Discharge of Fire Protection System and Gas Migration."

b. Findings

No findings of significance were identified.

**4. OTHER ACTIVITIES**

4OA3 Event Follow-up

.1 Event Review

a. Inspection Scope

For the following event, the inspectors reviewed the associated facility operating logs, abnormal event reports, and reactivity management log information to evaluate operations department performance and operator response:

- N-2000-1950, "Boric Acid Blender to VCT Flow Control Valve, 2CH-FCV-2113B-Valve," - valve packing leak caused decrease in boric acid flow for VCT makeup.

b. Findings

No findings of significance were identified.

.2 (Closed) URI 50-338, 339/99007-02: compliance with 10 CFR 50.59 requirements after modifications of an appendix "R" technical support center (TSC) fire damper.

On October 19, 1999, TSC ventilation system fire protection (FP) system damper 1051A was functionally tested. It failed the test because the ductwork surrounding the damper and sleeve assembly was deformed due to the installation of silicone foam around the ductwork penetration. An engineering transmittal (ET) ME-017 was written to repair the duct by installation of damper sleeving stiffener rods. Although the attachment to the ET addressed Appendix R issues, it did not conclude that a complete safety evaluation was necessary. It also did not address the issue of having sleeves installed on all plant Appendix R fire dampers, including damper 1051A. Because the licensee failed to properly install fire dampers (namely sleeving associated with TSC fire damper 1051A), a non-cited violation NCV 50-338, 339/99007-01 was issued. An unresolved issue (URI) 50-338,339/99007-02 was opened to determine if the requirements of 10CFR50.59

were met for the modification. Subsequent to the issuance of the URI another ET, SE-99-074, was issued to further describe and to clarify how the 1051A fire damper's sleeve function was served by the installation of the stiffener rods and an extra layer of metal surrounding the damper at the 1051A penetration area. Upon further review of the discussion in the original ET (ME-017), it was determined that the requirements in 10 CFR 50.59 were satisfied for the modification to the TSC damper.

Evaluation, SE-99-074, which was performed by the licensee for use of duct-mounted stiffeners and the extra layer of sheet metal (in lieu of heavy gauge steel sleeving - as prescribed by the fire damper manufacturer, the fire code, and the licensee's appendix R document) was considered adequate. Furthermore, the actual modification performed to the damper sleeving to restore damper function was also found suitable.

#### 40A5 Other

##### Operation of an Independent Storage Facility

###### a. Inspection Scope

During normal operations, the inspectors verified by direct observations or review of selected records, that routine radiation protection activities are performed in accordance with approved procedures and surveillance activities have been conducted at the specific periods. The inspection was conducted using Inspection Procedure 60885, "Operation of an Independent Spent Fuel Storage Facility."

###### b. Findings

No findings of significance were identified.

#### 40A6 Management Meetings

##### Exit Meeting Summary

The inspectors presented the inspection results to members of licensee management on October 6, 2000, and the licensee acknowledged the findings presented.

The inspectors asked the licensee whether any of the material examined during the inspection should be considered proprietary. No proprietary information was identified.

#### PARTIAL LIST OF PERSONS CONTACTED

##### Licensee

- D. Christian, Senior Vice President and Chief Nuclear Officer
- B. Foster, Superintendent Station Engineering
- C. Funderburk, Manager, Station Operations and Maintenance
- J. Hayes, Manager, Station Nuclear Safety and Licensing
- D. Heacock, Site Vice President
- P. Kemp, Director, Nuclear Oversight
- L. Lane, Superintendent, Operations
- T. Maddy, Superintendent, Station Security

W. Matthews, Vice President, Nuclear Operations  
 H. Royal, Superintendent, Nuclear Training  
 D. Schappell, Superintendent, Site Services  
 R. Shears, Superintendent, Maintenance  
 A. Stafford, Superintendent, Radiological Protection

### ITEMS CLOSED

50-338, 339/99007-02      URI      Compliance with 10 CFR 50.59 requirements after modifications of an appendix "R" technical support center (TSC) fire damper (Section 4OA3.2)

### DOCUMENTS REVIEWED

Documents Associated with Sections 1R02 AND 1R17:

#### Virginia Power Administrative Procedures (VPAP)

VPAP-0301, "Design Change Process," Revision 12  
 VPAP-1501, "Deviations," Revision 12  
 VPAP-1601, "Corrective Action," Revision 13  
 VPAP-3001, "Safety Evaluations," Revision 6

#### Safety Evaluations

99-SE-MOD-18      Low Head SI Vent Valve Addition  
 99-SE-OT-55      Station Battery Charger Sizing Evaluation, Revision 0  
 99-SE-PROC-09      Allows...installation of a fire hose between bearing cooler and chilled water system...  
 99-SE-PROC-10      Adds steps to defeat operation of directional overcurrent relay on 1-EE-BKR-15H11 to prevent breaker from tripping...  
 99-SE-PROC-24      Allows Cv testing on the accumulator discharge check valves instead of performing acoustical testing...  
 99-SE-TM-06      Removes the cable from cell #1 of the 1H EDG battery due to high resistance readings...  
 98-SE-ST-01      Feed flow measurement using CHEMTRAC chemical tracer method  
 00-SE-MOD-02      Charging Pump upgrades  
 00-SE-MOD-09      Modifies the SW spray headers  
 00-SE-MOD-11      Removes upper disc pressurization connection valves...  
 99-SE-OT-55      Station Battery Charger Sizing Evaluation, Revisions 0 and 1

#### Procedure Changes and ETs "Screened Out"

1-OP-6.1      "Operation of the 1H Emergency Diesel Generator from the Control Room," Revision 38  
 1-OP-6.5      "Operation of the 1H Diesel Generator in the Control Room Emergency Mode," Revision 38  
 1-PT-83-11H      "1H-EDG "Hot Restart Test," Revision 7  
 1-PT-138      "Valve Inservice Inspection LHSI System Functional Verification," Revision 19



2-OP-6.5	"Operation of the 2H Diesel Generator in the Control Room Emergency Mode," Revision 24
2-PT-230.3	"2J Emergency Diesel Generator Starting Air Subsystem (Compressor, Dryer, After Cooler, Motor, and Lister Diesel) Operability Test," Revision 3
1-GOP-8.2	"Calculating ECCS Leakage," Revision
0-PT-82.14	"SBO Diesel Generator Test (Start by Simulated LOSS Power)," Revision 9 and 9-P1
ET-N00-017	"Set points Additions for Various Service Water Motor Operated Valves, Revision 0"
ET-N00-023	"Acceptability of Using a Modified Performance Test to Satisfy Technical Specification Surveillance Requirement for 1-BY-B-1-1V," Revision 0
ET-N00-030	"Acceptance of 1-CC-TV-101B Closure During C.A. Functional Testing, Revision 0"
ET-N00-033	"Charging Pump Dilution/Borating," Revision 0
ET-N00-034	"Reactor Vessel and Internals Visual Examination Indications," Revision 0
ET-N00-066	"Breaker Magnetic Trip Setting Evaluation for 2-E.E.-BAR-2J1-1A-A3R," Revision 0
ET-N00-043	"Engineering Evaluation of Units 1 and 2 ENGR. Barrier Gap," Revision 0
ET-CM-97-071	"To Provide Clarification of Component Cooling Heat Exchangers 1-CC-E-1A and 1B After Rebuking Per RCP 97-002," Revision 0
ET-N00-086	"Containment Integrity Assessment of penetration 56C with C.V.'s Leaking Through Valve Seats," Revision 0
ET-CM-97-0063	"Component Cooling Heat Exchanger 1-CC-E-1B Performance Test," Revision 0
ET-CM-97-0112	"Component Cooling Heat Exchanger 1-CC-E-1A Post Rebuking Performance Test," Revision 0

### Design Change Packages

DCP91-012	Repair/Replacement of Concrete Encased Service Water Piping To/From CCHXs / U1&2
DCP96-217	LHSI Pump Alignment Jacking Lugs / U2
DCP96-219	Turbine Driven AFW Pump Alignment Jacking Lugs / U 1&2
DCP97-003	Component Cooling Heat Exchanger Replacement / U 2
DCP97-102	Replacement of Primary Loop Equipment Snubbers / U 1
DCP98-002	Anchorage Modifications of "H" and "J" 4160/480V Emergency Bus Transformers / U 1&2
DCP98-003	Service Water to Control Room Chiller Piping Replacement / U 1&2
DCP98-111	Relocation of RHR HX CC Outlet Temperature Elements / U 2
DCP98-146	AFW Pipe Restraint Modifications / U1
DCP98-169	1-SI-Mov-1865A, B, C Limit Switch Actuation Arm Modification / U 1
DCP98-170	2-SI-Mov-2865A, B, C Limit Switch Actuation Arm Modification / U 2
DCP98-801	Reset MCC Feeder Overload Devices / U 1&2
DCP99-137	Low Head SI Vent Valve Addition / U 2
DCP99-138	Low Head SI Vent Valve Addition / U 1
DCP99-160	Repair Through-Wall Defect in Containment Liner / U 2

DCP00-101	RVLIS Sensor Bellows Reorientation / U 1
DCP00-113	MCC Breaker Replacement and Breaker Setpoint Modification / U 1
DCP00-114	MCC Breaker Replacement and Breaker Setpoint Modification / U 1
DCP95-015	Refurbishment of Service Water Pumps / U1&2
DCP96-130	Pressurizer Level Tubing Modification / U 2
DCP96-224	Removal of 2-SI-PI-201A, B, C / U 2
DCP97-002	CCHX Rebuking / U 1
DCP98-107	Component Cooling Water Containment Return Cross Tie / U 1

Documents Associated with Sections 2OS2, 2OS3, and 4OA5:

HP-1033.010	"Portable Radiation Protection Instrumentation Control," Revision 3
HP-1033.520	"Eberline Teletector 6112: Calibration and Operation," Revision 1
HP-1033.532	"MGP AMP-100: Calibration and Operation," Revision 2
HP-1033.561	"Dositec Model, AR-20: Calibration and Operation," Revision 2
HP-1033.540	"Eberline RO-2, RO-2A and RO-20: Calibration and Operation," Revision 0
P-1033.541	"Eberline RO-7: Calibration and Operation," Revision 1
PT-4.7	"Independent Spent Fuel Storage Installation, Health Physics TLD Survey Surveillance," Revision 3
PT-4.6	"Independent Spent Fuel Storage Installation HP Radiation Survey Surveillances"
0-PT-1114	"Emergency Kit Inspection," Revision 7

Nuclear Employee Training Manual, Volume II; "Respiratory Protection Training, Confined Space Entry Training, Sub-atmospheric Containment Training, Fire Watch Training,"  
Revision 7

Merlin Gerin Provence, (MGP) Operation Manual DMC 100, "Electronic Personal Dosimeter,"  
Revision 15-50202, dated 06/97

MGP Operating Manual for DMC 90, dated 03/89

## Attachment 1

### **NRC's REVISED REACTOR OVERSIGHT PROCESS**

The federal Nuclear Regulatory Commission (NRC) recently revamped its inspection, assessment, and enforcement programs for commercial nuclear power plants. The new process takes into account improvements in the performance of the nuclear industry over the past 25 years and improved approaches of inspecting and assessing safety performance at NRC licensed plants.

The new process monitors licensee performance in three broad areas (called strategic performance areas): reactor safety (avoiding accidents and reducing the consequences of accidents if they occur), radiation safety (protecting plant employees and the public during routine operations), and safeguards (protecting the plant against sabotage or other security threats). The process focuses on licensee performance within each of seven cornerstones of safety in the three areas:

#### **Reactor Safety**

- Initiating Events
- Mitigating Systems
- Barrier Integrity
- Emergency Preparedness

#### **Radiation Safety**

- Occupational
- Public

#### **Safeguards**

- Physical Protection

To monitor these seven cornerstones of safety, the NRC uses two processes that generate information about the safety significance of plant operations: inspections and performance indicators. Inspection findings will be evaluated according to their potential significance for safety, using the Significance Determination Process, and assigned colors of GREEN, WHITE, YELLOW or RED. GREEN findings are indicative of issues that, while they may not be desirable, represent very low safety significance. WHITE findings indicate issues that are of low to moderate safety significance. YELLOW findings are issues that are of substantial safety significance. RED findings represent issues that are of high safety significance with a significant reduction in safety margin.

Performance indicator data will be compared to established criteria for measuring licensee performance in terms of potential safety. Based on prescribed thresholds, the indicators will be classified by color representing varying levels of performance and incremental degradation in safety: GREEN, WHITE, YELLOW, and RED. GREEN indicators represent performance at a level requiring no additional NRC oversight beyond the baseline inspections. WHITE corresponds to performance that may result in increased NRC oversight. YELLOW represents performance that minimally reduces safety margin and requires even more NRC oversight. And RED indicates performance that represents a significant reduction in safety margin but still provides adequate protection to public health and safety.

The assessment process integrates performance indicators and inspection so the agency can reach objective conclusions regarding overall plant performance. The agency will use an Action Matrix to determine in a systematic, predictable manner which regulatory actions should be taken based on a licensee's performance. The NRC's actions in response to the significance (as represented by the color) of issues will be the same for performance indicators as for inspection findings. As a licensee's safety performance degrades, the NRC will take more and increasingly significant action, which can include shutting down a plant, as described in the Action Matrix.

More information can be found at: <http://www.nrc.gov/NRR/OVERSIGHT/index.html>.