October 27, 1997

R

Dr. Bruce Kaiser
Vice President, Fuel Operations
ABB Combustion Engineering
3300 State Road P
Hematite, MO 63047

SUBJECT: RESPONSE TO INSPECTION REPORT NO. 070-00036/97003(DNMS)

Dear Dr. Kaiser:

This will acknowledge receipt of your letter dated October 7, 1997, in response to our letter dated September 12, 1997, transmitting our Notice of Violation associated with the failure to follow lockout safety procedures during maintenance activities. We have reviewed your corrective actions and have no further questions at this time. These corrective actions will continue to be examined during further inspections.

If you have any questions, please contact Tim Reidinger at (630) 829-9816.

Sincerely,

Original Signed by

Patrick L. Hiland, Chief
Fuel Cycle Branch

License No. SNM-33
Docket No. 070-00036

cc: R. W. Sharkey, Director of Regulatory Affairs
R. A. Kucera, Missouri Department of Natural Resources

bcc: R. Pierson, NMSS
P. Ting, NMSS
S. Soong, NMSS

bcc w/ltr dtd 10/7/97: PUBLIC (IE 07)

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ABB

October 7, 1997

Docket No. 70-0036
License No. SNM-33

U. S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555

SUBJECT: REPLY TO A NOTICE OF VIOLATION

Gentlemen:

Enclosed is Combustion Engineering's Reply to Notice of Violation dated September 12, 1997, concerning NRC Inspection Report No. 070-00036/97003(DNMS).

We will be glad to discuss any questions you have concerning our response. If you have any questions or need further information, please contact me or Mr. Hal Eskridge of my staff at (314) 937-4691.

Very truly yours,

COMBUSTION ENGINEERING, INC.

Robert W. Sharkey
Director, Regulatory Affairs

cc: Bill Beach, Regional Administrator
Region III

RA97/630

ABB CENO Fuel Operations

Combustion Engineering, Inc.
3300 State Road P
Post Office Box 107
Hematite, Missouri 63047
Telephone (314) 937-4691
St. Louis (314) 296-5640
Fax (314) 937-7955

Attachment to RA97/630
October 7, 1997

REPLY TO NOTICE OF VIOLATION
INSPECTION REPORT NO. 070-00036/97003(DNMS)

Response to Violation No. 97003-01

Violation:

Safety Condition S-1 of Special Nuclear Material License SNM-33 requires that licensed material be used in accordance with the statements, representations, and conditions in Chapters 1 through 8 of the application dated October 29, 1993, with supplements.

Section 2.6 of Chapter 2 of the application dated January 28,1995, requires, in part, that all operations which affect licensed material shall be conducted in accordance with approved procedures.

Nuclear Industrial Safety Procedure (NIS) No. 219, "Control of Hazardous Energy," dated March 15,1996, Section 6.2 states, in part, that a tagout shall be used to remove equipment for any condition, other than what may be reasonably expected, that adversely affects the safety of affected personnel. In addition, Section 6.3 states, in part, that a lockout shall be used to remove equipment if work to be performed can or could result in an exposure to mechanical or hydraulic energy while maintenance is being performed.

Contrary to the above, between August 4 and August 7, 1997, maintenance activities were conducted during which the licensee failed to establish a lockout or install a danger tag on equipment removed from service. Specifically, no danger tag or a lockout was installed on the steam isolation valve that supplied trace steam heating to the feed line that contained "solid" UF_6.

Response:

1. **Reason for the violation:** The violation occurred because the shift supervisor and operators involved overlooked the requirement to tag the steam trace supply valve out of service, although they were aware that it should not be operated and the possible consequences of inadvertent valve opening.

2. **Corrective steps that have been taken and the results achieved:** As immediate corrective action, a hand written tag was placed on the steam trace supply valve.

3. **Corrective steps taken to avoid future violations:** The importance of observing lockout/tagout procedures was stressed in recently conducted safety retraining for operating personnel. The retraining emphasized the proper lockout/tagout process. Additional local lockout/tagout stations have been purchased to facilitate implementation of that process.

4. **When full compliance will be achieved:** We are currently in full compliance with the requirement to observe lockout/tagout procedures.

September 12, 1997

Dr. Bruce Kaiser, Vice President
Fuel Operations
ABB Combustion Engineering
3300 State Road P
Hematite, MO 63047

SUBJECT: ROUTINE SAFETY INSPECTION OF ABB COMBUSTION ENGINEERING, HEMATITE, MO (NRC INSPECTION REPORT NO. 070-00036/97003(DNMS) AND NOTICE OF VIOLATION)

Dear Dr. Kaiser:

This refers to the routine safety inspection conducted on August 4-8, 1997, at your Hematite facility. The purpose of the inspection was to determine whether activities authorized by the license were conducted safely and in accordance with NRC requirements. At the conclusion of the inspection, the findings were discussed with you and members of your staff identified in the enclosed report.

Areas examined during the inspection are identified in the report. Within these areas, the inspection consisted of a selective examination of procedures and representative records, interviews with personnel, and observations of activities in progress.

Based on the results of the inspection, the NRC has determined that a violation of NRC requirements occurred. The violation is cited in the enclosed Notice of Violation (Notice) and the circumstances surrounding it are described in detail in the subject inspection report. The violation is of concern because it indicated a lack of rigor in implementing your safety control requirements during some maintenance activities. Specifically, the failure to establish proper configuration control on the steam supply heating system to a vaporizer feed line during maintenance could have lead to a feed line hydraulic rupture and subsequent uranium hexafluoride (UF_6) release if the steam trace heat was inadvertently restored.

In addition, during the inspection, the NRC identified several fugitive releases of Hydrogen Fluoride (HF) as a result of a minor system leak and from dry scrubber equipment malfunctions. Although on one occasion the HF concentration was determined to be as high as 10 ppm, it appeared that the HF releases had been localized to the immediate vicinity of the cylinder storage yard. In response to the concerns regarding HF emissions from the dry scrubber system, you committed to implement compensatory measures in your correspondence to the NRC on August 29, 1997. As detailed in that correspondence, you have implemented appropriate actions to limit future risks from the dry scrubber system until the "wet" scrubber system is installed in late 1997.

You are required to respond to this letter and should follow the instructions specified in the enclosed Notice when preparing your response. In your response, you should document the specific actions taken and any additional actions you plan to prevent recurrence. Your response

may reference or include previous docketed correspondence, if the correspondence adequately addressed the required response. After reviewing your response to the Notice, including your proposed corrective actions and the results of future inspections, the NRC will determine whether further NRC enforcement action is necessary to ensure compliance with NRC regulatory requirements.

In accordance with 10 CFR 2.790 of the Commission's regulations, a copy of this letter and the enclosed inspection report will be placed in the NRC Public Document Room.

We will gladly discuss any questions you have concerning this inspection.

Sincerely,

Original Signed by

P. L. Hiland, Chief
Fuel Cycle Branch

License No. SNM-33
Docket No. 070-00036

Enclosures: 1. Notice of Violation
2. Inspection Report
No. 070-00036/97003(DNMS)

cc w/encls: R. W. Sharkey, Director of Regulatory Affairs
R. A. Kucera, Missouri Department of Natural Resources

bcc w/encls: M. Weber, NMSS
P. Ting, NMSS
S. Soong, NMSS
E. McAlpine, RII
F. Wenslawski, RIV
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NOTICE OF VIOLATION

ABB Combustion Engineering, Inc.
Hematite, Missouri

License No. SNM-33
Docket No. 070-00036

During an NRC inspection conducted from August 4-8, 1997, one violation of NRC requirements was identified. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," NUREG-1600 (60 FR 34381; June 30, 1995), the violation is listed below:

Safety Condition S-1 of Special Nuclear Material License SNM-33 requires that licensed material be used in accordance with the statements, representations, and conditions in Chapters 1 through 8 of the application dated October 29, 1993, with supplements.

Section 2.6 of Chapter 2 of the application dated January 28, 1995, requires, in part, that all operations which affect licensed material shall be conducted in accordance with approved procedures.

Nuclear Industrial Safety Procedure (NIS) No. 219, "Control of Hazardous Energy," dated March 15, 1996, Section 6.2 states, in part, that a tagout shall be used to remove equipment for any condition, other than what may be reasonably expected, that adversely affects the safety of affected personnel. In addition, Section 6.3 states, in part, that a lockout shall be used to remove equipment if work to be performed can or could result in an exposure to mechanical or hydraulic energy while maintenance is being performed.

Contrary to the above, between August 4 and August 7, 1997, maintenance activities were conducted during which the licensee failed to establish a lockout or install a danger tag on equipment removed from service. Specifically, no danger tag or a lockout was installed on the steam isolation valve that supplied trace steam heating to the feed line that contained "solid" UF_6.

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

Pursuant to the provisions of 10 CFR Part 2.201, ABB Combustion Engineering is hereby required to submit a written statement or explanation to the U. S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, D.C. 20555, with a copy to the Regional Administrator, Region III, 801 Warrenville Road, Lisle, Illinois 60532-4351, within 30 days of the date of the letter transmitting this Notice of Violation (Notice). This reply should be clearly marked as a "Reply to a Notice of Violation" and should include for each violation: (1) the reason for the violation, or, if contested, the basis for disputing the violation, (2) the corrective steps that have been taken and the results achieved, (3) the corrective steps that will be taken to avoid further violations, and (4) the date when full compliance will be achieved. Your Notice of Violation response may reference or include previous docketed correspondence, if the correspondence adequately addresses the required response. If an adequate reply is not received within the time specified in this Notice, an Order or Demand for Information may be issued as to why the license should not be modified, suspended, or revoked, or why such other action as may be proper should not be taken. Where good cause is shown, consideration will be given to extending the response time.

Because your response will be placed in the NRC Public Document Room (PDR), to the extent possible, it should not include any personal privacy, proprietary, or safeguards information so that

it 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 that you desire not to be placed in the PDR, and provide the legal basis to support your request for withholding the information from the public.

Dated at Lisle, Illinois
this 12 day of September 1997

U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Docket No:	070-00036
License No:	SNM-33
Report No:	070-00036/97003(DNMS)
Licensee:	ABB Combustion Engineering
Facility:	Hematite Nuclear Fuel Manufacturing Facility
Location:	Combustion Engineering, Inc. Hematite, MO 63047
Dates:	August 4-8, 1997
Inspector:	Timothy Reidinger Senior Fuel Cycle Inspector
Approved by:	Patrick Hiland, Acting Chief Fuel Cycle Branch, Division of Nuclear Materials Safety

EXECUTIVE SUMMARY

ABB Combustion Engineering
Nuclear Fuel Manufacturing Facility
Hematite, Missouri
NRC Inspection Report 070-00036/97003(DNMS)

The inspection involved the review and observation of selected aspects of operations, maintenance and surveillance testing.

Operations (IP 88020)

- Criticality safety engineering and procedural administrative controls were adequately implemented by the licensee.

- Two fugitive HF emissions from the dry scrubber system were identified by the inspector. The leaks were due to system leaks or corroded support piping to the dry scrubber system. As a result, the licensee implemented compensatory actions as detailed in separate correspondence with the NRC to limit future HF emissions from the dry scrubber system until the "wet" scrubber system is installed late 1997.

Maintenance and Surveillance Activities (IP 88025)

- The inspector identified a violation in which maintenance activities to clear a feed line blocked with "solid" UF_6 was initiated without a proper valve tagout or lockout on the steam supply isolation valve.

Report Details

1.0 Operations Review

1.1 Change Control

a. Inspection Scope (88020)

The inspector reviewed selected documents and discussed a recent change related to the handling and storage trays of the Dry Recycle Reactor Boxes with the cognizant criticality safety specialist and responsible project engineer. The inspector also conducted a walkdown of the area to confirm the application of criticality safety engineering and administrative controls related to this change. Specific procedures and licensee documents reviewed were:

- Operating System (OS) Procedure No. 803, "Dry Recycle Processing," Revision (Rev) 9, dated July 18, 1997.
- Nuclear Criticality Safety Evaluations (NCSE) Procedure Number (No.) RAAP-108, dated March 14, 1997.
- Quality Control Procedure (QCP) No. 5002.04, "Change Control Management (CCM)," Rev. 1, dated April 9, 1997.
- Notification of Change Control Management Evaluation, No. H-97-016-330, "Dry Reactor Boxes," dated February 25, 1997.
- Nuclear Criticality Safety Evaluation Plant System (NCSEPS) 330/448, "The Dry Side and Scrap Recycle Furnaces," dated July 30, 1997.
- Nuclear Criticality Safety Analysis (NCSA) of the Muffler Box, Rev. 0, dated July 19,1997.

b. Observations and Findings

In accordance with the current change process, a nuclear criticality safety analysis (NCSA) must be obtained for each facility change involving nuclear safety, radiological safety, or industrial safety. The NCSAs provide a summary of the conditions and special requirements, derived from the associated nuclear criticality safety evaluation (NCTE) and/or engineering safety evaluation, to be implemented by the operating group. New or revised operating procedures related to the change are forwarded to Regulatory Affairs for confirming conformance to the NASA conditions and change specifications and final approval.

NOSES, in part, summarize and detail the conclusions, and "suggested" limits and controls from the criticality safety parameters (CAPS) and associated criticality safety control for that change.

The inspector noted that the NASA for the change reviewed adequately summarized the conditions and special requirements to be implemented as derived from the respective

NCTE. The inspector noted that the NCTE provided a summary of bounding assumptions, conclusions of the calculated margin of safety from normal and upset conditions, criticality safety limits and controls, operator training requirements, and requirements for reporting of upset conditions that have an effect on the established criticality safety controls. The limits and controls primarily involved the proposed increase in the number of safe volumes of enriched uranium oxide distributed among 18 storage pans in the recycle furnace.

During facility walkdowns, the inspector confirmed that the controls and limits identified in the NCTE were in existence and being used. In addition, the instructions relative to the limits and controls had been incorporated into the applicable operating procedures.

The licensee also initiated operator training on the revised procedures.

c. Conclusions

Criticality safety engineering and procedural administrative controls were adequately implemented.

2.0 Maintenance and Surveillance Activities (IP 88025)

2.1 Feed Line Repairs from the No. 2 Vaporizer

a. Inspection Scope

The inspector reviewed the maintenance activities undertaken in response to the feed line blockage ("freeze out") of liquid UF_6 from the No. 2 vaporizer and compared observations of activities in progress with selected written procedures from the applicable procedures manual. Specific procedures and licensee documents reviewed were:

- Operating System Procedure No. 601.02, "Loading and Unloading the Vaporizer and Switching Cylinders," Rev. 9, dated July 21, 1997.
- Health Physics Procedure No. 330, "Radiation Work Permit," Rev. 0, dated November 30, 1995.
- Operating System Procedure No. 203, "Industrial Safety," Rev. 4, dated August 12, 1997.
- Nuclear Industrial Safety Procedure (NIS) No. 219, "Control of Hazardous Energy," dated March 15, 1996.

b. Observations and Findings

During operations of the Oxide Plant on August 4, 1997, a full uranium hexafluoride (UF_6) cylinder in vaporizer No. 2 was being heated with steam prior to being selected for on-line processing. The cylinder in vaporizer No. 1 was in the finishing stage of being emptied of UF_6 contents. When the control room operators switched to the No. 2 vaporizer and attempted to establish UF_6 flow, the operators discovered that solid UF_6 had formed in the feed line from the No. 2 vaporizer which blocked UF_6 flow.

The control room operators discovered that the feed line (approximately 20 feet) was blocked with solid UF_6. The line blockage was due to "freeze out (solidification or freezing point)" of liquid UF_6. "Freeze out" typically occurs after the loss of steam trace heating. The licensee determined that the steam valve that supplied the steam trace line for the feed line from the No. 2 vaporizer was last closed by the maintenance staff to minimize personal exposure to "hot" steam line piping. The maintenance staff had installed new level detectors for the No. 2 vaporizer which were located near heat trace steam piping. After maintenance work was conducted during a period the plant and process equipment were shut down in July 1997, the steam trace heating system to the feed line was not restored to its normal configuration prior to resuming plant operations.

During routine tours of plant facilities, the inspector observed the in-progress maintenance activities to "change out" the feed line from the affected vaporizer. On the morning of August 6, the inspector noted that the operators were determining the extent of the "UF_6 freeze out" by removing various sections of valves and feed line by using a Radiation Work Permit (RWP). The RWP is typically used to authorize repair work in addition to establishing health physic controls for non-routine activities that involve potential for intake or exposure to radioactive material.

The inspector reviewed the RWP and observed that the control room operators were not wearing a face shield with the full face respirator as required by the RWP during the removal of various valves and associated piping. The control room operators when questioned to why they were not wearing the face shield responded that the plant health physicist (HP) authorized an exemption for wearing the face shield. The control room operators stated that the HP determined that a full face respirator could provide the same level of protection as a face shield. In addition, the face shield when worn over the full face respirator would impede work activities as it would be physically cumbersome to reach various sections of piping that would be later inspected for "freeze out." The HP stated that it was an oversight in not revising the RWP to reflect current health physics control requirements for the scheduled maintenance activities.

As a follow-up, the inspector asked other control room operators on later shifts to why they did not wear the face shield as required on the RWP after they completed various repair activities on the affected vaporizer feed line. The control room operators stated that they signed the RWP as required and neglected to read all the listed health physics controls; they indicated that they followed the example of what the other control room operators had worn on previous shifts. They all noted that the RWP required full face shields.

The licensee agreed at the exit that plant staff were required to adhere to the requirements in the RWP and the staff were encouraged to have a "questioning attitude" to resolve any conflicts noted on the RWP. The licensee indicated that senior managers would re-emphasize that work health physics controls associated with RWP requirements shall be followed unless a conflict was noted on the RWP which required resolution by senior management.

On the afternoon of August 7 the inspector identified that the repair work activities were still ongoing and that the steam trace supply isolation valve was not tagged with either a white "Danger" tag, "Do Not Operate," nor was the valve "locked out" to prevent opening the steam supply isolation valve that supplied steam heat to the feed line via heat trace piping. Several shift forepersons, when asked what positive measures were used to

prevent opening the steam trace supply to the affected feed line, stated that "all the control room operators were verbally instructed in keeping the valve closed." After the inspector expressed concern that a positive measure was not established to prevent personnel injury and a UF_6 release from an inadvertent valve opening, a hand written tag (scrap of yellow paper) was placed on the steam trace supply valve.

Select control room operators and shift forepersons were questioned on what specific hazards would be present if the steam trace supply valve was inadvertently opened to the feed line that contained "solid" UF_6. All correctly responded that steam heat being applied to the vaporizer feed line blocked with solid UF_6 could potentially cause the liquid UF_6 to expand resulting in the feed line rupture and a UF_6 release.

Safety Condition S-1 of Special Nuclear Material License SNM-33 requires that licensed material be used in accordance with the statements, representations, and conditions in Chapters 1 through 8 of the application dated October 29, 1993, and supplements thereto.

Procedure NIS No. 219, Section 6.2 states, in part, that a tagout shall be used to remove equipment for any condition, other than what may be reasonably expected, that adversely affects the safety of affected personnel. In addition, Section 6.3 states, in part, that a lockout shall be used to remove equipment if work to be performed can or could result in an exposure to mechanical or hydraulic energy while maintenance is being performed or while hazards are exposed. The failure of the licensee to establish a lockout or install a danger tag on the steam supply line isolation valve that supplied trace steam heating to the feed line that contained "solid" UF_6 is a Violation No. 070-00036/97003-01.

c. Conclusions

Activities observed were generally conducted in accordance with applicable procedures, permits, and postings. Operators used appropriate protective clothing and equipment with one exception. In addition, the failure to ensure that a tagout or lockout was installed on a steam supply valve that supplied trace steam heating to a blocked feed line was identified as a violation.

3.0 Hydrogen Fluoride Release

a. Inspection Scope

The inspector reviewed the circumstances that resulted in two HF leaks from the dry scrubber system.

b. Observations and Findings

1. Description of Event

During a tour of the UF_6 cylinder storage yard on August 5, the inspector identified an unusual strong smell in the air in the vicinity of the dry scrubber system. The inspector was concerned that the unusual smell indicated that a HF release had occurred. The presence of the smell was communicated to a licensee staff member who was in the

cylinder yard. The staff member and the inspector jointly identified that the likely source of the HF emissions as a corroded pipe to the dry scrubbers.

As an immediate response to the release, the licensee ensured that the appropriate staff were notified, and the control room operators initiated an investigation of the dry scrubber system and associated support piping. The control room operators discovered that the "purge line" to the dry scrubbers was severed in half by corrosion and was the source of the HF emissions. The maintenance staff subsequently replaced the purge line.

The dry scrubber system was used to treat the HF prior to releasing the process gasses out the stack by reacting it with limestone rocks. The corrosive nature of the HF gas deteriorates gaskets, valve seats and seals rapidly. Additionally, the limestone/CaF_2 "rocks" needed to be replaced on almost a daily schedule.

During a subsequent walkdown of the dry scrubber repair on August 6, the inspector again identified an unusual strong smell in the air in the vicinity of the dry scrubber system. The inspector was concerned that another HF release had occurred and immediately informed the licensee.

The licensee indicated that the HF smell probably came from the main process stack due to atmospheric conditions and when the wind shifted, low concentrations of HF could be occasionally smelled in the cylinder yard. In addition, HF level tests would be conducted if anyone smelled HF in this area.

The inspector requested that a health physics technician perform a HF level test in the area near the dry scrubbers. The "drager" type tube test indicated 10 ppm HF was in the area. The licensee's investigation determined that the source of HF was various leaks from valve packing, gaskets and gate seals in the primary scrubber. A malfunction in the secondary scrubber created high back pressure to the primary scrubber which resulted in primary HF leaks. In addition to the stack releases of HF, the licensee reported that many times during the history of the dry scrubber, corrosion had caused fugitive releases of HF. Although these releases have been greatly reduced by the use of a new gasket material, fugitive releases of HF still occurred.

2. Compensatory Actions

Following telephone discussions on August 20, 1997, the licensee implemented corrective actions as detailed in separate correspondence with the NRC to limit future HF emissions from the dry scrubber system until a "wet" scrubber system was installed in late 1997. The licensee stated that the existing dry scrubber system was scheduled to be replaced with a new wet scrubber system. The engineering design for the wet system was ongoing, and interviews with licensee personnel indicated that the system may be installed and operating during the last quarter of 1997.

c. Conclusions

Two hydrofluoric acid (HF) leaks from the dry scrubber system identified by the inspector. The licensee implemented actions to limit future HF emissions from the dry scrubber system until the "wet" scrubber system was installed late 1997.

4.0 Inspection Follow-Up System (IFS) Issues (92702)

4.1 (Closed) IFI No. 070-00036/97001-05: Lack of a formal program to calibrate the incinerator's system safety devices.

The licensee revised OS No. 852, "Periodic Testing Requirements," to ensure that the safety interlocks will be tested to verify the intended safety functions once the incinerator was determined operable.

4.2 (Closed) IFI No. 070-00036/97001-05: Lack of operator training to help eliminate operator errors and root cause investigation training for the high sample followup reports (HSFR).

The licensee conducted additional training for the operators and senior staff to help operators better understand radiological conditions on the worksite during non-routine work activities. Root cause training was conducted for the senior staff to better evaluate the HSFR.

4.3 (Closed) VIO No. 070-00036/97001-03: The licensee failed to include the specified safety instructions for reporting of potential damage to criticality safety barriers.

The licensee revised procedures OS No. 3260.00 and OS No. 3310.00 to incorporate criticality safety reporting requirements. The licensee completed operator training on the revised procedures.

4.4 (Closed) VIO No. 070-00036/96002-02: Failure to ensure that a vehicle gate was locked or attended and that vehicles were escorted by constant surveillance in the controlled area.

The inspector interviewed the security staff, reviewed the licensee's escort log book maintained by the security staff and determined that all vehicles were being escorted on site appropriately by plant staff. In addition, the inspector observed on several occasions that plant staff were provided as escorts for visiting vehicles entering the controlled area of the plant.

4.5 (Closed) IFI No. 070-00036/96002-01: Lack of understanding of criticality "In-Transit Units."

The licensee conducted additional training for the operators that addressed "In-Transit Units" and also issued pocket size cue cards to all the operators to use as a pocket reference on criticality related terms. Discussions with several operators indicated an adequate understanding of criticality terms.

5.0 Management Meeting

The inspectors met with the representatives and other staff throughout the inspection and on August 8, 1997, for the exit meeting. The inspector summarized the scope and findings of the inspections.

The licensee did not identify any of the information discussed at the meetings as proprietary.

PARTIAL LIST OF PERSONS CONTACTED

Licensee Personnel Contacted

* B. Kaiser, Vice President
B. Sharkey, Director of Regulatory Affairs
M. Eastburn, Nuclear Criticality Specialist
R. Freeman, Nuclear Criticality Specialist
H. Eskridge, Senior Consultant Regulatory Affairs
G. Page, Director, Ceramic Operations
G. Jordan, Production Manager
E. Saito, Health Physicist
K. Funke, Health Physics Supervisor
J. Long, System Engineer
E. Criddle, Training Manager
D. Harris, Production Support Manager
K. Hayes, Industrial Safety Engineer
B. Alkier, Industrial Process Engineer
B. Griscom, Facility Engineer

* Senior licensee official at exit meeting on August 8, 1997.

Inspection Procedures Used

IP 88020: Criticality/Operations Review
IP 88025: Maintenance/Surveillance

Item Opened

070-00036/97003-01 VIO: The licensee failed to establish a lockout nor install a danger tag on the steam isolation valve that supplied trace steam heating to the feed line that contained "solid" UF_6.

List of Acronyms

HF	Hydrogen fluoride
HP	Health physics
hr	Hour
NASA	Nuclear Criticality Safety Analysis
NCTE	Nuclear Criticality Safety Evaluations
NIS	Nuclear Industrial Safety Procedure
OS	Operating System
IP	Inspection Procedure
NRC	Nuclear Regulatory Commission
QCP	Quality Control Procedure
UF_6	Uranium hexafluoride
VIO	Violation