

November 15, 1999

Mr. John Sackett
[]
Argonne National Laboratory - West
P. O. Box 2528
Idaho Falls, Idaho 83403-6000

Subject: Enforcement Program Assessment Letter

Dear Mr. Sackett:

During the period September 14-16, 1999, the Office of Enforcement and Investigation (EH-Enforcement) conducted a review of ANL-W Price-Anderson Amendments Act (PAAA) program activities. As part of this review, we evaluated your process to screen noncompliances for applicability under the PAAA and for reporting and tracking in the Noncompliance Tracking System (NTS). Our review also selected several events from NTS reports, ORPS reports and assessments performed at your facility to evaluate your compliance with the Work Processes, Procurement, and Quality Improvement provisions of 10 CFR 830.120. Review activities included onsite discussion with cognizant personnel and review of applicable documentation.

Our review found your PAAA noncompliance screening and reporting program to be deficient in several key areas. Specifically, we noted that sources of information available to the PAAA coordinator related to potential noncompliances were significantly limited. For example, they did not include assessment results, nonconformance reports, and other readily available items at the site. This has resulted in a limited focus on screening and reporting facility events, and relative inattention to precursor conditions and identified program weaknesses.

Our review also identified weaknesses and noncompliances in the implementation of the *Quality Improvement* and *Work Process* requirements contained in 10 CFR 830.120. Noncompliances included lack of formal processes for the resolution of all identified quality and work problems, lack of formal cause determinations for significant quality and work problems, and lack of effective corrective actions to prevent recurrence of such problems. Additionally, weaknesses were identified with the lack of processes to identify common problems or trends across the multiple data bases used, and the timeliness and scope of corrective actions.

Failure to correct the above-noted deficiencies associated with the PAAA screening and reporting program may result in a reduction or loss of mitigation as described in the DOE Enforcement Policy (10 CFR 820 appendix A) for future ANL-W enforcement

actions. Additionally, failure to effectively implement the *Quality Improvement* requirements of 10 CFR 830.120 could result in a future enforcement action, should the identified problem areas continue to occur. No enforcement action is planned at this time, however. Also, DOE will continue to review the Work Process programmatic noncompliance problem addressed in NTS report NTS-CH-AA-ANLW-1999-0001.

Details of the EH-Enforcement review are provided in the enclosure. No reply to this letter is required. However, DOE will continue to monitor performance in these areas and may schedule future reviews as necessary to provide confidence in your PAAA screening and reporting program, as well as the comprehensiveness of corrective actions developed to resolve noncompliances. If you have any questions, please contact Howard Wilchins of my staff at (301) 903-0107.

Sincerely,



R. Keith Christopher

Director

Office of Enforcement and Investigation

Enclosure

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ENCLOSURE

EH-10 REVIEW OF THE ARGONNE NATIONAL LABORATORY - WEST PRICE-ANDERSON AMENDMENTS ACT PROGRAM

I. Introduction

During the period September 14-16, 1999, the Office of Enforcement and Investigation (EH-Enforcement) performed a review of the program used by the University of Chicago (UC) at Argonne National Laboratory-West (ANL-W) to identify, correct, and report potential noncompliances to DOE Rule nuclear safety requirements. This review included an evaluation of site processes to screen noncompliances for applicability under the Price-Anderson Amendments Act (PAAA) and for reporting and tracking in the Noncompliance Tracking System (NTS) and internal tracking systems. As part of this review, EH-Enforcement also selected several events and/or noncompliances identified in NTS, ORPS, and ANL-W assessments to evaluate compliance with the various provisions of 10 CFR 830.120. The results of the review are summarized below. Section II provides results related to the PAAA Screening and Reporting Program; section III provides results related to Quality Improvement processes and section IV discusses Work Process Implementation concerns.

II. PAAA Screening and Reporting Program

Program Administration

The ANL-W PAAA Program is defined and described in site procedure AWP 3.4, *Price-Anderson Amendments Act*, Revision 0, dated June 29, 1999. The procedure establishes the position of an ANL-W PAAA Coordinator, with responsibility for initial screening of identified issues and periodic trend analysis of PAAA issues. The procedure also establishes a Program Implementation Committee (later renamed the Program Coordination Committee, or PCC), with responsibility for determining reporting level and approving corrective actions for identified issues. Overall responsibility for implementing and ensuring compliance with the site program is vested in the Deputy Associate Laboratory Director.

ANL-W Division Directors and their designees have responsibility for the timely reporting of potential PAAA noncompliances (incidents or trends) to the PAAA Coordinator. Upon determination of the appropriate reporting level by the PCC, the PAAA Coordinator has responsibility for entering the noncompliance into the appropriate tracking system (DOE NTS or ANL-W PAAA tracking system).

Discussion with cognizant personnel indicated that site PAAA screening and reporting activities were conducted informally at best prior to the recent establishment of AWP 3.4.

Due to the short time period between the effective date of AWP 3.4 and the current review, it was not possible to reach a firm conclusion regarding the effectiveness of the PCC. While it is clear that development and implementation of the procedure was an untimely response to rule requirements that have been in effect for several years, EH-Enforcement has determined the appropriate approach at this time is to defer any conclusions for a time in order to give ANL-W the opportunity to enhance the substance of the procedure and demonstrate its effective implementation.

Specific deficiencies in the content and implementation of AWP 3.4 are described in the following sections.

PAAA Noncompliance Identification

AWP 3.4 section 5.1 indicates that a general variety of sources (including internal and external assessments, design reviews, allegations, etc.) should be reviewed to identify potential PAAA noncompliances. Discussion with the PAAA coordinator indicated, however, that his sources of information were effectively limited to event-related information (either ORPS or preliminary event investigation reports) or the results of facility inspections performed by the ES&H organization. No mechanisms were established to ensure the results of assessments, nonconformance reports, employee concerns, action item tracking systems, etc., were transmitted to the PAAA coordinator for his assessment.

Review of the contractor PAAA tracking system (PAAATS) identified that contractor PAAA activities are consequently almost exclusively focused on event follow-up, rather than the more desirable prospective review of precursor conditions and weaknesses that could lead to events identified through self-assessment activities. Specifically, 20 of 21 total noncompliance items tracked on the contractor PAAATS arose from self-disclosing facility incidents or occurrences.

During review of selected ANL-W assessments, EH-Enforcement noted instances in which the assessments identified deficiencies that represented potential PAAA noncompliances. As an example, assessment OD I-98-3, dated January 29, 1998, identified that Unreviewed Safety Question Determinations (USQD) were not being performed as required for temporary modifications. These deficiencies, however, were never raised with the PAAA coordinator and consequently never tracked on PAAATS.

PAAA Screening, Tracking and Closure

EH-Enforcement review of contractor activities related to the screening, tracking and closure of PAAA noncompliances identified the following:

- The contractor process for PAAA screening (informal pre-screen/formal screen/PCC review) appeared effective after the coordinator was made aware of potential noncompliances. EH-Enforcement noted, however, that the controlling procedure (AWP 3.4) did not describe the process nor include the forms used to screen potential noncompliances. Consequently, there is no long-term assurance that this informal process will continue over time.
- Contractor staff indicated that PAAA noncompliances are reviewed for trends or repetitive events as they occur. Such activity exceeds the contractor's own procedural requirements for an annual trend review but is in accord with DOE expectations with respect to the tracking of trends. DOE communicated that continuous tracking for areas of safety program weaknesses is a PAAA expectation, and the contractor may wish to revise its procedure to reflect its actual behavior and DOE expectations.
- The controlling procedure (AWP 3.4) does not adequately reflect nor describe the current level of PAAA implementation. In addition to the discrepancies noted above, the procedure does not accurately reflect all PCC functions and responsibilities as they were described to EH-Enforcement. Additionally, the procedure does not address PAAA training requirements or the methodology for verification and closure of corrective actions.

The DOE Enforcement Policy (10 CFR 820 appendix. A) provides positive incentives for contractors who identify, report, and promptly and comprehensively correct nuclear safety noncompliances. The above deficiencies may affect the confidence of DOE in the contractor's PAAA Program and could have an impact on the application of enforcement discretion in future ANL-W enforcement actions.

III. Quality Improvement Implementation

10 CFR 830.120 (c)(1)(iii), *Quality Improvement*, requires processes to detect and prevent quality problems to be established and implemented. Items, services, and processes that do not meet established requirements shall be identified, controlled, and corrected according to the importance of the problem and work affected. Correction shall include identifying the cause of the problem and working to prevent recurrence.

The EH-Enforcement review team evaluated implementation of the above provisions through review of selected NTS, ORPS, and contractor assessment reports, action item tracking systems, and discussion with cognizant personnel. The following deficiencies in the implementation of the Quality Improvement provisions of 10 CFR Part 830.120 were identified and are discussed below:

1. Lack of a formal process or processes to implement this provision;
2. Multiple processes that are not well linked to support trending;
3. Weaknesses in determination of causes of significant quality problems; and,
4. Lack of timely completion of corrective actions.

Lack of Formal Process or Processes

ANL-W uses multiple processes for the tracking and disposition of quality problems. Only two of these appear to be formal processes, as would be required to comply with Part 830.120. These are the NCR (nonconformance resolution) process and the ORPS process. Other processes used are various Action Item databases, or simply assigning an item from an assessment or inspection report to an individual or organization. These other "processes" are not formally controlled by a procedure as a quality problem resolution process, making their use, in effect, optional.

EH-Enforcement review of selected independent assessments identified that deficiencies (quality problems) identified through the assessment process are often never added to the respective tracking system. For example, Operations Division (OD) assessment I-98-3, dated January 1998, identified that USQDs and Safety Committee reviews were not being performed for QA level-A temporary modifications as required by the contractor's OD management plan. This deficiency was not added to, or tracked on, the OD issue tracking system. The deficiency was instead closed by an August 19, 1998, OD Director memorandum, which merely indicated that OD personnel should follow procedures in this area. Corrective actions were not comprehensive, in that no action was taken to perform USQDs or Safety Committee reviews on modifications that had already been completed.

EH-Enforcement also noted that contractor independent assessments lacked clear findings. Some assessment deficiencies were mischaracterized as "facts," and no resolution or corrective action was required or completed. The controlling contractor procedure (AWP 5.4, Independent Assessments) lacked necessary detail related to the categorization, tracking, and closure of deficiencies identified through the assessment process.

DOE's expectation on an acceptable safety problem resolution process is contained in DOE-G-414.1-2, "*QUALITY ASSURANCE MANAGEMENT SYSTEM GUIDE for use with 10 CFR Part 830.120 and DOE-O-414.1,*" 06-17-99. Although the elements of this Guide are not requirements, they illustrate the steps of a typical quality problem resolution process that are commonly employed at other sites.

Multiple Processes Not Well Linked

DOE's regulations and guidance do not require that the quality improvement process must be implemented in a specific way. Several of the key elements can only be achieved, however, if the reviewer and management have access to, and consider the broader history of, problems that have been identified across the organization or site. For example, review of similar occurrences or problems is necessary to properly evaluate significance, identify potential trends, determine the need to change management systems or procedures, and ensure that properly comprehensive actions are taken. At ANL-W no process for such crosscutting reviews was in place at the time of the EH-Enforcement review. This failure prevented work process problems sharing

common elements from being identified and resolved in a comprehensive sitewide manner.

Weaknesses in Determining Causes of Significant Quality Problems

Review of the ANL-W process for Quality Improvement found significant process weakness in the areas of cause determination and recurrence prevention. Site procedures only require formal cause determinations be performed for ORPS unusual or emergency events. Consequently, formal cause determinations are not routinely performed for all significant ANL-W deficiencies that did not originate as an event. These deficiencies include matters identified in independent assessments, self-assessments, facility inspections and employee concerns.

As an example, on September 13, 1999, ANL-W filed an NTS report describing a repetitive concern with work process noncompliances in 1999 (NTS-CH-AA-ANLW-1999-0001). The NTS report was developed in recognition of seven previous ORPS reports, occurring over the past eight months, and the NTS report was recently expanded to include additional noncompliances (See work process discussion below.) Despite the significance of the problem, however, no formal cause determination was performed to support the corrective action in the NTS report, and no effort was made to review previously developed corrective actions for effectiveness.

Lack of Timely Completion of Corrective Actions

Deficiencies were also noted with the timely closure of corrective actions. The EH-Enforcement review of the ANL-W Environment, Safety and Health (ES&H) tracking system identified that a significant percentage of items was not completed on the schedule developed by the contractor for corrective actions. This is weakness in the quality improvement performance. The failure to meet such commitments suggests a lack of management attention to the resolution of safety concerns. In addition, this lack of attention can convey the wrong message to workers regarding the need for timely identification, reporting and resolution of such concerns.

The lack of formal processes for quality improvement, weaknesses in the determination of causes of significant quality problems, and the failure to develop effective corrective actions to prevent recurrence constitutes noncompliance with the requirements of 10 CFR 830.120 (c)(iii).

IV. Work Process Implementation

The work process requirement set forth in 10 CFR 830.120 (c)(2)(i) states in relevant part that "Work shall be performed to established technical standards and administrative controls using approved instructions, procedures, or other appropriate means...."

This regulatory requirement is incorporated into the ANL-W sitewide quality assurance program, which states in section 5.1.1: "All work shall be planned, authorized and accomplished under controlled conditions using standards, instructions, procedures, or other appropriate means to identify acceptable work performance."

Over the past two years, ANL-W has repeatedly experienced work process problems, but until August 1999, the problems were apparently categorized as isolated incidents and were not considered to be part of a pattern or practice of performing work outside a rigorous, proceduralized discipline. The NTS Report filed on September 13, 1999 (NTS-CH-AA-ANLW-1999-0001), identified seven work process noncompliances which occurred in 1999, and three additional noncompliances were added in October 1999. ANL-W has committed to completion of a root cause analysis by early November 1999 for these noncompliances and has stated it will develop comprehensive corrective actions upon completion of the root cause analysis. DOE will monitor plans and actions to address this problem as provided in updates to this NTS report.

EH-Enforcement noted in its review of reportable events for calendar year 1998 that in excess of a dozen similar work process events were identified during that period and were treated as individual, unrelated occurrences. For the most part, these events should have been identified as Price-Anderson related and placed on the site self-tracking system. Based on the guidance provided in table 3-1 of the Operational Procedures Document, *Identifying, Reporting, and Tracking Nuclear Safety Noncompliances under Price-Anderson Amendments Act of 1988*, dated June 1998, these work process deficiencies should have been identified as repetitive and/or programmatic during 1998 and reported into the NTS as well. Rigorous application of this process would have assured increased visibility for these issues and provided a means for management to give them a heightened level of attention.

V. Conclusion

The information above summarizes EH-Enforcement's review of the PAAA Program at ANL-W and the specific weaknesses identified by the EH-10 review team during its visit of September 14-16, 1999. Although DOE is not citing these weaknesses as violations at this time, DOE will monitor actions to correct these programmatic weaknesses before a decision is made whether to close these matters without further action. All actions to address these weaknesses should be appropriately coordinated with responsible DOE Area and Program Office management.