



AEROTEST OPERATIONS, INC.

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1 July 2003

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 1 July 2002 to 30 June 2003.

Gentlemen:

The enclosed report summarizes the ARRR operations from July 1, 2002 through June 30, 2003. This submittal complies with the requirements set forth in 10CFR, part 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,
Aerotest Operations, Inc.

Alfredo W. Meren
Reactor Supervisor

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

DOCKET NO. 50-228

BY

A handwritten signature in black ink, appearing to read 'Alfredo W. Meren'.

ALFREDO W. MEREN

REACTOR SUPERVISOR

APPROVED BY

A handwritten signature in black ink, appearing to read 'Ray R. Tsukimura'.

RAY R. TSUKIMURA

PRESIDENT

AEROTEST OPERATIONS, INC.

SECTION I

Part I – Changes (none)

Part II – 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 OPERATIONS SUMMARY

Date	Operating Hours	Kilowatt- Hours	Accumulated KW Hours	Expts. & Irradiations	Unscheduled Shutdowns
7-02	93	13604	11933399	0	0
8-02	118	17273	11950672	0	1
9-02	108	15803	11966475	0	0
10-02	112	17012	11983487	0	12
11-02	107	16275	11999762	0	13
12-02	108	16491	12016253	0	6
1-03	144	21544	12037797	0	4
2-03	103	15455	12053252	0	1
3-03	133	19942	12073194	0	3
4-03	116	17348	12090542	0	3
5-03	192	28795	12119337	0	0
6-03	156	23350	12142687	0	1
Totals	1490	222892	12142687	0	44

ARRR UNSCHEDULED POWER REDUCTIONS

TYPE OF SCRAM							CHANNEL AFFECTED						
NO.	DATE	AUTO	MAN	Spurious	OP. ERROR	CAL	1	2	3	4	Earthquake	H2O	COMMENTS
1	8-21-02	X		X			X	X	X	X			no visible alarm
2	10-3-02	X		X			X	X	X	X	X*		spurious
3	10-3-02	X		X			X	X	X	X			rod drop
4	10-5-02	X		X			X	X	X	X			no visible alarm
5	10-7-02	X		X			X	X	X	X			no visible alarm
6	10-9-02	X		X			X	X	X	X			no visible alarm
7	10-10-02	X		X			X	X	X	X			no visible alarm
8	10-14-02	X		X			X	X	X	X			no visible alarm
9	10-15-02	X		X			X	X	X	X			no visible alarm
10	10-17-02	X		X			X	X	X	X			static discharge
11	10-30-02	X		X			X	X	X	X			rod drop
12	10-31-02	X		X			X	X	X	X			rod drop
13	10-31-02	X		X			X	X	X	X			rod drop
14	11-4-02	X		X			X	X	X	X			rod drop
15	11-5-02	X		X			X	X	X	X			rod drop
16	11-7-02	X		X			X	X	X	X			rod drop
17	11-8-02	X		X			X	X	X	X			rod drop
18	11-15-02	X		X			X	X	X	X			no visible alarm
19	11-15-02	X		X			X	X	X	X			no visible alarm
20	11-19-02	X		X			X	X	X	X			no visible alarm
21	11-20-02	X		X			X	X	X	X			gate buzzer
22	11-20-02	X		X			X	X	X	X			no visible alarm
23	11-21-02	X		X			X	X	X	X			relay chatter
24	11-21-02	X		X			X	X	X	X			no visible alarm
25	11-27-02	X		X			X	X	X	X			no visible alarm
26	11-27-02	X		X			X	X	X	X			no visible alarm
27	12-7-02	X		X			X	X	X	X			no visible alarm
28	12-7-02	X		X			X	X	X	X			no visible alarm
29	12-11-02	X		X			X	X	X	X			no visible alarm
30	12-13-02	X		X			X	X	X	X			no visible alarm
31	12-13-02	X		X			X	X	X	X			no visible alarm
32	12-30-02	X		X			X	X	X	X			no visible alarm
33	1-3-03	X			X					X			rod calibrations
34	1-6-03	X			X		X	X	X	X			operator error
35	1-13-03	X		X			X	X	X	X			no visible alarm
36	1-24-03	X		X			X	X	X	X			shim rod drop
37	2-20-03	X		X			X	X	X	X			power surge
38	3-5-03	X		X			X	X	X	X			rod drop
39	3-7-03	X		X			X	X	X	X			rod drop
40	3-20-03	X		X			X	X	X	X			no visible alarm

ARRR UNSCHEDULED POWER REDUCTIONS

TYPE OF SCRAM							CHANNEL AFFECTED						
NO.	DATE	AUTO	MAN	Spurious	OP. ERROR	CAL	1	2	3	4	Earthquake	H2O	COMMENTS
1	4-14-03	X		X			X	X	X	X			shim rod drop
2	4-16-03	X		X			X	X	X	X			no visible alarm
3	4-18-03	X		X			X	X	X	X			power outage
4	6-5-03	X		X			X	X	X	X			reg rod light burned out
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