



**UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION II**  
245 PEACHTREE CENTER AVENUE NE, SUITE 1200  
ATLANTA, GEORGIA 30303-1257

January 21, 2014

Mr. David A. Heacock  
President and Chief Nuclear Officer  
Virginia Electric and Power Company  
Innsbrook Technical Center  
5000 Dominion Boulevard  
Glen Allen, VA 23060

**SUBJECT: NORTH ANNA POWER STATION – NOTIFICATION OF INSPECTION AND  
REQUEST FOR INFORMATION**

Dear Mr. Heacock:

On February 10, 2014, the Nuclear Regulatory Commission (NRC) will begin inspection activities for the North Anna Power Station, Units 1, and 2, in accordance with Temporary Instruction (TI) 2515-182, "Review of Implementation of the Industry Initiative to Control Degradation of Underground Piping and Tanks." This inspection is scheduled to be performed from February 10 - 12, 2014, and will address the inspection requirements for Phase 2 of this TI.

In order to minimize the impact to your on-site resources, and to ensure a productive inspection, we have enclosed a list of documents needed for the preparation and implementation of this inspection. The documents that are requested for this inspection include all relevant documents that will allow the inspector(s) to adequately complete Phase 2 of this inspection.

We have discussed the schedule for these inspection activities with your staff and understand that our regulatory contact for this inspection will be Mr. Jay Lieberstein, of your organization. If there are any questions about this inspection or the material requested, please contact the lead inspector Robert Carrion at (404) 997-4522 or [robert.carrion@nrc.gov](mailto:robert.carrion@nrc.gov).

In accordance with 10 CFR 2.390 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 Agencywide

Documents Access and Management System (ADAMS). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

Sincerely,

**RA**

Joel Rivera-Ortiz, (Acting) Chief  
Engineering Branch 3  
Division of Reactor Safety

Docket Nos.: 50-338 and 50-339  
License Nos.: NPF-4 and NPF-7

Enclosure:  
Temporary Instruction (TI 2515-182)  
Inspection Document Request  
TI-182 Phase II Questions

cc: Distribution via Listserv

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PUBLICLY AVAILABLE       NON-PUBLICLY AVAILABLE       SENSITIVE       NON-SENSITIVE  
ADAMS:  YES       NO      NO ACCESSION NUMBER: \_\_\_\_\_       SUNSI REVIEW COMPLETE       FORM 665 ATTACHED

OFFICE	RII:DRS	RII:DRS	RII:DRS		
SIGNATURE	<b>RA</b>	<b>RA</b>			
NAME	R. Carrion	J. Rivera-Ortiz			
DATE	1/17/2014	1/21/2014			
E-MAIL COPY?	YES NO	YES NO	YES NO		

**OFFICIAL RECORD COPY**

DOCUMENT NAME: S:\DRS\ENG BRANCH 3\INSPECTIONS\WORKING DOCUMENTS\TI182 REQUEST FOR INFORMATION LETTER\2014\NORTH ANNA TI-182 PHASE 2 RFI FINAL.DOCX

## TEMPORARY INSTRUCTION 2515-182 INSPECTION DOCUMENT REQUEST

**Inspection Dates:** February 10 – 12, 2014

**Inspection Procedures:** TI 2515-182, "Review of Implementation of the Industry Initiative to Control Degradation of Underground Piping and Tanks"

**Inspector:** Robert Carrion, Senior Reactor Inspector

### **Information Requested for the Preparation and Completion of the In-Office Inspection:**

The following documents listed below are requested (electronic copy, if possible) by February 5, 2014, to facilitate the preparation for the on-site inspection week.

1. Contact information for plant staff responsible for the implementation of the underground piping and tanks program.
2. Copy of the documents governing the implementation of the site's underground piping and tanks program. For example, this includes administrative and implementing procedures for the program.
3. Please review the Attachment to this Enclosure, "TI 2515-182, Review of Implementation of the Industry Initiative to Control Degradation of Underground Piping and Tanks, Phase 2 Questions," and provide response to all the questions, as applicable.
4. Schedule for completion of the following NEI 09-14, "Guideline for the Management of Underground Piping and Tank Integrity," Revision 3, attributes:

#### Buried Piping

Procedures and Oversight  
Risk Ranking  
Inspection Plan  
Plan Implementation  
Asset Management Plan

#### Underground Piping and Tanks

Procedures and Oversight  
Prioritization  
Condition Assessment Plan  
Plan Implementation  
Asset Management Plan

### **Information to be provided On-Site to the Inspector following the Entrance Meeting:**

1. Copy or ready access to the program drawings showing the location of buried and underground piping and tanks within the scope of the program.
2. Copy or ready access to the industry standards and guidelines associated with the program.

Enclosure

3. Self- or third-party assessments of the underground piping and tanks program (if any have been performed).
4. Response to additional information requested prior to the inspection based on the response to the TI 2515-182 questions in the Attachment.
5. For any of the NEI 09-14 (Revision 3) attributes identified below which have been completed prior to the NRC's onsite inspection, provide written records that demonstrate that the program attribute is complete.

Buried Piping

- Procedures and Oversight
- Risk Ranking
- Inspection Plan
- Plan Implementation
- Asset Management Plan

Underground Piping and Tanks

- Procedures and Oversight
- Prioritization
- Condition Assessment Plan
- Plan Implementation
- Asset Management Plan

Inspector Contact Information

Robert Carrion  
Sr. Reactor Inspector  
404-997-4522  
robert.carrion@nrc.gov

Mailing Address

US NRC- Region II  
Attn: Robert Carrion  
245 Peachtree Center Avenue, Suite 1200  
Atlanta, GA 30303

**TI 2515-182**  
**Review of Implementation of the Industry Initiative to Control Degradation of**  
**Underground Piping and Tanks**  
**Phase 2 Questions**

		<b>Questions</b>	<b>Response</b>
Question Number	Subpart		
		<b>Initiative Consistency</b>	
1	a	Has the licensee taken any deviations to either of the initiatives?	Yes / No
	b	If so, what deviations have been taken and what is (are) the basis for these deviations?	
2	a	Does the licensee have an onsite buried piping program manager (owner) and, potentially, a staff?	Yes / No
	b	How many buried piping program owners have there been since January 1, 2010?	
	c	How many other site programs are assigned to the buried piping program owner?	
3	a	Does the licensee have requirements to capture program performance, such as system health reports and performance indicators?	Yes / No
	b	Are these requirements periodic or event driven?	Periodic / Event Driven / None
	c	Are there examples where these requirements have been successfully used to upgrade piping systems or to avert piping or tank leaks?	Yes / No
4	a	Does the licensee have a program or procedure to confirm the as-built location of buried and underground piping and tanks at the plant?	Yes / No
	b	Has the licensee used this program?	Yes / No
	c	Was the program effective in identifying the location of buried pipe?	Yes / No

5		For a sample of buried pipe and underground piping and tanks (sample size at least 1 high and 1 low risk/priority pipe or tank), did the risk ranking and/or prioritization process utilized by the licensee produce results in accordance with the initiative guidelines, i.e., which emphasize the importance of components which have a high likelihood and consequence of failure and deemphasize the importance of components which have a low likelihood and consequence of failure?	Yes / No Sample size examined _____
6	a	As part of its risk ranking process did the licensee estimate/determine the total length of buried/ underground piping included in the initiatives?	Yes / No
	b	As part of its risk ranking process did the licensee estimate/determine the total length of high risk buried/underground piping included in the initiatives?	Yes / No
		<b>Preventive Actions / System Maintenance</b>	
1	a	For uncoated steel piping, has the licensee developed a technical basis for concluding that structural (e.g. ASME Code minimum wall, if applicable) and leaktight integrity of buried piping can be maintained?	Yes / No / Not Applicable (no uncoated buried steel pipe)
	b	Is the technical basis provided as justification by the licensee consistent with the initiative (including its reference documents) or industry standards (e.g. NACE SP0169)	Yes / No
2	a	For buried steel, copper, or aluminum piping or tanks which are not cathodically protected, has the licensee developed a technical basis for concluding that structural (e.g. ASME Code minimum wall, if applicable) and leaktight integrity of buried piping can be maintained?	Yes / No / Not Applicable (no buried steel, copper, or aluminum piping which is not cathodically protected)
	b	Is the technical basis provided as justification by the licensee consistent with the initiative (including its reference documents) or industry standards (e.g. NACE SP0169)	Yes / No

3	a	For licensees with cathodic protection systems, does the licensee have procedures for the maintenance, monitoring and surveys of this equipment?	Yes / No / Not Applicable (no cathodic protection systems)
	b	Are the licensee procedures consistent with the initiative (including its reference documents) or industry standards (e.g. NACE SP0169)?	Yes / No
	c	Is the cathodic protection system, including the evaluation of test data, being operated and maintained by personnel knowledgeable of, or trained in, such activities	Yes / No
4		Is there a program to ensure chase and vault areas which contain piping or tanks subject to the underground piping and tanks initiative are monitored for, or protected against, accumulation of leakage from these pipes or tanks?	Yes / No / N/A (No piping in chases or vaults)
		<b>Inspection Activities / Corrective Actions</b>	
1	a	Has the licensee prepared an inspection plan for its buried piping and underground piping and tanks?	Yes / No
	b	Does the plan specify dates and locations where inspections are planned?	Yes / No
	c	Have inspections, for which the planned dates have passed, occurred as scheduled or have a substantial number of inspections been deferred?	Occurred as scheduled / Deferred
2	a	Has the licensee experienced leaks and/or significant degradation in safety related piping or piping carrying licensed material since January 1, 2009?	Leaks Yes / No Degradation Yes / No
	b	If leakage or significant degradation did occur, did the licensee determine the cause of the leakage or degradation?	Yes / No



	c	Based on a review of a sample of root cause analyses for leaks from buried piping or underground piping and tanks which are safety related or contain licensed material, did the licensee's corrective action taken as a result of the incident include addressing the cause of the degradation?	Yes / No / N/A (no leaks)
	d	Did the corrective action include an evaluation of extent of condition of the piping or tanks and possible expansion of scope of inspections? (Preference should be given to high risk piping and "significant" leaks where more information is likely to be available).	Yes / No / N/A (no leaks)
3	a	Based on a review of a sample of NDE activities which were either directly observed or for which records were reviewed, were the inspections conducted using a predetermined set of licensee/contractor procedures?	Yes / No
	b	Were these procedures sufficiently described and recorded such that the inspection could be reproduced at a later date?	Yes / No
	c	Were the procedures appropriate to detect the targeted degradation mechanism?	Yes / No
	d	For quantitative inspections, were the procedures used adequate to collect quantitative information?	Yes / No
4		Did the licensee disposition direct or indirect NDE results in accordance with their procedural requirements?	Yes / No
5		Based on a sample of piping segments, is there evidence that licensees are substantially meeting the pressure testing requirements of ASME Section XI IWA-5244?	Yes / No