

Department of Energy

Washington, DC 20585

August 16, 2006

Dr. Christoph Leemann
Director
Thomas Jefferson National Accelerator Facility
Southeastern Universities Research Association, Inc
1200 Jefferson Ave.
Newport News, VA 23606

Dear Dr. Leemann:

The Office of Price-Anderson Enforcement (OE), which administers the Price-Anderson Amendments Act (PAAA) nuclear enforcement program, has been conducting a limited, informal review of the Thomas Jefferson National Accelerator Facility (Jefferson Lab) PAAA program. The purpose of this limited review is to aid Jefferson Lab in identifying PAAA program strengths and weaknesses with the overall goal being to enhance the effectiveness and efficiency of the program. Because of the importance our office places on contractor self-assessment, we also performed a quick procedural review of your Management and Independent Assessment programs. While our usual practice is to conduct a site visit in connection with our PAAA program review, we have decided to conduct this review without a site visit in order to be as unobtrusive as possible to your operations while conserving our staff resources. Nonetheless, we are confident that this review will assist Jefferson Lab in calibrating its PAAA program to the performance of other programs in the Department of Energy (DOE) complex and to the expectations of OE. In response to our document request in support of our review, documents were provided and subsequently reviewed by my staff. On August 2, 2006, a telephone conference was conducted with several members of your staff to gain additional insight into your PAAA program and Management/Independent Assessment programs, and to obtain clarification of certain issues. Your staff has been cooperative in the conduct of our review and we appreciate that assistance.

Based on the scope of the research being performed by Jefferson Lab, it is important to have a PAAA program that is an effective part of your operations. There are several areas of strength in the current program, but opportunities for improvement exist which must be addressed to achieve the level of excellence we seek for all DOE contractors.

OE identified several positive attributes in the Jefferson Lab PAAA and Management/Independent Assessment programs which include the following:

1. The laboratory's process for identifying, screening, and reporting 10 CFR 835, Occupational Radiation Protection, noncompliances is formally established in procedure.

- 2. Corrective actions associated with noncompliances are formally entered into the site-wide Corrective Action Tracking System (CATS).
- 3. Significant noncompliances are procedurally required to have a formal root cause analysis.
- 4. Corrective action effectiveness for significant noncompliances is evaluated 30 days following implementation of the corrective action(s). It is noted that in some cases it may not be possible to make this effectiveness determination within the 30 days following implementation. Jefferson Lab did indicate that this 30 day timeframe can be extended. However, the procedure does not seem to allow for the flexibility to perform a corrective action effectiveness review beyond this 30 day timeframe.
- 5. The Jefferson Lab Management and Independent Assessment programs are established in procedure which detail (1) organizational responsibility, (2) assessment prioritization, planning, and methodology, and (3) reporting.

In this review, OE also identified several areas of weakness in the Jefferson Lab's PAAA program and Management/Independent Assessment programs that require attention in order to be consistent with OE guidance and expectation. These include the following:

- 1. Organizationally the Jefferson Lab PAAA Coordinator reports to the Manager, Quality Assurance and Continuous Improvement, who reports to the Associate Director, Environment, Safety, Health, and Quality, who reports to the Chief Operating Officer, who reports to the President and Laboratory Director. It is OE's expectation that contractor PAAA Coordinators have more direct organizational access to their senior management. However, the Jefferson Lab PAAA Coordinator stated that PAAA matters of significance are brought to laboratory senior management attention in a timely manner.
- 2. The Jefferson Lab procedure capturing the responsibilities of the PAAA Coordinator is silent on the need for job specific training. While the current PAAA Coordinator has attended OE sponsored training in the past, it is recommended that the requirement for this training, as well as any other training deemed necessary, be captured in its procedure.
- 3. The Jefferson Lab procedure lists several sources of operational information from which potential PAAA noncompliances could be identified. However, sources external to the laboratory are conspicuously absent. Discussions with both the DOE Thomas Jefferson Site Office (TJSO) personnel and the laboratory PAAA Coordinator do indicate that assessments conducted by TJSO are sent to the PAAA Coordinator for review for potential PAAA noncompliances. It is recommended that the laboratory's PAAA procedure be modified to include the review of assessments

- conducted by organizations external to the laboratory for potential PAAA noncompliances.
- 4. The results of screening potential PAAA noncompliances are not formally documented. Similarly, Noncompliance Tracking System (NTS) reportability determinations are not formally documented. It is recommended that a standardized form or log be developed which (1) describes the potential noncompliance, (2) records the potential noncompliance determination, (3) provides a rationale for that determination, (4) records the NTS reportability determination if a noncompliance exists, and (5) provides a rationale for that reportability determination. The use of these forms should be formally captured in the laboratory's procedure.
- 5. Currently there is no means by which the subset of Jefferson Lab determined PAAA noncompliances can be readily extracted from the CATS. It is recommended that a field be created in CATS to indicate those issues with an associated PAAA noncompliance. This will aid the PAAA Coordinator in identifying potential repetitive or programmatic noncompliances.
- 6. The Jefferson Lab procedure used for evaluating potential PAAA noncompliances requires that when a noncompliance is determined to exist that this noncompliance be evaluated for reportability into the NTS. However, the procedure is silent on what criteria are to be used in making this reportability determination. An OE review of the Jefferson Lab occurrence reports and Radiation Safety Deviation Reports issued over the past year did not reveal any PAAA noncompliances which would have met OE established reportability criteria. It is recommended that the NTS reportability criteria contained in Enforcement Guidance Supplement 03-02 be reflected or referenced in the Jefferson Lab procedure.
- 7. The Jefferson Lab issues management procedure does not address extent of condition reviews such that a review takes place to assure that similar issues do not exist elsewhere across the laboratory. It is recommended that extent of condition reviews be incorporated into the issues management procedure for all Significance Level 3 and 4 issues.
- 8. Currently, laboratory personnel leading Independent Assessments are not formally trained and qualified in the conduct of Independent Assessment. Some subcontracted mentoring to enhance the assessment skills of those personnel conducting Independent Assessments is being undertaken. It is recommended that all laboratory personnel leading an independent assessment be trained and qualified.

We hope that these candid comments will assist Jefferson Lab in improving its PAAA program as well as its Management and Independent Assessment programs. We expect that such enhancements will result in improved nuclear safety performance, since that is the primary purpose of the DOE PAAA program. In addition, in the event of

a future investigation of noncompliance issues at the laboratory, the program improvements discussed above may permit the Office of Price-Anderson Enforcement to exercise discretion with respect to violations of 10 CFR 835 requirements or to forego formal enforcement action.

No reply to this letter is required. If you have any questions, please contact me at (301) 903-0100, or have your staff contact Richard Day at (301) 903-8371.

Sincerely,

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Director

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