March 28, 1988

Docket Nos. 50-338
and 50-339

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Mr. W. L. Stewart
Vice President-Nuclear Operations
Virginia Electric and Power Company
P.O. Box 26666
Richmond, Virginia 23261

Dear Mr. Stewart:

SUBJECT: ISSUANCE OF EXEMPTION TO 10 CFR PART 50, APPENDIX E, SECTION IV.F.2 FOR THE NORTH ANNA POWER STATION, UNITS 1 AND 2 (TAC NOS. 66647 AND 66648)

The Nuclear Regulatory Commission has granted the enclosed Exemption regarding the conduct of an emergency preparedness exercise for the North Anna Power Station in 1987. The Exemption is granted in response to your letter dated October 9, 1987. In addition, information concerning this request had previously been provided by you by letters dated August 3, 1987 and September 11, 1987.

We find that granting the Exemption is authorized by law, will not present an undue risk to the public health and safety, is consistent with the common defense and security, and meets the special circumstances described in 10 CFR 50.12(a)(2)(ii).

The Exemption has been forwarded to the Office of the Federal Register for publication.

Sincerely,

Steven A. Varga, Director
Division of Reactor Projects-I/II
Office of Nuclear Reactor Regulation

Enclosure:
Exemption

cc w/enclosure:
See next page

LA:PDII-2	PM:PDII-2	D:PDII-2	OGC	NRR/ADR2	NRR/DRP
DMiller	LEngle:bg	HBerkow	MYoung	GLainas	SVarga
2/23/88	2/23/88	2/23/88	2/25/88	3/7/88	3/7/88

with changes by Muller

Okay 3/18/88

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Mr. W. L. Stewart
Virginia Electric & Power Company

North Anna Power Station
Units 1 and 2

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James B. Kenley, M.D., Commissioner
Department of Health
109 Governor Street
Richmond, Virginia 23219

UNITED STATES OF AMERICA

NUCLEAR REGULATORY COMMISSION

In the Matter of	)	
	)	
	)	Docket Nos. 50-338 and 50-339
VIRGINIA ELECTRIC AND POWER COMPANY	)	
North Anna Power Station, Units 1&2	)	
	)	
	)	

EXEMPTION

I.

Virginia Electric and Power Company (the licensee) is the holder of Facility Operating License Nos. NPF-4 and NPF-7, which authorize operation of North Anna Power Station, Units 1 and 2 (the facility) at steady-state reactor power levels for each unit not in excess of 2905 megawatts thermal. The license provides, among other things, that it is subject to all rules, regulations and Orders of the Nuclear Regulatory Commission (the Commission or NRC) now or hereafter in effect. The facilities consist of two pressurized water reactors located at the licensee's site in Louisa County, Virginia.

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II.

Section 50.54(q) of 10 CFR Part 50 requires a licensee authorized to operate a nuclear power reactor to follow and maintain in effect emergency plans which meet the standards of 10 CFR 50.47(b) and the requirements of Appendix E to 10 CFR Part 50. Section IV.F.2 of Appendix E requires that each licensee at each site shall annually exercise its emergency plan.

The NRC may grant exemptions from the requirements of the regulations which, pursuant to 10 CFR 50.12(a), are (1) authorized by law, will not present an undue risk to the public health and safety, and are consistent with the common defense and security; and (2) present special circumstances. Section 50.12(a)(2)(ii) of 10 CFR Part 50 describes the special circumstances for an exemption where the application of the regulation in the particular circumstances would not serve the underlying purpose of the rule or is not necessary to achieve the underlying purpose of the rule. The underlying purpose of Appendix E, Section IV.F.2 is to demonstrate that the emergency plan is adequate and capable of being implemented, and that the state of emergency preparedness provides reasonable assurance that adequate protective measures can and will be taken in the event of a radiological emergency.

III.

By letter dated October 9, 1987, the licensee requested an exemption from the requirements of 10 CFR 50.47 and Appendix E to conduct an annual exercise of the North Anna Emergency Plan in 1987. The licensee had planned to conduct an exercise of its emergency plan on August 4, 1987 with the partial participation of State and local emergency response organizations. The scheduled

exercise was an annual licensee off-year exercise and the Federal Emergency Management Agency (FEMA) was not scheduled to observe the exercise. The previous emergency preparedness exercise at the North Anna Power Station, conducted on June 18, 1986, was a full participation biennial exercise. The licensee requested that an exemption be granted because the requirement to perform an exercise of the North Anna Emergency Plan in 1987 was not necessary to achieve the underlying purpose of the emergency planning rule in that the emergency plan was adequately exercised and demonstrated in 1987 in the licensee's response to the Unit 1 steam generator tube rupture (SGTR) event that occurred on July 15, 1987. The schedule for future exercises will not be affected by this one-time exemption.

To support their request, the licensee provided the following information in submittals to the NRC dated August 3, 1987 and September 11, 1987.

1. Key elements of the North Anna Power Station emergency plan demonstrated during the SGTR event.
2. An overview of emergency response activities.
3. Description/sequence of events, including specific emergency response, classification and action.
4. Extent of involvement of offsite agencies.
5. A discussion of the emergency response critique conducted after the event.
6. A cross-reference between the emergency plan elements carried out during the SGTR event and NUREG-0654/FEMA-REP-1 criteria.

In these submittals and in a presentation to the NRC staff on September 29, 1987, the licensee provided extensive documentation concerning their initial emergency response and followup actions to the SGTR event.

On July 15, 1987, at 6:25 a.m., North Anna Unit 1 experienced a steam generator tube rupture while operating at 100% power. The unit was manually tripped by the operators, which was followed by safety injection actuation. A small radioactive release to the environment occurred during the course of the event. An Unusual Event was declared at 6:39 a.m., and the emergency classification was upgraded to an Alert at 6:54 a.m. The licensee downgraded the emergency classification from Alert to Recovery when the unit reached a cold shutdown condition at 1:31 p.m.

In response to the SGTR event, the following key elements of the North Anna emergency plan were demonstrated:

- Classification of the event in accordance with the emergency plan implementing procedures.
- Notification of State, local and Federal emergency response organizations and personnel.
- Activation, staffing and operation of the emergency response facilities including the Control Room, Technical Support Center, Operational Support Center, Local Emergency Operations Facility, Corporate Emergency Response Center, Corporate Public News Center and Local Media Center.

- Communications between emergency facilities, principal response organizations and emergency personnel.
- Accident assessment involving the methods, systems and equipment necessary for assessing and monitoring the actual consequences of the event, including both an engineering assessment of plant status and an assessment of radiological consequences.
- Media and public information dissemination through the issuance of press releases and the conduct of press briefings at the Corporate Public News Center and Local Media Center.
- Recovery planning, including the formation of a recovery organization, identification of resources and the development of recovery actions.

Licensee response activities included the development of initial and followup messages (17 total) to offsite organizations, continuous communication with the NRC, station accountability, security access control, dispatch of inplant, onsite and offsite monitoring teams, formulation of offsite dose projections, including the determination of meteorological dispersion, collection and analysis of environmental samples, analysis of inplant radioactivity levels, and interfacing with State emergency operations personnel at the Corporate Emergency Response Center. Although protective action recommendations for the public were not required to be issued based on plant parameters and field monitoring information, the necessity for issuing such recommendations was considered by the licensee during the course of the event.

After the SGTR event, the licensee conducted interviews of personnel involved in the emergency response effort. Based upon these interviews, the licensee developed a list of 10 corrective actions resulting from the implementation of the North Anna Emergency Plan under actual conditions. In a letter to the NRC dated December 4, 1987, the licensee committed to assure completion of these corrective actions no later than the next annual emergency plan exercise.

In addition to the response to the SGTR event, other licensee activities related to the demonstration of preparedness in 1987 included a practice exercise conducted on July 14, 1987 with some offsite participation, the conduct of fire and medical drills on August 13, 1987, and a post-accident sampling system (PASS) drill on August 14, 1987. The fire, medical and PASS drills were originally to be held in conjunction with the scheduled exercise. In the December 4, 1987 letter to the NRC, the licensee listed the items resulting from the critiques of the fire, medical and PASS drills, and committed to complete the identified corrective actions prior to the next annual exercise.

The most recent NRC Systematic Assessment of Licensee Performance (SALP) Report for North Anna, issued on December 11, 1986 for the period March 1, 1985 through August 31, 1986, indicated satisfactory overall licensee performance. Specifically, in the functional area of emergency preparedness, licensee performance was rated as Category 2, indicating a satisfactory level of performance. Inspection activities conducted since the SALP report have confirmed that the licensee has maintained a satisfactory level of performance regarding emergency preparedness.

The Commonwealth of Virginia has indicated its support for the licensee's request for an exemption in a letter to the licensee dated September 8, 1987. The State noted that the local governments and State agencies had achieved the objectives of the original scheduled exercise. The State indicated that the response to the actual event was of more value to the State agencies and local governments for training purposes than the simulated accident would have been. Copies of the State's report of the radiological emergency at North Anna were provided by the State to the Federal Emergency Management Agency.

IV.

Based on a review of the licensee's request for an exemption from the requirement to conduct an exercise of the North Anna Emergency Plan in 1987, the NRC staff finds that the underlying purpose of the regulation has been achieved through the licensee's response to the SGTR event which occurred on July 15, 1987. The licensee fully activated and staffed all of its emergency response facilities and performed all necessary response actions under actual conditions. Both onsite and offsite emergency response organizations were involved in the event. The response to the SGTR event tested the adequacy of the emergency plan implementing procedures, tested emergency equipment and communications networks, and provided a unique opportunity to ensure that emergency organization personnel were familiar with their duties. The licensee has identified corrective actions to improve the level of emergency preparedness at North Anna through interviews with emergency personnel following the event. NRC Region II will assure that these corrective actions are completed on a schedule committed to by the licensee. The staff concludes that the licensee

satisfactorily demonstrated the adequacy of the North Anna Emergency Plan and its capability of being implemented in the response to the SGTR event on July 15, 1987. Thus, a further exercise in 1987 was not necessary to achieve the underlying purpose of the rule. The requested exemption from the requirement of 10 CFR Part 50, Appendix E, Section IV.F, to perform an exercise of the North Anna Emergency Plan in 1987, will not adversely affect the overall state of emergency preparedness at the North Anna site because the emergency plan was adequately exercised and demonstrated during the licensee's response to the July 15, 1987 tube rupture event.

For these reasons, the Commission has determined that, pursuant to 10 CFR 50.12, the exemption requested by the licensee's letter dated October 9, 1987, as discussed above, is authorized by law, will not present an undue risk to the public health and safety, and is consistent with the common defense and security and that special circumstances are present as set forth in 10 CFR 50.12(a)(2)(ii).

Pursuant to 10 CFR 51.32, the Commission has determined that granting of this Exemption will have no significant impact on the environment (March 28, 1988, 53 FR 10002). A copy of the licensee's request for exemption and supporting documentation is available for public inspection at the Commission's Public Document Room, 1717 H Street, NW, Washington, DC and at the Board of Supervisors office, Louisa County Courthouse, Louisa, Virginia 23093 and the Alderman Library, Manuscripts Department, University of Virginia, Charlottesville,

Virginia 22901. Copies may be obtained upon written request to the U.S. Nuclear Regulatory Commission, Washington, DC 20555, Attention: Director, Division of Reactor Projects I/II.

This exemption is effective upon issuance.

Dated at Rockville, Maryland this 28th day of March, 1988.

FOR THE NUCLEAR REGULATORY COMMISSION

Steven A. Varga, Director
Division of Reactor Projects-I/II
Office of Nuclear Reactor Regulation