

APPENDIX ANOTICE OF VIOLATION

Interstate Nuclear Services
Royersford, Pennsylvania 19468

Docket No. 030-20934
License No. 37-23341-01

As a result of the inspection conducted on March 25, 1985, and in accordance with the NRC Enforcement Policy (10 CFR 2, Appendix C), the following violation was identified:

Condition 16 of License No. 37-23341-01 requires that licensed material be possessed and used in accordance with the statements, representations, and procedures contained in an application dated August 3, 1984.

Appendix D, Paragraph 9.A.3, of this application requires that all packages containing radioactive materials be monitored to determine the surface exposure rate.

Contrary to the above, as of March 25, 1985, all packages containing radioactive materials were not routinely monitored to determine the surface exposure rate. Specifically, selected packages were surveyed, but these did not include, as required, all packages containing radioactive materials.

This is a Severity Level IV Violation. (Supplement VI)

Pursuant to the provisions of 10 CFR 2.201, Interstate Nuclear Services is hereby required to submit to this office within thirty days of the date of the letter which transmitted this Notice, a written statement or explanation in reply, including: (1) the corrective steps which have been taken and the results achieved; (2) corrective steps which will be taken to avoid further violations; and (3) the date when full compliance will be achieved. Where good cause is shown, consideration will be given to extending this response time.

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APPENDIX BComparison of NRC and Interstate Nuclear Services (INS) Analyses

1. March 25, 1985 Discharge Tank Sample

<u>Isotope</u>	<u>INS</u>	<u>NRC</u>	<u>INC/NRC</u>
Cobalt-60	2.03 E-5	(6.96 ± 1.06) E-6	2.92*
Manganese-54	9.77 E-6	(4.84 ± 0.64) E-6	2.02*

2. April 17, 1985 Discharge Tank Sample

<u>Isotope</u>	<u>INS</u>	<u>NRC</u>	<u>INS/NRC</u>
Cobalt-60	1.43 E-5	(9.70 ± 1.48) E-6	1.47
Manganese-54	8.24 E-6	(4.46 ± 0.65) E-6	1.85
Cesium-137	2.24 E-5	(1.79 ± 0.36) E-5	1.25

3. April 17, 1985 Tank 2 Sample

<u>Isotope</u>	<u>INS</u>	<u>NRC</u>	<u>INS/NRC</u>
Cobalt-60	2.32 E-5	(1.54 ± 0.24) E-5	1.51
Manganese-54	2.58 E-6	(3.26 ± 0.48) E-6	0.79
Cesium-137	1.71 E-5	(1.43 ± 0.29) E-5	1.20

* indicates failure to meet NRC acceptance criteria
all values are reported in units of microcuries per milliliter.

APPENDIX CCriteria for Comparing Analytical Measurements

This Appendix provides criteria for comparing results of capability tests and verification measurements. The criteria are based on an empirical relationship which combines prior experience and the accuracy needs of this program.

In these criteria, the judgement limits are variable in relation to the comparison of the NRC Reference Laboratory's value to its associated uncertainty. As that ratio, referred to in this program as "Resolution", increases, the acceptability of a licensee's measurement should be more selective. Conversely, poorer agreement must be considered acceptable as the resolution decreases.

$$\text{Resolution} = \frac{\text{NRC REFERENCE VALUE}}{\text{REFERENCE VALUE UNCERTAINTY}}$$

$$\text{Ratio} = \frac{\text{LICENSEE VALUE}}{\text{NRC VALUE}}$$

Resolution

<3
4-7
8-15
16-50
51-200
>200

Agreement

0.4 - 2.5
0.5 - 2.0
0.6 - 1.66
0.75 - 1.33
0.80 - 1.25
0.85 - 1.18