

**Group A**

**FOIA/PA NO: 2015-0221**

**RECORDS BEING RELEASED IN THEIR ENTIRETY**

for release - 110 11/1/2011

# United States Court of Appeals

FOR THE DISTRICT OF COLUMBIA CIRCUIT

**No. 99-1383**

**September Term, 1999**

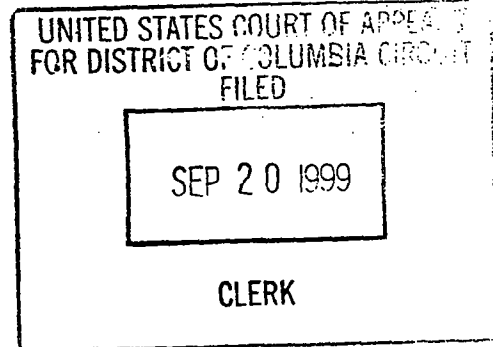
Natural Resources Defense Council, Inc., et al.,  
Petitioners

v.

Nuclear Regulatory Commission and United States of  
America,  
Respondents

General Counsel  
Nuclear Regulatory Commission  
Washington, D.C. 20555

The Honorable Attorney General  
U.S. Department of Justice  
Washington, D.C. 20530



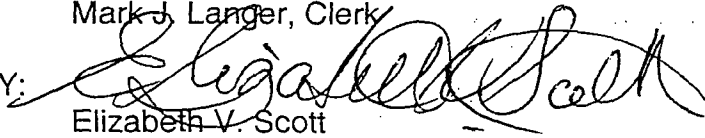
This case was filed and docketed on September 17, 1999. The Nuclear Regulatory Commission is hereby notified that the attached is a true copy of the petition for review, filed in the United States Court of Appeals for the District of Columbia Circuit, at Washington, D.C. in the above-entitled case.

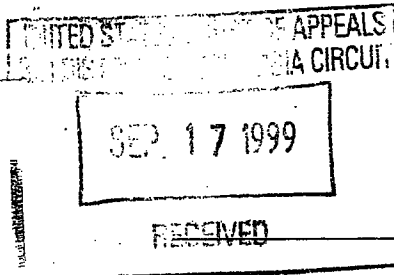
IN TESTIMONY WHEREOF, I hereunto  
subscribe my name and affix the seal of said  
United States Court of Appeals for the District  
of Columbia Circuit, at Washington, D.C.,  
September 20, 1999.

**FOR THE COURT:**

Mark J. Langer, Clerk

BY:

  
Elizabeth V. Scott  
Deputy Clerk



UNITED STATES COURT OF APPEALS  
FOR THE DISTRICT OF COLUMBIA CIRCUIT

NATURAL RESOURCES DEFENSE  
COUNCIL, INC.,

and

NUCLEAR INFORMATION AND  
RESOURCE SERVICE

and

PUBLIC CITIZEN'S CRITICAL MASS  
ENERGY PROJECT

and

UNION OF CONCERNED SCIENTISTS

Petitioners,

v.

GRETA JOY DICUS, COMMISSIONER,  
NUCLEAR REGULATORY  
COMMISSION

and

UNITED STATES OF AMERICA,

Respondents.

No. **99-1383**

**PETITION FOR REVIEW**

Petitioners hereby petition the Court to review and set aside as arbitrary,  
capricious and contrary to law, the Nuclear Regulatory Commission's July 22, 1999,

decision, *see* 64 Fed. Reg. 29393, to implement a regulation governing compliance with the Sunshine Act, 5 U.S.C. § 552b, as well as the underlying regulation, which was first promulgated in 1985 but not previously implemented. 10 C.F.R. § 9.101(c). Copies of the Federal Register notices and underlying regulation are attached.

Respectfully submitted



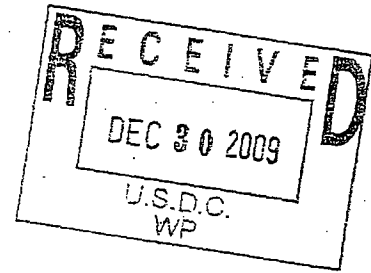
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Date: September 15, 1999

10/10/09 - 110 (004011005)  
UNITED STATES DISTRICT COURT  
SOUTHERN DISTRICT OF NEW YORK

RICHARD L. BRODSKY, NEW YORK STATE  
ASSEMBLYMAN, FROM THE 92<sup>ND</sup> ASSEMBLY  
DISTRICT IN HIS OFFICIAL AND INDIVIDUAL  
CAPACITIES, WESTCHESTER'S CITIZENS'  
AWARENESS NETWORK (WESTCAN),  
PUBLIC HEALTH AND SUSTAINABLE ENERGY  
(PHASE), AND SIERRA CLUB - ATLANTIC  
CHAPTER (SIERRA CLUB),



Plaintiffs,

v.

UNITED STATES NUCLEAR  
REGULATORY COMMISSION

Defendants.

09 CIV 10594

JUDGE ROBINSON

December 30, 2009

**COMPLAINT FOR DECLARATORY JUDGMENT AND INJUNCTIVE RELIEF**

**INTRODUCTION**

1. This is an action for adjudication, annulment, declaratory judgment and/or for injunctive relief. This action arises under the Constitution and statutes of the United States, including, but not limited to the Atomic Energy Act 42 U.S.C. § 2011 et seq. ("AEA"), the Administrative Procedures Act 5 U.S.C. § 1001 et seq. ("APA"), and the National Environmental Policy Act 42 U.S.C. § 4321 et seq. ("NEPA"), the regulations of the Council on Environmental Quality ("CEQ"), and regulations promulgated pursuant to powers granted by those statutes.
2. This matter arises from a set of illegal acts by the Nuclear Regulatory Commission ("NRC") which permit Entergy Nuclear Operations, Inc., ("Entergy") the owner, operator, and licensee of Indian Point Energy Center ("IPEC") to evade critical safety requirements in violation of law and of the terms and conditions of its license. The NRC has for decades required commercial

reactor operators to provide physical insulation against fire for electric cables that control reactor shutdown in an emergency and thereby protect against a meltdown of the reactor core and the consequent massive release of radiation. The insulation is required to last for at least one hour. On September 28, 2007 the NRC, illegally and in complete secrecy permitted IPEC to permanently operate with physical insulation that lasts only 24 minutes. That permission took the form of an "exemption" from the one hour requirement. The laws governing the NRC, notably the AEA, do not mention or grant to the NRC the power to issue an "exemption," to such a license condition, or safety and/or regulatory standard. The "exemption" was illegally granted in complete secrecy with no public notice, no opportunity for public comment, no opportunity to offer or question evidence, no public hearing, in violation of the NRC's own procedural requirements, and in violation of the AEA, APA, NEPA and their duly promulgated regulations. As a result of these actions, IPEC is not in compliance with the terms and conditions of its license and the laws and regulations governing commercial nuclear reactors and is now operating with a greatly enhanced danger to the public. Furthermore, the NRC currently has before it dozens of requests for additional illegal "exemptions" from important health and safety requirements at IPEC and elsewhere, which have the same legal and public health and safety defects as the September 28, 2007 "exemption."

3. On or about October 4, 2007, without any prior public notification, public hearings, or any opportunity for public participation, the NRC, via a final order, granted to Entergy the licensee of the nuclear reactor Unit 3 at IPEC an "exemption" from a binding, duly promulgated NRC fire safety regulation 10 C.F.R. pt. 50, App. R, III-(G)(2)(a),(c) ("Appendix R") concerning insulation on critical electrical safety cables, which control reactor shutdown in an emergency, thereby avoiding a core meltdown and massive public release of radiation. Upon discovering this, on December 3, 2007 Plaintiffs filed a petition with the NRC objecting to the "exemption,"

and to the secretive and arbitrary process used by the NRC to grant it. On January 30, 2008 the NRC rejected that Petition, which constituted a final order of the Commission.

4. On March 27, 2008 Plaintiffs filed a petition with the United States Court of Appeals, which possesses original jurisdiction over final orders of the NRC pursuant to the Hobbs Act 28 U.S.C. § 2342(4), appealing from the NRC's rejection of their objection and asserting a variety of factual and legal grounds for judicial annulment of the "exemption." On August 27, 2009, the Second Circuit dismissed the Petition on the grounds that the Hobbs Act did not impart jurisdiction to that court. The ruling also stated that Petitioners were free to seek review of the NRC's "exemption" in federal district court, under jurisdiction granted by the APA. "Petitioners are free to seek review in the district court of the NRC's actions pursuant to the APA" *Brotsky v. NRC* August 27, 2009, 08-1454.

5. Plaintiffs now seek such judicial review in this district court. Plaintiffs seek judgment ruling that the "exemption" itself, the procedures used and the substance of the NRC's decision violate the Constitution and laws of the United States and regulations promulgated thereto, and injunctive relief with respect to similar, pending NRC "exemption."

#### JURISDICTION AND VENUE

6. This Court has subject matter jurisdiction over the claims asserted herein under the statutes violated by the NRC including the AEA 42 U.S.C. § 2011 et seq., the APA 5 U.S.C. § 1001 et seq., and the NEPA 42 U.S.C. § 4321 et seq. and C.F.R. § 50.12.

7. Venue is proper because the administrative decision giving rise to these claims affects a nuclear facility located in Buchanan, New York, which is within the geographic boundaries of the Southern District of New York, and because the parties challenging that administrative decision are domiciled within the geographic boundaries of the Southern District of New York. Venue is proper because the administrative decision giving rise to these claims affects a nuclear

facility located in Buchanan, New York, which is within the geographic boundaries of the Southern District of New York, and because the parties challenging that administrative decision are domiciled within the geographic boundaries of the Southern District of New York.

8. Petitioners have standing under U.S.C.A. Const. Art. III, §2, cl. 1. Persons and/or landowners in close proximity to the nuclear power facility in question have alleged sufficient injury to establish standing. *See Kelly v. Selin*, 42 F.3d 1501, 1508-1510 (6<sup>th</sup> Cir. 1995). The NRC's "rule of thumb" is that "persons who reside or frequent the area within a 50-mile radius of the facility" are presumed to have standing. *See Sequoyah Fuels Corp.*, 40 N.R.C. 64, 75 n. 22, CLI-01-02 (1994).

### PARTIES

9. Plaintiff Brodsky, represents the 92<sup>nd</sup> Assembly District of New York State, which encompasses communities located within 50 miles of IPEC. Plaintiff Brodsky also maintains his primary residence at 2121 Saw Mill River Road, White Plains, NY 10607, which is within fifty miles of IPEC.

10. Plaintiff, Westchester Citizens Awareness Network ("WESTCAN"), is a chapter of the Citizen's Awareness Network, a national organization dedicated to environmental issues. The Westchester County chapter is located at 2A Adrian Court, Cortlandt Manor, NY 10567, which is within fifty miles of IPEC.

11. Plaintiff, Sierra Club Atlantic Chapter, is a chapter of the Sierra Club, a national organization dedicated to environmental issues. The group maintains a national office at 1350 Broadway, Suite 201, New York, NY 10018, which is within fifty miles of IPEC.

12. Plaintiff, Public Health and Sustainable Energy ("PUSH") is a Rockland County, NY organization dedicated to environmental issues. It maintains an address at 21 Perlman Drive,



Spring Valley, NY 10977, which is within 50 miles of IPEC.

13. Defendant, the United States NRC, is a United States Government Agency established by the 1974 Energy Reorganization Act. The NRC oversees aspects of commercial nuclear operations in the United States including nuclear reactor safety and the operation of the Indian Point facilities.

## FACTS

### History of Fire Safety Actions By The NRC

14. The NRC operates under a broad grant of authority from the Congress requiring it to regulate commercial nuclear reactors by the issuance of licenses and rules and regulations which a licensee is required to observe. The broad purpose of the statutes is to protect the health and safety of the public and to permit the effective operation of commercial reactors. The right of the public to participate in NRC processes and decisions, especially when public health and safety is involved, is woven throughout the authorizing statutes.

15. Fire safety, and the particular danger of fire damage to electric cables that control reactor shutdown and prevent a consequential meltdown of the reactor's radioactive core have been problems at American nuclear facilities for decades and subject to repeated NRC actions. Following a major fire in 1975 at the Browns Ferry nuclear facility in Alabama which came close to causing a catastrophic loss of reactor control and a core meltdown, the NRC undertook a sweeping review of fire safety problems at all of the nation's nuclear facilities, and determined that among other major public health and safety problems, the lack of adequate fire insulation on electric control cables presented a clear threat to public health and safety. It then implemented a number of stringent requirements regarding fire safety and operating procedures by promulgating a series of regulations contained in Appendix R, which requires, among other things, that critical electrical cables that control nuclear reactor shutdown must be physically

ulated sufficient to withstand a fire for three hours, or for one hour if additional mitigating steps are taken. Such a regulatory requirement is a condition of operation and a condition of the license and has the force of law.

16. Pursuant to these regulatory requirements, cable insulation known as Hemyc, was accepted by the NRC as acceptable insulation pursuant to Appendix R.

17. It was initially believed by the NRC that Hemyc would meet the one hour insulation requirement, if additional protective steps are taken. It is now undisputed that Hemyc does not meet the one hour regulatory standard, the NRC itself having concluded it insulates against fire for only 27 minutes. "The test results indicated that Hemyc did not achieve the fire endurance consistent with its rating for the configurations tested." <http://www.nrc.gov/reactors/operating/ops-experience/fire-protection/firebarriers/fire-barriers-overview.html>

18. In the face of the failure of Hemyc to meet the one hour requirement, Entergy requested and the NRC granted IPEC the "exemption" at issue in this case, requiring the insulation to last only 24 minutes. Upon information and belief, the 24 minute standard was chosen only because test results indicated Hemyc lasts for only 27 minutes, not because of any reason related to safety or the public interest. Although the NRC's governing statutes do not authorize or mention an "exemption" from the regulatory and safety requirements of a license, the NRC issued this "exemption" pursuant to 10 C.F.R. § 50.12 a regulation that sets forth a process by which such "exemptions" are issued.

19. The AEA does not empower the NRC to grant such an "exemption." It does empower the NRC to take a specific and limited set of actions: "The terms and conditions of all licenses shall be subject to amendment, revision, or modification, by reason of amendments of this Act or by reason of rules and regulations issued in accordance with the terms of this Act." 42 U.S.C. §

2237.

20. When the NRC undertakes any of its authorized actions the Congress has protected and explicated the public's constitutional and statutory rights to know of and participate in significant decisions including changes in operating standards, especially when they affect the public health and safety. The AEA requires public participation in these decisions, including the right to a hearing under 42 U.S.C. § 2239. The APA has similar requirements

21. NEPA, as part of consideration of the environmental impacts of matters affecting the public health and safety, similarly grants a right of public participation in matters of "substantial controversy." "Exemptions," at IPEC, including the September 28<sup>th</sup> "exemption" to significant public health and safety requirements, have been a matter of concern and controversy for the public, environmental groups, and elected officials for years. Criteria to be considered in whether a NEPA hearing should be held include "Substantial environmental controversy concerning the proposed action or substantial interest in holding the hearing." 42 U.S.C. § 1506.6(c)(1).

22. The NRC may take only those actions authorized by law. It is required to follow its own regulations under the provisions of the APA which sets forth the required procedures and legal standards that a federal agency must observe. 5 U.S.C. § 706(2).

23. Moreover, the APA guarantees the right to a hearing under 5 U.S.C. § 554, governing adjudications. The APA defines an "adjudication" as a process that results in the issuing of a final order. The "exemption" itself was a final order. The public has a right to a hearing as mandated by the AEA, NEPA and the APA.

24. The NRC's current fire safety regulations as contained in Appendix R still require a minimum of sixty minutes of fire insulation on electrical cables. The "exemption" at issue in this case is the sole legal basis for current operations at IPEC which continue to violate that regulatory standard by requiring the insulation to last only 24 minutes.

### History of the 2007 IPEC "Exemption"

25. In the context of these long-standing controversies about fire safety, electric control cable insulation, and Hemyc's failure to meet regulatory requirements, Entergy, on or about July 24, 2006, asked the NRC to permit it to violate the Appendix R requirement that cable fire safety insulation last for one hour and instead permit the permanent and continuing use of insulation that lasts only 30 minutes, one half of the one hour requirement. It sought permanent relief from a significant public health and safety requirement. Entergy characterized this request as an "exemption" from fire safety rules. There is no mention in the AEA, or any other governing statutes, of "exemptions" from NRC health and safety requirements and/or the conditions of a license.

26. No public notice, of any kind, of the Entergy "exemption" request was provided by either Entergy or the NRC. No notice was published in the Federal Register or elsewhere, nor was there any opportunity for public comment or participation in the ensuing NRC process.

27. On or about August 16, 2007, 13 months after its initial 30 minute request and after tests of the insulation showed it would not last 30 minutes, Entergy made a second "exemption" request, asking that its fire insulation standard be reduced to 24 minutes, an additional 6 minute or 20% violation of the 60 minute requirement. There was no public notice of the second request nor was any opportunity for public comment or participation given by Entergy or the NRC.

28. Because of the lack of notice, disclosure or public participation, and the absolute wall of secrecy that surrounded the decision, little is known about the process used by the NRC as it considered and decided the "exemption" request. However, it is undisputed that the NRC possessed a significant number of documents that were relevant and probative with respect to the issues raised in the "exemption." The NRC has admitted that it chose to ignore many of the most probative documents, and instead collected a small number of documents as a basis for the

decision. The NRC has sworn that this small number of documents were the only documents considered and included in the administrative record, even though the Supreme Court has required that an agency consider and produce all relevant and probative documents in its possession at the time the decision was made, on the grounds that an agency may not arbitrarily ignore evidence in its possession. On information and belief, the NRC, using this truncated and arbitrary list of documents and evidence, entered into extended secret negotiations with Entergy on the "exemption" requests, failed and refused to consider other evidence in its possession, and summarily, secretly and against the weight of evidence approved the second request on September 28, 2007, constituting a final order. That final order was issued only 42 days after the second request was received. It is notable that the 24 minute standard conforms to test results showing that Hemyc only lasts 27 minutes. Conforming the regulatory standard to the test results rather than establishing public health and safety validity is an example of egregious illegal, arbitrary and capricious behavior by the NRC. It is also notable that the text of the "exemption" itself states that it relies on a document entitled "the licensee's Fire Hazards Analysis," which is not on the list of documents the NRC says it considered, and is not known to exist.

29. On September 28, 2007 the public, for the first time, was made aware of the existence of the request and the amended request when a Federal Register notice was published concerning a NEPA Finding of No Significant Impact ("FONSI") regarding the "exemption." On or about October 4, 2007, the NRC published in the Federal Register its final approval of the 24-minute "exemption," which had actually been granted on or about September 28, 2007.

30. Upon information and belief, the NRC issued the "exemption" without an Environmental Impact Statement ("EIS") as required by NEPA, without addressing facts presented and available to it, and without consideration or analysis of documents, studies, safety information

and impact data and other relevant and probative evidence in its possession.

31. Upon information and belief, the NRC made the decision to grant the "exemption" in an amount of time that did not allow for adequate review of the materials. It could not have conducted a legally adequate review of the 24 minute "exemption" from the promulgated 1 hour safety standard since it only had the request for that specific "exemption" under review for 42 days, while it considered the previously requested 30 minute "exemption" from the promulgated 1 hour safety standard for 13 months.

32. On or about December 3, 2007, Plaintiffs filed a formal petition with the NRC objecting to its grant of the "exemption" at IPEC and asking the agency to reopen the matter. Among other requests for relief, the petition sought a public hearing on the issue.

33. On or about January 30, 2008, the NRC rejected Plaintiff's petition, refusing to conduct a public hearing, constituting a final action and thereby exhausting all of Plaintiffs' administrative remedies.

34. The NRC's granting of the "exemption" on September 28, 2007 was only one of many repeated failures to deal openly and effectively with respect to fire safety standards. The fire insulation known as Hemyc has been the subject of Congressional and NRC Inspector General's Office investigations, including a June 2008 Report of the Government Accounting Office that criticized the NRC's inaction regarding deficiencies in Hemyc as well as other fire resistant wrappings.

35. Upon information and belief, due to its proximity to the New York City Metropolitan Area, and particular defects in the construction and operation of the facilities, IPEC is considered especially susceptible to a terrorist threat, although the NRC did not consider or give any weight to the consequences of the "exemption" on IPEC's ability to withstand a terrorist attack without catastrophic radiation releases as a result of fire affecting the cables that control reactor

shutdown.

36. The "exemption" now allows the nuclear reactor to operate with greatly reduced fire protection thereby putting the public at heightened risk of the consequences of a loss of reactor control resulting from a fire, catastrophic event, terrorist attack, or a combination of those events.

37. After consultation with officials at the New York State Energy Research and Development Authority ("NYSERDA") and the Office of the Governor of the State of New York, and the review of Entergy documents, Plaintiffs have evidence that Entergy and the NRC are engaged in ongoing attempts to issue a massive number of additional "exemptions" to public health and safety requirements. Upon information and belief, the NRC is now secretly and without public notice or participation considering or processing at least 54 other illegal "exemption" requests at IPEC's nuclear facilities and elsewhere. Without judicial intervention, the NRC may approve those "exemptions" in the same secretive, unlawful, and arbitrary and capricious manner as the specific "exemption" at issue in this case.

38. Any further secret, illegal, arbitrary and capricious "exemption" approvals by the NRC at IPEC will put the public at continuing and increased risk of fire damage to essential electrical cables that control reactor shutdown in an emergency and protect against a core meltdown and the consequent release of radiation and will violate the public's right of participation under applicable statutes.

39. As a result of the NRC's granting of the illegal "exemption" on September 28, 2007, which is now in effect, the insulation at IPEC protects electrical cables for only 24 minutes.

Accordingly, a fire in remote cable locations must be detected, responded to by a fire brigade, and fully extinguished in less than 24 minutes or loss of reactor control will occur. Such complete fire suppression is a physical impossibility in most IPEC electric control cable

locations. Indian Point is now more vulnerable to catastrophic fire damage and loss of reactor shutdown capability than any time after the Brown's Ferry accident of 1975.

40. As a result of the decision by the NRC to grant the fire safety "exemption" hereinof complained, Entergy's license to operate IPEC is not in compliance with the requirements of law set forth by the NRC and the AEA, and now operates in violation of long-standing public health and safety requirements.

41. Because of the lack of legal authority to issue the "exemption," and because of the failure by the NRC to provide any public notice, information, ability to comment, question or present evidence, public hearing or any form of public participation, and because the NRC violated its own procedural requirements, and because the decision was arbitrary and capricious in its failure to consider relevant and probative material and because the decision was not supported by the weight of available evidence, the Plaintiffs' statutory and constitutional rights have been violated.

#### History of Federal Court Proceedings

42. On or about March 27, 2008, Plaintiffs filed a petition in the Second Circuit, which maintains original jurisdiction to consider challenges to final actions by regulatory agencies under the Hobbs Act, for review of NRC's final decision regarding the "exemption." The petition included claims that the NRC violated the AEA, NEPA, CEQ and APA in granting the fire safety "exemption" to IPEC.

43. Plaintiffs argued that the "exemption" was invalid because the NRC had no statutory authority to issue the "exemption," that even if an "exemption" may be issued, public participation is required, that the NRC failed to observe the requirements of its own § 50.12 regulations, that the NRC failed to consider relevant and probative materials and documents in its possession and failed to include such documents in the Certified Record, that it failed to



follow the requirements of NEPA, that the issuance of the "exemption" was arbitrary and capricious and raised other issues as well.

44. Entergy, which owns and operates IPEC, was accepted as an intervenor on May 1, 2008.

On May 5, 2008, the NRC filed a motion to dismiss the Petition and moved for summary denial of the Petition on the grounds that Petitioner's request to the NRC for a hearing had been properly denied under the law. Petitioners opposed the NRC's motion, as did the Office of the New York State Attorney General via an amicus brief. The motion to dismiss was referred to the merits panel.

45. On December 15, 2008 Petitioners filed a Motion to Supplement and Correct the Record on Review under Federal Rule of Appellate Procedure (FRAP) 16 on grounds that the Certified Record submitted to the court by the NRC was incomplete and omitted specific documents in the possession of the NRC which were material and relevant. Petitioner specifically named a series of such documents directly related to the issues before the NRC. The motion also was referred to the merits panel, but was not addressed in the final decision of the court.

46. On May 11, 2009, after some additional motion practice, oral argument was heard before a panel of three judges, including now Supreme Court of the United States Justice Sonya Sotomayor. The Court heard from Petitioners, the NRC, Entergy, and the Office of the New York State Attorney General. Following Justice Sotomayor's accession to the Supreme Court, a final decision was issued on August 27, 2009 by former Chief Judge of the Second Circuit John M. Walker and Honorable J. Clifford Wallace, of the United States Court of Appeals for the Ninth Circuit, sitting by designation.

47. The Second Circuit dismissed the Petition on the sole grounds of lack of jurisdiction. The Court offered no opinion on whether the NRC's denial of a hearing was proper, whether the "exemption" at issue was arbitrary and capricious, or whether statutory authority for an

“exemption” exists at all. The Second Circuit specifically stated that “because we lack jurisdiction, we also express no opinion as to whether the NRC’s hearing denial was proper, whether the “exemption” at issue is arbitrary and capricious, or the other issues raised by Petitioners.” *Brodsky v. NRC* August 27, 2009, 08-1454, p. 19.

48. The Court of Appeals instructed Petitioners that the district court was the proper venue in which to bring the raised issues. “We note that our holding does not necessarily shut off every avenue Petitioners may have at their disposal for relief. Petitioners are free to seek review in the district court of the NRC’s actions pursuant to the APA.” *Brodsky v. NRC* August 27, 2009, 08-1454, fn 6.

49. Following the Second Circuit’s ruling, the NRC filed a Petition for Rehearing and Rehearing En Banc. Plaintiffs were not invited to respond and the Second Circuit issued an order denying the NRC’s petition on December 1, 2009.

50. In light of the ruling of the Second Circuit, Plaintiffs now appear before this district court and seek relief from the NRC’s unlawful actions and the consequences thereof.

### **First Cause of Action**

#### **AEA**

### **The NRC Violated The AEA By The Issuance Of The Putative “Exemption” Without Statutory**

#### **Authority To Do So**

51. Plaintiff repeats and re-alleges each and every allegation set forth in paragraphs 1 through 50 with the same force and effect as if set forth in full herein.

52. The NRC may take only those actions authorized by its governing statutes, specifically the AEA. The AEA authorizes the NRC to take specified actions with respect to the operations of a commercial reactor. These specified actions are the power to grant, suspend, revoke or amend a license 24 U.S.C. § 2235 and to issue or modify rules and regulations. A reactor operator must

scrupulously conform to the conditions and terms of such licenses, rules, and regulations. The AEA contains no mention of and does not authorize the NRC to issue an "exemption" to health and safety standards, or regulatory requirements, or license conditions.

53. The September 28, 2007 "exemption," and the January 30, 2008 rejection of Plaintiffs' petition, and the processes used to issue those decisions were beyond the legal authority of the NRC, arbitrary and capricious, illegal, violated the public's right to notice and participation, and created an ongoing danger to public health and safety.

54. The NRC had no legal authority enabling it to issue the "exemption" described herein, which "exemption" excuses IPEC from compliance with the duly promulgated and binding requirements of NRC 10 C.F.R. pt. 50, App. R, III-(G)(2)(a),(c), ("Appendix R"), including the 60 minute fire insulation safety requirement. The issuance and continued operation of said "exemption" therefore violates the AEA.

## **Second Cause of Action**

### **APA**

#### **The NRC Violated The APA By The Issuance Of The Putative "Exemption" Without Statutory**

#### **Authority To Do So**

55. Plaintiff repeats and realleges each and every allegation set forth in paragraphs 1 through 54 with the same force and effect as if set forth in full herein.

56. The NRC may take only those actions authorized by its governing statutes, specifically the AEA. The AEA authorizes the NRC to take specified actions with respect to the operations of a commercial reactor. These specified actions are the power to grant, suspend, revoke or amend a license CITE and to issue or modify rules and regulations. A reactor operator must scrupulously conform to the conditions and terms of such licenses, rules, and regulations. The AEA contains no mention of and does not authorize the NRC to issue an "exemption" to health and safety

standards, or regulatory requirements, or license conditions. The September 28, 2007

“exemption,” and the January 30, 2008 rejection of Plaintiffs’ petition, and the processes used to issue those decisions were beyond the legal authority of the NRC, arbitrary and capricious, illegal, violated the public’s right to notice and participation, and created an ongoing danger to public health and safety.

57. The NRC had no legal authority enabling it to issue the “exemption” described herein, which excuses IPEC from compliance with the duly promulgated and binding requirements of NRC 10 C.F.R. pt. 50, App. R, III-(G)(2)(a),(c), (“Appendix R”), including the 60 minute fire insulation safety requirement. The issuance and continued operation of said “exemption” therefore violates the AEA.

58. The APA forbids agency actions that are “arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law;” “contrary to constitutional right, power, privilege, or immunity;” “in excess of statutory jurisdiction, authority, or limitations, or short of statutory right;” “without observance of procedure required by law;” “unsupported by substantial evidence;” or “unwarranted by the facts to the extent that the facts are subject to trial de novo by the reviewing court.” 5 U.S.C. § 706(2).

59. The “exemption” was issued in violation of the standards of 5 U.S.C. § 706(2) and is therefore a violation of the APA.

### **Third Cause of Action**

#### **AEA**

**The NRC Is In Violation Of the AEA By Its Ongoing Consideration and Approval Of Additional  
“Exemptions.”**

60. Plaintiff repeats and realleges each and every allegation set forth in paragraphs 1 through 59 with the same force and effect as if set forth in full herein.

61. The NRC is currently secretly and illegally considering for approval dozens, if not hundreds, of requests for additional "exemptions" including "exemptions" from compliance with mandatory health and safety requirements at IPEC.

62. Upon information and belief, the NRC is using the same illegal, arbitrary and capricious procedures in the consideration of these requested "exemptions" as it did in the consideration and issuance of the September 28, 2007 "exemption," including a lack of public participation.

63. The NRC may take only those actions authorized by its governing statutes, specifically the AEA. The AEA authorizes the NRC to take specified actions with respect to the operations of a commercial reactor. These specified actions are the power to grant, suspend, revoke or amend a license and to issue or modify rules and regulations. A reactor operator must scrupulously conform to the conditions and terms of such licenses, rules, and regulations. The AEA contains no mention of and does not authorize the NRC to issue an "exemption" to health and safety standards, or regulatory requirements, or license conditions.

64. The NRC has no legal authority enabling it to issue "exemptions" from compliance with duly promulgated and binding operational requirements. The consideration, approval and issuance of such "exemptions" constitute an ongoing violation of the AEA.

65. The "exemptions" are being considered "without procedure required by law" and constitute an ongoing violation of the AEA.

#### **Fourth Cause of Action**

##### **APA**

#### **The NRC Is In Violation Of the APA By Its Ongoing Consideration and Approval Of Additional "Exemptions."**

66. Plaintiff repeats and realleges each and every allegation set forth in paragraphs 1 through 65 with the same force and effect as if set forth in full herein.

67. The NRC is currently secretly and illegally considering for approval dozens, if not hundreds, of requests for additional "exemptions" including "exemptions" from compliance with mandatory health and safety requirements at IPEC.

68. Upon information and belief, the NRC is using the same illegal, arbitrary and capricious procedures in the consideration of these requested "exemptions" as it did in the consideration and issuance of the September 28, 2007 "exemption," including a lack of public participation.

69. The NRC may take only those actions authorized by its governing statutes, specifically the AEA. The AEA authorizes the NRC to take specified actions with respect to the operations of a commercial reactor. These specified actions are the power to grant, suspend, revoke or amend a license and to issue or modify rules and regulations. A reactor operator must scrupulously conform to the conditions and terms of such licenses, rules, and regulations. The AEA contains no mention of and does not authorize the NRC to issue an "exemption" to health and safety standards, or regulatory requirements, or license conditions.

70. The NRC has no legal authority enabling it to issue "exemptions" from compliance with duly promulgated and binding operational requirements. The consideration, approval and issuance of such "exemptions" constitute an ongoing violation of the AEA.

71. The APA forbids agency actions that are "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law," actions that are "in excess of statutory jurisdiction, authority, or limitations, or short of statutory right," actions that are made "without observance of the procedure required by law," and actions that are "unwarranted by the facts." 5 U.S.C. § 706(2).

72. The "exemption" was issued in violation of the standards of 5 U.S.C. § 706(2) and is therefore a violation of the APA.

#### Fifth Cause of Action

## **AEA**

### **The NRC Violated The AEA By Failing To Provide For Public Participation In The "Exemption" Process**

73. Plaintiff repeats and realleges each and every allegation set forth in paragraphs 1 through 72 with the same force and effect as if set forth in full herein.

74. The "exemption" granted to IPEC by the NRC with respect to fire safety standards was issued without any public notice, opportunity to comment or provide evidence and information, and without a public hearing during the time when the NRC was considering the "exemption" and subsequently when it refused undertake such public participation when formally requested to do so by Plaintiffs.

75. § 187 and § 189(a) of the AEA provide the public with statutory rights to notice, an opportunity to be heard, a public hearing and other forms of public participation:

in any proceeding under this chapter, for the granting, suspending, revoking, or modification of any license or construction permit, or application to transfer control, and in any proceeding for the issuance or modification of rules and regulations dealing with the activities of licensees, and in any proceeding for the payment of compensation, an award or royalties under Sections 2183, 2187, 2236(c) or 2238 of this title, the Commission shall grant a hearing upon the request of any person whose interest may be affected by the proceeding, and shall admit any such person as a party to such proceeding.

Atomic Energy Act of 1954 § 189(a), 42 U.S.C. § 2239(a)

76. The NRC's failure to provide for such public participation is a violation of the AEA.

### **Sixth Cause of Action**

## **APA**

### **The NRC Violated The APA By Failing To Provide For Public Participation In The "Exemption"**

#### **Process**

77. Plaintiff repeats and realleges each and every allegation set forth in paragraphs 1 through 76

with the same force and effect as if set forth in full herein.

78. The "exemption" granted to IPEC by the NRC with respect to fire safety standards was issued without any public notice, opportunity to comment or provide evidence and information, and without a public hearing during the time when the NRC was considering the "exemption" and subsequently when it refused undertake such public participation when formally requested to do so by Plaintiffs.

79. § 187 and § 189(a) of the AEA provide the public with statutory rights to notice, an opportunity to be heard, a public hearing and other forms of public participation:

in any proceeding under this chapter, for the granting, suspending, revoking, or modification of any license or construction permit, or application to transfer control, and in any proceeding for the issuance or modification of rules and regulations dealing with the activities of licensees, and in any proceeding for the payment of compensation, an award or royalties under Sections 2183, 2187, 2236(c) or 2238 of this title, the Commission shall grant a hearing upon the request of any person whose interest may be affected by the proceeding, and shall admit any such person as a party to such proceeding.

Atomic Energy Act of 1954 § 189(a), 42 U.S.C. § 2239(a)

80. The APA forbids agency actions that are "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law;" "in excess of statutory jurisdiction, authority, or limitations, or short of statutory right;" or "without observance of procedure required by law." 5 U.S.C. § 706(2).

81. The NRC's failure to undertake such public participation is a violation of the APA.

### **Seventh Cause of Action**

#### **APA**

#### **Failure to Provide Hearing**

82. Plaintiff repeats and realleges each and every allegation set forth in paragraphs 1 through 81 with the same force and effect as if set forth in full herein.



83. The APA 5 U.S.C. § 554 requires a public hearing, notice of such hearing, and an opportunity to present evidence “in every case of adjudication.” 5 U.S.C. §551(1)(7) defines an “adjudication” as an “agency process for the formulation of an order.”

84. The NRC’s issuance of an “exemption” on September 28, 2007 was a final order.

85. The process by which the NRC decided to issue that “exemption” was an “adjudication.”

86. The NRC did not provide the public or interested parties any notice, hearing or opportunity to submit evidence.

87. The failure and refusal of the NRC to provide such public participation is a violation of the APA.

### **Eighth Cause of Action**

#### **NEPA**

#### **The NRC Violated NEPA Because Of Its Failure to Provide Statutorily Required Public**

#### **Participation**

88. Plaintiff repeats and realleges each and every allegation set forth in paragraphs 1 through 87 with the same force and effect as if set forth in full herein.

89. The NRC violated NEPA by failing to provide for public participation as required by 42 U.S.C. § 1506.6(c)(1), which states that a hearing shall be held when there is “Substantial environmental controversy concerning the proposed action or substantial interest in holding the hearing.”

90. IPEC operations have been a matter of “substantial environmental controversy” for several years, prompting several administrative challenges and litigation spearheaded by both citizens and environmental action groups. An “exemption” to fire safety standard creates further “substantial environmental controversy,” due to the possibility of IPEC as a terrorist target and general concerns of public health and welfare in the face of a catastrophic fire.

91. The failure and refusal of the NRC to provide such public participation is a violation of the NEPA § 1506.6(c)(1).

### **Ninth Cause of Action**

#### **NEPA**

#### **The NRC Violated NEPA By Its Failure to Provide Public Notice of NRC Actions With Respect To The Putative "Exemption"**

92. Plaintiff repeats and realleges each and every allegation set forth in paragraphs 1 through 91 with the same force and effect as if set forth in full herein.

93. Under NEPA, federal agencies are required to provide public notice of "NEPA-related hearings, public meetings, and the availability of environmental documents so as to inform those persons and agencies who may be interested or affected." 42 U.S.C. § 1506.6(b).

94. Upon information and belief, the only environmental document prepared in reference to the "exemption" at issue is a "Finding of No Significant Impact" ("FONSI").

95. The Federal Register of October 4, 2007 was the first time that the public was made aware of the FONSI regarding the "exemption" issued to IPEC on September, 28, 2007, and the first time the public was made aware that the "exemption" to fire safety standards had been issued.

96. The notice of both the FONSI and the fact that the "exemption" had been approved in the same issue of the Federal Register demonstrates that interested parties were precluded from requesting additional information or the availability of environmental documents regarding the decision to issue the "exemption" to IPEC prior to the approval of that "exemption."

97. The NRC failed to "provide public notice of NEPA-related hearings, public meetings, and the availability of environmental documents so as to inform those persons and agencies who may be interested or affected," as required by 42 U.S.C. § 1506.6(b).

98. The NRC's failure to provide such notice and opportunity constitutes a violation of NEPA.

## Tenth Cause of Action

### NEPA

#### The NRC Violated NEPA By Its Failure to Prepare a Full Environmental Impact Statement

##### ("EIS")

99. Plaintiff repeats and realleges each and every allegation set forth in paragraphs 1 through 98 with the same force and effect as if set forth in full herein.

100. NEPA requires federal agencies to prepare a "detailed statement" regarding the environmental impacts of all "major federal actions significantly affecting the quality of the human environment." 42 U.S.C. § 4332(2)(c); 40 C.F.R. § 1501.4. This "detailed statement," often referred to as an "environmental impact statement" ("EIS"), must be prepared prior to initiating any major federal action so that the environmental impacts of the proposed government action can be disclosed to the public during the decision making process. 40 C.F.R. § 1501.2; 1501.5.

101. Through an EIS, a federal agency must analyze the direct, indirect, and cumulative impacts of the proposed action, must consider alternative actions and their comparative impacts, and must identify all irretrievable and irreversible commitments of resources associated with the action. 42 U.S.C. § 4332(2).

102. Pursuant to NEPA, the effects to be considered in an EIS also include "aesthetic, historical, cultural, economic, social or health [effects], whether direct, indirect or cumulative." 40 C.F.R. § 1508.8.

103. 40 C.F.R. § 1502.2(c) requires that the EIS discusses how alternatives will advance the policies set forth in NEPA, such as assuring the citizens of the United States safe, healthful, aesthetically and culturally pleasing surroundings. The EIS must serve as "the means of assessing the environmental impact of proposed agency actions, rather than justifying decisions

already made.” 40 C.F.R. § 1502.2(c).

104. The NRC failed to prepare an EIS before approving the September 28<sup>th</sup> “exemption” issued to IPEC. By failing to prepare an EIS, the NRC failed to fully analyze and evaluate all of the direct, indirect and cumulative impacts of the “exemption,” failed to identify alternatives to issuing the “exemption,” failed to identify all the irretrievable and irreversible commitment of resources caused by issuing the “exemption,” and failed to discuss how alternatives to the “exemption” might better assure citizens of healthful surroundings.

105. The FONSI prepared by NRC as related to the September 28<sup>th</sup> “exemption,” merely “justified a decision already made,” to issue an “exemption” to IPEC. A full EIS was required as a “means of assessing the environmental impact” and cover the full extent of the health and safety issues raised by the September 28<sup>th</sup> “exemption.”

106. The NRC failed to prepare the “detailed statement” of the environmental effects of the September 28<sup>th</sup> “exemption” in the form of a full EIS in violation of NEPA.

### **Eleventh Cause of Action**

#### **NEPA**

#### **The NRC Violated NEPA Because The FONSI Prepared For The Putative “Exemption” Failed To**

##### **Consider a Terrorist Attack**

107. Plaintiff repeats and realleges each and every allegation set forth in paragraphs 1 through 106 with the same force and effect as if set forth in full herein.

108. IPEC’s nuclear facilities are considered particularly vulnerable to a terrorist attack because of its proximity to the New York City Metropolitan area and the events of September 11, 2001.

109. The catastrophic consequences of a terrorist attack at a nuclear facility would affect the quality of the human environment.

110. NEPA requires that federal agencies provide a detailed assessment of all possibilities

affecting the quality of the "human environment" 42 U.S.C. 4332(2)(C)(i) before issuing a final decision on a matter before it.

111. The FONSI prepared as part of the NRC action to grant the "exemption" failed to consider or address the environmental impacts of a terrorist attack on fire safety and other regulatory requirements, thereby failing to provide a detailed assessment of all possibilities.

112. The NRC's failure to consider and assess the consequences of a terrorist attack on IPEC constitutes a violation of NEPA.

### **Twelfth Cause of Action**

#### **APA**

#### **The NRC Violated The APA When It Failed To Follow Its Own Regulatory Requirement That It Offer Evidence In Support Of The Required Finding That The "Exemption" Is "Authorized by Law"**

113. Plaintiff repeats and realleges each and every allegation set forth in paragraphs 1 through 112 with the same force and effect as if set forth in full herein.

114. 10 C.F.R 50.12(a) states that the NRC may issue an "exemption" only upon a finding that the "exemption" is "authorized by law."

115. The "exemption" issued to IPEC by the NRC on September 28, 2008 contains an arbitrary and conclusive statement that the "exemption" is "authorized by law." It offered no documents, discussion, evidence or analysis in support of that conclusion.

116. The APA forbids agency actions that are "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law," actions that are "in excess of statutory jurisdiction, authority, or limitations, or short of statutory right," actions that are made "without observance of the procedure required by law," and actions that are "unwarranted by the facts." 5 U.S.C. § 706(2).

117. The NRC's failure to offer any support for its conclusion is a violation of the APA.

### **Thirteenth Cause of Action**

#### **AEA**

#### **The NRC Violated The AEA When It Failed To Follow Its Own Regulatory Requirement That It Offer Evidence In Support Of The Required Finding That The "Exemption" Is "Authorized by Law"**

118. Plaintiff repeats and realleges each and every allegation set forth in paragraphs 1 through 117 with the same force and effect as if set forth in full herein.

119. 10 C.F.R 50.12(a) states that the NRC may issue an "exemption" only upon a finding that the "exemption" is "authorized by law."

120. The "exemption" issued to IPEC by the NRC on September 28, 2008 contains an arbitrary and conclusive statement that the "exemption" is "authorized by law." It offered no documents, discussion, evidence or analysis in support of that conclusion.

121. The NRC's failure to offer any evidence or support for its conclusion is a violation of the AEA.

### **Fourteenth Cause of Action**

#### **APA**

#### **The NRC Violated The APA When It Failed To Offer Evidence In Support Of Its Required Finding That The "Exemption" Will Not Present An "Undue Risk to Public Health and Safety"**

122. Plaintiff repeats and realleges each and every allegation set forth in paragraphs 1 through 121 with the same force and effect as if set forth in full herein.

123. 10 C.F.R 50.12(a) states that the NRC may issue an "exemption" only upon a finding that the "exemption" does not present an "undue risk to public health and safety."

124. The "exemption" issued to IPEC by the NRC on September 28, 2008 contains an arbitrary

and conclusive statement that the "exemption" will not present an "undue risk to public health and safety" It offered no documents, discussion, evidence or analysis in support of that conclusion.

125. The APA forbids agency actions that are "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law," actions that are "in excess of statutory jurisdiction, authority, or limitations, or short of statutory right," actions that are made "without observance of the procedure required by law," and actions that are "unwarranted by the facts." 5 U.S.C. § 706(2).

126. The NRC's failure to offer any evidence or support for its conclusion is a violation of the APA.

#### **Fifteenth Cause of Action**

##### **AEA**

#### **The NRC Violated The AEA When It Failed To Offer Evidence In Support Of Its Required Finding That The "Exemption" Will Not Present An "Undue Risk to Public Health and Safety"**

127. Plaintiff repeats and realleges each and every allegation set forth in paragraphs 1 through 126 with the same force and effect as if set forth in full herein.

128. 10 C.F.R 50.12(a) states that the NRC may issue an "exemption" only upon a finding that the "exemption" does not present an "undue risk to public health and safety."

129. The "exemption" issued to IPEC by the NRC on September 28, 2008 contains an arbitrary and conclusive statement that the "exemption" does not "present an undue burden to public health and safety." It offered no documents, discussion, evidence or analysis in support of that conclusion.

130. The NRC's failure to offer any evidence or support for its conclusion is a violation of the AEA.

## Sixteenth Cause of Action

### APA

#### **The NRC Violated The APA When It Failed To Offer Evidence In Support Of Its Required Finding That The "Exemption" is "Consistent With Common Defense and Security"**

131. Plaintiff repeats and realleges each and every allegation set forth in paragraphs 1 through 130 with the same force and effect as if set forth in full herein.

132. 10 C.F.R 50.12(a) states that the NRC may issue an "exemption" only upon a finding that the "exemption" is "consistent with the common defense and security."

133. The "exemption" issued to IPEC by the NRC on September 28, 2008 contains an arbitrary and conclusive statement that the "exemption" is "consistent with the common defense and security." It offered no documents, discussion, evidence or analysis in support of that conclusion.

134. The APA forbids agency actions that are "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law," actions that are "in excess of statutory jurisdiction, authority, or limitations, or short of statutory right," actions that are made "without observance of the procedure required by law," and actions that are "unwarranted by the facts." 5 U.S.C. § 706(2).

135. The NRC's failure to offer any evidence or support for its conclusion is a violation of the APA.

## Seventeenth Cause of Action

### AEA

#### **The NRC Violated The AEA When It Failed To Offer Evidence In Support Of Its Required Finding That The "Exemption" is "Consistent With Common Defense and Security"**

136. Plaintiff repeats and realleges each and every allegation set forth in paragraphs 1 through



135 with the same force and effect as if set forth in full herein.

137. 10 C.F.R 50.12(a) states that the NRC may issue an "exemption" only upon a finding that the "exemption" is "consistent with the common defense and security."

138. The "exemption" issued to IPEC by the NRC on September 28, 2008 contains an arbitrary and conclusive statement that the "exemption" is "consistent with the common defense and security." It offered no documents, discussion, evidence, or analysis in support of that conclusion.

139. The NRC's failure to offer any evidence or support for its conclusion is a violation of the AEA.

### **Eighteenth Cause of Action**

#### **APA**

#### **The NRC Violated the APA By Its Failure To Consider And Give Weight To Relevant And Probative Evidence In Its Possession**

140. Plaintiff repeats and realleges each and every allegation set forth in paragraphs 1 through 139 with the same force and effect as if set forth in full herein.

141. Due to the NRC's knowing and conscious failure to comply with NEPA, Plaintiffs have suffered legal wrongs because of an agency action, ie the issuance of the September 28<sup>th</sup> "exemption" and are adversely affected and aggrieved by the NRC's action within the meaning of 5 U.S.C. § 702(2) which requires that an agency decision may not arbitrarily ignore relevant and probative evidence in its possession and must consider and weigh all such relevant and probative material.

142. The NRC has provided a list of all documents it considered when it issued the "exemption." That list intentionally and admittedly omits numerous documents in the possession of the NRC which are relevant and probative, and which were specified by Plaintiffs

in the course of litigation. The NRC has stated that it is not required to consider or make part of the administrative record all relevant and probative evidence in its possession, only those documents it chose to consider.

143. The APA forbids agency actions that are "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law," actions that are "in excess of statutory jurisdiction, authority, or limitations, or short of statutory right," actions that are made "without observance of the procedure required by law," "unsupported by substantial evidence" and actions that are "unwarranted by the facts." 5 U.S.C. § 706(2).

144. The NRC's refusal to consider and/or make part of the administrative record such material violated the APA.

### **Nineteenth Cause of Action**

#### **APA**

#### **The NRC Violated the APA By Relying on a Document Not Contained in the Certified Record**

145. Plaintiff repeats and realleges each and every allegation set forth in paragraphs 1 through 144 with the same force and effect as if set forth in full herein.

146. The text of the September 28<sup>th</sup> "exemption" explicitly states that the "exemption" is being granted "... based upon consideration of information in the licensee's Fire Hazards analysis ..." No such document exists in the administrative record which the NRC swears contains all documents it considered, and no such document has been found to be in the possession of the NRC, or to exist.

147. The NRC may not rely on a document which it does not possess, was not part of the administrative record and was not actually considered, and which does not exist. The NRC may not make a decision which relies which they do not possess, was not part of the administrative record and may not exist.

148. The APA forbids agency actions that are "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law," actions that are "in excess of statutory jurisdiction, authority, or limitations, or short of statutory right," actions that are made "without observance of the procedure required by law," "unsupported by substantial evidence," and actions that are "unwarranted by the facts." 5 U.S.C. § 706(2).

149. By issuing an "exemption" which explicitly relies on a document the NRC did not possess consider, or include in the administrative record the NRC violated the APA.

### **Twentieth Cause of Action**

#### **APA**

#### **The NRC Violated the APA's Requirement That It Give Full and Appropriate Consideration To Evidence Due to Inadequate Time to Review The 24 Minute Exemption Request.**

150. Plaintiff repeats and realleges each and every allegation set forth in paragraphs 1 through 149 with the same force and effect as if set forth in full herein.

151. Due to the NRC's knowing and conscious failure to comply with NEPA, Plaintiffs have suffered legal wrongs because of an agency action, ie the issuance of the September 28<sup>th</sup> "exemption" and are adversely affected and aggrieved by the NRC's action within the meaning of 5 U.S.C. § 702 (2) which requires that an agency decision may not arbitrarily ignore relevant and probative evidence in its possession and must consider and weigh all such relevant and probative material.

152. The NRC, after considering Entergy's original request for an "exemption" reducing the time the fire insulation had to remain effective from one hour to 30 minutes, received, considered and granted Entergy's request for a 24 minute "exemption" in less than 30 days.

153. Given the wide range of issues raised by the "exemption" requests, and the over 13 months the NRC considered the original 30 minute request, and given the fact that NRC tests showed

that Hemyc only lasts for 27 minutes, it was not possible for the NRC to give rational and full consideration to the 24 minute request in only 42 days.

154. The APA forbids agency actions that are "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law," actions that are "in excess of statutory jurisdiction, authority, or limitations, or short of statutory right," actions that are made "without observance of the procedure required by law," "unsupported by substantial evidence," and actions that are "unwarranted by the facts." 5 U.S.C. § 706(2).

155. The NRC's haste and secrecy in receiving, considering and granting the 24 minute exemption in 42 days, a time insufficient to give full and appropriate consideration to the evidence before it, violates the APA.

### **Twenty First Cause of Action**

#### **APA**

#### **The Evidence Before The NRC Was Insufficient To Justify The Decision To Grant The "Exemption."**

156. Plaintiff repeats and realleges each and every allegation set forth in paragraphs 1 through 155 with the same force and effect as if set forth in full herein.

157. Due to the NRC's knowing and conscious failure to comply with NEPA, Plaintiffs have suffered legal wrongs because of an agency action, ie the issuance of the September 28<sup>th</sup> "exemption" and are adversely affected and aggrieved by the NRC's action within the meaning of 5 U.S.C. § 702 (2) which requires that an agency decision may not arbitrarily ignore relevant and probative evidence in its possession and must consider and weigh all such relevant and probative material.

158. The APA requires that the NRC make only those decisions that are supported by sufficient evidence, and only after that evidence has been appropriately weighed, analyzed and discussed.

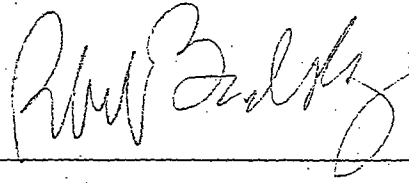
The decision to issue the September 28<sup>th</sup> "exemption" was illegal, arbitrary and capricious in that it was not supported by the evidence, that there was insufficient evidence to justify the decision, that evidence was ignored or excluded from the deliberations and the administrative record, that it relied on evidence not in the administrative record, that the consideration and decision were done in secrecy and without public notice or participation and in violation of the NRC's own requirements. These individually and collectively constitute illegal, arbitrary and capricious actions which violate the APA.

### **PRAYER FOR RELIEF**

WHEREFORE Plaintiffs request that this court:

1. Declare that Defendants have violated the AEA, APA, NEPA and CEQ. Annul and render void the September 28, 2007 "exemption" and the NRC rejection of Plaintiffs' petition.
2. Enjoin the Defendant from any present, continuing and/or future violations of said laws and any and all unlawful acts and practices complained of herein.
3. Require the Defendant provide to Plaintiffs' and the public notice and participation, including but not limited to a public hearing, with respect to the September 28, 2007 "exemption" and all similar actions or request for actions.
4. Require the Defendant to conform to the requirements of NEPA with respect to the requirement for an EIS and the required contents of a FONSI.
5. Require the NRC to conform to the requirements of its own regulations and the requirements of the AEA, APA and NEPA.
6. Award Plaintiffs reasonable attorneys fees and other litigation costs as permitted by 28 U.S.C. § 2412(a).
7. Order such other and further relief as this Court deems just and proper.

Respectfully submitted,



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By Counsel for Plaintiff:

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UNITED STATES DISTRICT COURT  
EASTERN DISTRICT OF MISSOURI

FILED

NOV 20 1996

U. S. DISTRICT COURT  
EASTERN DISTRICT OF MO

THERMAL SCIENCE, INC., )

Plaintiff, )

v. )

Case No.

UNITED STATES )

NUCLEAR REGULATORY COMMISSION, )

Defendant. )

SERVE: )

4:96CV02282CAS

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COMPLAINT

For its Complaint against Defendant, the United States Nuclear Regulatory  
Commission ("NRC"), Plaintiff Thermal Science, Inc. ("TSI"), states as follows:

### Description Of Action

1. This is an action for preliminary and permanent injunctive relief prohibiting the NRC from unlawfully pursuing monetary penalty proceedings against TSI.

2. The NRC's recently-commenced penalty proceeding violates TSI's constitutional right against the threat of successive government prosecutions, as guaranteed by the Double Jeopardy Clause of the Fifth Amendment to the United States Constitution. TSI was already prosecuted for the same allegedly wrongful conduct in a lengthy criminal trial which concluded in August 1995. The jury in that prior criminal action unanimously acquitted TSI of all charges of wrongdoing.

3. In addition, the NRC's current penalty proceeding exceeds the agency's statutory authority to impose such penalties under the Atomic Energy Act of 1954, 42 U.S.C. §§ 2011, et seq., and also improperly seeks to extend the NRC's jurisdiction to non-licensee suppliers like TSI who are not within the scope of the NRC's lawful jurisdiction.

### Jurisdiction And Venue

4. This Court has subject matter jurisdiction over this controversy pursuant to 28 U.S.C. § 1331 because TSI's claims arise under the Constitution and laws of the United States, and pursuant to 28 U.S.C. § 1337 because this is a civil action arising under an Act of Congress regulating commerce, specifically, the Atomic Energy Act of 1954.

5. Venue is proper in this District pursuant to 28 U.S.C. § 1391(e) because the Defendant is an agency of the United States and the Plaintiff resides in this District.

### The Parties

6. TSI is a corporation organized under the laws of the State of Missouri with its principal and only place of business in St. Louis, Missouri.



7. The NRC is a federal agency with offices in various locations nationwide. The NRC's principal offices are located in Rockville, Maryland.

#### Factual Background

8. The Atomic Energy Act of 1954, as amended (the "Act"), permits the private development of nuclear energy under a Congressionally defined licensing regime and creates an administrative agency, the NRC, to make and enforce rules governing licensees and their activities.

9. The Act requires nuclear power plants and others engaged in specified activities to obtain licenses from the NRC in order to operate, and permits the NRC to issue regulations that govern persons engaged in activities for which a license is required. The Act does not generally permit the NRC to issue regulations governing persons who, like TSI, are neither licensed nor engaged in activity for which a license is required.

10. TSI is engaged in the manufacture and sale of a group of fire resistive products known collectively as Thermo-Lag. Thermo-Lag has been safely used for more than two decades in varied applications, including (a) the protection from fire of offshore and on-shore chemical and petrochemical installations, railroad tank cars, and liquefied natural gas storage containers, (b) the protection of missiles and rockets from the heat generated upon reentry into the Earth's atmosphere, and (c) the protection of electrical cables in nuclear power plants.

11. In November, 1980, the NRC issued a regulation, codified at 10 C.F.R. § 50.48 and Appendix R ("Appendix R"), entitled "Fire Protection of Safe Shutdown Capability." Appendix R required that each licensed nuclear power plant establish certain

fire protection features, including the protection from fire of certain electrical cables used in the plants.

12. Beginning in 1979, TSI, along with various testing laboratories, conducted fire tests of Thermo-Lag to determine whether it provided sufficient fire protection to qualify it for use in nuclear power plants to protect electrical cables, and thereby satisfy the criteria of Appendix R. Following these successful tests, the NRC approved the use of Thermo-Lag by nuclear power plants to protect electrical cables as required by Appendix R. Beginning in 1982 and continuing through the present, TSI has sold Thermo-Lag to nuclear power plants for use in protecting electrical cables from fire.

13. In 1991, the NRC began parallel administrative and criminal investigations pertaining to TSI and Thermo-Lag. The investigations concerned, among other things, allegations that TSI had misrepresented to utilities, their agents, and the NRC the nature and extent of the involvement of independent testing laboratories in fire tests of Thermo-Lag. On numerous occasions beginning in 1991, the NRC requested and subpoenaed documents and information from TSI, and TSI provided the documents and information requested.

#### The Criminal Proceedings

14. As a result of the NRC's investigation, in September, 1994, TSI and its President, Rubin Feldman, were charged in a seven count Indictment returned in the United States District Court for the District of Maryland, Southern Division. The Indictment charged TSI and Mr. Feldman with one count of conspiracy to make false statements and to defraud the United States, in violation of 18 U.S.C. § 371; three counts of making false statements within the jurisdiction of the NRC, in violation of 18 U.S.C. § 1001; and three

counts of making incomplete and inaccurate statements to the NRC, in violation of 42 U.S.C. §§ 2273(a) and 2201(b) and 10 C.F.R. § 50.5(a). A copy of the Indictment is attached as Exhibit A. On or about May 4, 1995, a Superseding Indictment was issued in the same case. The Superseding Indictment is attached as Exhibit B.

15. The Indictment and Superseding Indictment focused on charges that TSI, in statements to the NRC and to utilities that operated nuclear power plants and their agents, misrepresented the nature and extent of the involvement of independent testing laboratories in tests of Thermo-Lag. The Indictment and Superseding Indictment also charged that TSI made false statements to the NRC during its investigation concerning the role of independent testing laboratories in the testing of Thermo-Lag.

16. On August 1, 1995, following a trial lasting nearly three months, the jury unanimously acquitted TSI and Mr. Feldman of all charges. The judgment of acquittal is attached as Exhibit C.

#### The NRC's Second Attempt To Punish TSI

17. Following TSI's acquittal, the NRC ordered a trial transcript and instructed certain NRC staff members to review the testimony in contemplation of pursuing further punitive action against TSI.

18. On October 1, 1996, the NRC issued its "Notice of Violation and Proposed Imposition of Civil Penalties" (the "Notice of Violation") against TSI, seeking to impose a \$900,000 penalty for alleged violations of 10 C.F.R. § 50.5. A copy of the NRC's letter to TSI advising of the Notice of Violation is attached as Exhibit D; a copy of the Notice of Violation is attached as Exhibit E.

19. As in the prior criminal proceeding, the NRC's Notice of Violation claims, as the basis for levying the demanded \$900,000 penalty, that TSI made alleged false representations to the NRC concerning the nature and extent of the involvement of independent testing laboratories in the testing of Thermo-Lag.

20. The facts on which Charges A, B, C, and D in the Notice of Violation are based are the same as the facts on which Counts I, II, III, and IV of the Superseding Indictment were based. Similarly, all other charges in the Notice of Violation are part of, or closely related to, the government's failed allegations in the Superseding Indictment and the broad array of evidence the government unsuccessfully presented in the criminal trial.

21. The Notice of Violation unlawfully attempts to punish TSI for the same alleged conduct, acts, and wrongdoing that were at issue in the prior criminal proceedings, and to prosecute TSI successively for the same offenses of which it was already acquitted.

The NRC's Attempt To Impose Penalties In Excess Of Its Statutory Authority

22. Section 234 of the Atomic Energy Act, 42 U.S.C. § 2282(a) ("Section 2282"), the statute pursuant to which the NRC purports to levy its demanded \$900,000 penalty against TSI, provides in pertinent part as follows:

Any person who (1) violates any **licensing provision** of section 2073, 2077, 2092, 2093, 2111, 2112, 2131, 2133, 2134, 2137, or 2139 of this title or any rule, regulation, or order issued thereunder, or any term, condition, or limitation of any **license** issued thereunder, or (2) commits any violation for which a **license** may be revoked under section 2236 of this title, shall be subject to a civil penalty, to be imposed by the Commission, of not to exceed \$100,000 for each such violation. \*\*\* (emphasis added)

23. Thus, by its express terms, Section 2282 only authorizes the NRC to impose penalties for violation of the licensing provisions of certain specified statutes (and regulations

issued thereunder), for violations of licenses, and for violations for which licenses may be revoked.

24. The Notice of Violation seeks to impose a \$900,000 penalty against TSI pursuant to § 2282 on the ground that TSI violated 10 C.F.R. § 50.5 ("Section 50.5"), a regulation that provides in pertinent part:

Any licensee or any employee of a licensee; and any contractor (including a supplier or consultant), subcontractor, or any employee of a contractor or subcontractor, 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 subject to this part; may not:

\* \* \*

Deliberately submit to the NRC, a licensee, or a licensee's contractor or subcontractor, information that the person submitting the information knows to be incomplete or inaccurate in some respect material to the NRC.

25. Section 50.5 purports to apply to suppliers, like TSI, who are not engaged in activity for which an NRC license is required. Since Section 50.5 was not issued pursuant to the licensing provisions of any of the statutes specified in § 2282, the NRC lacks statutory authority to impose a penalty for alleged violations of § 50.5. Accordingly, the NRC's attempt to impose a penalty on TSI for allegedly violating § 50.5 is unlawful and invalid.

26. Likewise, insofar as § 50.5 purports to regulate the activities of non-licensee suppliers like TSI, the regulation exceeds the NRC's statutory authority and is invalid.

Under the Atomic Energy Act, the NRC's regulatory jurisdiction is limited to the conduct and activities of licensees, or those engaged in activity for which a license is required. TSI is not a licensee and has never engaged in activity for which a license is required.

Consequently, the NRC has no statutory authority to regulate TSI's conduct, or to levy penalties against TSI.

COUNT I  
(FOR A PRELIMINARY AND PERMANENT INJUNCTION)  
(Violation Of Double Jeopardy Clause)

27. TSI realleges and incorporates herein by reference as if set forth in full the allegations set forth in paragraphs 1 through 26.

28. The proceeding initiated by the Notice of Violation is a successive prosecution for the same offense, within the meaning of and in violation of the Double Jeopardy Clause of the Fifth Amendment, because, among other reasons:

- A. The allegations in the Notice of Violation were the subject of a prior criminal proceeding.
- B. The alleged conduct on which the penalty is based--the deliberate submission of allegedly false statements to the NRC--would, if proven, already be a crime.
- C. The penalty the NRC seeks to impose requires a finding of scienter.
- D. The purpose of the proposed penalty is to promote the traditional aims of punishment: retribution and deterrence.
- E. There is no alternative non-punitive purpose that may rationally be attributed to the proposed penalty.
- F. The proposed penalty is excessive in light of any conceivable non-punitive purpose.

29. The issuance of the Notice of Violation is a second attempt to punish TSI for the same offense, in violation of the Double Jeopardy Clause.

30. By reason of the foregoing, TSI is suffering immediate and irreparable injury as a result of the violation of its constitutional rights caused by the second criminal proceeding. It is also suffering immediate and irreparable injury to its business as a result of the Notice of Violation and resulting proceedings. These losses include damage to its reputation and harm to its goodwill, permanent loss of customers, orders, revenues, profits,

and employees, and the losses associated with having to expend additional substantial company resources to defend the NRC's latest meritless punitive proceedings. Unless the requested injunctive relief is granted, TSI will continue to suffer immediate and irreparable injury. TSI has no adequate remedy at law.

31. TSI has alleged specific and definite facts showing a definite right to the relief which it ultimately seeks, and has alleged specific and definite facts that show a definite probability of prevailing on the merits.

COUNT II  
(FOR PRELIMINARY AND PERMANENT INJUNCTIVE RELIEF)  
(Violation Of Atomic Energy Act)

32. TSI realleges and incorporates herein by reference as if set forth in full the allegations set forth in paragraphs 1 through 31.

33. The proceeding initiated by the Notice of Violation exceeds the statutory authority of the NRC because, among other reasons:

- A. The NRC lacks the statutory authority to impose monetary penalties on suppliers such as TSI for violation of § 50.5, because that regulation was not issued pursuant to the licensing provisions of the statutes enumerated in § 2282;
- B. The NRC has exceeded its statutory authority by attempting to apply § 50.5 to TSI, which is not engaged in activities for which a license is required and is not otherwise subject to the NRC's regulatory authority pursuant to the Atomic Energy Act.

34. By reason of the foregoing, TSI is suffering immediate and irreparable injury as a result of the NRC's initiation of an enforcement proceeding beyond its statutory authority. This immediate and irreparable injury includes damage to its reputation and harm to its goodwill, permanent loss of customers, orders, revenues, profits, and employees, and the losses associated with having to expend additional substantial company resources to

defend the NRC's latest meritless punitive proceedings. Unless the requested preliminary injunctive relief is granted, TSI will continue to suffer immediate and irreparable injury. TSI has no adequate remedy at law.

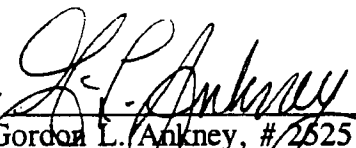
35. TSI has alleged specific and definite facts showing a definite right to the relief which it ultimately seeks, and has alleged specific and definite facts that show a definite probability of prevailing on the merits.

WHEREFORE, Plaintiff Thermal Science, Inc. requests that this Court grant the following relief:

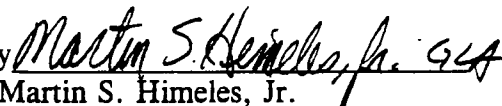
- A. A preliminary and permanent injunction directing the NRC to dismiss its "Notice of Violation and Proposed Imposition of Civil Penalties" and to end all further similar proceedings against TSI; and
- B. Such other relief as the Court may deem just and proper

Respectfully submitted,

**THOMPSON COBURN**

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**EXHIBIT A**

SAB & BSS  
USAO 9401322

IN THE UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF MARYLAND  
SOUTHERN DIVISION

UNITED STATES OF AMERICA

v.

THERMAL SCIENCE, INC.,  
a/k/a TSI  
a/k/a Thermal Systems, Inc.  
a/k/a T.S.I. Thermal  
Systems, Inc.  
a/k/a T.S.I., Inc.  
a/k/a Feldchem, Inc.  
and  
RUBIN FELDMAN

Defendants

CRIMINAL NO.

(Conspiracy to Conceal  
Material Facts and Make False  
Statements Within Jurisdiction  
Of United States Agency and to  
Defraud United States,  
18 U.S.C. § 371; Concealing  
Material Facts and Making  
False Statements, 18 U.S.C.  
§ 1001; Willful Violation of  
Atomic Energy Act, 42 U.S.C.  
§ 2273(a) and § 2201(b) and  
10 C.F.R. § 50.5(a)(2);  
Aiding and Abetting,  
18 U.S.C. § 2)

\*\*\*\*\*

INDICTMENT

COUNT ONE

The Grand Jury for the District of Maryland charges that:

I. INTRODUCTION

At all times material to this Indictment:

A. Defendants and Coconspirators

1. THERMAL SCIENCE, INC. ("TSI") was a privately-owned corporation organized under the laws of the State of Missouri with headquarters and manufacturing facilities in St. Louis, Missouri. TSI was the corporate successor to an entity incorporated on August 11, 1967 as Thermal Systems, Inc., which later operated under the names T.S.I. Thermal Systems, Inc., T.S.I., Inc. and Thermal Science, Inc. The corporate successor was incorporated on August 28, 1985 as Feldchem, Inc. and changed its name to Thermal

Science, Inc. on December 31, 1986. As used herein, "TSI" refers to all of these corporate entities. Defendant TSI engaged in the development, manufacture, promotion, sale and interstate distribution of fire barrier products.

2. Defendant RUBIN FELDMAN was president, director and an owner of defendant TSI and a licensed professional engineer ("PE").

3. Industrial Testing Laboratories, Inc. ("ITL") was a privately-owned corporation organized under the laws of Missouri with headquarters and testing facilities in St. Louis, Missouri. ITL engaged in chemical analysis, metallurgical, pollution and flammability testing, product certification and products liability investigations. ITL did not own or operate a test furnace and had no significant experience in fire endurance or electrical testing. Prior to 1982, defendants TSI and RUBIN FELDMAN engaged ITL to perform a variety of chemical and other tests which did not include fire endurance or electrical testing.

4. Allan M. Siegel was president, director and an owner of ITL and a licensed professional engineer.

B. Fire Safety Regulation of Nuclear Power Plants

5. The Nuclear Regulatory Commission ("NRC") was an agency of the United States which was responsible for the regulation of nuclear power plants and protecting the health and safety of the public from nuclear-related incidents. NRC offices, and beginning in April 1988 NRC headquarters, were located in Montgomery County, Maryland.

6. The NRC administered and enforced the Atomic Energy Act, Title 42, United States Code, §§ 2011 et seq., and regulations issued thereunder, contained in Title 10 of the Code of Federal Regulations. The Atomic Energy Act authorized the NRC to issue licenses to operate nuclear power plants and to prohibit the operation of any such plant, except in accordance with a valid license and any conditions to the license established by the NRC. All licenses issued by the NRC were issued subject to the express condition, among others, that the licensee would comply with all rules and regulations of the NRC then or thereafter in effect.

7. In a nuclear power plant, a controlled nuclear reaction of radioactive fuel is maintained to generate the heat necessary to make electricity. If control of the nuclear reactor is lost, sufficient heat may be generated to cause a reactor core meltdown, which could result in the release of radioactive material into the environment and endanger public health, life and property.

8. To minimize the likelihood of a loss of control of the nuclear reactor, NRC regulations required that safety systems in nuclear power plants be built and operated with redundancy. Redundancy required that each plant have two of each piece of equipment or component, called safe shutdown components, needed to maintain control of or safely shut down the nuclear reactor. In the event one safe shutdown component were to fail, the redundant component would be available to perform its functions. Safe shutdown components include electrical cables, which are often enclosed in cable trays or conduits.

9. To ensure that at least one means of achieving and maintaining safe shutdown of a nuclear reactor would remain available in the event of fire, the NRC's design criteria for nuclear power plants required that structures, systems, and components important to safety be designed and located to minimize, consistent with other safety requirements, the probability and effect of fires and explosions.

10. On November 19, 1980, the NRC issued a regulation, which took effect on February 17, 1981, entitled "Fire Protection of Safe Shutdown Capability," which was codified at Title 10 of the Code of Federal Regulations, Section 50.48 and Appendix R ("Appendix R"). Section III.G of Appendix R was made applicable to all nuclear power plants which had received or were seeking operating licenses.

11. Section III.G of Appendix R required that each licensed nuclear power plant establish certain fire protection features to ensure that at least one means of achieving and maintaining safe shutdown conditions would remain available during and after a fire in the plant. It provided that for each designated fire area in a nuclear power plant which contained safe shutdown components, one of three methods had to be used to provide the required fire protection unless the NRC granted an exemption. Two methods involved installation of fire barriers:

- (1) Separation of redundant safe shutdown components by a fire barrier having a three-hour fire rating, or

- (2) Enclosure of one of the redundant safe shutdown components by a fire barrier having a one-hour fire rating, with fire detection and automatic fire suppression systems installed in the designated fire area.

12. The NRC instructed licensees that fire barriers could receive a one-hour or three-hour "fire rating" for fire resistance by withstanding a "standard test fire" conducted in accordance with technical criteria set forth by the American Society for Testing and Materials ("ASTM") in its publication ASTM E-119, "Standard for Fire Resistance of Building Materials." Fire barriers achieving these fire ratings were known as "one-hour barriers" and "three-hour barriers."

13. NRC regulations also required that fire barrier systems be installed so as to ensure that enclosed electrical cables survive the 40-year anticipated life of a nuclear power plant. When cables are placed into cable trays or conduits and wrapped in fire barrier, the barrier retains heat generated by the electric current and the cable insulation temperature increases, causing premature deterioration of the cable. The preferred method of protecting cables from the insulating effect of the fire barrier material was "derating" (lowering) the "ampacity" (current-carrying capacity) of enclosed cables.

14. After the NRC issued Appendix R, utilities began considering the installation of fire barriers in their nuclear power plants. To protect cables while maintaining current at the

highest possible level, utilities sought to purchase barriers that achieved one-hour and three-hour fire ratings while requiring the smallest possible amount of "ampacity derating."

15. In designing and constructing new nuclear power plants and modifications to existing plants and in evaluating, purchasing and installing fire barriers, utilities employed the services of architectural, engineering and construction firms (hereinafter referred to as the utilities' "agents"). These firms included Bechtel Power Corporation and affiliated companies ("Bechtel") and NUS Corporation ("NUS"), which both maintained offices in Gaithersburg, Maryland; Burns and Roe, Inc. ("Burns and Roe"); Sargent & Lundy Engineering ("Sargent & Lundy"); Stone & Webster Engineering Corporation ("Stone & Webster"); and ABB Impell Corporation ("Impell"). These firms were employed by utilities to participate in selecting fire barriers for nuclear power plants.

C. American Nuclear Insurers

16. American Nuclear Insurers ("ANI") was an unincorporated joint underwriting association of approximately 140 insurance companies which provided property and liability insurance to utilities that owned and operated nuclear power plants. Located in Farmington, Connecticut, ANI was a "nuclear insurance pool" in which member companies pledged assets to amass the large amounts of insurance capacity needed to insure the risks associated with nuclear power plants and to spread the risk among a large number of insurance companies. A similar nuclear insurance pool of mutual

insurers was known as Mutual Atomic Energy Reinsurance Pool ("MAERP").

17.. ANI maintained a department which was responsible for identifying, monitoring and reducing potential hazards in the design, construction and operation of facilities insured by ANI and MAERP. In 1976, ANI and MAERP established basic acceptance and test parameters for a fire barrier system. In 1979, ANI issued a standard fire endurance test method for fire barriers in nuclear power plants which required successful passage of fire tests and "submittal of necessary test documentation as prepared by a recognized testing laboratory or consultant."

18. Under the 1979 standard, ANI examined fire tests of fire barriers to determine whether ANI would accept the barriers "for insurance purposes only." If satisfied with the test results and test documentation, ANI would issue an "Acceptance of Testing (for insurance purposes)" form. Utilities that installed approved fire barriers could obtain more favorable insurance rates.

**D. Thermo-Lag 330**

19. During the 1970s, defendants TSI and RUBIN FELDMAN manufactured and sold a line of patented and trademarked products known as "Thermo-Lag," including Thermo-Lag 330. Thermo-Lag 330, sometimes referred to as 330-1, was a fire resistive coating utilized to protect road and railroad tank cars, missiles, rockets and other installations.

20. As the NRC began requiring installation of fire barriers in nuclear power plants, defendants TSI and RUBIN FELDMAN



developed a version of Thermo-Lag 330 for use in nuclear power plants. On or about August 9, 1979, defendant TSI advised the NRC by letter that it intended to conduct tests to qualify Thermo-Lag 330 for use at nuclear power plants. In the letter, defendant TSI acknowledged the need to conduct tests under the ASTM E-119 standard "at a fully qualified fire test facility."

21. In 1981, as part of efforts to qualify Thermo-Lag 330 for use in nuclear power plants, defendants TSI and RUBIN FELDMAN conducted fire endurance tests at the premises of defendant TSI and issued test reports in the name of defendant TSI signed by defendant RUBIN FELDMAN. When these test reports were presented to the NRC, the NRC stated that Thermo-Lag 330 could only be qualified for installation at a nuclear power plant by having an ASTM E-119 test of an as-installed configuration conducted at an approved testing laboratory.

22. On or about January 7, 1982, in connection with the Washington Public Power Supply System ("WPPSS") WNP Unit 2 power plant, Burns and Roe, an agent of WPPSS, asked defendants TSI and RUBIN FELDMAN to submit a price quotation for fire endurance and ampacity derating testing of Thermo-Lag 330. Burns and Roe required that a third party, mutually acceptable to WPPSS, ANI and defendant TSI, "record, document and prepare reports" and that "[t]he test results shall be documented in a report prepared and PE stamped by the third party." On or about January 21, 1982, defendants TSI and RUBIN FELDMAN responded to Burns and Roe's request by offering to procure "participation of a third party

mutually acceptable to" TSI, WPPSS, Burns and Roe and ANI "in the witnessing, recording, documentation, and preparation of test reports." Defendants TSI and RUBIN FELDMAN further stated: "Reports and test results will be released and PE stamped by such third party."

## II. THE CHARGE

23. From in or about January 1982 and continuing through at least in or about April 1992, in the District of Maryland and elsewhere, the defendants

TSI  
and  
RUBIN FELDMAN

did unlawfully, willfully and knowingly combine, conspire, confederate and agree together, with Allan M. Siegel and ITL, and with others known and unknown to the Grand Jury,

- (1) to commit an offense against the United States, that is, in matters within the jurisdiction of the NRC, an agency of the United States, to falsify, conceal and cover up by trick, scheme, and device material facts, and to make and cause to be made false, fictitious and fraudulent statements and representations as to material facts, in violation of Title 18, United States Code, Sections 1001 and 2; and
- (2) to defraud the United States by impeding, impairing, obstructing and defeating the lawful governmental functions of the NRC in its administration of the Atomic Energy Act and related regulations.

### III. OBJECTS OF THE CONSPIRACY

24. It was an object of the conspiracy for defendants TSI and RUBIN FELDMAN and coconspirators to enrich themselves by causing utilities and their agents to purchase millions of dollars worth of Thermo-Lag 330 for installation in nuclear power plants.

25. It was a further object of the conspiracy for defendants TSI and RUBIN FELDMAN and coconspirators to cause utilities and their agents, the NRC and ANI to believe that an independent testing laboratory had prepared and published test reports and supervised all phases of a test program to qualify Thermo-Lag 330 for installation in nuclear power plants.

26. It was a further object of the conspiracy for defendants TSI and RUBIN FELDMAN and coconspirators to cause utilities and their agents, the NRC and ANI to believe, on the basis of the test reports and other documents, that installing Thermo-Lag 330 in accordance with defendant TSI's installation manuals would permit nuclear power plants to meet the NRC's Appendix R regulations and ANI's acceptance criteria for fire barriers.

27. It was a further object of the conspiracy for defendants TSI and RUBIN FELDMAN and coconspirators to conceal the fraudulent nature of the test program and test reports for Thermo-Lag 330 from utilities and their agents, the NRC and ANI.

#### IV. MEANS AND METHODS OF THE CONSPIRACY

28. It was part of the conspiracy that defendants TSI and RUBIN FELDMAN represented to the NRC, utilities and their agents and ANI that an independent testing laboratory would witness, supervise, monitor, record and document all phases of a test program for Thermo-Lag 330 and prepare, PE stamp, publish and release test reports relating to the tests.

29. It was a further part of the conspiracy that defendants TSI and RUBIN FELDMAN hired Allan M. Siegel and IFL solely to (a) furnish witnesses for one-hour and three-hour fire endurance and ampacity derating tests of Thermo-Lag 330 to be conducted by defendant TSI at the premises of defendant TSI and (b) sign test reports written by defendants TSI and RUBIN FELDMAN.

30. It was a further part of the conspiracy that defendants TSI and RUBIN FELDMAN caused test articles of Thermo-Lag 330 to be assembled utilizing enhanced construction procedures not disclosed in any test report text or sketch or required by any TSI installation manual. In fire endurance test articles, these enhancements included "prebuttering" (coating the edges of) Thermo-Lag 330 prefabricated panels with trowel grade Thermo-Lag 330 before joining them; using metal tie wire stitching, machine screws and wire staples to tightly secure Thermo-Lag 330 prefabricated panels to one another; and coating the test articles with additional Thermo-Lag 330.

31. It was a further part of the conspiracy that defendants TSI and RUBIN FELDMAN caused test articles of

Thermo-Lag 330 to be manufactured and assembled without supervision by any ITL representative, utilities and their agents or ANI.

32.. It was a further part of the conspiracy that defendants TSI and RUBIN FELDMAN, to falsely, fictitiously and fraudulently create the impression that ITL supervised the manufacture and assembly of test articles, prepared daily work sheets on what purported to be ITL forms and caused ITL representatives to sign and backdate the sheets.

33. It was a further part of the conspiracy that defendants TSI and RUBIN FELDMAN wrote test reports relating to fire endurance and ampacity derating tests of Thermo-Lag 330 conducted by defendant TSI at the premises of defendant TSI, prepared the reports in a format that falsely, fictitiously and fraudulently made the reports appear to have been prepared and published by ITL, and caused the cover pages of test reports to be typed onto blank ITL letterhead stationery obtained from ITL.

34. It was a further part of the conspiracy that defendants TSI and RUBIN FELDMAN wrote and prepared test reports which falsely, fictitiously and fraudulently stated that the tests were conducted "under the supervision and total control of Industrial Testing Laboratories of St. Louis, Missouri, an independent testing laboratory."

35. It was a further part of the conspiracy that defendants TSI and RUBIN FELDMAN wrote and prepared test reports which falsely, fictitiously and fraudulently stated that the test program was conducted in accordance with the methods and standards

set forth by ANI, in an ANI-approved engineering test plan, and in other representations made by defendants and relied upon by ANI.

36.- It was a further part of the conspiracy that defendants TSI and RUBIN FELDMAN wrote and prepared test reports whose text and sketches (a) did not accurately describe the test articles, (b) falsely, fictitiously and fraudulently represented that the test articles and construction techniques were typical of the articles and techniques prescribed in defendant TSI's installation manuals for Thermo-Lag 330, and (c) concealed information that the test articles contained construction enhancements not required by the installation manuals.

37. It was a further part of the conspiracy that defendants TSI and RUBIN FELDMAN wrote and prepared test reports which included as appendices false, fictitious and fraudulent backdated daily work sheets.

38. It was a further part of the conspiracy that defendants TSI and RUBIN FELDMAN wrote and prepared test reports which falsely, fictitiously and fraudulently represented that all instrumentation used in the test program was calibrated and that calibration records were on file at defendant TSI, when in fact the thermocouples that monitored furnace temperatures were not calibrated.

39. It was a further part of the conspiracy that defendants TSI and RUBIN FELDMAN wrote and prepared test reports which falsely, fictitiously and fraudulently represented that the IXL witnesses at tests were professional engineers.

40. It was a further part of the conspiracy that defendants TSI and RUBIN FELDMAN caused Allan M. Siegel to sign test reports, typed in part on ITL stationery which falsely, fictitiously and fraudulently purported to be independent ITL reports.

41. It was a further part of the conspiracy that defendants TSI and RUBIN FELDMAN caused Allan M. Siegel to sign test reports, knowing that Siegel had not read the reports or reviewed the underlying test data.

42. It was a further part of the conspiracy that defendants TSI and RUBIN FELDMAN caused Allan M. Siegel to sign cover sheets to test reports that had not been provided to him.

43. It was a further part of the conspiracy that defendants TSI and RUBIN FELDMAN paid ITL more than \$80,000.

44. It was a further part of the conspiracy that defendants TSI and RUBIN FELDMAN wrote and prepared a false, fictitious and fraudulent ITL test report which related to a test that ITL had not attended, participated in, supervised or reviewed in any manner.

45. It was a further part of the conspiracy that defendants TSI and RUBIN FELDMAN wrote and prepared an ampacity derating test report that contained significant mathematical errors and, after being advised of the errors, did not disclose the errors to potential purchasers of Thermo-Lag 330 to whom the report had been sent.

46. It was a further part of the conspiracy that defendants TSI and RUBIN FELDMAN wrote, prepared, and in some instances caused Allan M. Siegel and ITL to sign and PE stamp letters which contained false, fictitious and fraudulent statements and representations and concealed material facts about tests and test reports relating to Thermo-Lag 330.

47. It was a further part of the conspiracy that defendants TSI and RUBIN FELDMAN wrote, prepared, and distributed sales brochures which contained false, fictitious and fraudulent statements and representations and concealed material facts relating to Thermo-Lag 330, including a representation that tests of Thermo-Lag 330 "were conducted at TSI, Incorporated, St. Louis, Missouri by Industrial Testing Laboratories (independent third party), St. Louis, Missouri."

48. It was a further part of the conspiracy that defendants TSI and RUBIN FELDMAN wrote, prepared, and issued installation manuals which contained false, fictitious and fraudulent statements and representations and concealed material facts relating to Thermo-Lag 330.

49. It was a further part of the conspiracy that between in or about March 1982 and in or about April 1992, defendants TSI and RUBIN FELDMAN issued and sent to the NRC, utilities and their agents and ANI alleged ITL test reports which were false, fictitious and fraudulent or concealed material facts in one or more of the ways described above.



50. It was a further part of the conspiracy that defendants TSI and RUBIN FELDMAN caused ANI, acting in reliance on false, fictitious and fraudulent statements and representations and acting without material facts about the Thermo-Lag 330 test program that were intentionally concealed from it, to issue "Acceptance of Testing (for insurance purposes)" forms relating to the configurations of Thermo-Lag 330 allegedly tested in the test reports submitted to ANI.

51. It was a further part of the conspiracy that defendants TSI and RUBIN FELDMAN sent fraudulently-obtained ANI "Acceptance of Testing (for insurance purposes)" forms to the NRC and to utilities and their agents.

52. It was a further part of the conspiracy that defendants TSI and RUBIN FELDMAN caused utilities and their agents, acting in reliance on false, fictitious and fraudulent test reports, ANI "Acceptance of Testing (for insurance purposes)" forms, letters, installation manuals, sales brochures and other statements and representations, and acting without material facts about the Thermo-Lag 330 test program that were intentionally concealed from them, to purchase more than \$58 million of Thermo-Lag 330 products and install them as fire barriers in more than 70 nuclear power plants.

53. It was a further part of the conspiracy that defendants TSI and RUBIN FELDMAN shipped Thermo-Lag 330 to purchasers with "Certificates of Conformance" which represented

that the materials were identical to materials "tested by" ITL or used in tests "performed by" ITL.

54.. It was a further part of the conspiracy that defendants TSI and RUBIN FELDMAN caused utilities to falsely, fictitiously and fraudulently represent to the NRC that, by installing Thermo-Lag 330 in nuclear power plants, they had complied or would comply with Appendix R requirements.

55. It was a further part of the conspiracy that defendants TSI and RUBIN FELDMAN made false, fictitious and fraudulent statements and took numerous other steps to conceal the true facts about the Thermo-Lag 330 test program from the NRC.

#### Overt Acts

During the course of and in furtherance of the conspiracy, the defendants and their coconspirators performed the following acts in the District of Maryland and elsewhere:

1. In or about January 1982, defendants TSI and RUBIN FELDMAN hired Allan M. Siegel and ITL to send witnesses to fire endurance and ampacity derating tests of Thermo-Lag 330 to be conducted at the premises of TSI and to sign test reports to be prepared by TSI.

2. On or about February 4, 1982, defendants TSI and RUBIN FELDMAN conducted a three-hour fire endurance test of Thermo-Lag 330.

3. On or about March 1, 1982, defendants TSI and RUBIN FELDMAN wrote, prepared, caused Allan M. Siegel and ITL to sign,

and issued ITL Report 82-3-2 relating to the February 4, 1982 three-hour fire endurance tests.

4. On or about March 8, 1982, defendants TSI and RUBIN FELDMAN, in connection with proposed tests of Thermo-Lag 330 relating to the WPPSS nuclear power plant, prepared and submitted the second revision of a Proposed Engineering Test Plan which represented that "[t]hese tests will be witnessed and the results reported by an independent testing laboratory" and that the laboratory would be hired to "participate in the testing as needed, witnessing and publishing the report of the test results."

5. On or about March 16, 1982, defendants TSI and RUBIN FELDMAN caused ANI to issue a letter finding defendant TSI's Engineering Test Plan acceptable to ANI for insurance purposes.

6. On or about May 17-28, 1982, defendants TSI and RUBIN FELDMAN conducted one-hour fire endurance tests of Thermo-Lag 330 for WPPSS.

7. In or about May-June 1982, defendants TSI and RUBIN FELDMAN caused an ITL representative to sign, initial and backdate daily work sheets, prepared by defendant TSI, which recorded steps in the manufacture and assembly of test articles used in the one-hour fire endurance tests of Thermo-Lag 330 for WPPSS that the ITL representative had not witnessed.

8. In or about June 1982, defendants TSI and RUBIN FELDMAN wrote, prepared, caused Allan M. Siegel and ITL to sign, and issued ITL Report 82-5-355A relating to the May 1982 one-hour fire endurance tests for WPPSS.

9. On or about June 26, 1982, defendants TSI and RUBIN FELDMAN sent copies of ITL Report 82-5-355A to ANI and WPPSS's agent Burns & Roe.

10. On or about July 1, 1982, defendants TSI and RUBIN FELDMAN sent a copy of ITL Report 82-5-355A, described as "a copy of the test report issued by Industrial Testing Laboratories," to WPPSS.

11. On or about July 20, 1982, defendants TSI and RUBIN FELDMAN caused ANI to issue an "Acceptance of Testing (for insurance purposes)" form relating to configurations of Thermo-Lag 330 allegedly tested in tests described in ITL Report 82-5-355A.

12. On or about June 18-25, 1982, defendants TSI and RUBIN FELDMAN conducted three-hour fire endurance tests of Thermo-Lag 330 for WPPSS.

13. In or about June-July 1982, defendants TSI and RUBIN FELDMAN caused an ITL representative to sign, initial and backdate daily work sheets, prepared by defendant TSI, which recorded steps in the manufacture and assembly of test articles used in the three-hour fire endurance tests of Thermo-Lag 330 for WPPSS that the ITL representative had not witnessed.

14. On or about July 16, 1982, defendants TSI and RUBIN FELDMAN wrote and sent to ANI a letter stating that "[t]he 3 hour report should be available from I.T.L. soon . . ."

15. In or about July 1982, defendants TSI and RUBIN FELDMAN wrote, prepared, caused Allan M. Siegel and ITL to sign, and issued ITL Report 82-5-355B relating to the July 1982 three-hour fire endurance tests for WPPSS.

16. On or about April 29, 1982 and July 13, 1982, defendants TSI and RUBIN FELDMAN conducted an ampacity derating test for 1000-volt power cables protected with a three-hour rated version of Thermo-Lag 330 for WPPSS.

17. In or about July 1982, defendants TSI and RUBIN FELDMAN wrote, prepared, caused Allan M. Siegel and ITL to sign, and issued ITL Reports 82-5-355C and 82-5-355F relating to the 1000-volt ampacity derating test for WPPSS.

18. In or about July 1982, defendants TSI and RUBIN FELDMAN issued as ITL Report 82-355-F-1 (also referred to as 82-5-355-F-1) a test report written by defendants TSI and RUBIN FELDMAN, and never reviewed or approved by ITL, relating to a 600-volt ampacity derating test that had been conducted in October 1981 without any participation by ITL.

19. On or about August 26, 1982, defendants TSI and RUBIN FELDMAN sent a copy of ITL Report 82-5-355B to ANI.

20. On or about September 16, 1982, in connection with the WPPSS project, defendants TSI and RUBIN FELDMAN sent Burns & Roe a letter which described enclosed documents written by TSI as "pages, which were just received from Industrial Testing Laboratories, that comprise Revision I" to ITL Report 82-5-355B.

21. On or about September 30, 1982, defendants TSI and RUBIN FELDMAN caused ANI to issue an "Acceptance of Testing (for insurance purposes)" form relating to configurations of Thermo-Lag 330 allegedly tested in tests described in ITL Report 82-5-355B.

22. On or about October 4, 1982, defendants TSI and RUBIN FELDMAN wrote, prepared, signed and PE stamped, caused Allan M. Siegel to co-sign and PE stamp, and sent to the NRC in Bethesda, Maryland a letter which represented specific facts about the manufacture and assembly of test articles referenced in ITL Reports 82-5-355A and 82-5-355B that had been manufactured and assembled without an ITL representative present.

23. On or about August 2, 1982, defendants TSI and RUBIN FELDMAN wrote and sent to ANI a letter concerning generic one-hour and three-hour fire endurance tests which they planned to conduct pursuant to the Engineering Test Plan previously approved for the WPPSS tests. The letter stated: "We have contracted Industrial Testing Laboratories in St. Louis, Missouri to supervise, monitor, formally report and authenticate all phases of this test program."

24. On or about August 6, 1982, defendants TSI and RUBIN FELDMAN caused ANI to issue a letter finding defendant TSI's Engineering Test Plan for the generic fire endurance tests acceptable to ANI for insurance purposes.

25. On or about September 3, 1982, defendants TSI and RUBIN FELDMAN wrote and sent to ANI a letter representing that the one-hour and three-hour generic fire endurance tests "will be

performed in accordance with the ANI approved test plan including the participation of Industrial Testing Laboratories of St. Louis, Mo."

26. On or about September 9-28, 1982, defendants TSI and RUBIN FELDMAN conducted generic one-hour fire endurance tests of Thermo-Lag 330.

27. In or about September-November 1982, defendants TSI and RUBIN FELDMAN caused an ITL representative to sign, initial and backdate daily work sheets, prepared by defendant TSI, which recorded steps in the manufacture and assembly of test articles used in the one-hour generic fire endurance tests of Thermo-Lag 330 that the ITL representative had not witnessed.

28. From on or about September 10, 1982 through October 12, 1982, defendants TSI and RUBIN FELDMAN conducted generic three-hour fire endurance tests of Thermo-Lag 330.

29. In or about September-November 1982, defendants TSI and RUBIN FELDMAN caused an ITL representative to sign, initial and backdate daily work sheets, prepared by defendant TSI, which recorded steps in the manufacture and assembly of test articles used in the three-hour generic fire endurance tests of Thermo-Lag 330 that the ITL representative had not witnessed.

30. In or about November 1982, defendants TSI and RUBIN FELDMAN wrote, prepared, caused Allan M. Siegel and ITL to sign, and issued ITL Report 82-11-80 relating to the September 1982 generic one-hour fire-endurance tests.

31. In or about November 1982, defendants TSI and RUBIN FELDMAN wrote, prepared, caused Allan M. Siegel and ITL to sign, and issued ITL Report 82-11-81 relating to the September-October 1982 generic three-hour fire-endurance tests.

32. On or about November 20, 1982, defendants TSI and RUBIN FELDMAN sent copies of ITL Reports 82-11-80 and 82-11-81 to ANI.

33. On or about December 2, 1982, defendants TSI and RUBIN FELDMAN caused ANI to issue "Acceptance of Testing (for insurance purposes)" forms relating to the configurations of Thermo-Lag 330 allegedly tested in tests described in ITL Reports 82-11-80 and 82-11-81.

34. On or about March 7, 1983, defendants TSI and RUBIN FELDMAN sent copies of ITL Reports 82-11-80 and 82-11-81 and ANI acceptance of testing forms to Bechtel in Gaithersburg, Maryland.

35. On or about September 13, 1983, defendants TSI and RUBIN FELDMAN sent a copy of ITL Report 83-5-472, Revision I to ANI along with a cover letter which claimed that the "report incorporates revisions which I.T.L. made at your request."

36. On or about January 23, 1984, defendants TSI and RUBIN FELDMAN sent copies of ITL Reports 82-11-80 and 82-11-81 and ANI acceptance of testing forms to NUS in Gaithersburg, Maryland.

37. On or about January 23, 1984, defendants TSI and RUBIN FELDMAN caused a letter typed on ITL stationery, stamped with the signature of Allan M. Siegel, and containing representations



about Thermo-Lag 330 and ITL Report 82-3-2 to be sent to Carolina Power & Light Company.

38. On or about October 23, 1984, defendants TSI and RUBIN FELDMAN wrote and sent Impell a letter which presented information relating to "[t]he one and three hour fire resistance tests performed by Industrial Testing Laboratories. . ."

39. In or about December 1984, defendants TSI and RUBIN FELDMAN wrote, prepared, caused Allan M. Siegel and ITL to sign, and issued ITL Report 84-12-181, which identified the ITL representative, who was not a professional engineer, as "Cameron Duncan, P.E."

40. On or about December 14, 1984, defendants TSI and RUBIN FELDMAN wrote and sent to ANI a letter which represented that with respect to an upcoming fire endurance test: "The test agency performing the test and preparing the report will be Industrial Testing Laboratories of St. Louis, Missouri."

41. On or about January 4, 1985, defendants TSI and RUBIN FELDMAN wrote and sent a letter to Sargent & Lundy which represented that ITL Report 84-3-275 recorded "results of a carefully designed and instrumented test program conducted by an independent test laboratory" and that the written test plan had been "implement[ed] by the test laboratory."

42. On or about January 11, 1985, defendants TSI and RUBIN FELDMAN wrote and sent a letter to Stone & Webster which represented that a recent fire endurance test had been "performed under the auspices of Industrial Testing Laboratories of St. Louis,

Mo." The letter further stated: "A report is being prepared by the Laboratory and will be issued shortly."

43. On or about January 26, 1985, defendants TSI and RUBIN FELDMAN wrote and sent a letter to the Tennessee Valley Authority which set forth information relating to a fire endurance test and stated: "A formal test report is expected shortly from Industrial Testing Laboratories. As soon as received, a copy will be transmitted to you."

44. In or about January 1985, defendants TSI and RUBIN FELDMAN caused the first revision of ITL Report 82-355-F-1, a test report they wrote that was never reviewed or approved by ITL, relating to a 600-volt ampacity derating test that had been conducted in October 1981 without any participation by ITL, to be prepared in part on ITL stationery and issued.

45. In or about June 1985, defendants TSI and RUBIN FELDMAN wrote, prepared, caused Allan M. Siegel and ITL to sign, and issued ITL Report 85-5-314, which identified the ITL representative, who was not a professional engineer, as "Mike White, P.E."

46. In or about June 1985, defendants TSI and RUBIN FELDMAN wrote, prepared, caused Allan M. Siegel and ITL to sign, and issued ITL Report 85-6-283, which identified the ITL representative, who was not a professional engineer, as "Dave Siegel, P.E."

47. In or about July 1985, defendants TSI and RUBIN FELDMAN wrote and sent a letter to Stone & Webster which responded to comments by Stone & Webster concerning an ITL test report by stating: "I.T.L. has been advised of your request to effect the referenced corrections."

48. On or about September 20, 1985, defendants TSI and RUBIN FELDMAN sent copies of ITL Reports 82-11-80 and 82-11-81 and ANI acceptance of testing forms to Bechtel in Gaithersburg, Maryland.

49. On or about November 4, 1985, defendants TSI and RUBIN FELDMAN wrote and sent a letter to GPU Nuclear Corporation in New Jersey which represented that with respect to an upcoming fire endurance test, "[i]t is contemplated that" ITL "will supervise, monitor and otherwise be in total control of the test program. It will also undertake the responsibility of reporting the results and submitting its conclusions."

50. On or about July 14, 1986, defendants TSI and RUBIN FELDMAN wrote, prepared, caused Allan M. Siegel and ITL to sign, and sent a letter on ITL stationery to Northeast Utilities in Connecticut which stated: "We confirm that the following fire tests were performed under the auspices, control and supervision of Industrial Testing Laboratories" and listed ITL Reports 82-11-80, 82-11-81, 85-6-263, 85-5-314 and 85-2-382.

51. On or about January 15, 1987, defendants TSI and RUBIN FELDMAN responded to a request for test data from Arizona Public Service Company by writing and sending a letter to the

*sent to California*

utility and Bechtel which stated: "Thermal Science, Inc. has requested this information from Industrial Testing Laboratories (I.T.L.) and will forward the information as soon as possible."

52. On or about April 13, 1987, defendants TSI and RUBIN FELDMAN sent copies of ITL Reports 82-355-F-1 and 84-3-275A to the NRC in Bethesda, Maryland.

53. On or about April 14, 1987, defendants TSI and RUBIN FELDMAN sent copies of ITL Reports 82-355-F-1 and 84-10-5 to the NRC in Bethesda, Maryland.

54. On or about January 12, 1989, defendants TSI and RUBIN FELDMAN sent copies of ITL Reports 82-11-80, 82-11-81, 82-3-2, 87-5-77 and 84-12-181 and ANI acceptance of testing forms to Bechtel in Gaithersburg, Maryland.

55. On or about February 27, 1989, defendants TSI and RUBIN FELDMAN sent copies of ITL Reports 82-11-80 and 82-11-81 and TSI Technical Note 20684, Revision V, an installation procedures manual for Thermo-Lag 330 that included ANI acceptance of testing forms, to the NRC in Rockville, Maryland.

56. On or about October 31, 1989, defendants TSI and RUBIN FELDMAN sent a copy of TSI Technical Note 20684, Revision V, to the NRC in Bethesda, Maryland.

57. On or about January 12, 1990, defendants TSI and RUBIN FELDMAN sent a copy of ITL Report 86-1-143 to The Toledo Edison Company in Ohio.

58. On or about March 12, 1990, defendants TSI and RUBIN FELDMAN wrote and sent a letter to Gulf States Utilities in

Louisiana which represented that with respect to upcoming tests relating to the Thermo-Lag 330 installations at the River Bend nuclear power plant, "recognized third party experts will perform the analyses. Industrial Testing Laboratories of St. Louis will be responsible for conducting the tests and reporting the results."

59. On or about June 14, 1990, defendants TSI and RUBIN FELDMAN wrote and sent a letter to Texas Utilities Electric which represented that the Thermo-Lag 330 one-hour rated fire barrier system had been "extensively tested (over 50 independent tests) by Industrial Testing Laboratories under the auspices of the American Nuclear Insurers and others, with very successful results."

60. On or about June 20, 1990, defendants TSI and RUBIN FELDMAN sent a copy of ITL Report 82-11-80 and an ANI acceptance of testing form to Zion Nuclear Power Station in Illinois.

61. On or about September 14, 1990, defendants TSI and RUBIN FELDMAN sent copies of ITL Reports 82-11-80, 82-11-241, 84-5-387 and 85-2-382 and ANI acceptance of testing forms to Wisconsin Electric Light & Power Co.

62. On or about December 22, 1990, defendants TSI and RUBIN FELDMAN wrote, prepared, caused Allan M. Siegel and ITL to sign, and sent a letter on ITL stationery to Gulf States Utilities which represented that certain fire endurance tests conducted in 1990 "were performed at [TSI] . . . under our direction" and represented facts about test articles that had been manufactured and assembled without an ITL representative present.

63. On or about July 19, 1991, defendants TSI and RUBIN FELDMAN sent copies of ITL Reports 82-11-80, 82-11-81 and 86-1-43 and ANI acceptance of testing forms to Arizona Public Service.

64. On or about October 5, 1991, defendants TSI and RUBIN FELDMAN sent ANI acceptance of testing forms relating to ITL Reports 82-11-80, 82-11-81, 82-11-241, 83-5-472A, 84-12-294, 85-2-382, 85-5-314, and 85-6-283 to the NRC in Rockville, Maryland.

65. On or about October 5, 1991, defendants TSI and RUBIN FELDMAN sent copies of installation manuals for Thermo-Lag 330, including all versions of TSI Technical Note 20684, to the NRC in Rockville, Maryland.

66. On or about October 5, 1991, defendants TSI and RUBIN FELDMAN submitted a written statement to the NRC in Rockville, Maryland which represented the following information for ITL Report 82-5-355-F-1: "Test Laboratory: Industrial Testing Laboratories, Inc."

67. On or about October 17, 1991, defendants TSI and RUBIN FELDMAN orally stated to the NRC in Rockville, Maryland, that representatives of ITL "officiated during the phases of the testing. That's how the reports were published," that ITL representatives at tests were licensed professional engineers, and that ITL representatives at tests described in test reports "were very independent. They reviewed all the data. They analyzed all the data. It was as independent as you can make it."

68. On or about October 28, 1991, defendants TSI and RUBIN FELDMAN sent copies of ITL Reports 85-2-382, 85-5-314, 85-6-283, 82-11-80, 82-11-81, 82-11-241, 83-5-472A and 84-12-294, ANI acceptance of testing forms and TSI Technical Note 20684 to Georgia Power Company.

69. On or about November 12, 1991, defendants TSI and RUBIN FELDMAN sent copies of ITL Reports 82-355-F-1 and 84-10-5 to the NRC in Rockville, Maryland.

70. On or about December 3, 1991, defendants TSI and RUBIN FELDMAN sent copies of ITL Reports 82-11-80 and 82-11-81 and ANI acceptance of testing forms to the NRC in Rockville, Maryland.

71. On or about March 6, 1992, defendants TSI and RUBIN FELDMAN sent copies of ITL Reports 82-355-F-1 and 84-10-5 to Florida Power & Light.

18 U.S.C. § 371

COUNT TWO

The Grand Jury for the District of Maryland further charges:

1. All the allegations contained in paragraphs 1 through 22 and 24 through 55 of Count One of this Indictment are incorporated by reference as though fully set forth in this paragraph.

2. On or about September 10, 1991, the NRC sent a letter to defendants TSI and RUBIN FELDMAN stating that because of the failure of Thermo-Lag 330 in a three-hour fire endurance test performed for the River Bend Station at an independent testing laboratory, the NRC "had concerns regarding the ability of Thermo-Lag 330 to perform as a fire rated barrier" and had "developed a number of technical questions concerning the Thermo-Lag material and installation and test procedures." The NRC requested that defendants TSI and RUBIN FELDMAN provide responses to an attached list of questions about Thermo-Lag 330.

3. In response to the NRC's letter, defendants TSI and RUBIN FELDMAN submitted written and oral statements and copies of alleged ITL test reports, ANI acceptance of testing forms, TSI installation manuals, and other documents to the NRC in Rockville, Maryland.



4. On or about December 3, 1991, in the District of Maryland and elsewhere, the defendants

TSI  
and  
RUBIN FELDMAN

in matters within the jurisdiction of the NRC, an agency of the United States, knowingly and willfully falsified, concealed and covered up by trick, scheme and device material facts and made false, fictitious and fraudulent statements and representations as to material facts, in that they sent ITL Reports 82-11-80 and 82-11-81 to the NRC in Rockville, Maryland which

- (1) purported to be test reports prepared and issued by Allan M. Siegel and ITL;
- (2) represented that the tests described in the reports had been performed "under the supervision and total control of Industrial Testing Laboratories of St. Louis, Missouri, an independent testing laboratory";
- (3) represented that the test program utilized the methods and standards set forth by ANI;
- (4) represented that the test program had been "conducted in accordance with all applicable sections of TSI's Engineering Test Plan, second revision dated March 8, 1982, and as supplemented by Minutes of the Meeting dated 2 June 1982 and TSI's letters to ANI dated August 2 and September 3, 1982" and "reviewed and approved by the American Nuclear Insurers prior to the commencement of the test program";

- (5) represented that "[a]ll instrumentation used in this test program was calibrated in accordance with TSI's Nuclear Quality Assurance Program Manual and Quality Control Operating Procedures Manual. Calibration records for this test instrumentation are on file at TSI, Inc.";
- (6) represented that "the protective envelope and the manner in which it was applied can be considered typical of those prescribed by TSI, Inc. for nuclear plant installation"; and
- (7) represented that an ITL representative had reviewed and approved daily work sheets relating to the manufacture and assembly of test articles on the same day that the work had been performed by defendant TSI.

Whereas in truth and in fact, as the defendants TSI and RUBIN FELDMAN well knew,

- (1) the test reports were not prepared and issued by Allan M. Siegel and ITL;
- (2) the tests described in the reports had not been performed under the supervision and total control of ITL;
- (3) the test program had not utilized the methods and standards set forth by ANI, in that the necessary test documentation had not been prepared by a recognized testing laboratory or consultant;
- (4) the test program had not been conducted in accordance with all applicable sections of TSI's Engineering Test Plan, as accepted by ANI, in that

- (a) contrary to the Engineering Test Plan, the test results were not reported by an independent testing laboratory;
  - (b) contrary to the Engineering Test Plan, the reports were not published by an independent testing laboratory;
  - (c) contrary to the August 2, 1982 letter by defendants TSI and RUBIN FELDMAN, ITL did not supervise, monitor, formally report and authenticate all phases of the test program; and
  - (d) contrary to the Engineering Test Plan, the calibration status of all test instrumentation was not checked prior to each test;
- (5) the furnace thermocouples that measured furnace temperatures had never been calibrated and defendant TSI did not possess any calibration records;
- (6) the Thermo-Lag 330 protective envelope and the manner in which Thermo-Lag 330 was applied during construction of the test article were not typical of construction and installation techniques prescribed by defendant TSI for nuclear plant installation; and
- (7) an ITL representative had not been present when defendant TSI manufactured and assembled test articles and did not review and approve daily work sheets relating to the manufacture and assembly on the same day that the

work was performed, but rather had signed and backdated  
the daily work sheets at a later time.

18 U.S.C. § 1001

18 U.S.C. § 2

**COUNT THREE**

The Grand Jury for the District of Maryland further charges:

1. All the allegations contained in paragraphs 1 through 22 and 24 through 55 of Count One of this Indictment and Paragraphs 2 and 3 of Count Two of this Indictment are incorporated by reference as though fully set forth in this paragraph.

2. On or about November 12, 1991, in the District of Maryland and elsewhere, the defendants

TSI  
and  
RUBIN FELDMAN

in matters within the jurisdiction of the NRC, an agency of the United States, knowingly and willfully falsified, concealed and covered up by trick, scheme and device material facts and made false, fictitious and fraudulent statements and representations as to material facts, in that they sent to the NRC in Rockville, Maryland a copy of ITL Report 82-355-F-1 which purported to be a test report prepared and issued by ITL.

Whereas in truth and in fact, as the defendants TSI and RUBIN FELDMAN well knew, ITL Report 82-355-F-1 was not prepared and issued by ITL and ITL did not participate in any manner in the test described in the test report or in the preparation of the test report.

18 U.S.C. § 1001  
18 U.S.C. § 2

COUNT FOUR

The Grand Jury for the District of Maryland further charges:

1. All the allegations contained in paragraphs 1 through 22 and 24 through 55 of Count One of this Indictment and Paragraphs 2 and 3 of Count Two of this Indictment are incorporated by reference as though fully set forth in this paragraph.

2. On or about October 17, 1991, in the District of Maryland and elsewhere, the defendants

TSI  
and  
RUBIN FELDMAN

in matters within the jurisdiction of the NRC, an agency of the United States, knowingly and willfully falsified, concealed and covered up by trick, scheme and device material facts and made false, fictitious and fraudulent statements and representations as to material facts, in that defendants TSI and RUBIN FELDMAN made oral statements to the NRC in Rockville, Maryland which

(1) represented that representatives of ITL "officiated during the phases of the testing. That's how the reports were published"; and

(2) represented that ITL representatives at tests described in test reports "were very independent. They reviewed all the data. They analyzed all the data. It was as independent as you can make it."

Whereas in truth and in fact, as the defendants TSI and RUBIN FELDMAN well knew,

(1) while ITL representatives attended tests, the test reports were written, prepared and published by defendants TSI and RUBIN FELDMAN; and

(2) ITL representatives did not know how the test articles had been manufactured and assembled and did not review and analyze "all the data" relating to the tests, and ITL did not function as an independent laboratory in connection with the tests.

18 U.S.C. § 1001

18 U.S.C. § 2

**COUNT FIVE**

The Grand Jury for the District of Maryland further charges:

1. All the allegations contained in paragraphs 1 through 22 and 24 through 55 of Count One of this Indictment are incorporated by reference as though fully set forth in this paragraph.

2. On or about September 16, 1991, the NRC implemented regulations relating to willful misconduct by persons not licensed by the NRC who are otherwise subject to the NRC's jurisdiction. Under Title 50, Code of Federal Regulations, Section 50.5, any supplier of any licensee who knowingly provides to any licensee, contractor or subcontractor, components, equipment, materials or other goods and services that relate to the 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.

3. On or about December 3, 1991, in the District of Maryland and elsewhere, the defendants

TSI  
and  
RUBIN FELDMAN

knowingly and willfully violated and attempted to violate a regulation promulgated by the NRC pursuant to Title 42, United States Code, Section 2201(b), in that defendants TSI and RUBIN FELDMAN, while serving as suppliers of nuclear power plant licensees and knowingly providing to licensees, contractors and



subcontractors equipment, materials and other goods and services that related to the licensees' activities, deliberately submitted to the NRC in Rockville, Maryland information that defendants TSI and RUBIN FELDMAN knew to be incomplete and inaccurate in some respect material to the NRC, in the form of copies of ITL Reports 82-11-80 and 82-11-81 which (1) purported to be test reports prepared and issued by Allan M. Siegel and ITL; (2) represented that the tests described in the reports had been performed "under the supervision and total control of Industrial Testing Laboratories of St. Louis, Missouri, an independent testing laboratory"; (3) represented that the test program utilized the methods and standards set forth by ANI; (4) represented that the test program had been "conducted in accordance with all applicable sections of TSI's Engineering Test Plan, second revision dated March 8, 1982, and as supplemented by Minutes of the Meeting dated 2 June 1982 and TSI's letters to ANI dated August 2 and September 3, 1982" and "reviewed and approved by the American Nuclear Insurers prior to the commencement of the test program"; (5) represented that "[a]ll instrumentation used in this test program was calibrated in accordance with TSI's Nuclear Quality Assurance Program Manual and Quality Control Operating Procedures Manual. Calibration records for this test instrumentation are on file at TSI, Inc."; (6) represented that "the protective envelope and the manner in which it was applied can be considered typical of those prescribed by TSI, Inc. for nuclear plant installation"; and (7) represented that an ITL representative had reviewed and

approved daily work sheets relating to test articles on the same day that such sheets had been prepared by defendant TSI.

42 U.S.C. § 2273(a) and § 2201(b)  
10 C.F.R. § 50.5(a)(2)  
18 U.S.C. § 2

**COUNT SIX**

The Grand Jury for the District of Maryland further charges:

1. All the allegations contained in paragraphs 1 through 22 and 24 through 55 of Count One of this Indictment and Paragraph 2 of Count Five of this Indictment are incorporated by reference as though fully set forth in this paragraph.

2. On or about November 5, 1991, in the District of Maryland and elsewhere, the defendants

**TSI  
and  
RUBIN FELDMAN**

knowingly and willfully violated and attempted to violate a regulation promulgated by the NRC pursuant to Title 42, United States Code, Section 2201(b), in that defendants **TSI** and **RUBIN FELDMAN**, while serving as suppliers of nuclear power plant licensees and knowingly providing to licensees, contractors and subcontractors equipment, materials and other goods and services that related to the licensees' activities, deliberately submitted to the NRC in Rockville, Maryland information that defendants **TSI** and **RUBIN FELDMAN** knew to be incomplete and inaccurate in some respect material to the NRC, in the form of a copy of ITL Report 82-355-F-1, which purported to be a test report prepared and issued by ITL.

42 U.S.C. § 2273(a) and § 2201(b)  
10 C.F.R. § 50.5(a)(2)  
18 U.S.C. § 2

COUNT SEVEN

The Grand Jury for the District of Maryland further charges:

1. All the allegations contained in paragraphs 1 through 22 and 24 through 55 of Count One of this Indictment and Paragraph 2 of Count Five of this Indictment are incorporated by reference as though fully set forth in this paragraph.

2. On or about October 17, 1991, in the District of Maryland and elsewhere, the defendants

TSI  
and  
RUBIN FELDMAN

knowingly and willfully violated and attempted to violate a regulation promulgated by the NRC pursuant to Title 42, United States Code, Section 2201(b), in that defendants TSI and RUBIN FELDMAN, while serving as suppliers of nuclear power plant licensees and knowingly providing to licensees, contractors and subcontractors equipment, materials and other goods and services that related to the licensees' activities, deliberately submitted to the NRC in Rockville, Maryland information that defendants TSI and RUBIN FELDMAN knew to be incomplete and inaccurate in some respect material to the NRC, in the form of oral statements which (1) represented that ITL representatives "officiated during the phases of the testing. That's how the reports were published"; and (2) represented that ITL representatives at tests described in test

reports "were very independent. They reviewed all the data. They analyzed all the data. It was as independent as you can make it."

42 U.S.C. § 2273(a) and § 2201(b)  
10 C.F.R. § 50.5(a)(2)  
18 U.S.C. § 2

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LYNNE A. BATTAGLIA  
United States Attorney

A TRUE BILL:

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Foreperson

Date: September 29, 1994





Science, Inc. on December 31, 1986. As used herein, "TSI" refers to all of these corporate entities. Defendant TSI engaged in the development, manufacture, promotion, sale and interstate distribution of fire barrier products.

2. Defendant RUBIN FELDMAN was president, director and an owner of defendant TSI and a licensed professional engineer ("PE").

3. Industrial Testing Laboratories, Inc. ("ITL") was a privately-owned corporation organized under the laws of Missouri with headquarters and testing facilities in St. Louis, Missouri. ITL engaged in chemical analysis, metallurgical, pollution and flammability testing, product certification and products liability investigations. ITL did not own or operate a test furnace and had no significant experience in fire endurance or electrical testing. Prior to 1982, defendants TSI and RUBIN FELDMAN engaged ITL to perform a variety of chemical and other tests which did not include fire endurance or electrical testing.

4. Allan M. Siegel was president, director and an owner of ITL and a licensed professional engineer.

**B. Fire Safety Regulation of Nuclear Power Plants**

5. The Nuclear Regulatory Commission ("NRC") was an agency of the United States which was responsible for the regulation of nuclear power plants and protecting the health and safety of the public from nuclear-related incidents. NRC offices, and beginning in April 1988 NRC headquarters, were located in Montgomery County, Maryland.



6. The NRC administered and enforced the Atomic Energy Act, Title 42, United States Code, §§ 2011 et seq., and regulations issued thereunder, contained in Title 10 of the Code of Federal Regulations. The Atomic Energy Act authorized the NRC to issue licenses to operate nuclear power plants and to prohibit the operation of any such plant, except in accordance with a valid license and any conditions to the license established by the NRC. All licenses issued by the NRC were issued subject to the express condition, among others, that the licensee would comply with all rules and regulations of the NRC then or thereafter in effect.

7. In a nuclear power plant, a controlled nuclear reaction of radioactive fuel is maintained to generate the heat necessary to make electricity. If control of the nuclear reactor is lost, sufficient heat may be generated to cause a reactor core meltdown, which could result in the release of radioactive material into the environment and endanger public health, life and property.

8. To minimize the likelihood of a loss of control of the nuclear reactor, NRC regulations required that safety systems in nuclear power plants be built and operated with redundancy. Redundancy required that each plant have two of each piece of equipment or component, called safe shutdown components, needed to maintain control of or safely shut down the nuclear reactor. In the event one safe shutdown component were to fail, the redundant component would be available to perform its functions. Safe shutdown components include electrical cables, which are often enclosed in cable trays or conduits.

9. To ensure that at least one means of achieving and maintaining safe shutdown of a nuclear reactor would remain available in the event of fire, the NRC's design criteria for nuclear power plants required that structures, systems, and components important to safety be designed and located to minimize, consistent with other safety requirements, the probability and effect of fires and explosions.

10. On November 19, 1980, the NRC issued a regulation, which took effect on February 17, 1981, entitled "Fire Protection of Safe Shutdown Capability," which was codified at Title 10 of the Code of Federal Regulations, Section 50.48 and Appendix R ("Appendix R"). Section III.G of Appendix R was made applicable to all nuclear power plants which had received or were seeking operating licenses.

11. Section III.G of Appendix R required that each licensed nuclear power plant establish certain fire protection features to ensure that at least one means of achieving and maintaining safe shutdown conditions would remain available during and after a fire in the plant. It provided that for each designated fire area in a nuclear power plant which contained safe shutdown components, one of three methods had to be used to provide the required fire protection unless the NRC granted an exemption. Two methods involved installation of fire barriers:

- (1) Separation of redundant safe shutdown components by a fire barrier having a three-hour fire rating, or

- (2) Enclosure of one of the redundant safe shutdown components by a fire barrier having a one-hour fire rating, with fire detection and automatic fire suppression systems installed in the designated fire area.

12. The NRC instructed licensees that fire barriers could receive a one-hour or three-hour "fire rating" for fire resistance by withstanding a "standard test fire" conducted in accordance with technical criteria set forth by the American Society for Testing and Materials ("ASTM") in its publication ASTM E-119, "Standard for Fire Resistance of Building Materials." Fire barriers achieving these fire ratings were known as "one-hour barriers" and "three-hour barriers."

13. NRC regulations also required that fire barrier systems be installed so as to ensure that enclosed electrical cables survive the 40-year anticipated life of a nuclear power plant. When cables are placed into cable trays or conduits and wrapped in fire barrier, the barrier retains heat generated by the electric current and the cable insulation temperature increases, causing premature deterioration of the cable. The preferred method of protecting cables from the insulating effect of the fire barrier material was "derating" (lowering) the "ampacity" (current-carrying capacity) of enclosed cables.

14. After the NRC issued Appendix R, utilities began considering the installation of fire barriers in their nuclear power plants. To protect cables while maintaining current at the

highest possible level, utilities sought to purchase barriers that achieved one-hour and three-hour fire ratings while requiring the smallest possible amount of "ampacity derating."

15.. In designing and constructing new nuclear power plants and modifications to existing plants and in evaluating, purchasing and installing fire barriers, utilities employed the services of architectural, engineering and construction firms (hereinafter referred to as the utilities' "agents"). These firms included Bechtel Power Corporation and affiliated companies ("Bechtel") and NUS Corporation ("NUS"), which both maintained offices in Gaithersburg, Maryland; Burns and Roe, Inc. ("Burns and Roe"); Sargent & Lundy Engineering ("Sargent & Lundy"); Stone & Webster Engineering Corporation ("Stone & Webster"); and ABB Impell Corporation ("Impell"). These firms were employed by utilities to participate in selecting fire barriers for nuclear power plants.

#### C. American Nuclear Insurers

16. American Nuclear Insurers ("ANI") was an unincorporated joint underwriting association of approximately 140 insurance companies which provided property and liability insurance to utilities that owned and operated nuclear power plants. Located in Farmington, Connecticut, ANI was a "nuclear insurance pool" in which member companies pledged assets to amass the large amounts of insurance capacity needed to insure the risks associated with nuclear power plants and to spread the risk among a large number of insurance companies. A similar nuclear insurance pool of mutual

insurers was known as Mutual Atomic Energy Reinsurance Pool ("MAERP").

17. ANI maintained a department which was responsible for identifying, monitoring and reducing potential hazards in the design, construction and operation of facilities insured by ANI and MAERP. In 1976, ANI and MAERP established basic acceptance and test parameters for a fire barrier system. In 1979, ANI issued a standard fire endurance test method for fire barriers in nuclear power plants which required successful passage of fire tests and "submittal of necessary test documentation as prepared by a recognized testing laboratory or consultant."

18. Under the 1979 standard, ANI examined fire tests of fire barriers to determine whether ANI would accept the barriers "for insurance purposes only." If satisfied with the test results and test documentation, ANI would issue an "Acceptance of Testing (for insurance purposes)" form. Utilities that installed accepted fire barriers could obtain more favorable insurance rates.

D. Thermo-Lag 330

19. During the 1970s, defendants TSI and RUBIN FELDMAN manufactured and sold a line of patented and trademarked products known as "Thermo-Lag," including Thermo-Lag 330. Thermo-Lag 330, sometimes referred to as 330-1, was a fire resistive coating utilized to protect road and railroad tank cars, missiles, rockets and other installations.

20. As the NRC began requiring installation of fire barriers in nuclear power plants, defendants TSI and RUBIN FELDMAN

developed a version of Thermo-Lag 330 for use in nuclear power plants. On or about August 9, 1979, defendant TSI advised the NRC by letter that it intended to conduct tests to qualify Thermo-Lag 330 for use at nuclear power plants. In the letter, defendant TSI acknowledged the need to conduct tests under the ASTM E-119 standard "at a fully qualified fire test facility."

21. In 1981, as part of efforts to qualify Thermo-Lag 330 for use in nuclear power plants, defendants TSI and RUBIN FELDMAN conducted fire endurance tests at the premises of defendant TSI and issued test reports in the name of defendant TSI signed by defendant RUBIN FELDMAN. When these test reports were presented to the NRC, the NRC stated that Thermo-Lag 330 could only be qualified for installation at a nuclear power plant by having an ASTM E-119 test of an as-installed configuration conducted at an approved testing laboratory.

22. On or about January 7, 1982, in connection with the Washington Public Power Supply System ("WPPSS") WNP Unit 2 power plant, Burns and Roe, an agent of WPPSS, asked defendants TSI and RUBIN FELDMAN to submit a price quotation for fire endurance and ampacity derating testing of Thermo-Lag 330. Burns and Roe required that a third party, mutually acceptable to WPPSS, ANI and defendant TSI, "record, document and prepare reports" and that "[t]he test results shall be documented in a report prepared and PE stamped by the third party." On or about January 21, 1982, defendants TSI and RUBIN FELDMAN responded to Burns and Roe's request by offering to procure "participation of a third party

mutually acceptable to" TSI, WPPSS, Burns and Roe and ANI "in the witnessing, recording, documentation, and preparation of test reports." Defendants TSI and RUBIN FELDMAN further stated: "Reports and test results will be released and PE stamped by such third party."

## II. THE CHARGE

23. From in or about January 1982 and continuing through at least in or about April 1992, in the District of Maryland and elsewhere, the defendants

TSI  
and  
RUBIN FELDMAN

did unlawfully, willfully and knowingly combine, conspire, confederate and agree together, with Allan M. Siegel and ITL, and with others known and unknown to the Grand Jury,

- (1) to commit an offense against the United States, that is, in matters within the jurisdiction of the NRC, an agency of the United States, to falsify, conceal and cover up by trick, scheme, and device material facts, and to make and cause to be made false, fictitious and fraudulent statements and representations as to material facts, and to make and use false writings and documents knowing the same to contain false, fictitious and fraudulent statements and entries, in violation of Title 18, United States Code, Sections 1001 and 2; and
- (2) to defraud the United States by impeding, impairing, obstructing and defeating the lawful governmental

functions of the NRC in its administration of the Atomic Energy Act and related regulations.

### III. OBJECTS OF THE CONSPIRACY

24.- It was an object of the conspiracy for defendants TSI and RUBIN FELDMAN and coconspirators to enrich themselves by causing utilities and their agents to purchase millions of dollars worth of Thermo-Lag 330 for installation in nuclear power plants.

25. It was a further object of the conspiracy for defendants TSI and RUBIN FELDMAN and coconspirators to cause utilities and their agents, the NRC and ANI to believe that an independent testing laboratory had prepared and published test reports and supervised all phases of a test program to qualify Thermo-Lag 330 for installation in nuclear power plants.

26. It was a further object of the conspiracy for defendants TSI and RUBIN FELDMAN and coconspirators to cause utilities and their agents, the NRC and ANI to believe, on the basis of the test reports and other documents, that installing Thermo-Lag 330 in accordance with defendant TSI's installation manuals would permit nuclear power plants to meet the NRC's Appendix R regulations and ANI's acceptance criteria for fire barriers.

27. It was a further object of the conspiracy for defendants TSI and RUBIN FELDMAN and coconspirators to conceal the fraudulent nature of the test program and test reports for Thermo-Lag 330 from utilities and their agents, the NRC and ANI.



#### IV. MEANS AND METHODS OF THE CONSPIRACY

28. It was part of the conspiracy that defendants TSI and RUBIN FELDMAN represented to the NRC, utilities and their agents and ANI that an independent testing laboratory would witness, supervise, monitor, record and document all phases of a test program for Thermo-Lag 330 and prepare, PE stamp, publish and release test reports relating to the tests.

29. It was a further part of the conspiracy that defendants TSI and RUBIN FELDMAN hired Allan M. Siegel and ITL solely to (a) furnish witnesses for one-hour and three-hour fire endurance and ampacity derating tests of Thermo-Lag 330 to be conducted by defendant TSI at the premises of defendant TSI and (b) sign test reports written by defendants TSI and RUBIN FELDMAN.

30. It was a further part of the conspiracy that defendants TSI and RUBIN FELDMAN caused test articles of Thermo-Lag 330 to be assembled utilizing enhanced construction procedures not generally disclosed in test report texts or sketches or required by TSI installation manuals. In fire endurance test articles, these enhancements included "prebuttering" (coating the edges of) Thermo-Lag 330 prefabricated panels with trowel grade Thermo-Lag 330 before joining them; using metal tie wire stitching, machine screws and wire staples to tightly secure Thermo-Lag 330 prefabricated panels to one another; and coating the test articles with additional Thermo-Lag 330.

31. It was a further part of the conspiracy that defendants TSI and RUBIN FELDMAN caused test articles of

Thermo-Lag 330 to be manufactured and assembled without supervision by any ITL representative, utilities and their agents or ANI.

32. It was a further part of the conspiracy that defendants TSI and RUBIN FELDMAN, to falsely, fictitiously and fraudulently create the impression that ITL supervised the manufacture and assembly of test articles, prepared daily work sheets on what purported to be ITL forms and caused ITL representatives to sign and backdate the sheets.

33. It was a further part of the conspiracy that defendants TSI and RUBIN FELDMAN wrote test reports relating to fire endurance and ampacity derating tests of Thermo-Lag 330 conducted by defendant TSI at the premises of defendant TSI, prepared the reports in a format that falsely, fictitiously and fraudulently made the reports appear to have been prepared and published by ITL, and caused the cover pages of test reports to be typed onto blank ITL letterhead stationery obtained from ITL.

34. It was a further part of the conspiracy that defendants TSI and RUBIN FELDMAN wrote and prepared test reports which falsely, fictitiously and fraudulently stated that the tests were conducted "under the supervision and total control of Industrial Testing Laboratories of St. Louis, Missouri, an independent testing laboratory."

35. It was a further part of the conspiracy that defendants TSI and RUBIN FELDMAN wrote and prepared test reports which falsely, fictitiously and fraudulently stated that the test program was conducted in accordance with the methods and standards

set forth by ANI, in an ANI-approved engineering test plan, and in other representations made by defendants and relied upon by ANI.

36. It was a further part of the conspiracy that defendants TSI and RUBIN FELDMAN wrote and prepared test reports whose text and sketches (a) did not accurately describe the test articles, (b) falsely, fictitiously and fraudulently represented that the test articles and construction techniques were typical of the articles and techniques prescribed in defendant TSI's installation manuals for Thermo-Lag 330, and (c) concealed information that the test articles contained construction enhancements not required by the installation manuals.

37. It was a further part of the conspiracy that defendants TSI and RUBIN FELDMAN wrote and prepared test reports which included as appendices false, fictitious and fraudulent backdated daily work sheets.

38. It was a further part of the conspiracy that defendants TSI and RUBIN FELDMAN wrote and prepared test reports which falsely, fictitiously and fraudulently represented that all instrumentation used in the test program was calibrated and that calibration records were on file at defendant TSI, when in fact the thermocouples that monitored furnace temperatures were not calibrated.

39. It was a further part of the conspiracy that defendants TSI and RUBIN FELDMAN wrote and prepared test reports which falsely, fictitiously and fraudulently represented that the ITL witnesses at tests were professional engineers.

40. It was a further part of the conspiracy that defendants TSI and RUBIN FELDMAN caused Allan M. Siegel to sign test reports typed in part on ITL stationery which falsely, fictitiously and fraudulently purported to be independent ITL reports.

41. It was a further part of the conspiracy that defendants TSI and RUBIN FELDMAN caused Allan M. Siegel to sign test reports, knowing that Siegel had not read the reports or reviewed the underlying test data.

42. It was a further part of the conspiracy that defendants TSI and RUBIN FELDMAN caused Allan M. Siegel to sign cover sheets to test reports that had not been provided to him.

43. It was a further part of the conspiracy that defendants TSI and RUBIN FELDMAN paid ITL more than \$80,000.

44. It was a further part of the conspiracy that defendants TSI and RUBIN FELDMAN wrote and prepared a false, fictitious and fraudulent ITL test report which related to a test that ITL had not attended, participated in, supervised or reviewed in any manner.

45. It was a further part of the conspiracy that defendants TSI and RUBIN FELDMAN wrote and prepared an ampacity derating test report that contained significant mathematical errors and, after being advised of the errors, did not disclose the errors to potential purchasers of Thermo-Lag 330 to whom the report had been sent.

46. It was a further part of the conspiracy that defendants TSI and RUBIN FELDMAN wrote, prepared, and in some instances caused Allan M. Siegel and ITL to sign and PE stamp letters which contained false, fictitious and fraudulent statements and representations and concealed material facts about tests and test reports relating to Thermo-Lag 330.

47. It was a further part of the conspiracy that defendants TSI and RUBIN FELDMAN wrote, prepared, and distributed sales brochures which contained false, fictitious and fraudulent statements and representations and concealed material facts relating to Thermo-Lag 330, including a representation that tests of Thermo-Lag 330 "were conducted at TSI, Incorporated, St. Louis, Missouri by Industrial Testing Laboratories (independent third party), St. Louis, Missouri."

48. It was a further part of the conspiracy that defendants TSI and RUBIN FELDMAN wrote, prepared, and issued installation manuals which contained false, fictitious and fraudulent statements and representations and concealed material facts relating to Thermo-Lag 330.

49. It was a further part of the conspiracy that between in or about March 1982 and in or about April 1992, defendants TSI and RUBIN FELDMAN issued and sent to the NRC, utilities and their agents and ANI alleged ITL test reports, letters, sales brochures and installation manuals which were false, fictitious and fraudulent or concealed material facts in one or more of the ways described above.

50. It was a further part of the conspiracy that defendants TSI and RUBIN FELDMAN caused ANI, acting in reliance on false, fictitious and fraudulent statements and representations and acting without material facts about the Thermo-Lag 330 test program that were intentionally concealed from it, to issue "Acceptance of Testing (for insurance purposes)" forms relating to the configurations of Thermo-Lag 330 allegedly tested in the test reports submitted to ANI.

51. It was a further part of the conspiracy that defendants TSI and RUBIN FELDMAN sent fraudulently-obtained ANI "Acceptance of Testing (for insurance purposes)" forms to the NRC and to utilities and their agents.

52. It was a further part of the conspiracy that defendants TSI and RUBIN FELDMAN caused utilities and their agents, acting in reliance on false, fictitious and fraudulent test reports, ANI "Acceptance of Testing (for insurance purposes)" forms, letters, installation manuals, sales brochures and other statements and representations, and acting without material facts about the Thermo-Lag 330 test program that were intentionally concealed from them, to purchase more than \$58 million of Thermo-Lag 330 products and install them as fire barriers in more than 70 nuclear power plants.

53. It was a further part of the conspiracy that defendants TSI and RUBIN FELDMAN shipped Thermo-Lag 330 to purchasers with "Certificates of Conformance" which represented

that the materials were identical to materials "tested by" ITL or used in tests "performed by" ITL.

54. It was a further part of the conspiracy that defendants TSI and RUBIN FELDMAN caused utilities to falsely, fictitiously and fraudulently represent to the NRC that, by installing Thermo-Lag 330 in nuclear power plants, they had complied or would comply with Appendix R and related requirements.

55. It was a further part of the conspiracy that defendants TSI and RUBIN FELDMAN made false, fictitious and fraudulent statements and took numerous other steps to conceal the true facts about the Thermo-Lag 330 test program from the NRC.

#### Overt Acts

During the course of and in furtherance of the conspiracy, the defendants and their coconspirators performed the following acts in the District of Maryland and elsewhere:

1. In or about January 1982, defendants TSI and RUBIN FELDMAN hired Allan M. Siegel and ITL to send witnesses to fire endurance and ampacity derating tests of Thermo-Lag 330 to be conducted at the premises of TSI and to sign test reports to be prepared by TSI.

2. On or about February 4, 1982, defendants TSI and RUBIN FELDMAN conducted a three-hour fire endurance test of Thermo-Lag 330.

3. On or about March 1, 1982, defendants TSI and RUBIN FELDMAN wrote, prepared, caused Allan M. Siegel and ITL to sign,

and issued ITL Report 82-3-2 relating to the February 4, 1982 three-hour fire endurance tests.

4. On or about March 8, 1982, defendants TSI and RUBIN FELDMAN, in connection with proposed tests of Thermo-Lag 330 relating to the WPPSS nuclear power plant, prepared and submitted the second revision of a Proposed Engineering Test Plan which represented that "[t]hese tests will be witnessed and the results reported by an independent testing laboratory" and that the laboratory would be hired to "participate in the testing as needed, witnessing and publishing the report of the test results."

5. On or about March 16, 1982, defendants TSI and RUBIN FELDMAN caused ANI to issue a letter finding defendant TSI's Engineering Test Plan acceptable to ANI for insurance purposes.

6. On or about May 17-28, 1982, defendants TSI and RUBIN FELDMAN conducted one-hour fire endurance tests of Thermo-Lag 330 for WPPSS.

7. In or about May-June 1982, defendants TSI and RUBIN FELDMAN caused an ITL representative to sign, initial and backdate daily work sheets, prepared by defendant TSI, which recorded steps in the manufacture and assembly of test articles used in the one-hour fire endurance tests of Thermo-Lag 330 for WPPSS that the ITL representative had not witnessed.

8. In or about June 1982, defendants TSI and RUBIN FELDMAN wrote, prepared, caused Allan M. Siegel and ITL to sign, and issued ITL Report 82-5-355A relating to the May 1982 one-hour fire endurance tests for WPPSS.



9. On or about June 26, 1982, defendants TSI and RUBIN FELDMAN sent copies of ITL Report 82-5-355A to ANI and WPPSS's agent Burns & Roe.

10. On or about July 1, 1982, defendants TSI and RUBIN FELDMAN sent a copy of ITL Report 82-5-355A, described as "a copy of the test report issued by Industrial Testing Laboratories," to WPPSS.

11. On or about July 20, 1982, defendants TSI and RUBIN FELDMAN caused ANI to issue an "Acceptance of Testing (for insurance purposes)" form relating to configurations of Thermo-Lag 330 allegedly tested in tests described in ITL Report 82-5-355A.

12. On or about June 18-25, 1982, defendants TSI and RUBIN FELDMAN conducted three-hour fire endurance tests of Thermo-Lag 330 for WPPSS.

13. In or about June-July 1982, defendants TSI and RUBIN FELDMAN caused an ITL representative to sign, initial and backdate daily work sheets, prepared by defendant TSI, which recorded steps in the manufacture and assembly of test articles used in the three-hour fire endurance tests of Thermo-Lag 330 for WPPSS that the ITL representative had not witnessed.

14. On or about July 16, 1982, defendants TSI and RUBIN FELDMAN wrote and sent to ANI a letter stating that "[t]he 3 hour report should be available from I.T.L. soon . . ."

15. In or about July 1982, defendants TSI and RUBIN FELDMAN wrote, prepared, caused Allan M. Siegel and ITL to sign, and issued ITL Report 82-5-355B relating to the July 1982 three-hour fire endurance tests for WPPSS.

16. On or about April 29, 1982 and July 13, 1982, defendants TSI and RUBIN FELDMAN conducted an ampacity derating test for 1000-volt power cables protected with a three-hour rated version of Thermo-Lag 330 for WPPSS.

17. In or about July 1982, defendants TSI and RUBIN FELDMAN wrote, prepared and caused Allan M. Siegel and ITL to sign ITL Report 82-5-355C, and issued ITL Reports 82-5-355C and 82-5-355F relating to the 1000-volt ampacity derating test for WPPSS.

18. In or about July 1982, defendants TSI and RUBIN FELDMAN issued as ITL Report 82-355-F-1 (also referred to as 82-5-355-F-1) a test report written by defendants TSI and RUBIN FELDMAN, and never reviewed or approved by ITL, relating to a 600-volt ampacity derating test that had been conducted in October 1981 without any participation by ITL.

19. On or about August 26, 1982, defendants TSI and RUBIN FELDMAN sent a copy of ITL Report 82-5-355B to ANI.

20. On or about September 16, 1982, in connection with the WPPSS project, defendants TSI and RUBIN FELDMAN sent Burns & Roe a letter which described enclosed documents written by TSI as "pages, which were just received from Industrial Testing Laboratories, that comprise Revision I" to ITL Report 82-5-355B.

21. On or about September 30, 1982, defendants TSI and RUBIN FELDMAN caused ANI to issue an "Acceptance of Testing (for insurance purposes)" form relating to configurations of Thermo-Lag 330 allegedly tested in tests described in ITL Report 82-5-355B.

22. On or about October 4, 1982, defendants TSI and RUBIN FELDMAN wrote, prepared, signed and PE stamped, caused Allan M. Siegel to co-sign and PE stamp, and sent to the NRC in Bethesda, Maryland a letter which represented specific facts about the manufacture and assembly of test articles referenced in ITL Reports 82-5-355A and 82-5-355B that had been manufactured and assembled without an ITL representative present.

23. On or about August 2, 1982, defendants TSI and RUBIN FELDMAN wrote and sent to ANI a letter concerning generic one-hour and three-hour fire endurance tests which they planned to conduct pursuant to the Engineering Test Plan previously approved for the WPPSS tests. The letter stated: "We have contracted Industrial Testing Laboratories in St. Louis, Missouri to supervise, monitor, formally report and authenticate all phases of this test program."

24. On or about August 6, 1982, defendants TSI and RUBIN FELDMAN caused ANI to issue a letter finding defendant TSI's Engineering Test Plan for the generic fire endurance tests acceptable to ANI for insurance purposes.

25. On or about September 3, 1982, defendants TSI and RUBIN FELDMAN wrote and sent to ANI a letter representing that the one-hour and three-hour generic fire endurance tests "will be

performed in accordance with the ANI approved test plan including the participation of Industrial Testing Laboratories of St. Louis, Mo."

26. On or about September 9-28, 1982, defendants TSI and RUBIN FELDMAN conducted generic one-hour fire endurance tests of Thermo-Lag 330.

27. In or about September-November 1982, defendants TSI and RUBIN FELDMAN caused an ITL representative to sign, initial and backdate daily work sheets, prepared by defendant TSI, which recorded steps in the manufacture and assembly of test articles used in the one-hour generic fire endurance tests of Thermo-Lag 330 that the ITL representative had not witnessed.

28. From on or about September 10, 1982 through October 12, 1982, defendants TSI and RUBIN FELDMAN conducted generic three-hour fire endurance tests of Thermo-Lag 330.

29. In or about September-November 1982, defendants TSI and RUBIN FELDMAN caused an ITL representative to sign, initial and backdate daily work sheets, prepared by defendant TSI, which recorded steps in the manufacture and assembly of test articles used in the three-hour generic fire endurance tests of Thermo-Lag 330 that the ITL representative had not witnessed.

30. In or about November 1982, defendants TSI and RUBIN FELDMAN wrote, prepared, caused Allan M. Siegel and ITL to sign, and issued ITL Report 82-11-80 relating to the September 1982 generic one-hour fire-endurance tests.

31. In or about November 1982, defendants TSI and RUBIN FELDMAN wrote, prepared, caused Allan M. Siegel and ITL to sign, and issued ITL Report 82-11-81 relating to the September-October 1982 generic three-hour fire-endurance tests.

32. On or about November 20, 1982, defendants TSI and RUBIN FELDMAN sent copies of ITL Reports 82-11-80 and 82-11-81 to ANI.

33. On or about December 2, 1982, defendants TSI and RUBIN FELDMAN caused ANI to issue "Acceptance of Testing (for insurance purposes)" forms relating to the configurations of Thermo-Lag 330 allegedly tested in tests described in ITL Reports 82-11-80 and 82-11-81.

34. On or about March 7, 1983, defendants TSI and RUBIN FELDMAN sent copies of ITL Reports 82-11-80 and 82-11-81 and ANI acceptance of testing forms to Bechtel in Gaithersburg, Maryland.

35. On or about September 13, 1983, defendants TSI and RUBIN FELDMAN sent a copy of ITL Report 83-5-472, Revision I to ANI along with a cover letter which claimed that the "report incorporates revisions which I.T.L. made at your request."

36. On or about January 23, 1984, defendants TSI and RUBIN FELDMAN sent copies of ITL Reports 82-11-80 and 82-11-81 and ANI acceptance of testing forms to NUS in Gaithersburg, Maryland.

37. On or about January 23, 1984, defendants TSI and RUBIN FELDMAN caused a letter typed on ITL stationery, stamped with the signature of Allan M. Siegel, and containing representations

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about Thermo-Lag 330 and ITL Report 82-3-2 to be sent to Carolina Power & Light Company.

38. On or about October 23, 1984, defendants TSI and RUBIN FELDMAN wrote and sent Impell a letter which presented information relating to "[t]he one and three hour fire resistance tests performed by Industrial Testing Laboratories. . ."

39. In or about December 1984, defendants TSI and RUBIN FELDMAN wrote, prepared, caused Allan M. Siegel and ITL to sign, and issued ITL Report 84-12-181, which identified the ITL representative, who was not a professional engineer, as "Cameron Duncan, P.E."

40. On or about December 14, 1984, defendants TSI and RUBIN FELDMAN wrote and sent to ANI a letter which represented that with respect to an upcoming fire endurance test: "The test agency performing the test and preparing the report will be Industrial Testing Laboratories of St. Louis, Missouri."

41. On or about January 4, 1985, defendants TSI and RUBIN FELDMAN wrote and sent a letter to Sargent & Lundy which represented that ITL Report 84-3-275 recorded "results of a carefully designed and instrumented test program conducted by an independent test laboratory" and that the written test plan had been "implement[ed] by the test laboratory."

42. On or about January 11, 1985, defendants TSI and RUBIN FELDMAN wrote and sent a letter to Stone & Webster which represented that a recent fire endurance test had been "performed under the auspices of Industrial Testing Laboratories of St. Louis,

Mo." The letter further stated: "A report is being prepared by the Laboratory and will be issued shortly."

43. On or about January 26, 1985, defendants TSI and RUBIN FELDMAN wrote and sent a letter to the Tennessee Valley Authority which set forth information relating to a fire endurance test and stated: "A formal test report is expected shortly from Industrial Testing Laboratories. As soon as received, a copy will be transmitted to you."

44. In or about January 1985, defendants TSI and RUBIN FELDMAN caused the first revision of ITL Report 82-355-F-1, a test report they wrote that was never reviewed or approved by ITL, relating to a 600-volt ampacity derating test that had been conducted in October 1981 without any participation by ITL, to be prepared in part on ITL stationery and issued.

45. In or about June 1985, defendants TSI and RUBIN FELDMAN wrote, prepared, caused Allan M. Siegel and ITL to sign, and issued ITL Report 85-5-314, which identified the ITL representative, who was not a professional engineer, as "Mike White, P.E."

46. In or about June 1985, defendants TSI and RUBIN FELDMAN wrote, prepared, caused Allan M. Siegel and ITL to sign, and issued ITL Report 85-6-283, which identified the ITL representative, who was not a professional engineer, as "Dave Siegel, P.E."

47. In or about July 1985, defendants TSI and RUBIN FELDMAN wrote and sent a letter to Stone & Webster which responded to comments by Stone & Webster concerning an ITL test report by stating: "I.T.L. has been advised of your request to effect the referenced corrections."

48. On or about September 20, 1985, defendants TSI and RUBIN FELDMAN sent copies of ITL Reports 82-11-80 and 82-11-81 and ANI acceptance of testing forms to Bechtel in Gaithersburg, Maryland.

49. On or about November 4, 1985, defendants TSI and RUBIN FELDMAN wrote and sent a letter to GPU Nuclear Corporation in New Jersey which represented that with respect to an upcoming fire endurance test, "[i]t is contemplated that" ITL "will supervise, monitor and otherwise be in total control of the test program. It will also undertake the responsibility of reporting the results and submitting its conclusions."

50. On or about July 14, 1986, defendants TSI and RUBIN FELDMAN wrote, prepared, caused Allan M. Siegel and ITL to sign, and sent a letter on ITL stationery to Northeast Utilities in Connecticut which stated: "We confirm that the following fire tests were performed under the auspices, control and supervision of Industrial Testing Laboratories" and listed ITL Reports 82-11-80, 82-11-81, 85-6-263, 85-5-314 and 85-2-382.

51. On or about January 15, 1987, defendants TSI and RUBIN FELDMAN responded to a request for test data from Arizona Public Service Company by writing and sending a letter to the



utility and Bechtel which stated: "Thermal Science, Inc. has requested this information from Industrial Testing Laboratories (I.T.L.) and will forward the information as soon as possible."

52. On or about April 13, 1987, defendants TSI and RUBIN FELDMAN sent copies of ITL Reports 82-355-F-1 and 84-3-275A to the NRC in Bethesda, Maryland.

53. On or about April 14, 1987, defendants TSI and RUBIN FELDMAN sent copies of ITL Reports 82-355-F-1 and 84-10-5 to the NRC in Bethesda, Maryland.

54. On or about January 12, 1989, defendants TSI and RUBIN FELDMAN sent copies of ITL Reports 82-11-80, 82-11-81, 82-3-2, 87-5-77 and 84-12-181 and ANI acceptance of testing forms to Bechtel in Gaithersburg, Maryland.

55. On or about February 27, 1989, defendants TSI and RUBIN FELDMAN sent copies of ITL Reports 82-11-80 and 82-11-81 and TSI Technical Note 20684, Revision V, an installation procedures manual for Thermo-Lag 330 that included ANI acceptance of testing forms, to the NRC in Rockville, Maryland.

56. On or about October 31, 1989, defendants TSI and RUBIN FELDMAN sent a copy of TSI Technical Note 20684, Revision V, to the NRC in Bethesda, Maryland.

57. On or about January 12, 1990, defendants TSI and RUBIN FELDMAN sent a copy of ITL Report 86-1-143 to The Toledo Edison Company in Ohio.

58. On or about March 12, 1990, defendants TSI and RUBIN FELDMAN wrote and sent a letter to Gulf States Utilities in

Louisiana which represented that with respect to upcoming tests relating to the Thermo-Lag 330 installations at the River Bend nuclear power plant, "recognized third party experts will perform the analyses." Industrial Testing Laboratories of St. Louis will be responsible for conducting the tests and reporting the results."

59. On or about June 14, 1990, defendants TSI and RUBIN FELDMAN wrote and sent a letter to Texas Utilities Electric which represented that the Thermo-Lag 330 one-hour rated fire barrier system had been "extensively tested (over 50 independent tests) by Industrial Testing Laboratories under the auspices of the American Nuclear Insurers and others, with very successful results."

60. On or about June 20, 1990, defendants TSI and RUBIN FELDMAN sent a copy of ITL Report 82-11-80 and an ANI acceptance of testing form to Zion Nuclear Power Station in Illinois.

61. On or about September 14, 1990, defendants TSI and RUBIN FELDMAN sent copies of ITL Reports 82-11-80, 82-11-241, 84-5-387 and 85-2-382 and ANI acceptance of testing forms to Wisconsin Electric Light & Power Co.

62. On or about December 22, 1990, defendants TSI and RUBIN FELDMAN wrote, prepared, caused Allan M. Siegel and ITL to sign, and sent a letter on ITL stationery to Gulf States Utilities which represented that certain fire endurance tests conducted in 1990 "were performed at [TSI] . . . under our direction" and represented facts about test articles that had been manufactured and assembled without an ITL representative present.

63. On or about July 19, 1991, defendants TSI and RUBIN FELDMAN sent copies of ITL Reports 82-11-80, 82-11-81 and 86-1-43 and ANI acceptance of testing forms to Arizona Public Service.

64. On or about October 5, 1991, defendants TSI and RUBIN FELDMAN sent ANI acceptance of testing forms relating to ITL Reports 82-11-80, 82-11-81, 82-11-241, 83-5-472A, 84-12-294, 85-2-382, 85-5-314, and 85-6-283 to the NRC in Rockville, Maryland.

65. On or about October 5, 1991, defendants TSI and RUBIN FELDMAN sent copies of installation manuals for Thermo-Lag 330, including all versions of TSI Technical Note 20684, to the NRC in Rockville, Maryland.

66. On or about October 5, 1991, defendants TSI and RUBIN FELDMAN submitted a written statement to the NRC in Rockville, Maryland which represented the following information for ITL Report 82-5-355-F-1: "Test Laboratory: Industrial Testing Laboratories, Inc."

67. On or about October 17, 1991, defendants TSI and RUBIN FELDMAN orally stated to the NRC in Rockville, Maryland, that representatives of ITL "officiated during the phases of the testing. That's how the reports were published," that ITL representatives at tests were licensed professional engineers, and that ITL representatives at tests described in test reports "were very independent. They reviewed all the data. They analyzed all the data. It was as independent as you can make it."

68. On or about October 28, 1991, defendants TSI and RUBIN FELDMAN sent copies of ITL Reports 85-2-382, 85-5-314, 85-6-283, 82-11-80, 82-11-81, 82-11-241, 83-5-472A and 84-12-294, ANI acceptance of testing forms and TSI Technical Note 20684 to Georgia Power Company.

69. On or about November 12, 1991, defendants TSI and RUBIN FELDMAN sent copies of ITL Reports 82-355-F-1 and 84-10-5 to the NRC in Rockville, Maryland.

70. On or about December 3, 1991, defendants TSI and RUBIN FELDMAN sent copies of ITL Reports 82-11-80 and 82-11-81 and ANI acceptance of testing forms to the NRC in Rockville, Maryland.

71. On or about March 6, 1992, defendants TSI and RUBIN FELDMAN sent copies of ITL Reports 82-355-F-1 and 84-10-5 to Florida Power & Light.

18 U.S.C. § 371

COUNT TWO

The Grand Jury for the District of Maryland further charges:

1. All the allegations contained in paragraphs 1 through 22 and 24 through 55 of Count One of this Indictment are incorporated by reference as though fully set forth in this paragraph.

2. On or about September 10, 1991, the NRC sent a letter to defendants TSI and RUBIN FELDMAN stating the NRC "had concerns regarding the ability of Thermo-Lag 330 to perform as a fire rated barrier" and had "developed a number of technical questions concerning the Thermo-Lag material and installation and test procedures." The NRC requested that defendants TSI and RUBIN FELDMAN provide responses to an attached list of questions about Thermo-Lag 330.

3. The NRC's questions included requests that defendants TSI and RUBIN FELDMAN identify fire endurance and ampacity derating test reports that had been used to substantiate the performance of Thermo-Lag 330 fire barrier systems provided for use in nuclear power reactors to meet NRC requirements and guidance.

4. In response to the NRC's letter, between October and December 1991 defendants TSI and RUBIN FELDMAN submitted written and oral statements and copies of alleged ITL test reports, ANI acceptance of testing forms, TSI installation manuals, and other documents to the NRC in Rockville, Maryland. On or about

October 17, 1991, defendants TSI and RUBIN FELDMAN attended a meeting with NRC employees at the NRC in Rockville, Maryland and made oral statements relating to Thermo-Lag 330.

5. On or about October 17, 1991, in the the District of Maryland and elsewhere, the defendants

TSI  
and  
RUBIN FELDMAN

in matters within the jurisdiction of the NRC, an agency of the United States, knowingly and willfully falsified, concealed and covered up by trick, scheme and device material facts and made false, fictitious and fraudulent statements and representations as to material facts, in that defendants TSI and RUBIN FELDMAN made oral statements to the NRC in Rockville, Maryland which

(1) represented that representatives of ITL "officiated during the phases of the testing. That's how the reports were published"; and

(2) represented that ITL representatives at tests described in test reports "were very independent. They reviewed all the data. They analyzed all the data. It was as independent as you can make it."

Whereas in truth and in fact, as the defendants TSI and RUBIN FELDMAN well knew,

(1) while ITL representatives attended tests, the test reports were written, prepared and published by defendants TSI and RUBIN FELDMAN; and

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(2) ITL representatives did not know how the test articles had been manufactured and assembled and did not review and analyze "all the data" relating to the tests, and ITL did not function as an independent laboratory in connection with the tests.

18 U.S.C. § 1001  
18 U.S.C. § 2

COUNT THREE

The Grand Jury for the District of Maryland further charges:

1. All the allegations contained in paragraphs 1 through 22 and 24 through 55 of Count One of this Indictment and Paragraphs 2 through 4 of Count Two of this Indictment are incorporated by reference as though fully set forth in this paragraph.

2. At the conclusion of the October 17, 1991 meeting, the NRC agreed to provide defendants TSI and RUBIN FELDMAN with a transcript of the meeting and defendants agreed to submit to the NRC additional documents relating to issues that had been discussed during the meeting.

3. On or about October 31, 1991, the NRC sent to defendants TSI and RUBIN FELDMAN a list of the items concerning which defendants had agreed to provide additional information.

4. On or about October 31, 1991, the NRC requested, among other things, that defendants TSI and RUBIN FELDMAN provide copies of all TSI correspondence and documents related to an Underwriters Laboratories ("UL") report on an ampacity derating test that had been provided to "nuclear utility related customers (NRC applicants and licensees, Architect-Engineers, and constructors)."

5. On or about November 12, 1991, defendants TSI and RUBIN FELDMAN submitted to the NRC in Rockville, Maryland a portion of TSI Technical Note 1130-83A, a compilation of documents that



included, among other things, copies of the requested UL report and ITL Report 82-355-F-1.

6. On or about November 12, 1991, in the District of Maryland and elsewhere, the defendants

TSI  
and  
RUBIN FELDMAN

in matters within the jurisdiction of the NRC, an agency of the United States, knowingly and willfully falsified, concealed and covered up by trick, scheme and device material facts, and made false, fictitious and fraudulent statements and representations as to material facts, and used false writings and documents knowing the same to contain false, fictitious and fraudulent statements and entries, in that they sent to the NRC in Rockville, Maryland a copy of ITL Report 82-355-F-1 which purported to be a test report prepared and issued by ITL.

Whereas in truth and in fact, as the defendants TSI and RUBIN FELDMAN well knew, ITL Report 82-355-F-1 was not prepared and issued by ITL and ITL did not participate in any manner in the test described in the test report or in the preparation of the test report.

18 U.S.C. § 1001  
18 U.S.C. § 2

COUNT FOUR

The Grand Jury for the District of Maryland further charges:

1. All the allegations contained in paragraphs 1 through 22 and 24 through 55 of Count One of this Indictment, Paragraphs 2 through 4 of Count Two of this Indictment, and Paragraphs 2 and 3 of Count Three of this Indictment are incorporated by reference as though fully set forth in this paragraph.

2. On or about October 31, 1991, the NRC requested, among other things, that defendants TSI and RUBIN FELDMAN provide full copies of ITL Reports 82-11-80 and 82-11-81, including daily work sheets, quality assurance documentation, and thermocouple temperature records.

3. On or about December 3, 1991, in the District of Maryland and elsewhere, the defendants

TSI  
and  
RUBIN FELDMAN

in matters within the jurisdiction of the NRC, an agency of the United States, knowingly and willfully falsified, concealed and covered up by trick, scheme and device material facts, and made false, fictitious and fraudulent statements and representations as to material facts, and used false writings and documents knowing the same to contain false, fictitious and fraudulent statements and entries, in that they sent ITL Reports 82-11-80 and 82-11-81 to the NRC in Rockville, Maryland which

- (1) purported to be test reports prepared and issued by Allan M. Siegel and ITL;
- (2) represented that the tests described in the reports had been performed "under the supervision and total control of Industrial Testing Laboratories of St. Louis, Missouri, an independent testing laboratory";
- (3) represented that the test program utilized the methods and standards set forth by ANI;
- (4) represented that the test program had been "conducted in accordance with all applicable sections of TSI's Engineering Test Plan, second revision dated March 8, 1982, and as supplemented by Minutes of the Meeting dated 2 June 1982 and TSI's letters to ANI dated August 2 and September 3, 1982" and "reviewed and approved by the American Nuclear Insurers prior to the commencement of the test program";
- (5) represented that "[a]ll instrumentation used in this test program was calibrated in accordance with TSI's Nuclear Quality Assurance Program Manual and Quality Control Operating Procedures Manual. Calibration records for this test instrumentation are on file at TSI, Inc.";
- (6) represented that "the protective envelope and the manner in which it was applied can be considered typical of those prescribed by TSI, Inc. for nuclear plant installation"; and

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(7) represented that an ITL representative had reviewed and approved daily work sheets relating to the manufacture and assembly of test articles on the same day that the work had been performed by defendant TSI.

Whereas in truth and in fact, as the defendants TSI and RUBIN FELDMAN well knew,

(1) the test reports were not prepared and issued by Allan M. Siegel and ITL;

(2) the tests described in the reports had not been performed under the supervision and total control of ITL;

(3) the test program had not utilized the methods and standards set forth by ANI, in that the necessary test documentation had not been prepared by a recognized testing laboratory or consultant;

(4) the test program had not been conducted in accordance with all applicable sections of TSI's Engineering Test Plan, as accepted by ANI, in that

(a) contrary to the Engineering Test Plan, the test results were not reported by an independent testing laboratory;

(b) contrary to the Engineering Test Plan, the reports were not published by an independent testing laboratory;

(c) contrary to the August 2, 1982 letter by defendants TSI and RUBIN FELDMAN, ITL did not

supervise, monitor, formally report and authenticate all phases of the test program; and  
(d) contrary to the Engineering Test Plan, the calibration status of all test instrumentation was not checked prior to each test;

(5) the furnace thermocouples that measured furnace temperatures had never been calibrated and defendant TSI did not possess any calibration records;

(6) the Thermo-Lag 330 protective envelope and the manner in which Thermo-Lag 330 was applied during construction of the test article were not typical of construction and installation techniques prescribed by defendant TSI for nuclear plant installation; and

(7) an ITL representative had not been present when defendant TSI manufactured and assembled test articles and did not review and approve daily work sheets relating to the manufacture and assembly on the same day that the work was performed, but rather had signed and backdated the daily work sheets at a later time.

18 U.S.C. § 1001

18 U.S.C. § 2

A TRUE BILL:

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LYNNE A. BATTAGLIA  
United States Attorney

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Foreperson

Date: May 4, 1995

**EXHIBIT C**

UNITED STATES DISTRICT COURT  
District of Maryland

FILED \_\_\_\_\_ ENTERED \_\_\_\_\_  
LODGED \_\_\_\_\_ RECEIVED \_\_\_\_\_

AUG 01 1995

UNITED STATES OF AMERICA

v.

Case Number CR BKC 94-0380

AT GREENBELT  
CLERK U.S. DISTRICT COURT  
DISTRICT OF MARYLAND

DEPUTY

THERMAL SCIENCE, INC.  
Defendant.

JUDGMENT

The defendant, THERMAL SCIENCE, INC., was represented by Martin S. Himeles, Jr..

The defendant has been found not guilty on count(s) one, two, three, and four and is discharged as to such count(s).

Signed this the 1st day of August, 1995.

Liberal K. Chazanow  
United States District Judge

I hereby attest and certify on Aug. 1, 1995  
that the foregoing document is a full, true and correct  
copy of the original on file in my office and in my  
legal custody.

JOSEPH A. ...  
CLERK U.S. DISTRICT COURT  
DISTRICT OF MARYLAND  
John V. ... Deputy

JUL 25 1995

IN THE UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF MARYLAND

UNITED STATES OF AMERICA

:

:

v.

: Criminal No. DKC 94-0380

:

THERMAL SCIENCE, INC. and  
RUBIN FELDMAN

:

VERDICT FORM

COUNT I -- CONSPIRACY

What is your verdict as to defendant TSI?

Not guilty X

Guilty \_\_\_\_\_

What is your verdict as to defendant Rubin Feldman?

Not guilty X

Guilty \_\_\_\_\_

COUNT II -- FALSE STATEMENT

What is your verdict as to defendant TSI?

Not guilty X

Guilty \_\_\_\_\_

What is your verdict as to defendant Rubin Feldman?

Not guilty X

Guilty \_\_\_\_\_

COUNT III -- FALSE STATEMENT

What is your verdict as to defendant TSI?

Not guilty X

Guilty \_\_\_\_\_

What is your verdict as to defendant Rubin Feldman?

Not guilty X

Guilty \_\_\_\_\_



COUNT IV -- FALSE STATEMENT

What is your verdict as to defendant TSI?

Not Guilty X Guilty       

What is your verdict as to defendant Rubin Feldman?

Not Guilty X Guilty       

William C. Eley, Jr.  
FOREPERSON

AUGUST 1, 1995  
DATE

**EXHIBIT D**



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20545-0001

October 1, 1996

EA 95-009  
Thermal Science, Inc.  
ATTN: Mr. Rubin Feldman  
President  
2200 Cassens Drive  
St. Louis, Missouri 63026

SUBJECT: NOTICE OF VIOLATION AND PROPOSED IMPOSITION OF CIVIL PENALTIES -  
\$900,000

Dear Mr. Feldman:

The enclosed Notice of Violation and Proposed Imposition of Civil Penalties (Notice) is being issued to Thermal Science, Inc. (TSI), for violations of NRC requirements committed in representations made by TSI to the NRC concerning Thermo-Lag 330 or 330-1 fire barrier products. These representations were made in response to concerns about Thermo-Lag raised by the NRC in both oral and written communications with TSI. The NRC has determined that in making these representations, TSI engaged in deliberate misconduct as defined in 10 CFR §50.5, "Deliberate Wrongdoing." The specific actions which constitute these violations are set forth in the enclosed Notice.

The misconduct consisted of TSI deliberately providing inaccurate or incomplete information to the NRC concerning TSI's fire endurance and ampacity testing programs. The NRC's regulations, specifically 10 CFR §50.5, prohibit a contractor of a NRC licensee from deliberately submitting information to the NRC that the contractor knows to be incomplete or inaccurate in some respect material to the NRC. Contrary to this requirement, TSI deliberately provided inaccurate information to the NRC by two general methods: (1) TSI directly misrepresented the level of involvement of a test laboratory, Industrial Testing Laboratories, Inc. (ITL), in fire barrier and ampacity derating tests on Thermo-Lag products in both oral and written statements to the NRC and; (2) TSI indirectly misrepresented the respective levels of involvement of TSI and test laboratories, including ITL, in the testing of Thermo-Lag products when it provided test reports and other documents to the NRC that it knew contained inaccurate and/or incomplete information.

The first submission of inaccurate and/or incomplete information, which is the subject of this enforcement action, was in a TSI letter dated October 5, 1991, which responded to an NRC letter dated September 10, 1991. Both the October 5th letter and its attachments responding to specific NRC questions contain deliberate misrepresentations which are designated as Violation I.A in the enclosed Notice. These misrepresentations include statements by TSI that 1) Thermo-Lag products had been subjected to independent testing; 2) TSI had no knowledge of deviations from its installation procedures; and 3) Underwriter's Laboratories (UL) had total control of ampacity testing performed at UL facilities and that these test results were the "most conservative data" available to TSI. Contrary to TSI's representations, the NRC's review has

Thermal Science, Inc.

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determined that: (1) Thermo-Lag product testing was actually performed by TSI with only minimal involvement of ITL; (2) TSI had knowledge of installation deviations occurring at licensee facilities; and (3) the ampacity derating tests performed at UL were not under the total control of UL and the data presented by TSI concerning these tests was not "the most conservative data" available to TSI.

The second submission of inaccurate information that is covered by this proposed enforcement action occurred in a meeting at NRC Headquarters on October 17, 1991, and consisted of deliberately inaccurate and/or incomplete oral statements made by Mr. Rubin Feldman to NRC staff members concerning Thermo-Lag fire barrier tests. These inaccurate statements are designated as Violation I.B in the enclosed Notice. Again, the inaccurate information consisted of TSI misrepresenting the respective levels of involvement of TSI and ITL in the fire barrier and ampacity derating tests on Thermo-Lag products.

The remaining instances of TSI deliberately providing inaccurate and/or incomplete information to the NRC are designated as Violations I.C through I.I in the enclosed Notice. These instances reflect a pattern of written and/or oral representations concerning test results and testing methods or the submittal of test reports that contained a broad spectrum of inaccurate and/or incomplete information.

For example, in response to several NRC requests for information, TSI deliberately submitted test reports which were represented as having been prepared by ITL when, in fact, they had actually been prepared by TSI with an ITL representative merely witnessing the test and verifying the furnace temperature readouts. In addition, these reports contained falsified documents which were submitted to the NRC to support TSI's claim that ITL had independently tested Thermo-Lag products. These falsified documents included daily log sheets and other quality assurance documents onto which a copy of an ITL representative's signature had been photo-copied, deliberately misrepresenting the role of ITL in various test-related activities. Moreover, on two occasions TSI submitted reports to the NRC that alleged that the ITL representative at the test was a Professional Engineer when TSI knew that this statement was false. See Violations I.C, I.D, and I.I.

Furthermore, in written statements to the NRC, TSI deliberately misrepresented the roles of two other test laboratories that performed tests on Thermo-Lag. For example, on three occasions TSI represented to the NRC that tests at the Omega Point Laboratories (OPL) had been under OPL's "total control." On another occasion, TSI represented to the NRC that ampacity testing performed at Underwriters Laboratories (UL) was performed under UL's "total control." However, TSI knew that neither OPL nor UL had total control of their respective test programs. See Violations I.E, I.F, I.G, and I.H.

Following a review of the inaccurate information deliberately submitted by TSI in: (1) the October 5, 1991 letter; (2) the October 17, 1991 meeting; and (3) other letters and test reports subsequently submitted by TSI as described in the Notice, the NRC has concluded that this information was material to an

Thermal Science, Inc.

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issue within the NRC's jurisdiction. As more fully explained in the Notice, this information was material to the NRC because it was provided to the NRC in order to alleviate concerns about the quality and adequacy of Thermo-Lag material, which NRC power reactor licensees relied upon to satisfy the requirements of 10 CFR §50.4B and 10 CFR Part 50, Appendix R, and conditions in their own operating licenses; and thereby influencing the need for, and nature of, any regulatory action taken by the NRC directed toward its licensees.

Moreover, compliance with these regulations is not just an end in itself. Instead, compliance is a significant step in the NRC's responsibility to maintain adequate protection of public health and safety. Accordingly, the NRC considers it unacceptable that TSI deliberately misrepresented the independence of the fire barrier and ampacity testing as a response to NRC concerns about the quality and performance of Thermo-Lag when TSI was fully aware that (1) no such independence existed and (2) the NRC would place substantial weight on information that it believed was obtained from truly independent testing.

Based on its review, the NRC has concluded that these deliberate misrepresentations constitute violations of 10 CFR §50.5. Violations involving multiple instances in which a vendor deliberately provides inaccurate and/or incomplete information related to the performance and quality of its important-to-safety products, constitute a very significant regulatory concern, are wholly unacceptable, and will not be tolerated. These violations are further aggravated because they were committed in the context of an ongoing NRC investigation into concerns about the quality and performance of Thermo-Lag products with significant implications regarding the compliance of a substantial number of nuclear power plant licensees with the Commission's regulations. These representations were provided after specific concerns were raised by the NRC staff about the nature of the testing that was performed to qualify Thermo-Lag products for use in nuclear power plants. Furthermore, these representations were made to the NRC in an apparent attempt to convince the NRC that impartial, independent test laboratories with no financial interest in Thermo-Lag had evaluated this product and had confirmed TSI's published claims of Thermo-Lag's fire barrier capabilities. Therefore, Violations I.A through I.I in the enclosed Notice have each been classified as Severity Level I violations in accordance with the "General Statement of Policy and Procedures for NRC Enforcement Actions" (Enforcement Policy), NUREG-1500.

Under the NRC's Enforcement Policy, a base civil penalty in the amount of \$10,000 is normally considered for a Severity Level I violation involving a licensee contractor. In arriving at the decision to propose an appropriate remedial sanction for the significant number of violations in this case, the NRC considered the egregious, deliberate, and repeated nature of these violations. For example, TSI continued to provide inaccurate information in the form of additional test reports and letters concerning testing activities during the 1992 calendar year, long after having been informed of the NRC's concerns about the adequacy of Thermo-Lag products in letters, meetings, and a formal inspection report.

FROM

10.01.1996 12:04

P. 5

Thermal Science, Inc.

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Moreover, as noted in the attached Notice, many of the test reports that NRC determined contained inaccurate information dated from the early 1980's. During that period of time, NRC licensees, using alleged "ITL" test reports as a basis for judging product quality and serviceability, installed fire barriers constructed of Thermo-Lag in order to satisfy the requirements of 10 CFR 50.48 and 10 CFR Part 50, Appendix R, as well as specific conditions in many of the individual plant operating licenses. In turn, the NRC accepted these fire barriers as meeting its Fire Protection requirements and Guidelines. For some plants, these barriers formed a part of the plant's licensing basis and their adequacy was relied on when the NRC made its decision to issue an operating license for those plants. However, the NRC has determined that the use of Thermo-Lag products resulted in a degradation in the required fire safety margins and an increase in the potential consequence a fire could have on plant safety. Thus, supplying insufficiently tested Thermo-Lag to NRC reactor licensees not only placed those licensees in jeopardy of being in violation of NRC regulations, but also resulted in a compromise of the level of plant fire safety. Because the misrepresentations cited as Violations in the enclosed Notice were submitted in support of these earlier misrepresentations, they have a very high regulatory significance.

Those facts, in conjunction with the monetary benefit that TSI received by the marketing of inadequately tested Thermo-Lag 330-1 products to NRC licensees, constitute a very significant regulatory concern which requires that the NRC take a significant enforcement action in this case. Therefore, in order for TSI to understand the magnitude of NRC concern that TSI's actions are unacceptable for a licensee contractor and to provide TSI an appropriate incentive to ensure that it provides the NRC complete and accurate information in the future, the NRC has decided to utilize its full civil penalty authority under the Atomic Energy Act by invoking enforcement discretion in accordance with Section VII.A of the NRC's Enforcement Policy and escalate the civil penalty to the maximum statutory limit of \$100,000 for each of the 9 Severity Level I violations. Thus, the total civil penalty for this action will be \$900,000, if fully imposed.

You are required to respond to this letter and the enclosed Notice and should follow the instructions specified in the Notice when preparing your response. As explained more fully in the Notice, you should document in your response the specific corrective actions already taken, any additional actions you plan to take in order to prevent recurrence of these violations, and any other reasons you believe that the NRC should not impose this proposed civil penalty. After reviewing your response to this Notice, including any proposed corrective actions, the NRC will determine whether to impose the full civil penalty as proposed, impose a reduced civil penalty, or retract the proposed civil penalty altogether. If the NRC issues an order imposing a civil penalty, you will be provided an opportunity to request a hearing under the provisions of 10 CFR 52.205 and 10 CFR Part 2, Subpart G.

FROM

10.01.1996 12:05

F.07

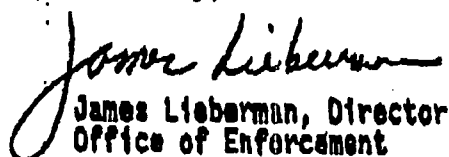
P. 6

Thermal Science, Inc.

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In accordance with 10 CFR §2.790 of the NRC's "Rules of Practice," a copy of this letter, its enclosure, and your response will be placed in the NRC Public Document Room (PDR). To the extent possible, your response should not include any personal privacy, proprietary, or safeguards information so that it can be placed in the PDR without redaction.

Sincerely,

  
James Lieberman, Director  
Office of Enforcement

Enclosure: As Stated

**EXHIBIT E**



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. 52282, and 10 C.F.R. 52.205.

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:

FROM

10.01.1996 12:06

P. 8

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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."<sup>1</sup> 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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<sup>1</sup> 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.

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

- B. Contrary to 10 CFR § 50.6, 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.

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.

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

- D. Contrary to 10 CFR § 50.6, 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.

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

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- 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.

This is a Severity Level 1 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.

This is a Severity Level 1 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

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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.

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.

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 85-6-314, 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 86-4-377, 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 (1) 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

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

This is a Severity Level 1 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.

\*\*\*END\*\*\*

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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 52.205 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 52.205, 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. §2282d.

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 then provide the legal basis to support that request.

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

## United States District Court

EASTERN

DISTRICT OF MISSOURI

THERMAL SCIENCE, INC.

## SUMMONS IN A CIVIL ACTION

v.

CASE NUMBER:

UNITED STATES NUCLEAR  
REGULATORY COMMISSION

4:96CV02282CAS

TO: (Name and Address of Defendant)

Edward L. Dowd, Jr., Esq.  
United States Attorney for the  
Eastern District of Missouri  
401 U.S. Court & Custom House  
1114 Market Street  
St. Louis, MO 63101

YOU ARE HEREBY SUMMONED and required to file with the Clerk of this Court and serve upon

PLAINTIFF'S ATTORNEY (name and address)

an answer to the complaint which is herewith served upon you, within 60 days after service of this summons upon you, exclusive of the day of service. If you fail to do so, judgment by default will be taken against you for the relief demanded in the complaint.

CLERK

DATE

BY DEPUTY CLERK

## United States District Court

EASTERN

DISTRICT OF

MISSOURI

THERMAL SCIENCE, INC.

SUMMONS IN A CIVIL ACTION

V.

CASE NUMBER:

UNITED STATES NUCLEAR  
REGULATORY COMMISSION

4 : 96CV 02282CAS

TO: (Name and Address of Defendant)

James Lieberman, Director  
Office of Enforcement  
United States Nuclear Regulatory Commission  
One White Flint North  
11555 Rockville Pike  
Rockville, Maryland 20852-2738

YOU ARE HEREBY SUMMONED and required to file with the Clerk of this Court and serve upon

PLAINTIFF'S ATTORNEY (name and address)

an answer to the complaint which is herewith served upon you, within 60 days after service of this summons upon you, exclusive of the day of service. If you fail to do so, judgment by default will be taken against you for the relief demanded in the complaint.

CLERK

DATE

BY DEPUTY CLERK

## United States District Court

EASTERN DISTRICT OF MISSOURI

THERMAL SCIENCE, INC.,

## SUMMONS IN A CIVIL ACTION

v.

CASE NUMBER:

UNITED STATES NUCLEAR  
REGULATORY COMMISSION

4:96CV02282CAS

TO: (Name and Address of Defendant)

Janet Reno, Esq.  
Attorney General of the United States  
10th Street, N.W. & Constitution Avenue  
Washington, D.C. 20530

YOU ARE HEREBY SUMMONED and required to file with the Clerk of this Court and serve upon

PLAINTIFF'S ATTORNEY (name and address)

an answer to the complaint which is herewith served upon you, within 60 days after service of this summons upon you, exclusive of the day of service. If you fail to do so, judgment by default will be taken against you for the relief demanded in the complaint.

)  
)

CLERK

DATE

BY DEPUTY CLERK



## CIVIL COVER SHEET

The JS-44 civil cover sheet and the information contained herein neither replace nor supplement the filing and service of pleadings or other papers as required by law, except as provided by local rules of court. This form, approved by the Judicial Conference of the United States in September 1974, is required for the use of the Clerk of Court for purposes of initiating the civil docket sheet. (SEE INSTRUCTIONS ON THE REVERSE OF THE FORM.)

FILED

## I (a) PLAINTIFFS

Thermal Science, Inc.

## DEFENDANTS

United States Nuclear Regulatory  
CommissionNOV 20 1996  
U. S. DISTRICT COURT  
EASTERN DISTRICT OF MO(b) COUNTY OF RESIDENCE OF FIRST LISTED PLAINTIFF St. Louis  
(EXCEPT IN U.S. PLAINTIFF CASES)COUNTY OF RESIDENCE OF FIRST LISTED DEFENDANT \_\_\_\_\_  
(IN U.S. PLAINTIFF CASES ONLY)NOTE: IN LAND CONDEMNATION CASES, USE THE LOCATION OF THE  
TRACT OF LAND INVOLVED

(c) ATTORNEYS (FIRM NAME, ADDRESS, AND TELEPHONE NUMBER)

Thomson Coburn  
One Mercantile Center, #3500  
St. Louis, MO 63101  
(314) 552-6000

ATTORNEYS (FIRM NAME, ADDRESS, AND TELEPHONE NUMBER)

4:96CV02282CAS

## II. BASIS OF JURISDICTION

(PLACE AN X IN ONE BOX ONLY)

- ☐ 1 U.S. Government Plaintiff
- ☒ 2 U.S. Government Defendant
- ☐ 3 Federal Question  
(U.S. Government Not a Party)
- ☐ 4 Diversity  
(Indicate Citizenship of Parties in Item III)

## III. CITIZENSHIP OF PRINCIPAL PARTIES

(For Diversity Cases Only)

(PLACE AN X IN ONE BOX  
FOR PLAINTIFF AND ONE BOX FOR DEFENDANT)

- |   | PTF                        | DEF                        |   | PTF                        | DEF                        |
|---|----------------------------|----------------------------|---|----------------------------|----------------------------|
| Citizen of This State                   | <input type="checkbox"/> 1 | <input type="checkbox"/> 1 | Incorporated or Principal Place of Business in This State     | <input type="checkbox"/> 4 | <input type="checkbox"/> 4 |
| Citizen of Another State                | <input type="checkbox"/> 2 | <input type="checkbox"/> 2 | Incorporated and Principal Place of Business in Another State | <input type="checkbox"/> 5 | <input type="checkbox"/> 5 |
| Citizen or Subject of a Foreign Country | <input type="checkbox"/> 3 | <input type="checkbox"/> 3 | Foreign Nation  | <input type="checkbox"/> 6 | <input type="checkbox"/> 6 |

## IV. CAUSE OF ACTION

(CITE THE U.S. CIVIL STATUTE UNDER WHICH YOU ARE FILING AND WRITE A BRIEF STATEMENT OF CAUSE.)

DO NOT CITE JURISDICTIONAL STATUTES UNLESS DIVERSITY: Action for injunctive relief brought pursuant to the Double Jeopardy Clause of the Fifth Amendment to the U.S. Constitution and the Atomic Energy Act, 42 U.S.C. § 2011, et seq., to halt unlawful NRC penalty proceeding.

## V. NATURE OF SUIT (PLACE AN X IN ONE BOX ONLY)

CONTRACT	TORTS		FORFEITURE/PENALTY	BANKRUPTCY	OTHER STATUTES
<input type="checkbox"/> 110 Insurance	<input type="checkbox"/> 310 Airplane	<input type="checkbox"/> 362 Personal Injury—Med Malpractice	<input type="checkbox"/> 610 Agriculture	<input type="checkbox"/> 422 Appeal	<input type="checkbox"/> 400 State Reapportionment
<input type="checkbox"/> 120 Marine	<input type="checkbox"/> 315 Airplane Product Liability	<input type="checkbox"/> 365 Personal Injury—Product Liability	<input type="checkbox"/> 620 Other Food & Drug	<input type="checkbox"/> 423 28 USC 158	<input type="checkbox"/> 410 Antitrust
<input type="checkbox"/> 130 Miller Act	<input type="checkbox"/> 320 Assault, Libel & Slander	<input type="checkbox"/> 368 Asbestos Personal Injury Product Liability	<input type="checkbox"/> 625 Drug Related Seizure of Property 21 USC 881	<input type="checkbox"/> 423 Withdrawal 28 USC 157	<input type="checkbox"/> 430 Banks and Banking
<input type="checkbox"/> 140 Negotiable Instrument	<input type="checkbox"/> 330 Federal Employers' Liability	<input type="checkbox"/> 370 Other Fraud	<input type="checkbox"/> 630 Liquor Laws	<input type="checkbox"/> 423 28 USC 157	<input type="checkbox"/> 450 Commerce/ICC Rates/etc.
<input type="checkbox"/> 150 Recovery of Overpayment & Enforcement of Judgment	<input type="checkbox"/> 340 Marine	<input type="checkbox"/> 371 Truth in Lending	<input type="checkbox"/> 640 R.R. & Truck	<input type="checkbox"/> 423 28 USC 157	<input type="checkbox"/> 460 Deportation
<input type="checkbox"/> 151 Medicare Act	<input type="checkbox"/> 345 Marine Product Liability	<input type="checkbox"/> 380 Other Personal Property Damage	<input type="checkbox"/> 650 Airline Regs	<input type="checkbox"/> 423 28 USC 157	<input type="checkbox"/> 470 Racketeer Influenced and Corrupt Organizations
<input type="checkbox"/> 152 Recovery of Defaulted Student Loans (Excl. Veterans)	<input type="checkbox"/> 350 Motor Vehicle	<input type="checkbox"/> 385 Property Damage Product Liability	<input type="checkbox"/> 660 Occupational Safety/Health	<input type="checkbox"/> 423 28 USC 157	<input type="checkbox"/> 810 Selective Service
<input type="checkbox"/> 153 Recovery of Overpayment of Veteran's Benefits	<input type="checkbox"/> 355 Motor Vehicle Product Liability		<input type="checkbox"/> 660 Occupational Safety/Health	<input type="checkbox"/> 423 28 USC 157	<input type="checkbox"/> 850 Securities/Commodities/Exchange
<input type="checkbox"/> 160 Stockholders' Suits	<input type="checkbox"/> 360 Other Personal Injury		<input type="checkbox"/> 690 Other	<input type="checkbox"/> 423 28 USC 157	<input type="checkbox"/> 875 Customer Challenge 12 USC 3410
<input type="checkbox"/> 190 Other Contract				<input type="checkbox"/> 423 28 USC 157	<input type="checkbox"/> 891 Agricultural Acts
<input type="checkbox"/> 195 Contract Product Liability				<input type="checkbox"/> 423 28 USC 157	<input type="checkbox"/> 892 Economic Stabilization Act
				<input type="checkbox"/> 423 28 USC 157	<input type="checkbox"/> 893 Environmental Matters
				<input type="checkbox"/> 423 28 USC 157	<input type="checkbox"/> 894 Energy Allocation Act
				<input type="checkbox"/> 423 28 USC 157	<input type="checkbox"/> 895 Freedom of Information Act
				<input type="checkbox"/> 423 28 USC 157	<input type="checkbox"/> 900 Appeal of Fee Determination Under Equal Access to Justice
				<input type="checkbox"/> 423 28 USC 157	<input type="checkbox"/> 950 Constitutionality of State Statutes
				<input type="checkbox"/> 423 28 USC 157	<input checked="" type="checkbox"/> 890 Other Statutory Actions

## VI. ORIGIN

(PLACE AN X IN ONE BOX ONLY)

- ☒ 1 Original Proceeding
- ☐ 2 Removed from State Court
- ☐ 3 Remanded from Appellate Court
- ☐ 4 Reinstated or Reopened
- ☐ 5 Transferred from another district (specify)
- ☐ 6 Multidistrict Litigation
- ☐ 7 Judge from Magistrate Judgment

## VII. REQUESTED IN COMPLAINT:

CHECK IF THIS IS A CLASS ACTION  
☐ UNDER F.R.C.P. 23

## DEMAND \$

Check YES only if demanded in complaint:

JURY DEMAND: ☐ YES ☐ NO

## VIII. RELATED CASE(S) IF ANY

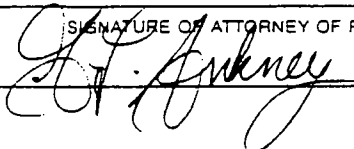
(See instructions):

JUDGE \_\_\_\_\_ DOCKET NUMBER \_\_\_\_\_

DATE

11/20/96

SIGNATURE OF ATTORNEY OF RECORD



UNITED STATES DISTRICT COURT