

U. S. NUCLEAR REGULATORY COMMISSION

REGION II

Docket No.: 70-1151

License No.: SNM-1107

Report No.: 70-1151/99-02

Licensee: Westinghouse Electric Corporation

Facility: Commercial Fuel Fabrication Facility
Columbia, SC 29250

Inspection Conducted: April 5-8, 1999

Inspectors: P. Lee, Fire Protection Inspector, NRC Headquarters
W. Tobin, Senior Safeguards Inspector, Region II

Approved by: E. J. McAlpine, Chief
Fuel Facilities Branch
Division of Nuclear Materials Safety

99C5180226 990429
PDR ADOCK 07001151
C PDR

Enclosure

EXECUTIVE SUMMARY

Westinghouse Electric Company
Commercial Nuclear Fuel Division
NRC Inspection Report Number 70-1151/99-02

This routine announced inspection was conducted by inspectors from both NRC Headquarters and Region II to review the licensee's Fire Safety Program. The inspection occurred during the licensee's annual outage which presented unique opportunities and conditions to evaluate those activities to prevent, detect and suppress incipient fires. The major fire safety performance reviewed included the operation of engineered fire protection systems on backup electrical power, the implementation of required inspection, testing, and maintenance and operational readiness of plant fire protection systems, control of combustibles and cutting, welding and hot work activities, and emergency response team training. The inspection also included evaluations of the licensee's response to previously identified items. The conclusions of the inspection are as outlined below:

Fire Safety

- The licensee's Fire Safety Program was effective and well managed (Section 2.b.(1)).
- Housekeeping was enforced in many areas and, yet, was lacking in others (Section 2.b.(1)).
- The training of the Fire Brigade at the South Carolina Fire Academy was realistic and challenging, and as such, was considered to be a strength (Section 2.b.(3)).
- The licensee safely conducted maintenance activities with proper considerations of fire prevention during the plant shutdown and demonstrated an overall assurance of defense-in-depth fire protection for plant operations (Section 2.b.(3)).
- The plant emergency lighting, fire alarm system, and fire pumps were adequately tested on backup electrical power during an intentional shutdown of plant's primary electrical power system and their safety functions were adequately demonstrated (Section 2.b.(3)).
- The cutting and welding activities performed during the plant shutdown were conducted safely in accordance with plant procedure and the licensee took other appropriate precautions necessary for fire prevention during the plant shutdown (Section 2.b.(1)).

Attachments:

Persons Contacted
Inspection Procedures Used
List of Items Opened and Closed
List of Acronyms

REPORT DETAILS

1. Summary of Plant Status

The licensee was conducting its annual production outage which allowed repair, testing and maintenance activities to be performed in the absence of the workforce.

2. Fire Safety Program (04) (IP 88055)

a. Inspection Scope

The scope of this inspection focused on the licensee's ability to prevent, detect and suppress incipient fires. Chapter 8 of the License, "Fire Safety," dated February 22, 1999, was the standard used during this inspection. Specific attention was directed towards those fire safety activities in place at the Hot Oil Room, Incinerator Room and the Computer Room. The licensee was conducting its annual production outage which allowed the inspectors to evaluate fire safety during unique and challenging circumstances. The inspectors accompanied the Fire Brigade to the South Carolina Fire Academy. NRC Information Notice (IN) No. 99-07, "Failed Fire Protection Deluge Valves and Potential Testing Deficiencies in Preaction Sprinkler Systems" was discussed with the licensee.

b. Observations and Findings

(1) Fire Prevention

The licensee's Pre-Fire Plan was last revised on March 4, 1999. A copy of this Plan was furnished to the Columbia Fire Department. The Plan describes the hazards at the facility and the special concerns that would be encountered by the responding fire fighters. The Plan is color-coded and provides photographs of equipment and work areas. The inspectors found the Plan to be "user friendly," accurate and informative of plant conditions and the fire safety equipment.

By letter dated May 15, 1998, the insurer furnished the results of the April - May inspection. Selected fire hazards and protection features were inspected. Roofs, yards, manufacturing and support areas were visited. The insurer concluded that the program was adequate with the exception of doors (4) to the Hot Oil Room and to the Incinerator that did not close tightly due to binding at the door jamb. During this NRC inspection, the NRC inspectors verified that the licensee had corrected that finding and that the doors did close tightly.

The inspectors reviewed the last six monthly Regulatory Compliance Inspection Reports which were furnished to the plant Vice-President and other appropriate staff members. These inspections found good housekeeping at the tool rooms and workshop areas, however, poor housekeeping was found in the Uranium Hexafluoride (UF₆) storage

closets. Other findings were relative to a broken light fixture, a leaking water pipe and various personnel safety concerns. The licensee's responses were also verified.

With respect to emergency power, the plant primary electrical power was shutdown on the morning of April 5, 1999, to perform maintenance on the plant's main electrical switch gears and was returned on-line during the afternoon of April 6, 1999. The plant's emergency backup electrical power supply system consisted of uninterruptible power supply (UPS) batteries and four emergency diesel generators. The generators were supplied with diesel fuel pumped in at low pressure from fuel oil tanks Nos. T16, T17, and T18. The total capacity of the tanks combined was approximately 65,000 gallons. Approximately 21,200 gallons are maintained as a normal fuel supply. The licensee indicated that emergency generators could be operated continuously for approximately 17 days.

The inspectors performed a walk-through of the mechanical manufacturing areas during a loss of plant primary electrical power, on the afternoon of April 5, 1999. The inspectors noted that ceiling lights connected to the plant backup electrical power system provided the emergency lighting for the plant. The inspectors observed that the lighting provided along the path of egress exceeded the minimum illumination of 0.1 footcandle required industry standard (i.e., National Fire Protection Association(NFPA) 101, Life Safety Code). The emergency lights operated for the duration of the loss of primary electrical power, until the afternoon of April 6, 1999. The capability of the plant backup electrical power supply exceeded the minimum emergency illumination period of 1.5 hours required by the NFPA 101.

The inspectors noted one weakness where emergency lighting coverage was inadequate. The Vibration Investigation Pressure Drop Experiment Research (VIPER) pump room was only lit by natural lighting through windows and was not lit by ceiling lights or other means (i.e., battery operated emergency lights were not present). Emergency lighting and an adequate coverage throughout all areas of a plant are required by Section 5 of the NFPA 101. Chapter 8.1.3(d) of the license requires the plant to employ the guidance from the NFPA 101. The licensee acknowledged the finding and committed to provide emergency lights in the pump room by August 1, 1999. Based on the fact that the pump room is an area not normally occupied by personnel and the code deficiency did not present an immediate danger or a significant risk to life safety, the licensee commitment was acceptable to the inspectors. The completion of actions to provide emergency lighting for the VIPER Pump Room will be tracked as Inspector Followup Item (IFI) 70-1151/99-02-01.

The licensee's fire safety program is managed by a Regulatory Engineer who is assisted by several technicians for the purposes of testing and

maintaining equipment. The licensee contracts with members of the Columbia Fire Department for training and also equipment inspection. The Regulatory Engineer has contracted with the South Carolina Fire Academy for additional training of the Fire Brigade. This Engineer has established effective procedures and records of routine tests. He has been responsive to the findings of the insurer and to his own compliance auditors.

The inspectors observed that the overall control of combustibles was adequately maintained for the activities performed during the plant shutdown. Egress routes were maintained clear of obstructions throughout the chemical and mechanical manufacturing areas. However, the inspectors identified two locations in the chemical manufacturing areas, where the accumulation of plastic type combustibles presented potential high fire loading concern. The conditions observed are described below:

- Approximately sixteen, 55-gallon, empty, plastic drum liners were accumulated in a pile that was approximately 16-18 feet from UF₆ cylinder staging area in the UF₆ Bay. The UF₆ Bay was protected by an automatic wet sprinkler system which minimized the potential risk for fire exposure to the UF₆ cylinders. However, the accumulation of empty plastic drum liners presented significant fuel loading that could increase the fire severity in the UF₆ Bay.
- The inspectors observed a large pile of scrap computer equipment stored approximately 18-20 feet from dry ash powder storage racks and empty bulk material containers in the South-East Expansion area of the plant. This location was designated a moderation controlled area and automatic sprinkler system protection was not provided. The accumulation of plastic combustibles presented increased fuel loading, and the observed condition was not consistent with requirements of plant procedure SYP-300, Housekeeping (i.e., minimize combustibles storage in moderation controlled areas). However, a sufficient separation distance existed between the pile of combustibles and dry ash powder storage racks and emptied powder storage containers. The lack of obvious ignition sources also minimized the potential of a fire exposure and reduced the overall risk significance of the conditions observed by the inspectors.

The licensee acknowledged the concern for fire prevention and relocated the drum liners to a designated sprinkler protected storage location, away from the UF₆ cylinders, prior to the NRC Exit Meeting. The licensee committed to relocating the pile of scrap computer equipment to a designated sprinkler protected storage location upon return of the full work force and to determining what additional actions were required to prevent future occurrences. The licensee indicated that the actions

would be completed by April 30, 1999. The completion of these actions and the licensee's determination of additional required actions to prevent recurrence will be tracked as IFI 70-1151/ 99-02-02.

The inspectors observed and reviewed permits for performing cutting and welding activities to assure that appropriate fire prevention controls were being followed during the plant shutdown. Three cutting and welding activities were observed and reviewed (i.e., re-piping of vaporizers in the UF₆ Bay, repair of metal gate in Product Store Room, and cutting operations outside of GAD Bay). The inspectors observed that appropriate fire prevention measures were taken to minimize the potential ignition of combustibles. Fire extinguishers were provided and were easily accessible, and a fire watch was provided. The inspectors concluded that the cutting and welding activities observed during the plant shutdown were conducted safely and in accordance with plant procedure No. SYP-207, Cutting, Welding, and Hot Work.

The licensee indicated that major heat generating equipment that continued to operate in a standby mode during the plant shutdown were the conversion production furnaces. The conversion production furnaces were maintained at an idle temperature. The licensee indicated that this was required to assure prompt resumption of manufacturing operations. The licensee indicated that fire watches were provided throughout each operation shift during the plant shutdown. The only exceptions were on those shifts (primarily shift No. 2) where there would be a presence of personnel throughout the area performing maintenance activities. The licensee indicated that three rounds of fire watches were required for an 8-hour shift. The inspectors reviewed the record of fire watches to verify that they were conducted from April 2-5, 1999, and the licensee's plan of the week included a commitment to conduct fire watches throughout the remaining period of the plant shutdown. The inspector performed a walk-through and verified that other heat generating equipment such as the vaporizers, the incinerator, and the hot oil equipment were safely shutdown. The inspector concluded that the licensee had taken appropriate precautions for fire prevention during the shutdown.

During the walk-through of the chemical manufacturing area, the inspectors observed that a maintenance technician had straddled the railing of an elevated platform (approximately 25-30 feet above ground) to test or service a heat detector, placing his body, from the knee up, above the railing/guards of the elevated platform. This defeated the guardrail system provided against fall protection. The inspector observed that the technician did not have a required safety harness (i.e., personnel fall arrest system). The Occupational Safety and Health Administration Title 29, Part 1910, Section 501 of Subpart M, Fall Protection, required appropriate provisions to effectively guard against falls. The inspectors brought the safety concern to the immediate attention of the licensee's management representative that accompanied

the inspectors walk-through. The licensee management representative took immediate actions and asked the technician to curtail his activity and performed a review of requirements for fall protection. The inspectors did not observe similar unsafe practices during other walk-throughs conducted for the remainder of the inspection.

(2) Fire Detection

During the production outage occurring the week of this inspection, the licensee was conducting the routine repair and testing of smoke and heat detectors. The inspectors were present to observe these tests and to verify the alarm annunciation at the security desk and at the "control room" in the Production Area. The licensee used smoke-like substances from a can to test smoke detectors and a heat gun to test the heat detectors installed throughout the plant. The inspector noted that this was consistent with practices in the industry for testing detection devices. The inspector observed several tests of smoke and heat detectors and noted that they were being conducted in a thorough and systematic manner, which included verifying the receipt of alarm signals at the annunciator panels and the main fire alarm control panel, and clearing each alarm prior to proceeding to the testing of the next detector. In addition to the audio-visual annunciation of these detectors there was also a hard copy printout. The inspectors witnessed the tests of strobe lights, pull boxes and the public address system with no problems noted.

Drawing No. 510F01PP01, "Plant Utilities/Fire Protection Systems," dated December, 1996, was reviewed with respect to the location and description of the various detection capabilities of the facility. The drawing was current and accurately described the systems.

The inspectors reviewed the plant fire detection alarm system's recorded data (i.e., Priority 1 and Priority 2 alarms, and trouble alarms) at the guard station and noted that there was no interruption to the various system functions or other abnormality during the morning of April 5, 1999. The licensee indicated that an UPS system maintained continuity of electrical power to the fire alarm system during the initial loss of primary electrical power. The emergency generator No. 3 provided backup electrical power within 10-15 seconds from the loss of primary power. The inspector noted that the automatic supply of power to the plant fire alarm system from primary to backup electrical power was within the minimum time required by NFPA 72, National Fire Alarm Code, of 30 seconds and was accomplished without a loss of signals.

The inspectors also verified that the main fire alarm control panel located at the Conversion Control Room also operated as intended on backup electrical power. The inspectors examined the conditions of UPS batteries connected to the plant fire alarm system and performed a tour of the emergency generator No. 3 room that provided the backup

electrical power. The inspectors noted no significant problems with the UPS batteries. The inspector noted that the licensee's preventive maintenance (PM) record indicated that weekly inspection and testing were performed to assure the startup of the emergency generator No. 3. The plant fire alarm system was returned to normal power on the afternoon of April 6, 1999. The inspectors concluded that the plant backup electrical power supply was available and was of a sufficient capacity to provide continuity of fire alarm system functions for a duration greater than the minimum required by industry standard (i.e., a maximum load for 24 hours and fifteen minutes alarm condition).

The inspectors specifically toured the Hot Oil Room, Incinerator and Computer Room to verify the presence of overhead detectors, pull boxes, annunciators and strobe lights. During the tour of the Incinerator, the inspectors noted that someone had parked an electrical forklift directly under the overhead rollup door that is the self-closing fire barrier. Although the incinerator was not in operation, there was a sign on the wall that cautions the reader not to block the door. The accompanying licensee representative immediately had the vehicle moved.

(3) Fire Suppression

The inspectors reviewed records of inspection, testing, and maintenance (ITM) of the automatic sprinkler system, fire alarm systems, fire hydrants, fire monitor nozzles and hoses, and performed a walk-through to determine the material condition of fire protection systems and components. The appropriate implementation of ITM is necessary to assure the reliability and availability of fire protection systems to perform their intended safety functions.

In general, the ITM of water-based fire suppression systems or components (e.g., fire hydrants, post-indicator valves, automatic sprinkler systems, fire hoses, etc.) and the fire alarm system (e.g., smoke detectors, heat detectors, pull stations, etc.) at the plant were found to be consistent with accepted industry standards.

However, the inspectors noted that flow testing the fire monitor nozzles had not been performed as required by industry standard, NFPA 25, (i.e., semiannually) and they were not included in a preventive maintenance program. The inspector also noted that Section 8.1.11(a) of the license requires the emergency team equipment to be maintained. The licensee indicated the fire monitor nozzles had been provided for protection of a propane tank farm that had been removed from the chemical storage tank farm. However, the fire monitor nozzles remained for use as protection equipment for exterior firefighting or providing a water spray protection to limit releases in the event of a chemical accident at the plant's tank farms. The licensee committed to flow testing of the fire monitor nozzles and incorporating the testing into their PM program by

the end of May, 1999. Based on as-found plant conditions, the fire severity or the explosion potential associated with a propane storage tank farm no longer existed, and the fire monitor nozzles were another means of providing water spray protection along with manual hose streams that could be established by the responding on-site emergency response team. Therefore, the inspectors concluded that the lack of flow testing did not result in a significant safety impact, and the licensee commitment was acceptable. The conduct of the flow test and the incorporation of the requirements into PM program for fire protection equipment will be tracked as IFI 70-1151/99-02-03.

The inspectors performed a walk-through of the Fire Pump House No. 1 and No. 2 to review the capability of the plant's diesel fire pumps to meet their intended safety function during the loss of primary electrical power. The inspectors identified that the fire pump controllers, which are critical to the automatic start-up function, were maintained operable on battery power supply independent of the plant backup electrical power system. Each of the diesel fire pumps and controllers were provided with two storage battery units (a primary and a secondary) for starting the engine and maintaining the pump controller function.

The inspectors requested information from the licensee regarding the battery capacity for each of the fire pumps. The battery capacity information was not readily available to determine the maximum duration at which the batteries, without recharging, could maintain the controller function and assure startup of the diesel engine of the fire pump. The licensee estimated that each battery unit could provide a capability for at least seven continuous days. However, the licensee indicated that battery calculations would be performed to verify battery performance capability. The inspectors noted that the fire pump battery units (e.g., sizes and numbers per unit) were typical of those supplied by fire pump manufacturers and were consistent with typical fire pump installations. The primary electrical power to the pump controllers was also restored on the afternoon of April 6, 1999. A weekly start and run of the fire pumps was performed on the morning of April 7, 1999, without problems. The inspectors concluded that plant fire pumps were maintained ready for fire protection during the loss of plant primary electrical power.

The inspectors performed a walk-through of the manufacturing facility and the exterior of the plant to review the status of fire protection equipment during the plant shutdown. No obvious or apparent impairment to fire suppression systems, fire alarm system, the fire monitor nozzles, fire hydrants, standpipe systems, fire pump, post indicating valves, or water storage tanks were noted by the inspectors. The inspector conducted a "walk-down" of sprinkler line "E", verified valve line up and noted no indications of disrepair nor non-serviceability. The inspector also reviewed the licensee's Fire System Impairment Reports, which indicated no current impairments to fire protection systems.

The licensee conducted emergency response team training during the plant shutdown. The training consisted of interior structure firefighting, hazardous material response, and emergency response organization and procedures.

The inspectors attended the interior structural firefighting training of emergency team members to assess the adequacy of the licensee's program. The training for interior structural firefighting was provided by the South Carolina Department of Labor, Licensing and Regulation at the South Carolina Fire Academy. The classroom training included the chemistry of fire and fire behavior, protective equipment and self contained breathing apparatus (SCBA), interior fire attack, and search and rescue. The classroom training was followed by hands-on firefighting exercises inside an actual burning building at the academy burn facility, search and rescue operations inside of a multistory building, and fire ground and tactical operations exercises. The inspectors considered the training and the hands-on exercises to be very good for preparing the emergency team members to perform duties that could be expected for a real fire incident.

The hazardous material training was conducted at the plant. The inspectors noted that a fire at a nuclear material plant could involve or cause a hazardous release of chemical and radiological material. Therefore, the inspectors observed the practical exercises performed by members of the emergency response team. The training was provided by a contractor specialized in hazardous material response training. The training scenario involved a hydrogen fluoride leak incident with injured victims. The inspectors observed the use of personnel protective equipment (i.e., Level A and B encapsulated suits, SCBA), the establishment of a command post, entry team and backup team activities, establishment of an incident control zone, and the demonstration of general safety and decontamination requirements for hazardous material. The inspector noted that similar incident response protocols and procedures would be used in the event of a release of radiological material. The inspectors considered the hands-on exercises to be beneficial for preparing the emergency team to respond appropriately to a real hazardous material (chemical or radiological) release incident.

The remaining emergency response team training observed by the inspectors addressed response actions, emergency procedures, communications, evacuation, emergency classification, protective actions, reporting, traffic control, accountability, minimum staffing, and past emergency drills/exercises. The inspectors noted that the training provided an adequate level of information for plant emergency response requirements and lessons-learned to improve overall emergency preparedness. The inspectors noted that approximately 48 people attended the emergency team training during the training conducted between April 6-8, 1999.

c. Conclusion

Equipment, systems and hardware met their intended safety functions. Control of combustibles needed some improvement. Maintenance was consistent with industry standards. Training of the Fire Brigade was thorough and challenging, and, as such, is considered to be a strength. Lighting from emergency sources was in need of upgrading in the VIPER room. Flow testing of the four monitors protecting the chemical storage tank needs to be done on a semi-annual frequency.

3. Followup on Previously Identified Issues (04.11)

a. Inspection Scope

The inspector reviewed actions taken by the licensee to correct previous issues to verify that the corrective actions were adequate and had been completed.

b. Observations and Findings

(Closed) IFI No. 70-1151/98-201-03: This IFI addressed the corrective actions to provide approved flammable storage cabinets for the storage of used combustible oil and/or flammable liquids near the UF₆ cylinder washing (Fluoride Stripping) area. The licensee indicated that an approved storage cabinet was provided on July 30, 1998. The inspector performed a walk-through and verified that a storage cabinet was provided and combustible and flammable liquids were stored safely inside the cabinet. No further issues were identified, therefore, IFI No. 70-1151/98-201-03 was closed.

(Closed) IFI No. 70-1151/98-201-04: During a previous NRC inspection conducted from May 4-8, 1998, the inspectors identified unprotected openings in the fire barrier walls of the Hot Oil equipment room. The licensee committed to installing fire dampers to protect openings on the fire barrier walls and prevent a potential direct leak path that led to the environment. The licensee completed the installation and testing of three-hour fire rated dampers on November 9, 1998. The inspectors verified documentation for procurement, specification, and formal closure of a commitment tracking system report related to this corrective action and concluded that appropriate action had been taken. No further issues were identified, therefore, IFI No. 70-1151/98-201-04 was closed.

(Closed) IFI No. 70-1151/98-201-05: This IFI addressed the licensee's actions to revise the procedure for controlling cutting, welding, and hot work permit system. The licensee had self-identified weaknesses in the implementation of a procedure related to individuals authorizing permits and determined the need to improve this area. The inspectors reviewed the latest revision of procedure No. SYP-207, Cutting, Welding and Hot Work and reviewed three cutting and welding activities during the inspection to verify implementation of the plant procedure. The inspectors considered the revision to the cutting and welding procedures adequate and observations indicated that the procedure was

adequately implemented. No further issues were identified, therefore, IFI No. 70-1151/98-201-05 was closed.

(Closed) IFI No. 70-1151/98-201-06: This IFI addressed the implementation of licensee's actions to assure calibration of fire suppression system gauges in accordance with industry standard (NFPA 25). The licensee indicated that all gauges on fire suppression systems had been replaced with calibrated gauges and the PM task to replace all gauges had been entered into the PM program for fire protection systems. The inspectors reviewed work order No. 178661 for the replacement of gauges and noted that they were replaced by July 7, 1998. The task to replace all gauges on automatic sprinkler risers and had been incorporated in the PM program at a five-year frequency. No further issues were identified, therefore, IFI No. 70-1151/98-2101-06 was closed.

c. Conclusions

The licensee's actions were appropriate to close IFI 98-201-03, IFI 98-201-04, IFI 98-201-05, and IFI 98-201-06.

4. Followup on Information Notice

a. Inspection Scope

The inspector reviewed the following Information Notice (IN) to determine if the information had been received by the licensee:

- IN 99-07 Failed Fire Protection Deluge Valves and Potential Testing Deficiencies in Preaction Sprinkler Systems

b. Observations and Findings

The inspector determined that the IN was received by the licensee, distributed to appropriate personnel, and reviewed for applicability. The licensee determined that no additional actions were necessary.

c. Conclusions

The licensee's actions were appropriate.

5. Exit Meeting Summary

The inspectors met with Westinghouse management and representatives throughout the inspection. The inspectors presented the inspection findings to members of the licensee management and staff during the Exit Meeting on April 8, 1999. No classified or proprietary information was discussed. At the exit meeting, Westinghouse management and staff acknowledged the findings identified, and committed to take appropriate actions as discussed above.

ATTACHMENT

1. Partial List of Personnel Cntacted

- * J. Allen, Manager, Columbia Plant
- * W. Goodwin, Manager of Regulatory Affairs
- * J. Heath, Manager, Regulatory Engineering
- * J. Hooper, Senior Engineer, Safety
- W. Melton, Columbia Fire Department
- * C. Perkin, Manager, Maintenance
- * E. Reitler, Fellow Engineer, Safety
- J. Strohecker, South Carolina Fire Academy

* Denotes attendance at Exit Meeting.

2. Inspection Procedure Used

IP 88055 Fire Protection

3. Items Open, Closed and Discussed

Opened

- | | | |
|------------------|-----|--|
| 70-1151/98-02-01 | IFI | The implementation of actions to provide emergency lighting in the VIPER Pump Room (Section 2.b.(1)). |
| 70-1151/98-02-02 | IFI | The completion of corrective actions to remove the accumulation of plastic combustibles (scrap computer equipment) in the dry powered storage and licensee determination of additional required actions to prevent recurrence (Section 2.b.(1)). |
| 70-1151/98-02-03 | IFI | The conduct of the flow test and the incorporation of the required frequency of testing of fire monitor nozzles into the plant preventive maintenance program (Section 2.b.(3)). |

Closed

- | | | |
|-------------------|-----|--|
| 70-1151/97-201-03 | IFI | The implementation of actions to provide approved flammable storage cabinets for the storage of used combustible oil and/or flammable liquids (Section 3). |
| 70-1151/97-201-04 | IFI | The installation of fire dampers to protect opening in the fire barriers of the hot oil equipment room (Section 3). |

70-1511/97-201-05	IFI	The establishment of appropriate long-term actions by the licensee to ensure proper implementation of the cutting, welding, and hot work procedures (Section 3).
70-1511/97-201-06	IFI	The verification of licensee's completed actions to assure calibration of fire suppression system gauges (Section 3).

Discussed

None

4. List of Acronyms Used

HAZ-MAT	Hazardous Material
IFI	Inspector Followup Item
IN	Information Notice
ITM	Inspection, Testing, and Maintenance
NFPA	National Fire Protection Association
NRC	Nuclear Regulatory Commission
OSHA	Occupational Safety and Health Administration
PM	Preventive Maintenance
SCBA	Self-Contained Breathing Apparatus
VIPER	Vibration Investigation Pressure-Drop Experimental Research
UF ₆	Uranium Hexafluoride
UPS	uninterruptible power supply
VIPER	Vibration Investigation Pressure Drop Experiment Research