June 22, 2007

Mr. Ray Tsukimura, President
Aerotest Operations, Inc.
3455 Fostoria Way
San Ramon, CA 94583

SUBJECT: NRC INSPECTION REPORT NO. 50-228/2007-201

Dear Mr. Tsukimura:

On June 11 - 14, 2007, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at your Aerotest Radiography and Research Reactor facility. The enclosed report documents the inspection results, which were discussed on June 14, 2007, with you and other members of your staff.

The inspection examined activities conducted under your license as they relate to safety and compliance with the NRC's rules and regulations and with the conditions of your license. The inspector reviewed selected procedures and records, observed activities, and interviewed personnel. Based on the results of this inspection, no findings of significance were identified.

In accordance with Section 2.390, "Public inspections, exemptions, and requests for withholding," of Title 10 of the *Code of Federal Regulations*, a copy of this letter, its enclosure, and your response (if any) will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records 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).

Should you have any questions concerning this inspection, please contact Craig Bassett at 404-358-6515.

Sincerely,

/RA/

Johnny H. Eads, Jr., Branch Chief
Research and Test Reactors Branch B
Division of Policy and Rulemaking
Office of Nuclear Reactor Regulation

Docket No. 50-228
License No. R-98

Enclosure: NRC Inspection Report No. 50-228/2007-201
cc w/encl: Please see next page

cc:

Chris Bauman, Reactor Supervisor
Aerotest Operations, Inc.
3455 Fostoria Way
San Ramon, CA 94583

California Energy Commission
1516 Ninth Street, MS-34
Sacramento, CA 95814

Radiologic Health Branch
P.O. Box 997414, MS 7610
Sacramento, CA 95899-7414

Test, Research, and Training
Reactor Newsletter
University of Florida
202 Nuclear Sciences Center
Gainesville, FL 32611

, 2007

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ACCESSION NO.: ML071700653 **TEMPLATE #: NRR-106**

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DATE	06/20/2007	06/20/2007	06/22/2007

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U.S. NUCLEAR REGULATORY COMMISSION
OFFICE OF NUCLEAR REACTOR REGULATION

Docket No:	50-228
License No:	R-98
Report No:	50-228/2007-201
Licensee:	Aerotest Operations, Inc.
Facility:	Aerotest Radiography and Research Reactor
Location:	3455 Fostoria Way San Ramon, CA 94583
Dates:	June 11-14, 2007
Inspector:	Craig Bassett
Approved by:	Johnny H. Eads, Jr., Branch Chief Research and Test Reactors Branch B Division of Policy and Rulemaking Office of Nuclear Reactor Regulation

EXECUTIVE SUMMARY

Aerotest Operations, Inc.
Aerotest Radiography and Research Reactor
Inspection Report No.: 50-228/2007-201

The primary focus of this routine, announced inspection included onsite review of selected aspects of the licensee's Class II research reactor safety program including organizational structure and staffing, review and audit and design change functions, conduct of operations, procedures, operator requalification, maintenance and surveillance, fuel handling, experiments, and emergency preparedness since the last NRC inspection of these areas. The licensee's programs were acceptably directed toward the protection of public health and safety. No violations or deviations were noted.

Organization and Staffing

- The licensee's organization and staffing remain in compliance with the requirements specified in the Technical Specifications.

Review and Audit Functions and Design Control

- Review and oversight functions required by Technical Specifications Section 12.1.3 were acceptably completed by the Reactor Safeguards Committee.

- No changes had been made at the facility since the last NRC inspection but a 10 CFR 50.59 process for design change at the facility was in place and would be followed as required if changes were initiated.

Reactor Operations

- Reactor operations were conducted in accordance with Technical Specification requirements and applicable procedures.

Procedures

- Facility procedures were acceptable and were being revised by the licensee and reviewed and approved by the Reactor Safeguards Committee as required by Technical Specifications and administrative procedures.

Operator Requalification

- Operator requalification was being conducted and completed as required by the Operator Requalification Program. Medical examinations were being completed as required.

Maintenance and Surveillance

- Maintenance was being completed in accordance with Technical Specifications and procedural requirements.

- The program for surveillance checks, tests, verifications, and calibrations was being implemented in accordance with Technical Specifications requirements.

Fuel Handling

- Fuel movements and inspections were completed and documented in accordance with the requirements specified by procedure.

Experiments

- The program for the control of experiments satisfied regulatory, procedural, and Technical Specifications Section 6.7 requirements.

Emergency Preparedness

- The current facility Emergency Plan and implementing procedures were being reviewed biennially as required and updated as needed.

- Emergency response equipment was being maintained and alarms were being tested monthly as required.

- The Letter of Agreement with the local hospital was being verified annually as required.

- Evacuation drills were being conducted twice each year as required by the Emergency Plan.

- Emergency preparedness training for staff personnel was being completed as required.

REPORT DETAILS

Summary of Plant Status

The Aerotest Radiography and Research Reactor (ARRR), a two hundred and fifty kilowatt (250 kW) TRIGA conversion research reactor, continued to be operated in support of neutron radiography experiments and reactor operator training. During the inspection, the reactor was started up and operated each day at approximately 150 kW to complete neutron radiography operations. As noted above, the maximum authorized power level was 250 kW but the licensee had made the decision to reduce the typical operating power level in an effort to keep personnel radiation exposures as low as reasonably achievable (ALARA).

1. Organization and Staffing

a. Inspection Scope (Inspection Procedure [IP] 69001)

The inspector reviewed the following regarding the licensee's organization and staffing to ensure that the requirements of Technical Specifications (TS) Sections 10.1 and 12.1 were being met:

- staffing during routine operation of the ARRR
- management responsibilities as specified in the TS
- organizational structure indicated in the latest version of the TS, Amendment No. 4, dated January 28, 1981

b. Observations and Findings

Through discussions with licensee representatives, the inspector determined that management responsibilities and the organizational structure at the facility had not functionally changed since the previous NRC inspection in June 2006 (Inspection Report No. 50-228/2006-201). The inspector determined that the Reactor Supervisor retained direct control and overall responsibility for management of the facility as specified in the TS. The Reactor Supervisor reported to the President, Aerotest Operations, Inc (AO). Also, the Radiological Safety Officer reviewed and approved all procedures and experiments involving radiological safety as required.

Through review of records and logs, as well as discussions with licensee personnel, the inspector determined that the current staffing at the facility was acceptable to support the workload and ongoing activities. Staff personnel also met the qualification requirements of the TS for effective reactor operations and radiation protection.

It was also noted that the Aerotest reactor continued to be owned by OEA, Inc. and operated by AO. OEA, Inc. is a wholly-owned subsidiary of Autoliv ASP, Inc., which in turn is a wholly-owned subsidiary of Autoliv, Inc., a Delaware Corporation.

c. Conclusions

The licensee's organization and staffing remain in compliance with the requirements specified in the TS.

2. Review and Audit Functions and Design Control

a. Inspection Scope (IP 69001)

In order to ensure that the audits and reviews stipulated in the requirements of TS Section 12.1.3 were being completed and to verify that any modifications to the facility were consistent with 10 CFR 50.59, the inspector reviewed the following:

- completed audits for 2005 and 2006
- changes made under the licensee's 10 CFR 50.59 change process
- Reactor Safeguards Committee meeting minutes for 2005 and 2006
- duties specified for the Reactor Safeguards Committee by the administrative procedure and TS Section 12
- Annual Summary of Changes, Tests, and Experiments Performed at the Aerotest Radiography and Research Reactor (ARRR) for the period from July 1, 2004 to June 30, 2005, submitted to the NRC on July 28, 2005
- Annual Summary of Changes, Tests, and Experiments Performed at the Aerotest Radiography and Research Reactor (ARRR) for the period from July 1, 2005 to June 30, 2006, submitted to the NRC on July 21, 2006
- Section I of the ARRR Procedures Manual entitled, "Administrative Procedures," Procedure Change Notice (PCN) Number (No.) 2, RSC approval dated June 28, 1990

b. Observations and Findings

(1) Review and Audit Functions

The Reactor Safeguards Committee (RSC) met at least once per year in accordance with TS requirements with the last two meetings being held on November 2, 2005, and November 6, 2006 respectively. The inspector reviewed the RSC's meeting minutes for these meetings. The meeting minutes showed that the RSC had considered the types of topics stipulated by the TS. It was noted that the meetings were attended by all members of the committee. Review of the minutes also indicated that the committee provided guidance and direction to ensure suitable oversight of reactor operations.

The inspector verified that the periodic audits specified by TS Section 12.1.3 were being completed as required. The RSC minutes and audit records indicated that the Chair of the RSC conducted an audit of facility operations at least annually and submitted the results to the President, AO. The inspector noted that there were no significant issues discovered and that the licensee took appropriate corrective actions in response to any audit findings or recommendations noted.

(2) Design Change Functions

Through review of applicable records and interviews with licensee personnel, the inspector determined that no design changes had been initiated or completed at the facility since the last NRC operations inspection. It was noted that TS and procedural requirements were in place to ensure that changes, if proposed, would be reviewed by the RSC and in accordance with 10 CFR 50.59 as required.

c. Conclusions

Review and oversight functions required by TS Section 12.1.3 were acceptably completed by the RSC. No changes had been made at the facility since the last NRC inspection but a 50.59 process for design change at the facility was in place and would be followed as required if changes were initiated.

3. Reactor Operations

a. Inspection Scope (IP 69001)

The inspector reviewed selected portions and/or aspects of the following to ensure compliance with TS Sections 10 and 12:

- staffing for reactor operations
- selected ARRR Operational Log Sheets for 2006 and 2007
- selected ARRR Startup/Shutdown Sheets for 2006 and 2007
- reactor startup, operations, and shutdown activities during the inspection
- Operations Request Forms for selected scrams in 2005, 2006 and to date in 2007
- Section II of the ARRR Procedures Manual entitled, "Operating Procedures," PCN No. 2, RSC approval dated June 28, 1990
- Annual Summary of Changes, Tests, and Experiments Performed at the Aerotest Radiography and Research Reactor (ARRR) for the period from July 1, 2004 to June 30, 2005, submitted to the NRC on July 28, 2005
- Annual Summary of Changes, Tests, and Experiments Performed at the Aerotest Radiography and Research Reactor (ARRR) for the period from July 1, 2005 to June 30, 2006, submitted to the NRC on July 21, 2006

b. Observations and Findings

The inspector reviewed selected ARRR Startup/Shutdown Sheets and Operational Log Sheets dating from January 2006 through the date of this inspection. The inspector determined that reactor operations were carried out following written procedures as required by TS Section 12.2.1.1. Reactor Safety System scrams were identified in the log as "automatic scrams", and were reported and resolved as required before the resumption of operations under the authorization of a Senior Reactor Operator (SRO). Logs and records also showed that operational conditions and parameters were consistent with license and TS requirements and that TS operational limits had not been exceeded.

The operating logs were generally complete and provided an acceptable indication of operational activities. The Annual Summaries of Changes, Tests, and Experiments (the licensee's annual reports to the NRC) documented the abnormal events that had occurred during the year. For any unresolved scrams, i.e., when the cause had not been determined, an Operations Request Form (ORF) was completed to document the measures that were taken to resolve or track the events. ORFs were also designed to provide documentation and approvals required for various reactor related activities, such as emerging maintenance issues on TS required instruments.

The inspector conducted observations of the reactor staff on June 12 and 13, 2007, and reviewed the associated records and logs completed for those operations. The inspector noted that the licensed SRO on duty was knowledgeable and competent. Observation of operational activities also confirmed that reactor operations were carried out in accordance with written procedures and TS requirements.

c. Conclusions

Reactor operations were conducted in accordance with TS requirements and applicable procedures.

4. Procedures

a. Inspection Scope (IP 69001)

The inspector reviewed the following to ensure that the requirements of TS Section 12.2 were being met concerning written procedures:

- selected ARRR procedures
- Procedure Approval Sheets
- Procedure Change Notice forms
- ARRR procedure revision, review, and approval process
- Section I of the ARRR Procedures Manual entitled, “Administrative Procedures,” PCN No. 2, RSC approval dated June 28, 1990, which detailed the process used to review, revise, and approve all facility procedures
- Section II of the ARRR Procedures Manual entitled, “Operating Procedures,” PCN No. 2, RSC approval dated June 28, 1990
- Section IV of the ARRR Procedures Manual entitled, “Critical Assembly and Power Calibration Procedures,” PCN No. 7, RSC approval dated November 2, 2005
- Section VII of the ARRR Procedures Manual entitled, “Experiment and Approval,” PCN No. 2, RSC approval dated June 28, 1990

b. Observations and Findings

The inspector noted that procedures had been developed for reactor operations and safety. The inspector verified that a designated member of the RSC had completed biennial reviews of the procedures as required. The last review of all procedures had occurred on May 15, 2006.

It was noted that one procedure, pertaining to security, had been developed since the NRC inspection in 2006. The inspector verified that the procedure had been written in accordance with administrative guidelines. It was also noted that the procedure had not yet been presented to the RSC for review and approval but that was scheduled to be done at the next RSC meeting.

c. Conclusions

Facility procedures were acceptable and satisfied TS and administrative procedure requirements for being revised by the licensee and reviewed and approved by the RSC.

5. Operator Requalification

a. Inspection Scope (IP 69001)

To verify compliance with the Operator Requalification Program, which was submitted to the NRC on July 13, 2000, the inspector reviewed:

- status of all qualified operators' licenses
- operator physical examination records for 2005 and 2006
- selected ARRR Operational Log Sheets documenting reactivity manipulations
- 2006 Senior Reactor Operator Biennial Written Examinations and related records
- 2005 and 2006 Senior Reactor Operator Annual Operating test results and related records

b. Observations and Findings

There were four SROs employed at the facility. The inspector noted that one employee, currently working as the electronics engineer, was in training to become a licensed operator. The inspector verified that the operators' licenses were current. Records showed that operators were given biennial requalification examinations and annual operations tests as required. Logs indicated that operators maintained active duty status as required by operating the reactor the required number of hours quarterly and by completing the required number of reactivity manipulations. The Operator Requalification Program was being maintained up to date. The inspector also verified that the operators were reviewing the contents of all abnormal and emergency procedures on a regularly scheduled basis as indicated by a sign off sheet located in the emergency procedures folder.

The inspector further verified that physical examinations of the operators were conducted biennially as required.

c. Conclusions

Operator requalification was being conducted and completed as required by the Operator Requalification Program. Medical examinations were being completed as required.

6. Maintenance and Surveillance

a. Inspection Scope (IP 69001)

To determine that maintenance and surveillance activities were being completed as required by TS Sections 3, 4, 5, 6, and 7, the inspector reviewed:

- Repair Folders for various instruments

- Reactor Period Data Sheets for the past two years
- Operations Request Forms for 2006 and to date in 2007
- Monthly Alarm Check Lists for 2006 and to date in 2007
- Quarterly Maintenance Check Lists for 2006 and to date in 2007
- Control Rod Calibration - Rod Drop Data Sheets (Graphic Version)
- selected ARRR Startup/Shutdown Sheets for 2006 and to date in 2007
- Section IV of the ARRR Procedures Manual entitled, "Critical Assembly and Power Calibration," PCN No. 7, RSC approval dated November 2, 2005
- Section VIII of the ARRR Procedures Manual entitled, "Maintenance Procedures," PCN No. 2, RSC approval dated January 14, 1993

b. Observations and Findings

(1) Maintenance Activities

The various Repair Folders and Operations Request Forms maintained by the licensee indicated that emergent problems were addressed by corrective maintenance and routine preventive maintenance operations were completed as required by procedure. If electrical components for the nuclear instrumentation were replaced, the maintenance procedures required that calibrations and voltage checks occur before the instrumentation was placed back into service. The inspector verified that these tests were completed as required. Records showed that routine maintenance activities were conducted at the required frequency and in accordance with the TS and/or the applicable procedure. Maintenance activities ensured that equipment remained consistent with the Safety Analysis Report and TS requirements.

(2) Surveillance Activities

Daily, monthly, quarterly, semiannual, and annual surveillance tests, checks, verifications, and calibrations were completed on schedule and in accordance with licensee procedures and TS requirements. All of the recorded results for the surveillance checks reviewed by the inspector were within the associated TS and/or procedurally prescribed parameters. The records and logs reviewed were accurate, complete, and being maintained as required.

c. Conclusions

Maintenance was being completed in accordance with TS and procedural requirements. The program for surveillance checks, tests, verifications, and calibrations was being implemented in accordance with TS requirements.

7. Fuel Handling

a. Inspection Scope (IP 69001)

The inspector reviewed selected aspects of the following to verify that fuel movement and handling was being conducted as required by TS Section 5.1.1 and Section 11:

- fuel handling equipment and reactor instrumentation
- various records and data sheets related to fuel movement
- selected ARRR Operational Log Sheets for the past two years
- Data Sheets for Fuel and Graphite Transfer forms for 2005, 2006, and 2007
- Section IV of the ARRR Procedures Manual entitled, "Critical Assembly and Power Calibration," PCN No. 7, RSC approval dated November 2, 2005

b. Observations and Findings

The inspector verified that the fuel movements made since the 2005 NRC inspection were conducted in compliance with procedure and that the licensee was maintaining the required records of the various movements that had been completed. Although reactor fuel was not required to be inspected, the licensee typically inspected 20 percent (20%) of the fuel elements annually in order to remain cognizant of the physical status of the fuel. Based on the results of these fuel inspections, it was noted that several fuel elements had been deformed such that they were "stuck" in the reactor core, making them difficult to remove. Since the licensee was unable to remove the elements from the core, inspection of the lower portions of these fuel elements was not done. During the 2005 NRC inspection, it was suggested that the licensee make an attempt to inspect the elements that were "stuck" to ensure that the deformation of these fuel elements was not a precursor to a more significant issue, such as fuel element cladding failure.

As a result of the fuel problem, the licensee decided to remove all fuel possible from the core and conduct an inspection of all the fuel elements. In January 2006, those elements that could be removed were placed in storage. The licensee then used a movable camera and monitor set-up to conduct an inspection of those elements that were "stuck" in place. After that was completed, an inspection of all the remaining elements was also completed and the elements were returned to their original positions in the core. No new or unusual problems were identified.

c. Conclusions

Fuel movements and inspections were completed and documented in accordance with the requirements specified by procedure.

8. Experiments

a. Inspection Scope (IP 69001)

To ensure that the requirements of TS Sections 8 and 9 were being met concerning experimental programs, the inspector reviewed selected aspects and/or portions of:

- Experiment Sheets and Production Log Sheets
- experimental administrative controls and precautions
- Aerotest Experiment Type Review forms approved by the RSC
- Annual Summary of Changes, Tests, and Experiments Performed at the Aerotest Radiography and Research Reactor (ARRR) for the period from July 1, 2004 to June 30, 2005, submitted to the NRC on July 28, 2005

- Annual Summary of Changes, Tests, and Experiments Performed at the Aerotest Radiography and Research Reactor (ARRR) for the period from July 1, 2005 to June 30, 2006, submitted to the NRC on July 21, 2006
- Section VII of the ARRR Procedures Manual entitled, "Experiment Review and Approval," PCN No. 2, RSC approval dated June 28, 1990, stipulating experimental program requirements

b. Observations and Findings

There were six basic types of experiments that had been approved to be conducted at the ARRR facility. These included: 1) No. 114 - neutron radiography performed in the radiography facilities, 2) No. 116 - activation analysis of hydrocarbon samples, 3) No. 117 - neutron activation of iodine and silver, 4) No. 120 - irradiation of plastic slides impregnated with microscopic quantities of fissionable materials, 5) No. 123 - irradiation of fission detectors, and 6) No. 124 - irradiation of solid state electronic components. However, the inspector verified that the only type of experiment that had been conducted at the facility in the past several years was neutron radiography (N-Ray). The typical N-Ray experiment consisted of radiographing various components such as explosive devices for different uses including the space shuttle fuel tank separation system, fighter jet ejection systems, and automobile air bag initiating devices. All N-Ray experiments were routine in nature and had been conducted for many years. The results of the experiments were documented in the appropriate logs or records. Based on observations of ongoing work, the inspector concluded that the neutron radiography operations were being conducted in a safe and cautious manner.

No new experiments had been initiated, reviewed, or approved since the last inspection. If any new experiments were to be initiated, they would be reviewed and approved by the RSC and would be completed under the supervision of the Reactor Supervisor and in accordance with TS requirements (e.g., reactivity limitations, explosive material restrictions, etc.).

c. Conclusions

The program for the control of experiments satisfied regulatory, procedural, and TS Section 6.7 requirements.

9. Emergency Preparedness

a. Inspection Scope (IP 69001)

To verify compliance with the Emergency Plan, the inspector reviewed selected aspects of:

- training and emergency drill records
- emergency response facilities, supplies, and instrumentation
- offsite support as indicated in the current Letter of Agreement
- the licensee's Emergency Plan implementing procedures, Section III of the ARRR Procedures Manual entitled, "General Emergency Procedures," PCN No. 4, last revised January 28, 2005

b. Observations and Findings

The Emergency Plan (E-Plan) for the Aerotest Radiography and Research Reactor in use at the facility was the same as the version most recently approved by the NRC with the last revision dated January 14, 2005. The inspector verified that the E-Plan was audited and reviewed biennially as required. Emergency Plan implementing procedures were also reviewed and revised as needed to implement the E-Plan effectively.

Through records review and through interviews with staff personnel, emergency responders were determined to be knowledgeable of the proper actions to take in case of an emergency. Emergency response equipment was being maintained and alarms were being tested monthly as required. Communications capabilities with the various offsite support groups were acceptable.

The inspector verified that emergency preparedness and response training for staff personnel was being completed annually as required. Evacuation drills had been conducted twice a year as required by the E-Plan. The licensee was again encouraged to conduct more challenging drills in order to test communications procedures and check on the response of facility personnel to a simulated radiological or industrial hazards problem.

The inspector reviewed the Letter of Agreement (LOA) that had been established with the Valley Care Health System which operated a hospital in nearby Pleasanton, CA. The LOA stipulated that the hospital would treat potential victims of a radiological event if such were to occur at the ARRR facility. The inspector verified that the hospital had been contacted annually as required to ensure that the LOA remained in effect and to verify facility readiness.

During the inspection, the inspector visited the San Ramon Valley (SRV) Fire Prevention District (FPD) Station No. 35 and observed the emergency response equipment that would be used during an emergency at the facility. During the tour of the fire station, it was noted that the facility maintained more than a sufficient amount of equipment to respond to any fire or radiological emergency at the ARRR facility. It was noted that there appeared to be a good working relationship between the licensee and the fire department.

c. Conclusions

The inspector concluded that the emergency preparedness program was conducted in accordance with the Emergency Plan because: 1) the Emergency Plan and implementing procedures were being reviewed biennially as required and updated as needed, 2) emergency response equipment was being maintained and alarms were being tested monthly as required, 3) the Letter of Agreement with the local hospital was being verified annually as needed, 4) evacuation drills were being conducted twice a year as required, and 5) emergency preparedness training for staff personnel was being completed as required.

10. Follow-up on Previous Open Items

a. Inspection Scope (IP 69001)

The inspector reviewed the actions taken by the licensee following identification of an Unresolved Item (URI) and various Inspector Follow-up Items (IFIs) during previous inspections.

b. Observations and Findings

(1) URI - 50-228/2000-201-01 - Follow-up on concerns regarding transfer of license and foreign ownership.

The inspector discussed the issue of the apparent indirect or ultimate transfer of the license which occurred when the ownership of the Aerotest Radiography and Research Reactor (ARRR) was transferred in substantial part to Autoliv, Inc., through an indirect transfer.

This issue has been under review by both the licensee and the NRC for several years. During the inspection it was noted that the pathway to a resolution has been established. On October 7, 2003, the NRC issued the licensee a letter indicating the need for Aerotest to create a plan for full, or at least partial, divestiture. On January 29, 2004, Autoliv, Inc. submitted a letter to the NRC outlining a proposal for a divestiture plan for the ARRR. The plan consisted of Autoliv's intent to sell the Aerotest business operation but, as of the date of the letter, no buyers had been identified. Since no buyer was available at that time, Autoliv proposed a partial divestiture plan under which Autoliv would attempt to identify an appropriate person or entity for the transfer of between 1% and 5% of the ownership of Aerotest.

In conjunction with the partial divestiture, Autoliv also proposed a negation plan. The negation plan included the following: 1) The president of Aerotest or any officers of Aerotest having direct responsibility for the control of, and any employees of Aerotest having direct custody of special nuclear material stored, used, or produced at the ARRR facility, shall be citizens of the United States; 2) Aerotest alone shall be responsible for the custody and control of such special nuclear material, and the officer of Aerotest in charge of such special nuclear material shall report directly to the president of Aerotest; 3) The president of Aerotest shall be charged with the responsibility and have the exclusive authority (either acting directly or through persons designated by and reporting directly to him) of insuring that the business and activities of Aerotest shall at all times be conducted in a manner which shall be consistent with the protection of the common defense and security of the United States; and, 4) Aerotest will promptly notify the commission of any economic, financial, or other circumstances that may adversely affect Aerotest's ability to discharge its responsibilities under the Atomic Energy Act, NRC rules and regulations, and the terms of the license. By letter dated February 20, 2004, the NRC acknowledged the divestiture plan and negation plan. The NRC reiterated that the process for divestiture was required to follow the provisions of 10 CFR 50.80. Those provisions would also require the submission of an application for transfer of control of the license with the appropriate information. The process also required NRC approval before transfer

of any ownership interest in the facility. Aerotest was also asked to send the NRC written updates of progress on the outlined divestiture plan every 60 days. By letter to the NRC dated January 24, 2007, Autoliv indicated their intent to follow the divestiture plan and that they continued to meet the provisions of the negation plan outlined in their January 29, 2004-letter. Autoliv also proposed to send written updates on the progress of the divestiture plan on a semiannual basis. This was found to be acceptable.

Based on the actions taken by Autoliv and the plans developed, this item will be closed. A new Inspector Follow-up Item will be opened to ensure that the issue is ultimately resolved (IFI 50-228/2007-201-01).

(2) IFI - 50-228/2005-201-01 - Follow-up on revision of control rod calibration procedures to implement step by step instructions on how to perform the procedure.

During the NRC inspection in 2005, it was noted that the control rod worths were determined by using the rod drop method and the positive period method. The licensee had an unofficial interpretation of the procedure used that provided step by step instructions on how to perform the task and gave a slightly more detailed approach than the approved procedure. The inspector requested that the licensee have the unofficial step by step procedure reviewed and approved by the RSC so that they could be incorporated into their official procedures. The inspector determined that this would ensure greater reproducibility for this procedure.

During this inspection, the inspector verified that a PCN had been developed which established step by step instructions to following for determining rod worth. The PCN had subsequently been reviewed and approved by the Reactor Supervisor and then reviewed and approved by the RSC as required. This issue is closed.

(3) IFI - 50-228/2005-201-02 - Review the licensee's actions to conduct complete inspections of the fuel elements in the core.

As noted in Section 7 of this report, in 2005, the inspector determined that the licensee was unable to inspect the lower fuel and graphite portions of certain fuel elements since they could not be removed from the reactor core. To ensure that the deformation of these fuel elements was not a precursor to a more significant issue, the licensee was informed that NRC would continue to monitor the licensee's fuel inspections for any possible indications of a fuel element cladding failure. The licensee understood the significance of the issue and began developing plans to conduct inspections of these fuel elements.

During this inspection, it was noted that the licensee had decided to remove all the fuel possible from the core and conduct an inspection of all the fuel elements. In January 2006, those elements that could be removed were placed in storage. The licensee then used a movable camera and monitor set-up to conduct an inspection of those elements that were "stuck" in place. After that was completed,

an inspection of all the remaining elements was completed and the elements were returned to their original positions in the core. No new or unusual problems were identified.

To further help with this problem, the licensee had developed a plan to purchase enough new fuel elements over time to replace the ones that cannot be removed from the core. Once enough fuel is on hand, the reactor core will be defueled. Then the top grid plate will be raised slightly and the remaining "stuck" elements will be worked out of their positions and out of the core. Then the new fuel elements will be placed in their positions. This issue is considered closed.

(4) IFI - 50-228/2005-201-03 - Follow-up on conducting facility tours and reorientation for the SRV FPD Hazardous Material (HAZMAT) personnel.

During a tour of the SRV FPD Station No. 35 in 2005, the inspector asked the HAZMAT specialist at the fire station what the ARRR could do to help fire department personnel fulfill their role of providing emergency response support for the reactor facility. The HAZMAT specialist stated that they had the training they needed to provide assistance to the ARRR in an emergency situation, but it may be useful to have a periodic tour of the facility to reorient themselves with the hazards contained in the building. The licensee management member who was present during the SRV FPD station tour agreed that a periodic ARRR facility tour would be useful to the fire department.

During this inspection, it was noted that, during the past two years, the licensee had attempted to set up tours for SRV FPD personnel and also had attempted to develop a scenario for a training drill. However, to date, no periodic tours of the ARRR facility had been established and a drill involving the SRV FPD had not occurred. This issue remains open.

c. Conclusions

One previously identified Unresolved Item and two Inspector Follow-up Items were closed. One IFI remains open. The issue of the completion of the divestiture plan and a negation plan by Autoliv concerning AO was identified as an IFI.

11. Exit Interview

The inspection scope and results were summarized on June 14, 2007, with members of licensee management. The inspector described the areas inspected and discussed in detail the inspection findings. No dissenting comments were received from the licensee. Although proprietary information was reviewed during the inspection no such material is included in this report.

PARTIAL LIST OF PERSONS CONTACTED

Licensee Personnel

C. Bauman	Reactor Supervisor
K. Kumar	Electronics Engineer
F. Meren	Manager, Neutron Radiography
T. Richey	Level II Radiographer
R. Tsukimura	President and Chief Executive Officer, Aerotest Operations, Inc.
S. Warren	Radiological Safety Officer and Manager, Quality Assurance

Other Personnel

T. Anderson	Hazardous Materials Team Leader, San Ramon Valley Fire Prevention District, Station 35

INSPECTION PROCEDURE USED

IP 69001: Class II Non-Power Reactors

ITEMS OPENED, CLOSED, AND DISCUSSED

Opened

50-228/2007-201-01	IFI	Follow-up on the completion of the Autoliv, Inc. divestiture and negation plans involving Aerotest Operations, Inc.

Closed

50-228/2000-201-01	URI	Follow-up on concerns regarding transfer of license and foreign ownership of Aerotest Operations, Inc.
50-228/2005-201-01	IFI	Follow-up on revision of control rod calibration procedures to implement step by step instructions on how to perform the procedure.
50-228/2005-201-02	IFI	Review the licensee's actions to conduct complete inspections of the fuel elements in the core.

Discussed

50-228/2005-201-03	IFI	Follow-up on conducting facility tours and re-orientation for the San Ramon Valley Fire Department HAZMAT personnel.

LIST OF ACRONYMS USED

ADAMS	Agencywide Documents Access and Management System
AO	Aerotest Operations, Inc.
ARRR	Aerotest Radiography and Research Reactor
CFR	Code of Federal Regulations
E-Plan	Emergency Plan
FPD	Fire Prevention District
HAZMAT	Hazardous Material
IFI	Inspector Follow-up Item
kW	kilowatt
LOA	Letter of Agreement
N-Ray	neutron radiography
NRC	Nuclear Regulatory Commission
OEA	OEA Aerospace, Inc.
ORF	Operations Request Form
PCN	Procedure Change Notice
RSC	Reactor Safeguards Committee
SRO	Senior Reactor Operator
SRV	San Ramon Valley
TS	Technical Specification
URI	Unresolved Item