**U.S. Department of Energy****Office of River Protection****P.O. Box 450, MSIN H6-60  
Richland, Washington 99352**

06-ESQ-056

**JUN 27 2006**

Dr. J. G. Hwang, President  
Advanced Technologies  
and Laboratories International, Inc.  
P.O. Box 250  
Richland, Washington 99352

Dear Dr. Hwang:

CONTRACT NO. DE-AC27-05RV14548 – ASSESSMENT REPORT A-06-ESQ-ATL-003,  
ADVANCED TECHNOLOGIES AND LABORATORIES INTERNATIONAL, INC. (ATL),  
PRICE-ANDERSON AMENDMENTS ACT (PAAA) PROGRAM ASSESSMENT, MAY 15  
THROUGH 18, 2006

This letter forwards the results of the U.S. Department of Energy, Office of River Protection assessment of the ATL PAAA Program Assessment conducted May 15 through 18, 2006 (Attachment). The assessment evaluated ATL's compliance with contract requirement, DE27-05RV14548, Section H, Paragraph H-18, to implement an ATL PAAA Program.

The assessor concluded the PAAA program complied with contract requirements and that processes and procedures met expectations of a PAAA program. PAAA program expectations are discussed in the Office of Price-Anderson Enforcement Operational Procedures. Documented evidence of implementation for several aspects of the program was not available for review because there had been no opportunity for ATL to use those portions of the program.

This assessment identified one Finding and two Observations. The Finding identified the lack of established training requirements for all individuals involved in PAAA related activities. The Observations identified procedure improvements necessary to assure consistent and effective program implementation.

ATL should respond to the Finding within 30 days of receipt of this letter. The response should include:

- The cause of the finding;
- The corrective steps that have been taken to control or remove any adverse impact to identified noncompliance situation(s) (remedial actions), and the results achieved;

Dr. J. G. Hwang  
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- The corrective steps that will be taken to prevent similar findings; and
- The date when all corrective actions are completed, verified, and compliance to applicable requirements is achieved.

If you have any questions, please contact me, or your staff may call Robert C. Barr, Director, Office of Environmental Safety and Quality, (509) 376-7851.

Sincerely,

  
Roy J. Schepens, Manager  
Office of River Protection

ESQ:SAV

Attachment

cc w/attach:  
H. L. Anastos, ATL  
P. Bruce, ATL  
ATL Correspondence

Attachment  
06-ESQ-056  
A-06-ESQ-ATL-003

U.S. DEPARTMENT OF ENERGY  
Office of River Protection  
Environmental Safety and Quality

ASSESSMENT: Price-Anderson Amendments Act Program Assessment

REPORT: A-06-ESQ-ATL-003

FACILITY: Advanced Technologies and Laboratories International, Inc.

LOCATION: Hanford Site, 222-S Laboratory

DATES: May 15 through 18, 2006

ASSESSORS: Samuel A. Vega, Lead Assessor

APPROVED BY: Patrick P. Carrier, Team Lead  
Verification and Confirmation

## Executive Summary

The U.S. Department of Energy, Office of River Protection, evaluated the Advanced Technologies and Laboratories International, Inc. (ATL) Price-Anderson Amendments Act (PAAA) Program from May 15 through 18, 2006. The team evaluated ATL's compliance with contract requirements, DE27-05RV14548, Section H, Paragraph H-18, to implement an ATL PAAA Program.

The assessor concluded the ATL PAAA program complied with contract requirements and that processes and procedures met PAAA program expectations for identifying, reporting, correcting, tracking, and trending PAAA noncompliances. PAAA program expectations used as the bases for this assessment are discussed in the Office of Price-Anderson Enforcement (OE) Operational Procedures. The assessor verified contractor PAAA screening activities were adequate, but due to limited PAAA activity the assessor could not verify adequate implementation of other process activities such as PAAA reportability evaluations, reporting into the OE Noncompliance Tracking System database, causal analysis, and management of PAAA related corrective actions. The assessor did not assess trending program effectiveness since there was insufficient trending data, and electronic deficiency tracking processes were not yet in place.

This assessment identified one Finding and two Observations. The Finding documented the lack of established training requirements for all individuals involved in PAAA related activities. Procedures only addressed training for the PAAA Coordinator, but the required training identified was incomplete and not adequate to meet ATL Quality Assurance Program Description requirements. There was no training required or provided for other ATL personnel participating in the PAAA process. The Observations identified needed process improvements for the PAAA process procedure, ATL-312, Section 1.08, "Price-Anderson Amendments Evaluation and Reporting," Revision 0, and for the trending procedure, ATL-312, Section 1.11, "ATL Corrective Action Data Analysis and Trending," Revision 0. Some of the sections in these procedures lacked sufficient details to assure consistent and effective implementation, some sections needed clarification, and some minor activities were not performed as the procedure indicated.

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### List of Acronyms

ATL	Advanced Technologies and Laboratories International, Inc.
NTS	Noncompliance Tracking System
OE	Office of Price Anderson Enforcement
PAAA	Price-Anderson Amendments Act
QA	Quality Assurance
QAPD	Quality Assurance Program Description

**Advanced Technologies and Laboratories  
International, Inc. (ATL)**

**Price-Anderson Amendments Act (PAAA) Assessment**

**1.0 Details**

The assessor reviewed process procedures, reviewed completed work documentation, and interviewed ATL management and staff, to verify the Contractor procedures adequately established a PAAA process compliant with Office of Price-Anderson Enforcement (OE) Operational Procedures, "Identifying, Reporting, and Tracking Nuclear Safety Noncompliances," dated June 1988. Review criteria used during this assessment came from Enforcement Guidance Supplement 00-02, "Price-Anderson Amendments Act (PAAA) Program Review." The procedure provided the OE's expectation for processes needed in a successful PAAA program. Processes discussed included: reviewing deficiency reports, determining reportability, reporting into Noncompliance Tracking System (NTS), tracking corrective actions, and closure verification. The OE procedure also provided the Contractor with common definitions, and contained tutorials for determining PAAA reportability.

The assessor evaluated adequate implementation of PAAA related processes. The following sections identify the areas reviewed, describe the scope of the assessment team's review and provide assessment conclusions and observations:

**1.1 General PAAA Program Implementation**

The assessor reviewed procedure ATL-312, Section 1.08, "Price-Anderson Amendments Evaluation and Reporting," Revision 0, to evaluate the adequacy of the PAAA process to verify a PAAA Coordinator was formally designated and adequate independence was established to determine if training and qualification requirements had been established and was provided; and verify PAAA reviews had been applied to activities performed by subcontractors and suppliers.

The assessor found the responsibility for acting as the PAAA coordinator was formally designated to the "Contract Assurance Program Manager;" the PAAA coordinator responsibilities were clearly established in ATL procedure; and the contractor's organizational flow charts identified the PAAA coordinator position. Interviews with the ATL PAAA coordinator confirmed the position had sufficient authority and independence from the line organization and that the PAAA coordinator directly reported to, and had direct access to the ATL Project Manager.

The assessor reviewed the established PAAA training criteria in procedure ATL-312, Section 1.08, and the training records maintained by ATL against the ATL Quality Assurance Program Description (QAPD) and concluded PAAA training had some deficiencies. The assessor captured these deficiencies in the following finding:

**A-06-ESQ-ATL-003-F01: Training requirements established for individuals with PAAA related responsibilities were not sufficient to meet ATL QAPD requirements.** The assessor determined ATL QAPD (ATL-MP-1002) requirements for personnel training found in Section 2.2.2.1 had not been met. Procedure ATL-312, Section 1.08, "Price-Anderson Amendments Evaluation and Reporting," Revision 0, did not contain adequate training requirements for key participants in the PAAA review and reporting process (PAAA Coordinator, Employee Concern Coordinator, Chief Operating Officer, and responsible manager). ATL management had not established adequate training needs, did not provide adequate PAAA related training, and did not maintain sufficient documented evidence to demonstrate competence to perform PAAA related activities. Refer to Inspection Notes Number A-06-ESQ-ATL-003-01 for more details on this finding.

The assessor concluded the ATL PAAA procedure adequately captured the fundamental elements of a PAAA program, with the following exceptions:

**Improvements to procedure ATL-312, Section 1.08, "Price-Anderson Amendments Evaluation and Reporting," Revision 0, were identified.** The assessor found some of the processes in the procedure lacked sufficient detail, were unclear or incomplete, or needed improvement to assure consistent and effective implementation. Refer to Inspection Notes Number A-06-ESQ-ATL-003-01 for more details on this observation.

## 1.2 Screening and Identification

The assessor evaluated the effectiveness of the PAAA process for screening deficiency reports to identify PAAA rule related issues by reviewing procedure "Price-Anderson Amendments Evaluation and Reporting," Revision 0, interviewing ATL staff and management, reviewing 25 deficiency reports, and the documentation that resulted from the screening of these reports. The assessor also reviewed procedure ATL-312, Section 1.11, "ATL Corrective Action Data Analysis and Trending," Revision 0, and monthly trend reports to evaluate trending of PAAA non-reportable deficiencies.

The assessor determined the processes for screening deficiency reports to identify PAAA rule related issues and to identify any potential NTS reportable issues were adequate and met OE criteria.

The assessor found the trending procedure adequately captured the fundamental elements of a trending program and made the following observation:

**Improvements to procedure ATL-312, Section 1.11, "ATL Corrective Action Data Analysis and Trending," Revision 0, were identified.** The assessor found some of the processes in the procedure lacked sufficient detail to assure consistent application. The assessor also determined the procedure did not adequately between Quality Assurance (QA) related trending and PAAA related trending, PAAA related performance indicators had not been established, and the procedure required further clarification in order to assure consistent and effective implementation. Refer to Inspection Notes Number A-06-ESQ-ATL-003-01 for more details on this observation.



The assessor found sufficient data was not available to trend and the trend reports provided little useful information. The ATL corrective action management processes had been in place since February 2006, and there were approximately 80 deficiencies (opened, closed, and working) captured in the system. This was too few to perform effective trending. ATL also documented, processed, and tracked deficiencies manually, making the information difficult to manage and evaluate. Interviews with ATL personnel revealed the contractor was in the process of developing and implementing an electronic corrective action management and tracking system which would improve the Contractor's ability to trend corrective action related data.

### **1.3 Evaluation of Reportability**

The assessor determined this portion of the process could not be evaluated. ATL PAAA screening efforts had not identified any deficiencies that were potentially PAAA reportable, and ATL did not have the opportunity to implement the process beyond the initial PAAA applicability screening. The assessor reviewed the PAAA screening documentation for 25 deficiencies, and found the reviews adequate. The assessor also determined the procedure provided an adequate process that met OE requirements.

The only subcontractor activity at the time of the assessment included staff augmentation which worked under the ATL QA program and processes, and the CH2M HILL Hanford Group, Inc. government provided services which implemented PAAA requirements through direct contracts with the U.S. Department of Energy, Office of River Protection. The assessor found no issues with subcontractor activities. Supplier purchases made by ATL were all catalog (primarily chemicals) purchases which did not require flow down of PAAA requirements.

## **2.0 Conclusion**

The assessor concluded the ATL PAAA program complied with contract requirements and that processes and procedures met minimum PAAA program expectations as noted in the OE Operational Procedures for identifying, reporting, correcting, tracking, and trending PAAA noncompliances. The assessor verified contractor PAAA screening activities were adequate, but due to limited PAAA activity could not verify adequate implementation of other process activities such as PAAA reportability evaluations, reporting into the OE NTS database, causal analysis, and management of PAAA related corrective actions. The assessor did not assess trending program effectiveness since insufficient trending data, and electronic deficiency tracking processes were not yet in place.

**3.0 Items Opened, Closed, and Discussed**

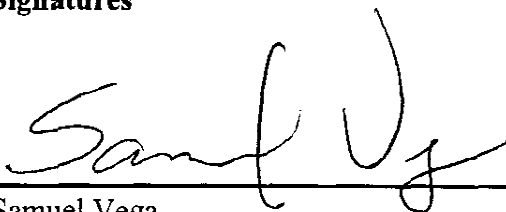
Opened

A-06-ESQ-ATL-003-F01: Finding Training requirements established for individuals with PAAA related responsibilities were not sufficient to meet ATL QAPD requirements

Closed

None.

**Signatures**

 6/5/06

Samuel Vega,  
Assessment Team Leader

**BACKGROUND**

**(PLEASE SCAN)**

**LETTER # 06-ESQ-056**

## Assessment Plan

A-06-ESQ-ATL-003

### Advanced Technologies and Laboratories International, Inc. Price Anderson Amendments Act (PAAA) Assessment

**Dates of Inspection:** May 15 – 18, 2006

**Inspection Team:** Sam Vega, Assessment Team Leader

**Planned Meetings:** Entrance – 8:00 a.m., May 15, 2006  
Exit – May 18, 2006

ATL Management Debriefings – conducted as needed.

#### **Purpose:**

The purpose of the assessment will be to assess the effectiveness of the Advanced Technologies and Laboratories International, Inc. (ATL) PAAA Program in implementing processes for identifying, reporting, correcting and tracking PAAA noncompliances as required in the ATL contract (DE27-05RV14548, Section H, paragraph H-18), and which meet the program criteria in:

- EGS-00-02, *DOE Office of Enforcement and Investigation, Enforcement Guidance Supplement 00-02, Price Anderson Amendments Act (PAAA) Program Reviews*
- Office of Enforcement & Investigation Operational Procedures, *Identifying, Reporting, and Tracking Nuclear Safety Noncompliances*, June 1988

#### **Scope:**

The assessment will verify the adequacy of procedures which incorporate the PAAA requirements, and will assess the effectiveness of the processes prescribed in those procedures. The assessment will accomplish this by interviewing ATL staff, reviewing past ATL assessments, reviewing objective evidence of program implementation, and analyzing rationale provided for decisions made related to PAAA reporting and corrective action. The assessment will focus on the following PAAA activities:

- Identification and screening
- Evaluation of reportability
- Cause determination

- NTS corrective action closure

**Source/Reference Documents:**

- ATL-MP-1002, Rev. 4, *Quality Assurance Program Description*
- ATL-312, Section 1.08, Rev. 0, *Price-Anderson Amendments Evaluation and Reporting*, dated 10/26/05
- Office of Enforcement & Investigation Operational Procedures, *Identifying, Reporting, and Tracking Nuclear Safety Noncompliances*, June 1988
- EGS-00-02: *DOE Office of Enforcement and Investigation, Enforcement Guidance Supplement 00-02, Price Anderson Amendments Act (PAAA) Program Reviews*

Approved: \_\_\_\_\_

Verification and Confirmation Official

Date



6/5/06

## ASSESSMENT NOTE

**Assessment Note Number:** A-06-ESQ-ATL-003-01

**Assessor Name:** Samuel Vega

**Date of Assessment:** May 15 -- 18, 2006

**Item Assessed:** Price Anderson Amendments Act (PAAA) Assessment

The assessor reviewed process procedures, reviewed completed work documentation, and interviewed ATL management and staff, to verify the Contractor procedures adequately established a PAAA process compliant with Office of Enforcement & Investigation Operational Procedures, "Identifying, Reporting, and Tracking Nuclear Safety Noncompliances," June 1988. The assessor also verified adequate implementation of PAAA related processes as described in contractor implementing procedures.

### Documents Reviewed

- 222-S Laboratory Analytical Services and testing organization Chart
- ATL-312, Section 1.08, Rev. 0, "Price-Anderson Amendments Evaluation and Reporting,"
- ATL-MP-1002, Rev. 4, "Quality Assurance Program Description"
- ATL-312, Section 1.04, Rev. 2, "ATL Corrective Action management"
- ATL-312, Section 9.02, Rev. 0, "ATL Causal Analysis Process"
- ATL-312, Section 1.11, Rev. 0, "ATL Corrective Action Data Analysis and trending"
- Issue Identification Form, ATL-2006-001
- Issue Identification Form, ATL-2006-0003
- Issue Identification Form, ATL-2006-0005
- Issue Identification Form, ATL-2006-006
- Issue Identification Form, ATL-2006-007
- Issue Identification Form, ATL-2006-008
- Issue Identification Form, ATL-2006-009
- Issue Identification Form, ATL-2006-010
- Issue Identification Form, ATL-2006-012
- Issue Identification Form, ATL-2006-013
- Issue Identification Form, ATL-2005-008
- Issue Identification Form, ATL-2006-014
- Issue Identification Form, ATL-2006-015
- Issue Identification Form, ATL-2006-016
- Issue Identification Form, ATL-2006-017

- Issue Identification Form, ATL-2006-018
- Issue Identification Form, ATL-2006-019
- Issue Identification Form, ATL-2006-021
- Issue Identification Form, ATL-2006-022
- Issue Identification Form, ATL-2006-023
- Issue Identification Form, ATL-2006-024
- Issue Identification Form, ATL-2006-044
- Issue Identification Form, ATL-2006-085
- Action Tracking Form ATL-2006-038
- EGS-00-02,"DOE Office of Enforcement and Investigation, Enforcement Guidance Supplement 00-02, Price Anderson Amendments Act (PAAA) Program Reviews"
- Office of Enforcement & Investigation Operational Procedures, "Identifying, Reporting, and Tracking Nuclear Safety Noncompliances," June 1988
- Training profile for ATL PAAA Coordinator, Project Manager, and Chief Operating Officer.
- Monthly trend reports for January through March, 2006

### **Observations and Assessments**

This assessment resulted in one finding and two observations:

**A-06-ESQ-ATL-003-F01: Training requirements established for individuals with PAAA related responsibilities were not sufficient to meet ATL QAPD requirements.**

#### **Requirements:**

ATL-MP-1002, Rev. 4, "Quality Assurance Program Description," Section 2.2.2.1 states:

"Procedures implementing the training and qualification program shall provide for developing and maintaining worker proficiency commensurate with the scope, complexity, and nature of activities their jobs require. Implementing procedures shall meet the requirements of the remainder of this section and any referenced standards.

1. Training needs for personnel shall be identified and documented, and resources shall be provided to meet those needs.
2. Training shall include general criteria, including applicable codes, standards, and company procedures; applicable quality assurance program elements; job responsibilities and authority; and technical objectives as related to the job function.
3. Training of personnel shall be performed to ensure proficiency is achieved and maintained, including changes in technology, methods, or job responsibilities."

**Discussion:**

Procedure ATL-312, Section 1.08, "Price-Anderson Amendments Evaluation and Reporting," Rev. 0, did not identify adequate training requirements for key participants in the PAAA review and reporting process (PAAA Coordinator, Employee Concern Coordinator, Chief operating Officer, and responsible manager). Section 3.0 was incomplete because it only identified training requirements for the PAAA coordinator. The training requirements indicated the PAAA coordinator was to have prior PAAA experience or have attended the DOE Office of Enforcement (OE) New Coordinator training. The assessor determined this was not adequate because the procedure did not specify how much experience was required, and the Office of Enforcement's new coordinator training, as well as the annual PAAA coordinator training provided by the OE annually is not optional, but required by the OE for all PAAA coordinators. Minimum training for all participants in the PAAA process should have included familiarization with OE PAAA operating procedures, and all ATL PAAA related procedures.

ATL management had not establish adequate training needs, did not provide adequate PAAA related training, and did not maintain sufficient documented evidence to demonstrate proficiency for performing PAAA related activities.

The assessment resulted in the following two observations:

**Improvements to procedure ATL-312, Section 1.08, "Price-Anderson Amendments Evaluation and Reporting," Rev. 0, were identified.** The assessor found some of the processes in the procedure lacked sufficient detail, were unclear or incomplete, or needed improvement to assure consistent and effective implementation. Specific improvements identified included:

- Section 3.0 was not specific in how much experience a PAAA coordinator was required to have, and training requirements were incomplete because they fail to mention reading of DOE provided PAAA operating procedures, or the ATL PAAA relevant procedures.
- Section 3.0 failed to establish training criteria for all the key program participants mentioned in the procedure (PAAA Coordinator, Employee Concern Coordinator, Chief operating Officer, and responsible manager)
- Section 5.1.1, item 2 required the recording of "evaluation codes," and these codes were provided in Attachment A. ATL did not use these codes, but instead recorded the specific section of the rule violated. Remove all reference to unused evaluation codes.
- Section 5.1.1, item 2 was to describe process steps performed by the PAAA Coordinator, but items a through e were not written as action steps. They were general statements of activities, and did not provide sufficient specific direction.



- Section 5.1.1, item 2 (a through e) noted activities that overlapped with activities in Section 5.1.3. This was confusing because process flow was not clear and details provided were not consistent.
- Section 5.1.2, item 2 indicated deficiencies designated as Potential NTS reportable were entered into the CATAX as “significant.” This would require root cause analysis and a corrective action plan, which is not consistent with PAAA operating procedures. It should become significant only after it is determined to be NTS reportable
- Section 5 had several actions for a responsible manager. This is not consistent with PAAA operating procedures where the PAAA coordinator and Sr. management make the PAAA related decisions.
- Attachment A of the trending procedure has good direction for the further evaluation activities that needs to be included in this procedure.
- Section 5.1.3, item 2 was poorly written; rewrite to be a correctly formatted sentence indicating the evaluation is documented in the form provided in appendix D, results are entered in the related IIF, and the evaluation form is attached to the IIF.
- Section 5.1.8, item 1, indicated performing trending activities annually. Annually is not appropriate. Trending reviews should be monthly and reported formally to management at least quarterly to be consistent with the other ORP contractors.
- Section 5.2 referenced a review and a signature page where concurrence was captured, but failed to indicate what signature page, or where the signature page was located.
- The PAAA 45 day clock for completing the NTS report related root cause analysis was not covered in the procedure.
- Section 5.3.1 should have reference the corrective action management procedure
- Section 5.3.4, item 4; change wording to indicate only NTS reported corrective actions are addressed in the close out package.
- The table in Section 7.0 was too general; list the specific records generated.
- Procedure does not include 10 CFR 851 rule criteria. ATL will participate in pilot program starting June, 1, 2006.

**Improvements to procedure ATL-312, Section 1.11, "ATL Corrective Action Data Analysis and Trending," Rev. 0, were identified.** The assessor found some of the processes in the procedure lacked sufficient detail and were too subjective to assure consistency in its application. The assessor also determined the procedure did not adequately distinguish between QA related trending and PAAA related trending, PAAA related performance indicators had not been established, and the procedure requires further clarification in order to assure consistent and effective implementation. Specific examples of needed improvements identified included:

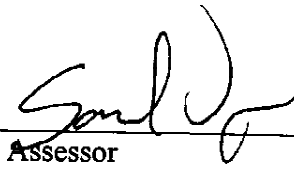
- The procedure mixed PAAA trending requirements with QA trending and was not very clear on the purpose of each and how each was accomplished. The focus of PAAA trending is to identify programmatic, repetitive, or recurring issues that require NTS reporting. QA trending focus on identifying adverse trends that if addressed could prevent more costly corrective actions.
- The discussion in Attachment A on programmatic, recurrent, and repetitive should be included in the PAAA procedure; it provided great detail needed but missing in the PAAA procedure.
- The procedure does not address the establishment of PAAA related performance indicators.
- Section 4.3 provided a process that was too subjective. Provide a more objective process and more specific criteria for identifying potential trend.

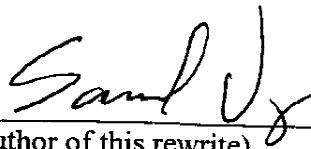
#### **Conclusions:**

The assessor concluded ATL had implemented a PAAA Program that met requirements for identifying, reporting, correcting, tracking, and trending PAAA noncompliances as required in the ATL contract. The established procedures adequately implemented processes specified in the Office of Price-Anderson Enforcement and Investigation (OE) Operational Procedures, but the assessor concluded the ATL program was still just a "start-up" program with minimal processes in place which required refinement and additional improvements to assure consistent and effective implementation. The assessor verified contractor PAAA screening activities were adequate, but the assessor could not verify adequate implementation of other process activities such as PAAA reportability evaluations, reporting into the OE Noncompliance Tracking System (NTS) database, causal analysis, and management of PAAA related corrective actions because there had been no opportunity for ATL to implement those portions of the process. The assessor was not able to assess trending program effectiveness because there was insufficient trending data, and electronic deficiency tracking processes were not yet in place.

**Key Personnel Interviewed:**

Jou Hwang, ATL  
Phyllis Bruce, ATL  
Heather Anastos, ATL

Signed/date:  5/21/00  
Assessor

Signed/date:  5/21/06  
Lead Assessor (author of this rewrite)