May 16, 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. 070-00036/97002(DNMS)

Dear Dr. Kaiser:

This refers to the routine safety inspection conducted on April 14-18, 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.

No violations of NRC requirements were identified during the course of this inspection.

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 G. Shear for

Roy J. Caniano, Acting Director
Division of Nuclear Materials Safety

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

Enclosure: Inspection Report
No. 070-00036/97002(DNMS)

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

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U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Docket No:	070-00036
License No:	SNM-33
Report No:	070-00036/97002(DNMS)
Licensee:	ABB Combustion Engineering
Facility:	Hematite Nuclear Fuel Manufacturing Facility
Location:	Combustion Engineering, Inc. Hematite, MO 63047
Dates:	April 14-18, 1997
Approved by:	Timothy Reidinger, Acting Chief Fuel Cycle Branch, Division of Nuclear Materials Safety

EXECUTIVE SUMMARY

ABB Combustion Engineering
Nuclear Fuel Manufacturing Facility
Hematite, Missouri
NRC Inspection Report 070-00036/97002(DNMS)

The inspection involved the review and observation of selected aspects of licensee management organization and controls, operations, maintenance and surveillance testing, emergency preparedness, and environmental protection.

Management Organization and Controls Inspection Procedure (IP 88005)

- The licensee was actively working toward meeting their "Criticality Safety Program Update (CSPU) goals. (Section 1.0)

- The "Criticality Non-Compliance Review Requests" (CNCRR) addressing safety analyses, investigations and documentation were consistent with licensee's procedures. (Section 1.0)

Operations (IP 88020)

- The licensee took thorough and effective action to identify the scope of the problem and to take corrective action to preclude the processing of cylinders with suspect packing nuts on cylinder valves. (Section 2.0)

- The licensee is performing the necessary actions to maintain the electrical prints for the nuclear criticality alarm system (NCAS). (Section 3.0)

Maintenance/Surveillance Testing (IP 88025)

- Periodic calibrations and operability tests of the vaporizer conductivity probes and alarms for the vaporizers were adequately implemented. (Section 4.0)

- The surveillance program for overhead cranes, including slings was identified as a weakness and will be tracked as an Inspection Followup Item (IFI). (Section 4.0)

- The development of a functional test for the UF_6 emergency stop pushbuttons was identified as an IFI. (Section 4.0)

Environmental Protection (IP 88045)

- The licensee was effectively implementing its environmental monitoring program and effluent releases were within 10 CFR Part 20 limits. (Section 5.0)

Emergency Preparedness (IP 88050)

- The emergency preparedness program was effective in maintaining and improving operational readiness of the licensee's emergency response facilities and equipment. Emergency response facilities, equipment, and supplies were in excellent material condition. (Section 6.0)

Report Details

1.0 Management Organization and Controls

a. Inspection Scope (88020 and 88005)

The inspector reviewed and discussed the status of procedures and administrative changes relative to the licensee's "Criticality Safety Program Update" (CSPU), and "Criticality Non-Compliance Review Requests" (CNCRR).

b. Observations and Findings

The licensee recently submitted a revision of Chapter 4 (of Part 1 of the license) entitled "Nuclear Criticality Safety", to the NRC for review. The revision was a key milestone in meeting the CSPU objectives and was based upon improvements that have been identified to date in the CSPU program.

The inspector noted that the licensee had investigated approximately ten "Criticality Non-Compliance Review Requests (CNCRR)" since January 10, 1997, to the present. The CNCRRs were used to formally document non-compliance with a criticality rule or posting in the plant. The inspector determined that the licensee conducted a thorough nuclear criticality safety analysis after investigating each non-compliance incident and documented each safety analysis appropriately. In addition, a root cause analysis was performed after each investigation, such as momentary lack of attention to posted limits, or inattention to procedures, and the corrective actions that were implemented were also documented in the CNCRR report. The CNCRRs had been correctly evaluated for the applicability of NRC Bulletin 91-01, "Reporting Loss of Criticality Controls," for each of the incidents. Although documentation justifying the determinations not to report were not required or made for these instances, the licensee adequately provided clarifications regarding possible degradations in controlled parameters that would have appeared to warrant reporting.

c. Conclusions

The licensee was actively working toward meeting their CSPU goals, and the CNCRR nuclear safety analyses, investigations and documentation were consistent with licensee's procedures.

2.0 Operations Review

2.1 UF_6 Cylinder Valve Nuts

a. Inspection Scope

The inspector reviewed the licensee's action after being notified of a materials problem with nuts or valves which might be installed on UF_6 cylinders at the facility.

b. Observations and Findings

On March 14, 1997, the U. S. Enrichment Corporation (USEC) gaseous diffusion plant at Paducah, Kentucky notified the NRC Operations Office of a stress corrosion cracking problem with the packing nut on Hunt Valve Co. valves (NRC event number EN 31954). In particular, Hunt Valve Co. valves with the packing nut made of Alloy 636 had experienced cracking of the nut, had failed and, in one case, resulted in the release of UF_6.

On March 21, 1997, NRC Region III notified facilities in the region of the problem and requested that the licensees determine if they had any of the valves in question.

The licensee's initial action was to check all valves in the spare parts inventory and the cylinders on the oxide dock and in the cylinder storage pad areas. There were no valves in inventory. Eight cylinders (of 114 cylinders stored on site) had Hunt Valve Co. valves manufactured with Alloy 636 packing nuts. Several cylinders had Hunt valves installed with Alloy 613 packing nuts, while some others had valves manufactured by Superior or Descote with Alloy 613 nuts.

The licensee contacted both USEC Paducah and Hunt Valve Co. and determined that the problem appeared to be limited only to the Hunt valve packing nuts made with Alloy 636 manufactured prior to 1991.

During the week of March 17, 1997, the licensee determined that five of the eight cylinders identified above contained full UF_6 inventory. The licensee subsequently placed all five affected cylinders in unheated vaporizers for packing nut replacement prior to processing the cylinders.

USEC Paducah stated that they would not refill any cylinders utilizing Hunt valves with Alloy 636 packing nuts. However, the Hunt Valve Co. estimates that there could be up to 5,000 valves in circulation with Alloy 636 nuts worldwide. The licensee had developed a UF_6 Cylinder Inspection Form 1101 previously to record all packing nut numbers on incoming cylinders which facilitated timely identification and corrective action related to the Hunt valve packing nuts. Discussions with the transportation staff indicated that they had been effectively trained to identify potentially defective packing nuts.

c. Conclusions

The licensee took thorough and effective action to identify the scope of the problem and to take corrective action to preclude the processing of cylinders with suspect packing nuts on the cylinder valves.

3.0 Criticality Alarm System (IP 88050)

a. Inspection Scope

The inspectors conducted a walkdown of the nuclear criticality alarm system (NCAS) and reviewed the available conduit installation drawings for the NCAS.

b. Observations and Findings

The NCAS appeared consistent with license requirements regarding installation and location. The inspectors noted that there were no electrical drawings (as built) existing for the NCAS. The licensee indicated that several "retired" employees who were located in the area had been involved in the original installation and testing of the NCAS and were available to assist the plant employees by providing the "corporate memory" for troubleshooting any potential instrumentation problems that might occur. The licensee has committed to updating the electrical drawings for the NCAS.

c. Conclusions

The licensee is performing the necessary actions to maintain the electrical drawings for the NCAS.

4.0 Maintenance/Surveillance Program

4.1 Oxide Conversion Plant

a. Inspection Scope (88025 and 88020)

The inspectors reviewed and discussed maintenance and surveillances associated with the overhead crane and bridge in the dock area in the oxide plant. The inspection also included a walk-down of the UF_6 vaporization process and selected portions of the oxide conversion process surveillances. Specific procedures and licensee documents reviewed were:

- Special Evaluation Traveler (SET) No. 2153,"Testing Conductivity Probes," dated March 7, 1997.

- Operating System (OS) Procedure No. 4101.00, "Oxide Inspection and Alarm Calibration/Testing," Revision 7, dated March 14, 1997.

- Nuclear Industrial Safety Procedure (NIS) No. 203, "Industrial Safety," Rev. 4, dated August 12, 1994.

- NIS No. 221, "Material Handling Equipment," Rev. 0, dated March 15, 1996.

- "Overhead Crane Maintenance Reports" for 1996.

- "Monthly Crane Surveillance Reports" for 1996 and 1997.

- OS No. 605.03,"Process Alarms," Rev. 7, dated December 20, 1997.

- OS No. 602.03. "Process Cycle Termination and System Cooldown," Rev. 5, dated October 15, 1996.

b. Observations and Findings

1. Conductivity Probes

The inspector noted that procedure OS No. 4101.00 and the respective surveillance sheets were revised to document the testing of the UF_6 vaporizer conductivity probe interlocks to verify that they were capable of performing their intended safety functions. The conductivity probes automatically close the UF_6 cylinder valve, start the hydrogen fluoride scrubber, and shut off the steam supply to the UF_6 cylinder vaporization chamber when the presence of Special Nuclear Material is detected in the condensate line. The inspector noted that the six-month calibrations and operability tests of the condensate probes and associated alarms were consistent with OS No. 4101.00, and Chapter 4, Section 4.2.4, "Special Controls," of the license.

According to the process engineer and as specified in OS No. 4101.00, the conductivity probes were also inspected for damage or corrosion to ensure that operability was not affected by fouling problems. The licensee was inspecting and testing the alarm function of the conductivity probes prior to conducting UF_6 cylinder operations. The inspector observed that the cleaning and testing of the conductivity probes was consistent with SET No. 2153.

2. Oxide Overhead Cranes/Slings

During the inspection, the inspector observed overhead crane operations that were involved in loading and unloading UF_6 cylinders from trucks located on the oxide dock area. The inspector noted that two slings were used for the movement of the UF_6 cylinders. Procedures NIS No. 203 and No. 221 states, in part, that all overhead cranes shall have monthly visual and annual mechanical safety

inspections; the crane load hook shall have an annual dye penetrant test and each sling shall have an annual inspection. In addition, records shall be maintained of the inspections, tests, and repairs made to the slings and overhead cranes.

Review of the crane vendor's annual mechanical safety inspections of the oxide dock overhead crane from 1994 to the present indicated that the inspections were consistent with requirements in NIS No. 203 with one exception. The inspector identified that the dye penetrant tests of the oxide dock crane load hook were not conducted in 1995 and 1996.

In addition, the November 1996 annual mechanical safety inspection report of the oxide dock overhead crane by the crane vendor recommended replacement of the crane load hook due to wear and replacement of the load hook wire cables due to rust and kinks. When questioned by the inspector, the licensee stated that they would replace the hook, which they did upon receipt of a replacement on approximately May 9, 1997, nearly six months after first being recommended by the crane vendor. In addition, the licensee stated that the 1997 dye penetrant test of the load hook would be conducted by the crane vendor or appropriately qualified party as required.

A March 2, 1997, oxide dock crane surveillance conducted by the licensee also reported that the load hook cables were "looking bad, lots of frayed wires and kinks." The licensee changed out the wire cables on April 7, 1997, approximately five months from the crane vendor's recommendation made in 1996. In addition, some of the 1996 monthly surveillance records for oxide dock overhead crane were unavailable for review and appeared to be missing. Maintenance staff informed the inspector that they were either lost or else the surveillances had not been performed or documented. The 1997 monthly surveillance conducted to date were adequate.

The slings had no records documenting the annual safety inspections. The licensee stated that although no documentation was available to indicate that the slings had undergone annual safety inspections, they felt that all qualified overhead crane operators were trained to report any excessive wear or maladjustment of crane equipment. In addition, the operators would report any deformation, cracking, or fraying of hooks or cables to their supervisor for corrective action prior to putting the crane or slings in service. The inspector visually inspected the slings that were previously used for moving UF_6 cylinders and noted that there were no apparent physical defects in the two slings that could have potentially compromised safety. Prior to the exit meeting, the licensee reported that old slings will be inspected for adequacy and new slings will be ordered for stock replacement when required.

Safety analyses described a scenario in which a (cold) UF_6 cylinder was drop-tested a distance of 30 feet resulting in a hairline crack in the cylinder. The crack allowed UF_6 which is solid at ambient temperature to leak out very slowly by sublimation. The UF_6 then reacted with air to form a self-sealing plug at the hairline crack. As a result, the analysis postulated that no significant radiological or environmental effect would be evident from a hairline crack caused by a 30 foot drop of a cylinder. The licensee's procedures did not permit cylinders to be lifted greater than 12 feet, which in effect, prevented any significant radiological risk from the overhead crane and sling deficiencies.

The licensee indicated that a rigorous review of the surveillance program for all plant cranes, including the oxide overhead crane and slings will be conducted shortly. Tracking the progress of the surveillance program review for overhead cranes and slings was identified as an IFI 070-00036/97002-01.

3. Process Alarms

The inspector noted that one emergency UF_6 stop valve was located in the oxide plant control room and another stop valve was located on the oxide dock entrance from the oxide plant. Procedure OS 605.03, states, in part, that "If a dense white cloud from a UF_6 release is present on the oxide dock, then push the emergency UF_6 stop valve." The manual actuation of UF_6 emergency stop valves stops the UF_6 release. The inspector asked the licensee whether any surveillances or tests were conducted to verify the operability of the emergency UF_6 stop valves. The licensee stated that no procedures had been developed to specify inspection requirements or other functional tests of the safety control associated with the UF_6 emergency stop valves. They also indicated that a review would be performed to determine what tests or surveillance were appropriate to demonstrate the safety function of the emergency stop valve. The licensee's progress regarding the development of a functional test for the emergency stop valves was identified as an IFI 070-00036/97002-02.

c. Conclusions

Periodic calibrations and operability tests of the vaporizer conductivity probes and alarms for the vaporizers were adequately implemented. The surveillance program for overhead cranes, including slings was identified as a weakness and will be tracked as an IFI. The development of a functional test for the UF_6 emergency stop valves was identified as an IFI.

5.0 Environmental Protection (IP 88045)

a. Inspection Scope

The inspector reviewed selected elements of the licensee's environmental protection program with respect to management controls and program implementation. The review included an evaluation of trends in the environmental data including sampling results for air emissions, liquid effluents, and soil, water and vegetation. Specific procedures reviewed were:

- Health Physics (HP) Procedure No. 301, "Exhaust Stack Sampling," Rev. 3, dated February 14, 1996.
- HP Procedure No. 319, "Environmental Sampling, Water, Soil, Vegetation and Air," Rev. 5, dated October 17, 1996.
- Part 1 of the license, Chapter 5, "Environmental Protection," dated January 14, 1994, with supplements.

b. Observations and Findings

1. Ground Water Environmental Sampling Results

The licensee had installed eight ground water monitoring wells around the plant. Ground water samples were collected monthly from each of the wells. The inspector observed the licensee performing purges of several wells by lowering a calibrated cylinder (well bucket) into each of the wells to draw down the well to an appropriate low level in order to obtain a representative (fresh) water sample from the wells for analysis the next day. The 1996 Environmental Analysis report of ground water well samples results indicated that there were no statistically significant trends above background identified for gross alpha or beta measurements in four of the wells.

Elevated gross beta readings ranging from 200 picocuries per liter to 3700 picocuries per liter were identified in various samples from the four other monitoring wells over the year. The licensee indicated that the gross beta results were attributed to technetium-99 (Tc^{99}) that entered the ground water from the two settling ponds that were used in the 1970s for holding liquids contaminated with Tc^{99} from various uranium processes in the plant. The 10 CFR Part 20, Appendix B limit for Tc^{99} in liquid effluents to unrestricted areas is 60,000 picocuries per liter. The elevated well readings were significantly below the 10 CFR Part 20 Appendix B limit.

2. Air Sampling Results

The air sampling program consisted of 3 air sampling stations located near the fence line on the licensee's property which were run continuously. Particulate filters were analyzed weekly for alpha contamination (uranium). The first quarter of 1997 average concentrations for all 3 samplers was approximately 1.3×10^{-15} microcuries per milliliter (uCi/ml) which is 2% of the 10 CFR Part 20, Appendix B limit for Class Y U-234, the most restrictive isotope.

3. Liquid Effluent Sampling Results

The sewage treatment outfall and the storm drain runoff outfalls were sampled weekly with grab samples. The storm drain outfall fed into the site pond, and the overflow from the pond (the site dam overflow) was sampled continuously with a composite sampler. The composite sample was analyzed weekly. The first quarter of 1997 average sampling results for uranium was approximately 2×10^{-8} uCi/ml. The Appendix B limit for uranium in liquid effluent to unrestricted areas is 30×10^{-8} uCi/ml.

4. Vegetation Sampling Results

The vegetation sampling program consisted of four sampling areas located near the fence line on the licensee's property which were sampled quarterly for gross alpha and gross beta contamination. The vegetation sample results indicated that there were no statistically significant trends identified above background. The 1996 annual average concentrations for all vegetation samples were less than 20 picocuries per gram (pCi/g), which was less than the current unrestricted use limit of 30 pCi/g.

5. Soil Samples

The soil sampling program for 1996 consisted of eight sampling areas located on the licensee's property which were sampled quarterly for gross alpha and gross beta contamination. Seven soil sample (SS) results indicated that there were no statistically significant trends identified above background. However, several elevated readings were measured from one sampling area. The licensee indicated that the soil sample contained a higher than average amount of Tc^{99} due to the proximity of the sampling area to the spent pile of scrubber rocks. The scrubber rocks had filtered some Tc^{99} (a byproduct from uranium processing) from the Oxide Building Main Exhaust stack in the 1970s.

6. Exhaust Stack Air Samples

The "Weekly Stack Sample Concentration Reports" for February and March 1997 documented that stack concentrations of uranium had not exceeded licensed investigation levels in the accessible unrestricted area of 5×10^{-14} uCi/ml. There were 19 exhaust stacks that were continuously sampled during routine operations. The main exhaust stack to the Oxide building had one elevated reading. The licensee conducted an investigation and determined that there were some mechanical problems with the collection equipment. The defective collection equipment was promptly repaired. The licensee immediately collected another air sample which indicated readings that were consistent with its previous stack readings.

The first quarter of 1997 "Monthly Stack Loss Report" for uranium totaled 16.6 uCi which is significantly less that the license limit for total plant exhaust effluents of 150 uCi per calendar quarter.

c. Conclusions

The inspector concluded that the licensee's sampling program and results were consistent with Chapter 5, Part I of the license application and licensee procedures.

6.0 Emergency Preparedness Program

6.1 Facilities and Equipment

a. Inspection Scope (IP 88050)

The inspector toured areas of the facility and evaluated the material condition of the Emergency Operations Center (EOC) (tile barn) and the Building 253 Pump Room. The licensee demonstrated the operability of numerous pieces of equipment, including radiological survey instruments and communications equipment. The emergency field health physics box was also inspected. The inspectors reviewed the following documents:

- Emergency Plan (EP), Rev. 0, October 28, 1993.
- Emergency Plan Implementing Procedure (EPIP) No. 5.03, "Emergency Equipment," Rev. 1, dated April 24, 1996.
- Weekly Emergency Generator Test Logs (WGTL), dated January 11, 1997 to April 14, 1997.

b. Observations and Findings

The inspector determined that emergency equipment maintained in the EOC, and at required locations in the plant facilities was consistent with the EP. Cabinets/Lockers containing emergency equipment and supplies were as

described in EPIP No. 5.03. The contents were inspected and were determined to be in an excellent state of readiness. The fire extinguishers are checked and serviced as required.

The inspector verified via documentation (in support of maintenance, periodic tests and/or surveillances), inventory, and operability checks that equipment and instrumentation stored at selected locations (EOC and Pump Room) were operational, properly maintained and tested at the required frequencies per the EP. The inspector noted that the weekly test of the backup power system (emergency diesel generator) was consistent with the WGTL requirements.

Any licensee identified problems were corrected prior to the subsequent periodic tests. Onsite telephone number listings were available at the predesignated control points used by key emergency responders. Letters of agreement were current. The inspector verified through records review that the licensee issued revised copies of the EP to the applicable local fire department and hospital during the present operating period.

d. Conclusions

The inspector determined that the licensee's EOC, emergency response equipment, instrumentation, EP, EPIPs, and supplies were maintained in a state of operational readiness.

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

7.1 (Closed) IFI No. 070-00036/97001-07: Bioassay results from exposed plant employees will be reviewed.

On February 3, 1997, the lapel air sampler results from a micronizer operator indicated an uranium intake of 56.4 DAC-hours. The high sample appeared to be the result of an actual high airborne contamination. The micronizer operator submitted fecal samples according to the licensee's policy which included analysis by an outside laboratory. The licensee's submitted bioassay results indicated that the employee received an exposure of 143 mrem. The result was below the occupational doses of 10 CFR 20.1201.

7.2 (Closed) IFI No. 070-00036/94002-03: Six staff assignments which were vacant before the union strike had not been filled in a timely manner; Health Physicist, Health Physics Technician, Material Control Specialist, Production Scheduler, Oxide Foreman, and Laboratory Supervisor (chemistry lab).

These positions were filled shortly after the strike was settled with either qualified new hires or with people who were temporarily assigned and qualified for those positions during the strike.

7.3 (Closed) IFI No. 070-00036/94002-02: A door was unable to completely close because of a mechanical problem on a trailer containing combustible radioactive contaminated waste. The waste was packaged in plastic bags and placed in metal

storage bins. Rainwater seepage could wash contaminated material from any potentially damaged bag onto the trailer park pavement.

The licensee relocated the radioactive waste bags to another trailer and the defective truck was decontaminated and returned to the truck leasing company.

7.4 (Closed) VIO No. 070-00036/94002-01: The licensee shipped a package of depleted UO_2 pellets loaded in zirconium rods to its corporate facility in Windsor, Connecticut, bearing the label "FISSILE CLASS III" which is required for identifying fissile material for nuclear safety concerns. The exterior of the package should have been stenciled or marked "RADIOACTIVE-LOW SPECIFIC ACTIVITY."

The inspector interviewed the licensee's shipping and receiving staff, reviewed transportation training class records and determined that the staff was adequately trained to ensure compliance with the Department of Transportation regulations.

7.5 (Closed) IFI No. 070-00036/93003-02: Tape and caulking material were used to seal components (the powder transfer chute and the panels in rear of the press) of the slugging press to prevent oxide powder leaking from the slugging press to a floor opening.

The licensee replaced the powder transfer chute which by design eliminated the need to use taping and caulking material for powder leaks with a screw conveyed powder flow unit in the slugging press. The licensee also sealed the floor opening.

7.6 (Closed) VIO No. 070-00036/93003-02: On September 18, 1996, two filters, with greater than 2 kgs net weight, and having 77.5 gm and 81.5 gm of U-235 per gamma count, were stacked on pallets by the powder storage area. Operating System (OS) Procedure 801.10, "Filter Processing," required that filters, stacked on pallets by the UO_2 Powder Storage Area, may not have more than 2 kilograms (kgs) net weight or more than 75 grams (gm) of U-235 per gamma count.

The licensee relocated the criticality limit sign to improve its visibility and conducted remedial training for the operators regarding the importance of observing criticality limit sign postings. Discussion with approximately seven operators indicated that they adequately understood criticality requirements.

7.7 (Closed) VIO No. 070-00036/93003-02: On September 25, 1996, three (55 gallon) drums of packaged filter media waste (Safe Individual Unit (SIU)) were in temporary "transit" prior to disposition to an approved storage area. In addition, one of the packaged drums (SIU) of U^{235} was separated from another drum (SIU) by only nine inches. Nuclear Inspection System (NIS) Procedure 201, Nuclear Safety Parameters," required that no more than two Safe Individual Units (SIUs) may be "in transit" at one time in the immediate work area. Furthermore, it required that an SIU be placed at least one foot from other SIU units.

The licensee revised the media drum filling procedure to incorporate the specific criticality requirements for the proper storage of contaminated filter media waste drums. In addition, specific criticality safety training was given on the application of the "two items in transit" rule to the plant operators. Discussions with several

operators indicated an adequate understanding of criticality rules and procedure requirements.

8.0 Management Meeting

The inspectors met with the representatives and other staff throughout the inspection and on April 18, 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

M. Eastburn, Nuclear Criticality Specialist
R. Freeman, Nuclear Criticality Specialist
H. Eskridge, Senior Consultant Regulatory Affairs
G. Page, Director, Ceramic Operations
* B. Sharkey, Director of Regulatory Affairs
E. Saito, Health Physicist
K. Funke, Health Physics Supervisor
J. Long, System Engineer
A. Noack, Production Coordinator Pellet Plant
K. Hayes, Industrial Safety Engineer
B. Griscom, Facility Engineer

* Senior licensee official at exit meeting on April 18, 1997.

Inspection Procedures Used

IP 88005: Management Organization and Controls
IP 88020: Criticality/Operations Review
IP 88025: Maintenance/Surveillance
IP 88045: Environmental Protection
IP 88050: Emergency Preparedness

Items Opened

070-00036/97002-01 IFI: Tracking the progress of the surveillance program review for overhead cranes and slings.

070-00036/97002-02 IFI: Tracking the licensee's progress regarding the development of a functional test of the emergency stop pushbuttons.

List of Acronyms

CSPU	Criticality Safety Program Update
CNCRR	Criticality Non-Compliance Review Requests
CFR	Code of Federal Regulations
EP	Emergency Plan
EPIP	Emergency Plan Implementing Procedure
gm	gram
HF	hydrogen fluoride
HP	health physics
hr	hour
IFI	Inspection Followup Item
IP	Inspection Procedure
mr	millirem
NRC	Nuclear Regulatory Commission
UF_6	uranium hexafluoride