



# AEROTEST OPERATIONS, INC.

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15 July 2010

Director of Inspection and Enforcement  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555

Subject: Annual Summary of Changes, Tests, and Experiments at Aerotest Radiography and Research Reactor (ARRR), Docket No. 50-228, for the period of 1 July 2009 to 30 June 2010.

Gentlemen:

The enclosed report summarizes the ARRR operations from July 1, 2009 through June 30, 2010. This submittal complies with the requirements set forth in 10 CFR 50.59, "Authorization of Changes, Tests and Experiments." Summary forms of monthly operations and unscheduled power reductions are included.

No new or unusual problems have been noted during the year and reactor operations have remained stable with respect to safety and reliability.

Sincerely,

Alfredo W. Meren  
Reactor Supervisor  
Aerotest Operations, Inc.

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MR

ANNUAL SUMMARY OF CHANGES, TESTS AND EXPERIMENTS  
PERFORMED AT THE  
AEROTEST RADIOGRAPHY AND RESEARCH REACTOR  
(ARRR)

DOCKET NO. 50-228

FOR THE PERIOD ENDING JUNE 30, 2010

BY



ALFREDO W. MEREN  
REACTOR SUPERVISOR

APPROVED BY



SANDRA L. WARREN  
GENERAL MANGER

AEROTEST OPERATIONS, INC.

## SECTION I.

### Part 1 – Changes

1. Updated Procedures and Safety Analysis Report have previously been submitted to the Nuclear Regulatory Commission as part of the facility's relicensing application package. No changes have yet been implemented.

## Part 2 – Experiments

No new experiments were performed during the year. The experiments performed in this reporting period were as follows:

Experiment No. 114: Neutron radiography performed in the radiography facilities.

## SECTION II

### ARRR MONTHLY OPERATING SUMMARY

| Date   | Operating Hours | Kilowatt-Hours | Accumulated kW-h | Expts & Irradiations | Unscheduled Shutdowns |
|--------|-----------------|----------------|------------------|----------------------|-----------------------|
| 7-09   | 136             | 21,794         | 13,838,466       | 23                   | 0                     |
| 8-09   | 135             | 21,668         | 13,860,134       | 23                   | 0                     |
| 9-09   | 125             | 20,049         | 13,880,183       | 22                   | 0                     |
| 10-09  | 132             | 24,230         | 13,904,413       | 23                   | 3                     |
| 11-09  | 127             | 23,347         | 13,927,760       | 23                   | 1                     |
| 12-09  | 142             | 26,082         | 13,953,842       | 23                   | 5                     |
| 1-10   | 119             | 21,857         | 13,975,699       | 18                   | 0                     |
| 2-10   | 129             | 23,679         | 13,999,378       | 23                   | 1                     |
| 3-10   | 148             | 27,252         | 14,026,630       | 27                   | 0                     |
| 4-10   | 150             | 28,018         | 14,054,648       | 23                   | 0                     |
| 5-10   | 140             | 26,116         | 14,080,764       | 26                   | 0                     |
| 6-10   | 145             | 27,110         | 14,107,874       | 26                   | 1                     |
| Totals | 1628            | 291,202        | 14,107,874       | 280                  | 11                    |

# ARRR UNSCHEDULED POWER REDUCTIONS

| TYPE OF SCRAM |          |      |     |          |           |     | CHANNEL AFFECTED |   |   |   |            |     | COMMENTS         |
|---------------|----------|------|-----|----------|-----------|-----|------------------|---|---|---|------------|-----|------------------|
| NO.           | DATE     | AUTO | MAN | Spurious | OP. ERROR | CAL | 1                | 2 | 3 | 4 | Earthquake | H2O |                  |
| 1             | 10-13-09 | X    |     | X        |           |     | X                | X | X | X |            |     | power outage     |
| 2             | 10-14-09 | X    |     | X        |           |     | X                | X | X | X |            |     | shim rod drop    |
| 3             | 10-29-09 | X    |     | X        |           |     | X                | X | X | X |            |     | power surge      |
| 4             | 11-23-09 | X    |     | X        |           |     | X                | X | X | X |            |     | no visible alarm |
| 5             | 12-10-09 | X    |     | X        |           |     | X                | X | X | X |            |     | shim rod drop    |
| 6             | 12-15-09 | X    |     | X        |           |     | X                | X | X | X |            |     | no visible alarm |
| 7             | 12-16-09 | X    |     | X        |           |     | X                | X | X | X |            |     | no visible alarm |
| 8             | 12-17-09 | X    |     | X        |           |     | X                | X | X | X |            |     | no visible alarm |
| 9             | 12-17-09 | X    |     | X        |           |     | X                | X | X | X |            |     | no visible alarm |
| 10            | 2-10-10  | X    |     | X        |           |     | X                | X | X | X |            |     | power surge      |
| 11            | 6-1-10   | X    |     | X        |           |     | X                | X | X | X |            |     | reg rod drop due |
| 12            |          |      |     |          |           |     |                  |   |   |   |            |     | to loose bulb in |
| 13            |          |      |     |          |           |     |                  |   |   |   |            |     | CONT/ON lamp     |
| 14            |          |      |     |          |           |     |                  |   |   |   |            |     |                  |
| 15            |          |      |     |          |           |     |                  |   |   |   |            |     |                  |
| 16            |          |      |     |          |           |     |                  |   |   |   |            |     |                  |
| 17            |          |      |     |          |           |     |                  |   |   |   |            |     |                  |
| 18            |          |      |     |          |           |     |                  |   |   |   |            |     |                  |
| 19            |          |      |     |          |           |     |                  |   |   |   |            |     |                  |
| 20            |          |      |     |          |           |     |                  |   |   |   |            |     |                  |
| 21            |          |      |     |          |           |     |                  |   |   |   |            |     |                  |
| 22            |          |      |     |          |           |     |                  |   |   |   |            |     |                  |
| 23            |          |      |     |          |           |     |                  |   |   |   |            |     |                  |
| 24            |          |      |     |          |           |     |                  |   |   |   |            |     |                  |
| 25            |          |      |     |          |           |     |                  |   |   |   |            |     |                  |
| 26            |          |      |     |          |           |     |                  |   |   |   |            |     |                  |
| 27            |          |      |     |          |           |     |                  |   |   |   |            |     |                  |
| 28            |          |      |     |          |           |     |                  |   |   |   |            |     |                  |
| 29            |          |      |     |          |           |     |                  |   |   |   |            |     |                  |
| 30            |          |      |     |          |           |     |                  |   |   |   |            |     |                  |
| 31            |          |      |     |          |           |     |                  |   |   |   |            |     |                  |
| 32            |          |      |     |          |           |     |                  |   |   |   |            |     |                  |
| 33            |          |      |     |          |           |     |                  |   |   |   |            |     |                  |
| 34            |          |      |     |          |           |     |                  |   |   |   |            |     |                  |
| 35            |          |      |     |          |           |     |                  |   |   |   |            |     |                  |
| 36            |          |      |     |          |           |     |                  |   |   |   |            |     |                  |
| 37            |          |      |     |          |           |     |                  |   |   |   |            |     |                  |
| 38            |          |      |     |          |           |     |                  |   |   |   |            |     |                  |
| 39            |          |      |     |          |           |     |                  |   |   |   |            |     |                  |
| 40            |          |      |     |          |           |     |                  |   |   |   |            |     |                  |