NOTICE OF VIOLATION
AND
PROPOSED IMPOSITION OF CIVIL PENALTIES

Thermal Science, Inc.

EA 95-009

Based upon a review of documents submitted to the NRC by Thermal Science, Inc. (TSI), on and after October 5, 1991, a review of the transcript of a meeting between Rubin Feldman of TSI and NRC Staff members on October 17, 1991, and a review of the transcript of the criminal proceeding against TSI in the United States District Court for the District of Maryland, the NRC has identified violations of NRC regulations. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," NUREG-1600, the Nuclear Regulatory Commission proposes to impose civil penalties pursuant to Section 234 of the Atomic Energy Act of 1954, as amended, 42 U.S.C. §2282, and 10 C.F.R. §2.205.

The violations identified below concern matters that are important and material to the NRC's statutory mission of maintaining an adequate level of protection of public health and safety. As detailed below, information submitted by TSI in the form of statements and reports was submitted to the NRC during NRC investigations concerning Thermo-Lag 330-1 subliming material and Thermo-Lag 330-660 Flexi-Blanket material (hereinafter "Thermo-Lag" or "Thermo-Lag products"). These investigations raised significant issues regarding whether a substantial number of power reactor licensees were in compliance with 10 C.F.R. § 50.48 and 10 C.F.R. Part 50, Appendix R, as these licensees had relied, in part, on Thermo-Lag and the underlying test reports to meet NRC's fire protection requirements, or conditions in their operating licenses. Accordingly, the information at issue was material to the NRC because the statements and reports were submitted by TSI: (1) in response to concerns the NRC had raised about the quality and adequacy of Thermo-Lag, including specific concerns about the nature of the testing performed to qualify Thermo-Lag for use in nuclear power plants; and (2) to influence the NRC's investigation into whether Thermo-Lag met NRC's fire protection requirements, and to persuade the NRC that no further NRC regulatory action regarding Thermo-Lag products was needed. Thus, the violations are of high regulatory significance.

The particular violations and proposed civil penalties are set forth below:

I. 10 C.F.R. § 50.5 requires, in part, that any contractor (including a supplier or consultant), ... of any licensee, who knowingly provides to any licensee, contractor, or subcontractor, components, equipment, materials, or other goods or services, that relate to a licensee's activities regulated by the NRC, may not deliberately submit to the NRC information that the person submitting the information knows to be incomplete or inaccurate in some respect material to the NRC.

A. Contrary to 10 C.F.R. § 50.5, TSI deliberately made statements in an October 5, 1991 letter to the NRC which it knew contained inaccurate and incomplete information material to the NRC, as evidenced by the following examples:

1. In its October 5, 1991 letter, TSI stated that Thermo-Lag had been "... extensively tested by independent testing laboratories on many occasions ...." See TSI Letter of October 5, 1991, at 1. TSI's statement was incomplete and inaccurate in that the NRC later determined during an inspection at TSI's offices that test reports bearing the logo of Industrial Testing Laboratories, Inc. (ITL) were actually drafted by TSI, typed by TSI, and issued by TSI. ITL's role was limited to having one of its representatives witness data acquisition on the date of the test, and verify furnace temperature readouts, without having had any involvement in the construction or approval of the test article. Thus, with respect to ITL, the statement that Thermo-Lag had been "... extensively tested by independent testing laboratories on many occasions ...." misrepresented the respective roles of TSI and ITL in Thermo-Lag testing.

2. In its October 5, 1991 letter, TSI stated that Thermo-Lag provides "a fire barrier of consistent performance[]" when installed "in accordance with the instruction manuals in concert with training programs of Thermal Science," and that this performance had "been proven by independent testing on multiple occasions." See TSI Letter of October 5, 1991, at 2. This statement was inaccurate in that most of the configurations tested by TSI, in those tests that were submitted to the NRC, were not installed in accordance with the TSI instruction manual.

3. In TSI's "Response To The United States Nuclear Regulatory Commission's Letter Dated 10 September 1991," attached to its October 5, 1991 letter, TSI provided results from 1986 tests conducted by Underwriter's Laboratory (UL) regarding ampacity derating tests of one-hour and three-hour Thermo-Lag fire barrier systems, and stated that the values obtained by the UL tests reflected "the most current and conservative results of tests ..." and were "the most conservative information available to us."[1] See TSI Response at 6 and 12. These statements were inaccurate in that TSI was aware of an alternate baseline UL ampacity derating test that was more current and provided more conservative values than the test results submitted to the NRC on October 5, 1991.

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[1] This answer responded to NRC Question I.A.5., "What are ampacity deratings for 1-hour fire rated THERMO-LAG fire barrier systems[,]" and NRC Question I.B.5., "What are ampacity deratings for 3-hour fire rated THERMO-LAG fire barrier systems[,]." See NRC letter to TSI dated September 10, 1991, Enclosure at 1.

These statements were material to the NRC because they were made by TSI: (1) in response to concerns the NRC had raised about the quality and adequacy of Thermo-Lag, including specific concerns about the nature of the testing performed to qualify Thermo-Lag for use in nuclear power plants; and (2) to influence the NRC's investigation into whether Thermo-Lag met NRC's fire barrier requirements and guidelines. (01011)

This is a Severity Level I violation (Supplement VII)
Civil Penalty - $100,000

B. Contrary to 10 CFR § 50.5, during an October 17, 1991 meeting with the NRC Staff, Mr. Rubin Feldman, the President of TSI, deliberately made oral statements to the NRC that he knew contained inaccurate information material to the NRC. With respect to the participation of ITL in the fire barrier testing of Thermo-Lag, the following exchange took place:

> Mr. West (NRC): You mentioned in your [October 5, 1991] letter--in fact, you provided us with an enclosure that identifies quite a few tests that had been sponsored, presumably, by TSI. It looks like the bulk of the tests were actually done at your facility, although there seemed to be some involvement of a testing outfit called ITL, Industrial Testing Laboratory. We are not familiar with it; it's not UL or Southwest. Could you fill us in on who ITL is and tell us what involvement they have in each test, in terms of planning, conduct and report writing and documentation base?
>
> Mr. Feldman: Industrial Test Laboratories is a St. Louis-based laboratories. ... We needed a third part (sic) observing the various phases of the testing. We have asked them if they would be willing to do that. They indicated that they would, so they officiated during the phases of the testing. That's how the reports were published.

Tr. at 167-8 (emphasis added). The discussion about ITL continued as follows:

> Mr. West: ...What I'm trying to find out is, I think we need to decide if their [ITL's] involvement in the test really would constitute the independence for the test.
>
> Mr. Feldman: They were very independent. They reviewed all the data. They analyzed all the data. It was as independent as you can make it.

Tr. at 170 (emphasis added.)

Mr. Feldman's statements were inaccurate and misrepresented the respective roles of ITL and TSI in Thermo-Lag testing. Mr. Feldman knew that ITL did not function as an independent tester of Thermo-Lag, and that ITL's role was limited to having one of its representatives witness data acquisition on the date of the test, and verify furnace temperature readouts, without having any involvement in the construction or approval of the fire barrier/raceway test article.

Mr. Feldman's statements were material to the NRC because Mr. Feldman made them, on behalf of TSI: (1) in response to concerns the NRC had raised about the quality and adequacy of Thermo-Lag, including specific concerns about the nature of the relationship between TSI and ITL regarding the testing performed to qualify Thermo-Lag as 1-hour and 3-hour fire barrier material for use in nuclear power plants; (2) to influence the NRC's investigation into whether Thermo-Lag met NRC's fire protection requirements and guidelines; and (3) to persuade the NRC that, for those Thermo-Lag tests in which ITL had involvement, ITL had acted as an independent, third-party reviewer and analyzer of all the test data. (02011)

This is a Severity Level I violation (Supplement VII)
Civil Penalty - $100,000

C. Contrary to 10 CFR § 50.5, TSI deliberately submitted inaccurate information material to the NRC on November 12, 1991, in response to NRC questions sent to TSI by letter dated October 31, 1991, as evidenced by the following examples:

1. The NRC asked TSI to "provide copies of all TSI correspondence and documents related to UL Project Report 86-NK-23826, File R-6-802, dated January 27, 1987" dealing with ampacity derating testing used to qualify Thermo-Lag as 1-hour and 3-hour rated fire barrier material. See NRC letter of October 31, 1991, Enclosure at 1, Question 7. In partial response, TSI submitted ITL Report 82-355-F-1 and ITL Report 84-10-5. See TSI's "Partial Response To The United States Nuclear Regulatory Commission's Letter Dated 31 October 1991" (attached to TSI's letter dated November 12, 1991), Answer 7-2 (2), at 9, and Attachment 4. This response was inaccurate in that TSI knew ITL Report 82-355-F-1 misrepresented the respective roles of TSI and ITL in the testing of Thermo-Lag. This report's cover sheet carries the ITL logo, indicating that the report was written by ITL. This report is TSI Technical Note 111782, with an ITL cover sheet attached to it. TSI Technical Note 111782 had been written and issued by TSI in November 1981. ITL had no involvement in creating or issuing ITL Report 82-355-F-1, did not witness the subject ampacity test, and had no role in documenting or analyzing the test results.

2. Regarding ITL Report 84-10-5, TSI's November 12, 1991 response was further inaccurate in that TSI knew that this ITL Report also misrepresented the respective roles of TSI and ITL in the testing of Thermo-Lag. The report's headings and titles indicate that the report was written by ITL. In fact, TSI wrote ITL Report 84-10-5, using ITL stationery that TSI had obtained from ITL. Section 2 of the report represents that ITL compared the test data to baseline data obtained in an October 1981 test (a reference to the test reported in ITL Report 82-355-F-1). In fact, no such data comparison was performed by ITL.

The inaccurate information TSI submitted to the NRC on November 12, 1991, in the form of the "ITL" reports, was material to the NRC because TSI's submittal was made: (1) in response to concerns the NRC had raised about the quality and adequacy of Thermo-Lag, including specific concerns about the ampacity derating testing used to qualify Thermo-Lag as 1-hour and 3-hour rated fire barrier material for use in nuclear power plants; and (2) to influence the NRC's investigation into whether Thermo-Lag met NRC's fire protection requirements. (03011)

This is a Severity Level I violation (Supplement VII)
Civil Penalty - $100,000

D. Contrary to 10 CFR § 50.5, TSI deliberately submitted inaccurate information material to the NRC on December 3, 1991, in further response to NRC questions sent to TSI by letter dated October 31, 1991, as evidenced by the following examples:

1. The NRC asked TSI to "provide full copies of ITL fire test reports 82-11-80 and 82-11-81, including daily work sheets, quality assurance documentation, and thermocouple temperature records." NRC letter of October 31, 1991, Enclosure at 3, Question 19. This request was generated by Mr. Feldman's offer to provide the quality control records attached to ITL reports 82-11-80 and 82-11-81, which were needed to answer a question concerning test article construction. See October 17, 1991 transcript, at 89-90; 190-91. In response, TSI submitted complete copies of ITL Report 82-11-80 and ITL Report 82-11-81, which were the generic 1-hour and 3-hour test reports used to qualify Thermo-Lag as 1-hour and 3-hour fire barrier material for use in nuclear power plants. See TSI's "Supplemental Response To The Remaining Questions Contained In The United States Nuclear Regulatory Commission's Letter Dated 31 October 1991" (attached to TSI's letter dated December 3, 1991), Answer 19, at 9, and Enclosures 8 and 9. This response was inaccurate in that TSI knew ITL Report 82-11-80 misrepresented the respective roles of TSI and ITL in the testing of Thermo-Lag. The Proprietary Rights statement of TSI, included as part of the report, stated that the report

was prepared by ITL. In fact, the report was not prepared by ITL. TSI wrote ITL Report 82-11-80, using ITL stationery that TSI had obtained from ITL. Section 3 of ITL Report 82-11-80 states that the subject testing was performed "under the supervision and total control of Industrial Testing Laboratories, of St. Louis, Missouri, an independent testing laboratory." In fact, the test was conducted under the supervision and control of TSI, with an ITL representative merely witnessing the test and verifying furnace temperature readouts.

2. Regarding ITL Report 82-11-81, TSI's December 3, 1991 response was further inaccurate in that TSI knew that this ITL Report also misrepresented the respective roles of TSI and ITL in the testing of Thermo-Lag. The Proprietary Rights statement of TSI, included as part of the report, stated that the report was prepared by ITL. In fact, the report was not prepared by ITL. TSI wrote ITL Report 82-11-81, using ITL stationery that TSI had obtained from ITL. Section 3 of ITL Report 82-11-81 stated that the subject testing was performed "under the supervision and total control of Industrial Testing Laboratories, of St. Louis, Missouri, an independent testing laboratory." In fact, the test was conducted under the supervision and control of TSI, with ITL representative Donald Storment merely witnessing the tests and verifying furnace temperature readouts, which took place between September 10 and October 12, 1982. Moreover, several daily work sheet pages from Section 7 of the report are represented as having been signed by Mr. Storment. In fact, those pages contain replicated signatures of Mr. Storment, which TSI added to the report without the knowledge or consent of either ITL or Mr. Storment. For the daily work sheets that Mr. Storment did sign, TSI instructed Mr. Storment to backdate those sheets to make it appear that he had witnessed TSI work performed in August and early September of 1982, when, in fact, Mr. Storment had not witnessed that work.

The inaccurate information TSI submitted to the NRC on December 3, 1991 was material to the NRC because TSI's submittal was made: (1) in response to concerns the NRC had raised about the quality and adequacy of Thermo-Lag, including specific questions about the test articles discussed in ITL Reports 82-11-80 and 82-11-81, which were generic tests TSI had used to qualify Thermo-Lag as 1-hour and 3-hour rated fire barrier material for use in nuclear power plants; and (2) to influence the NRC's investigation into whether Thermo-Lag met NRC's fire protection requirements. (04011)

This is a Severity Level I violation (Supplement VII)
Civil Penalty - $100,000

E. Contrary to 10 CFR § 50.5, TSI deliberately made a statement in a May 8, 1992 letter to the NRC which it knew contained inaccurate information material to the NRC. In this letter, TSI stated that its ongoing test program at Omega Point Laboratories was "under the total control of Omega Point." See TSI Letter of May 8, 1992, at 2. This statement was inaccurate in that this test program was not under the total control of Omega Point Laboratories. For example, the construction of the test articles and placement of the test thermocouples was under TSI's control.

This statement was material to the NRC because TSI submitted it: (1) in response to concerns the NRC had raised about the quality and adequacy of Thermo-Lag, including specific concerns about the misleading nature of the "ITL" reports; and (2) to persuade the NRC that TSI was now subjecting Thermo-Lag to truly independent testing. (05011)

This is a Severity Level I violation (Supplement VII)
Civil Penalty - $100,000

F. Contrary to 10 CFR § 50.5, TSI deliberately made statements in a June 16, 1992 letter to the NRC which it knew contained inaccurate information material to the NRC, including but not limited to the following examples:

1. TSI stated that its continuing test program at Omega Point Laboratories was "under the total control of Omega Point." See TSI Letter of June 16, 1992, at 2. This statement was inaccurate in that this test program was not under the total control of Omega Point. For example, the construction of the test articles and placement of the test thermocouples was under TSI's control.

2. TSI stated that the tests were being conducted in accordance with, among other criteria, the "applicable prerequisites of" NRC Generic Letter 86-10. See TSI Letter of June 16, 1992, at 3. This statement was inaccurate in that these tests were not being conducted in accordance with the guidance of NRC Generic Letter 86-10.

These statements were material to the NRC because TSI submitted them: (1) in response to concerns the NRC had raised about the quality and adequacy of Thermo-Lag, including specific concerns about the misleading nature of the "ITL" reports; and (2) to persuade the NRC that TSI was now subjecting Thermo-Lag to truly independent testing. (06011)

This is a Severity Level I violation (Supplement VII)
Civil Penalty - $100,000

G. Contrary to 10 CFR § 50.5, TSI deliberately made a statement in a June 22, 1992 letter to the NRC which it knew contained inaccurate

information material to the NRC. In this letter, TSI stated that the TSI-sponsored tests conducted at Omega Point Laboratories were "under their [Omega Point Laboratories'] total control, which also included quality control during construction." See TSI Letter of June 22, 1992, at 2. This statement was inaccurate in that (1) TSI knew that the test program was not under the total control of Omega Point and that (2) TSI knew that quality control during construction of the test articles was not under the total control of Omega Point.

This statement was material to the NRC because TSI submitted it: (1) in response to concerns the NRC had raised about the quality and adequacy of Thermo-Lag, including specific concerns about the misleading nature of the "ITL" reports; and (2) to persuade the NRC that TSI was now subjecting Thermo-Lag to truly independent testing. (07011)

This is a Severity Level I violation (Supplement VII)
Civil Penalty - $100,000

H. Contrary to 10 CFR § 50.5, TSI deliberately made a statement in a July 29, 1992 letter to the NRC which it knew contained inaccurate information material to the NRC. In this letter, TSI stated that the 1986 ampacity testing "was done by Underwriters Laboratories [sic] in Chicago under its [Underwriters Laboratory's] total control." TSI Letter of July 29, 1992, at 4. This statement was inaccurate in that TSI knew that the referenced ampacity testing was not under the total control of Underwriters Laboratory.

This statement was material to the NRC because TSI submitted it: (1) in response to concerns the NRC had raised about the quality and adequacy of Thermo-Lag, including specific concerns about the ampacity derating testing used to qualify Thermo-Lag as 1-hour and 3-hour rated fire barrier material for use in nuclear power plants; and (2) to influence how the NRC disseminated information to the nuclear industry about the performance of Thermo-Lag products. (08011)

This is a Severity Level I violation (Supplement VII)
Civil Penalty - $100,000

I. Contrary to 10 CFR § 50.5, on or about August 31, 1992, TSI deliberately submitted to the NRC ITL Reports 85-6-283, 85-2-382, 85-5-314, 85-11-227, 86-7-472, 87-5-435, 87-6-350, 85-1-106, and 85-4-377. These reports misrepresented the respective roles of TSI and ITL in the testing of Thermo-Lag. TSI knew these reports contained inaccurate information material to the NRC, as evidenced by the following examples:

1. Regarding ITL Report 85-6-283, the report's headings and titles indicate that the report was prepared by ITL. This information was inaccurate in that TSI wrote this report,

using ITL stationery that TSI had obtained from ITL. Section 3 of the report stated that the subject testing was conducted "under the direct supervision and total control of Industrial Testing Laboratories, Inc." In fact, the test had been conducted under the supervision and control of TSI, with an ITL representative merely witnessing the test and verifying furnace temperature readouts. Page (i) of the report represents that the ITL representative witnessing the test (Dave Siegel) was a professional engineer. However, subsequent NRC review has determined that Dave Siegel was not a professional engineer, did not have a college degree, and that TSI was aware of his lack of qualifications. Page (i) of the report also represents that Allan Siegel reviewed, approved, and signed the report on behalf of ITL. However, subsequent NRC review has determined that page (i) contains the replicated signature of Allan Siegel, which TSI added to the report without the knowledge or consent of Allan Siegel. Daily work sheets contained in Section 6 of the report were altered by TSI to make it appear that Dave Siegel witnessed TSI's construction of the test article on May 17, 1985, when in fact Dave Siegel only witnessed the test itself, which was performed on June 19, 1985. Similarly, in Section 7 of the report, TSI forged the initials of Dave Siegel on work sheets to make it appear that Dave Siegel was present on May 17, 1985, when TSI constructed the test article.

2. Regarding ITL Report 85-2-382, the report's headings and titles indicate that the report was prepared by ITL. This information was inaccurate in that TSI wrote this report, using ITL stationery that TSI had obtained from ITL. Section 3 of the report stated that the subject testing was conducted "under the direct supervision and total control of Industrial Testing Laboratories, Inc." In fact, the test had been conducted under the supervision and control of TSI, with an ITL representative merely witnessing the test and verifying furnace temperature readouts.

3. Regarding ITL Report 85-5-314, the report's headings and titles indicate that the report was prepared by ITL. This information was inaccurate in that TSI wrote this report, using ITL stationery that TSI had obtained from ITL. Section 3 of the report stated that the subject testing was conducted "under the direct supervision and total control of Industrial Testing Laboratories, Inc." In fact, the test had been conducted under the supervision and control of TSI, with an ITL representative merely witnessing the test and verifying furnace temperature readouts. Page (i) of the report represents that the ITL representative witnessing the test (Mike White) was a professional engineer. This is inaccurate in that Mr. White was not a professional engineer, and at that time TSI knew that Mr. White was not a

professional engineer. Among the daily work sheets contained in Section 6 of the report are ones signed by Mike White, regarding test article work performed by TSI on May 14, 1985. These work sheets are inaccurate in that Mr. White was present only during the test itself on May 21, 1985. In fact, TSI instructed Mr. White to backdate the work sheets he signed to make it appear that he had witnessed TSI May 14 work when, in fact, he had not witnessed that work.

4. Regarding ITL Report 85-11-227, the report's headings and titles indicate that the report was prepared by ITL. This information was inaccurate in that TSI wrote this report, using ITL stationery that TSI had obtained from ITL. Section 3 of the report stated that the subject testing was conducted "under the direct supervision and total control of Industrial Testing Laboratories, Inc." In fact, the test had been conducted under the supervision and control of TSI, with an ITL representative merely witnessing the test and verifying furnace temperature readouts. Among the daily work sheets contained in Section 6 of the report are ones signed by Mike White, regarding test article work performed by TSI on November 8, 1985. Section 6 is inaccurate in that Mr. White was present only during the test itself on November 19, 1985. In fact, Mr. White was instructed by TSI to sign work sheets to make it appear that he had witnessed TSI's November 8 work when, in fact, he had not witnessed that work.

5. Regarding ITL Report 86-7-472, the report's headings and titles indicate that the report was prepared by ITL. This information was inaccurate in that TSI wrote this report, using ITL stationery that TSI had obtained from ITL. Section 3 of the report stated that the subject testing was conducted on August 1, 1986 "under the direct supervision and total control of Industrial Testing Laboratories, Inc." In fact, the test had been conducted under the supervision and control of TSI, with an ITL representative merely witnessing the test and verifying furnace temperature readouts. Contained within this report is a "Verification of Application" document dated July 31, 1986 and signed by R. A. Lohman on behalf of TSI. This document refers to ITL Test Article No. 86-7-472. This information was inaccurate in that there were never any ITL test articles, as ITL neither built nor helped to assemble any of the articles tested by TSI.

6. Regarding ITL Report 87-5-435, the report's headings and titles indicate that the report was prepared by ITL. This information was inaccurate in that TSI wrote this report, using ITL stationery that TSI had obtained from ITL. Section 3 of the report stated that the subject testing was

conducted "under the direct supervision and total control of Industrial Testing Laboratories, Inc." In fact, the test had been conducted under the supervision and control of TSI, with an ITL representative merely witnessing the test and verifying furnace temperature readouts.

7. Regarding ITL Report 87-6-350, the report's headings and titles indicate that the report was prepared by ITL. This information was inaccurate in that TSI wrote this report, using ITL stationery that TSI had obtained from ITL. Section 3 of the report stated that the subject testing was conducted "under the direct supervision and total control of Industrial Testing Laboratories, Inc." In fact, the test had been conducted under the supervision and control of TSI, with an ITL representative merely witnessing the test and verifying furnace temperature readouts.

8. Regarding ITL Report 85-1-106, the report's headings and titles indicate that the report was prepared by ITL. This information was inaccurate in that TSI wrote this report, using ITL stationery that TSI had obtained from ITL. Section 3 of the report stated that the subject testing was conducted "under the direct supervision and total control of Industrial Testing Laboratories, Inc." In fact, the test had been conducted under the supervision and control of TSI, with an ITL representative merely witnessing the test and verifying furnace temperature readouts.

9. Regarding ITL Report 85-4-377, the report's headings and titles indicate that the report was prepared by ITL. This information was inaccurate in that TSI wrote this report, using ITL stationery that TSI had obtained from ITL. Page (i) of the report represents that the ITL representative witnessing the test (Clarence Bester) was a professional engineer. This is inaccurate in that Mr. Bester was not a professional engineer. Section 3 of the report stated that the subject testing was conducted "under the direct supervision and total control of Industrial Testing Laboratories, Inc." In fact, the test had been conducted under the supervision and control of TSI, with an ITL representative merely witnessing the test and verifying furnace temperature readouts.

The reports TSI submitted to the NRC on or about August 31, 1992 were material to the NRC because they were submitted by TSI: (1) in response to concerns the NRC had raised about the quality and adequacy of Thermo-Lag products; (2) in the context of an ongoing NRC investigation into concerns about the quality and performance of Thermo-Lag products; and (3) to influence the NRC's investigation into whether Thermo-Lag products met the fire

barrier requirements of 10 CFR § 50.48 and 10 CFR Part 50, Appendix R. (09011)

This is a Severity Level I violation (Supplement VII)
Civil Penalty - $100,000

Pursuant to the provisions of 10 CFR §2.201, Thermal Science, Inc. (TSI) is hereby required to submit a written statement or explanation to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, within 30 days of this Notice of Violation and Proposed Imposition of Civil Penalties (Notice). This Reply should be clearly marked as a "Reply to a Notice of Violation" and should include for each alleged violation: (1) an admission or denial of the alleged violation; (2) the reasons for the violation, if admitted or, if denied, the reasons why the alleged violation has been denied; (3) the corrective steps that have been taken and the results achieved; (4) the corrective steps that will be taken to avoid any further violations; and (5) the date when full compliance will be achieved. If an adequate reply is not received within the time specified in this Notice, a Demand for Information may be issued. Consideration will be given to extending the time specified for a reply for good cause shown. Under the authority of Section 161(c) of the Atomic Energy Act, as amended, 42 U.S.C. § 2201(c), this reply shall be submitted under oath or affirmation. Should TSI fail to file a Reply within the time specified, an Order imposing the civil penalties may be issued.

Within the same time as provided for the Reply required above under 10 C.F.R. §2.201, TSI may pay the civil penalties by letter addressed to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, with a check, draft, money order, or electronic transfer payable to the Treasurer of the United States in the amount of the civil penalties proposed above. In the alternative, TSI may protest the imposition of the proposed civil penalties, in whole or in part, by a written Answer addressed to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, in accordance with the provisions of 10 CFR §2.205. Should TSI elect to file an Answer in accordance with 10 CFR §2.205 protesting the proposed civil penalties, either in whole or in part, such an Answer should be clearly marked "Answer to a Notice of Violation" and may (1) deny the violation or violations listed in this Notice, either in whole or in part; (2) demonstrate extenuating circumstances; (3) show error in this Notice; or (4) show other reasons why the proposed civil penalties should not be imposed. In addition to protesting the imposition of the proposed civil penalties, either in whole or in part, such an Answer may request remission or mitigation of the proposed civil penalties.

Any written Answer submitted in accordance with 10 CFR §2.205 should be set forth separately from the Reply submitted in accordance with 10 CFR §2.201, but may incorporate parts of the Reply by specific reference (e.g., citing page and paragraph numbers) to avoid repetition.

The documents described above, e.g., a Reply to a Notice of Violation, a Payment of Civil Penalties, and/or an Answer to a Notice of Violation, should be addressed to: James Lieberman, Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, One White Flint North, 11555 Rockville Pike, Rockville, Maryland 20852-2738.

If the NRC determines to impose a civil penalty after review of TSI's Reply and Answer, the NRC will issue an Order imposing the civil penalty and will provide TSI the opportunity to request an adjudicatory hearing in accordance with 10 CFR §2.205 and the NRC's Rules of Practice in 10 CFR Part 2, Subpart G. Following imposition of a civil penalty in accordance with the applicable provisions of 10 CFR §2.205, and after exhaustion of hearing rights under 10 C.F.R. Part 2, and upon failure to pay any civil penalties due that have been determined in accordance with that hearing, this matter may be referred to the Attorney General and the penalties, unless compromised, remitted, or mitigated, may be collected by a civil action pursuant to section 234c of the Atomic Energy Act, as amended, 42 U.S.C. §2282c.

Because your filings will be placed in the NRC Public Document Room (PDR), to the extent possible they should not include any personal privacy, proprietary, or safeguards information so that they can be placed in the PDR without redaction. However, if you find it necessary to include such information, you should clearly indicate the specific information you wish to have withheld from public disclosure and the provide the legal basis to support that request.

Dated at Rockville, Maryland
this 15th day of October, 1996.

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