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NUCLEAR REGULATORY COMMISSION
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March 22, 1994

MEMORANDUM FOR: Gary G. Zech, Chief
Performance and Quality Evaluation Branch
Division of Reactor Inspection
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THRU: Robert A. Gramm, Chief
Quality Assurance Section
Performance and Quality Evaluation Branch
Division of Reactor Inspection
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FROM: Robert M. Latta
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SUBJECT: INFORMATION GATHERING TRIP TO VIRGINIA POWER CORPORATE HEADQUARTERS TO SUPPORT NRR GRADED QA METHODOLOGY DEVELOPMENT

This memorandum provides a summary of the key issues discussed during the meeting between members of the Performance and Quality Evaluation Branch, Office of the Nuclear Regulatory Research, Region III staff, and representatives of the Virginia Power Company in their corporate headquarters in Insbrook, Virginia, on March 8, 1994.

The purpose of this meeting was to discuss both current quality assurance (QA) program implementation processes and the development of a graded QA methodology. The meeting, which was also attended by representatives of the Nuclear Utilities and Resources Council (NUMARC), focused on the examination of current QA practices as they relate to the proposed proportionate application of quality verification criteria commensurate with the relative safety significance and risk ranking of systems, structures, and components (SSCs). The meeting resulted in the effective translation of information and a follow-up information gathering trip is planned for March 18, 1994, at the North Anna site.

A listing of the attendees is provided in Enclosure 1 and a description of the meeting agenda is included as Enclosure 2. Specific topics which were discussed during the meeting are provided in the following summary:

1. Concepts regarding the application of a graded QA methodology related to low risk safety-related SSCs and existing practices involving non-safety- related SSCs were discussed. Within this area, it was indicated that Virginia Power is currently implementing many of the elements associated with a graded QA approach. Specifically, QA performs a

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spectrum of verification activities ranging from informal surveillances and monitoring of in-process work activities, assessments, and formal audits. Additional quality augmentation is afforded by voluntary procedural hold-points for non-safety-related work efforts. Relative to work controls, the utility stated that the same procedures are used whether the activity is safety-related or non-safety-related. It was also stated that QA utilizes the safety significance of work activities to prioritize their verification efforts. The QA organization also evaluates the critical attributes of proposed activities when they formulate their verification methodologies. Additionally, the Corporate Manager of QA discussed some burdens present in the ANSI standards relating to audits and the fact that the regulations require annual security, fire protection, and emergency preparedness audits that consume several man-years (annually) with a marginal safety benefit. Within this area, it was stated that Virginia Power has a proposed rule making to amend those regulations.

2. Virginia Power has used an expert panel to implement the 93-01 maintenance rule methodology to identify high-risk SSCs. This process resulted in the identification of 14 systems which were characterized as risk significant. The reactor protection system (RPS) and containment structure were evaluated deterministically since they were not treated by the PRA. The utility has developed an extensive on-line capability to retrieve information on equipment availability/reliability for performance monitoring. The expert panel was comprised of 8 senior personnel, including several SROs, who evaluated the SSCs. Relative to the procedural guidance utilized for the panel conduct, utility representatives indicated that guidance is currently being prepared in the form of a draft administrative procedure.

   Based on the insights gained within this area, it was noted that Virginia Power had a well developed approach toward the implementation of the maintenance rule.

3. As indicated by Virginia Power, the current practices for the control of design requirements are reflected in a detailed Q-list that designates safety-related components, associated requirements such as EQ/RG 1.97, critical safety functions, and sub-component bill of materials information. Their procurement program is structured to support safety function and is not directed solely at safety classification. Additionally, a screening process is conducted on plant modifications to determine whether a 50.59 evaluation is required. Currently, the equipment database for Virginia Power's four units includes 256,303 items, of which 88,200 are designated as safety-related and 34,656 are non-safety-related with special regulatory significance (NSQ) (such as ATWS), and the remainder are non-safety-related (NSR).

4. During the final portion of the meeting, Virginia Power indicated an interest in using the graded QA approach in the areas of records retention, QA audits, procurement, and on-site/off-site reviews of 50.59s. They have also submitted a proposed rulemaking on annual audit requirements for EP/FP and physical protection/security. Significantly, Virginia Power does not envision the need for either technical Specification or QA plan changes to embark on a pilot effort for graded QA. As stated by Virginia Power, sufficient flexibility exists in their current commitments to implement the approach. With respect to commitments tracking, North Anna presently has approximately 250 open items comprised of both regulatory issues and internal items which would require review for impact on the graded approach. Potential savings for the utility are envisioned in the procurement and warehousing areas under a graded QA approach.

In summary, it is apparent that Virginia Power has realized significant progress toward the implementation of the Maintenance Rule and that they have put a great deal of thought into how to effectively implement their QA program in a graded/performance based fashion. Their presentation was very informative and the staff were technically competent.

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Enclosures:
As stated

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Enclosure 1

USNRC
MEETING ATTENDANCE LIST
March 8, 1994

NAME	ORGANIZATION
E. J. Wheeler	Virginia Power
E. S. Grechech	Virginia Power
W. W. Wigley	Virginia Power
M. L. Bowling	Virginia Power
L. N. Hartz	Virginia Power
Harry L. Miller	Virginia Power
Kerry L. Basehore	Virginia Power
K. D. Tuley	Virginia Power
Bob Gwaltney	Virginia Power
Bob Myers	Virginia Power
P. T. Knutsen	Virginia Power
W. B. Rodill	Virginia Power
Brice Shriver	Virginia Power
J. D. Hegner	Virginia Power
Jay H. Leberstien	Virginia Power
Tony Pietrangelo	NUMARC
A. P. Heymer	NUMARC
Frank Jape	NRC/DRS/ RII
R. M. Latta	NRC/DRIL/RPEB
Gary G. Zech	NRC/DRIL/ RPEB
Bob Gramm	NRC/DRIL/ RPEB
G. C. Millman	NRC/RES/DE

PROPOSED INFORMATION GATHERING PLAN
(Virginia Power)

(1) Examine current procedure(s) and practices for controlling safety related SSC's (Q-list) and the implementation of Appendix 'B' requirements.

(2) Determine how design requirements are translated to purchase specifications to evaluate where graded QA methodologies could be utilized.

(3) Examine current Technical Specification requirements to evaluate extent of changes which would be required to accommodate the graded QA approach.

(4) Examine current licensee practices with respect to scheduling inspections, surveillances, monitoring, and audits with emphasis towards safety significant work activities.

(5) Examine licensee's current QA program controls and evaluate extent of authorized changes which would be required under 10 CFR 50.54(a) (i.e., reduction in existing commitments) to accommodate the graded QA approach.

(6) Evaluate existing/proposed processes (i.e., PRA, IPEs) which establish risk ranking of SSC's. (If available.)

(7) Review existing company quality practices applied to non-safety related SSCs. Evaluate appropriateness of approach for low risk safety related SSCs.

(8) Review recent modifications and evaluate the impact of proposed graded QA methodology.

(9) Review licensee's approach for implementing the maintenance rule including provisions for an expert panel. (If available.)

(10) Evaluate previous company programs associated with the implementation of a graded QA approach (i.e. safety-related, important to safety and non-nuclear safety categorization programs)