U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Docket No.	70-7001
Observation Report No.	70-7001/96007(DNMS)
Facility Operator:	United States Enrichment Corporation
Facility Name:	Paducah Gaseous Diffusion Plant
Location:	5600 Hobbs Road P. O. Box 1410 Paducah, KY 42001
Dates:	November 19, 1996 through January 6, 1997
Inspectors:	K. G. O'Brien, Senior Resident Inspector J. M. Jacobson, Resident Inspector
Approved By:	Gary L. Shear, Chief Fuel Cycle Branch

9702100485 970206
PDR ADOCK 07007001
C PDR

EXECUTIVE SUMMARY

United States Enrichment Corporation
Paducah Gaseous Diffusion Plant
NRC Observation Report 70-7001/96007(DNMS)

Authority Statement: The Department of Energy (DOE) and the Nuclear Regulatory Commission (NRC) have agreed to cooperate to facilitate the NRC obtaining information and knowledge regarding the gaseous diffusion plants and the United States Enrichment Corporation's (USEC) operation thereof through observation/inspection activities during the interim period before the NRC assumes regulatory responsibility. This report is a summary of NRC observations for the period stated. Each of the observations was communicated to the DOE Site Safety Representatives during and at the end of the observation period.

All items were discussed and reviewed with the DOE Site Safety Representatives to allow for their future followup and evaluation, as they deem appropriate. The inspectors determined that the facility continued to operate in a safe manner. An Executive Summary follows:

Plant Operations

- Weaknesses in: 1) the initial implementation of some new nuclear criticality safety approval (NCSA) requirements, and; 2) some staff's knowledge of and adherence to existing NCSAs, appeared to contribute to recurring NCSA violations.

- Weaknesses in Operations' application of the operability determination process for surveillance data resulted in activities occurring without proper compensation for inoperable equipment.

- Operations staff did not aggressively pursue anomalous noises heard during the heatup of a feed cylinder. The cylinder was subsequently found in a rotated position.

Maintenance and Surveillance

- Inadequate management review and oversight of some surveillance activities resulted in: 1) the inappropriate return to service of an inoperable safety system, and 2) plant operation under a Limiting Condition for Operation (LCO) Action Statement for an extended period of time following a surveillance-identified inoperability.

- A positive trend was noted in plant materiel conditions, cascade building housekeeping, and the control of spare parts.

Engineering

- Engineering reviews and calculations, in response to a cylinder metal wastage issue, were not comprehensive. In addition, the work products did not ensure that the nuclear criticality safety controls were sufficiently identified.

- Proactive engineering involvement in the transition of Building 360 from Operational Safety Requirements (OSRs) to Technical Safety Requirements (TSRs) identified several important safety issues, including an Unreviewed Safety Question (USQ). However, engineering followup evaluations of and proposed resolutions to the issue were non-rigorous.

- Materials presented to and the rigor of questioning by the Plant Operations Review Committee (PORC) significantly improved. However, recent PORC actions indicated some continuing weaknesses.

Plant Support

- Several recent events appeared to indicate weaknesses in the implementation of and adherence to site security requirements, including the presence of unauthorized articles within the security perimeter.

DETAILS

I. Operations

O1. Conduct of Operations[1]

O1.1 General Comments

The inspectors observed selected activities to confirm that the facility was operated safely and in conformance with guiding programs and procedures. These activities were confirmed by direct observations, facility tours, interviews, discussions with management and staff, and reviews of facility records.

O1.2 Seismic Event

a. Inspection Scope

The inspectors reviewed the staff's response to a seismic event in the vicinity of the plant.

b. Observations and Findings

On November 28, 1996, at approximately 11:40 p.m., an earthquake occurred along the New Madrid fault. The earthquake had an estimated magnitude of 4.3 on the Richter Scale with an epicenter located several hundred miles west of the plant. At the time of the earthquake, the inspectors were not at the plant. This was the second earthquake recorded in the vicinity since June 1994.

On November 29, 1996, the inspectors confirmed the occurrence of an earthquake. Upon arrival at the plant, the inspectors discussed the event with onshift plant management to assess the potential for impacts and to ascertain the functionality of the plant earthquake monitoring systems. During these discussions, the inspectors were informed: 1) that plant staff did not physically notice the earthquake, and; 2) that none of the plant earthquake detection systems had actuated.

---

[1]Topical headings such as O1, M8, etc., are used in accordance with the NRC standardized inspection report outline contained in NRC Manual Chapter 0610. Individual reports are not expected to address all outline topics, and the topical headings are therefore not always sequential.

The inspectors accompanied plant staff during a walkdown of the Building 300 earthquake monitoring system. The system did not indicate any signs of earthquake activity. None of the other onsite or near offsite systems detected the event. However, an earthquake monitoring system located in Wickliffe, Kentucky, 15 miles west of the plant, did record very low levels of ground acceleration.

Late in the observation period, plant staff identified inconsistencies between the location, calibration, and stated sensitivity of some of the installed earthquake monitoring equipment. This issue was identified as part of an ongoing program to verify safety system and safety-related equipment setpoints. The involved equipment was located in a cascade building on the cell floor. The detector location combined with the current calibration setpoint resulted in decreased horizontal ground motion sensitivity. The location did not affect vertical ground motion sensitivity. At the end of the observation period, plant staff were taking action to revise the setpoints and to recalibrate the equipment.

c. Conclusions

Plant onsite earthquake monitoring equipment appeared to function properly following the November 29, 1996 earthquake based upon the combined response of onsite plant and offsite independent equipment. The plant staff's investigation of the earthquake was adequate.

Late in the observation period, plant staff identified a previously unknown weakness in the placement and associated calibration program for some of the seismic detectors. This issue was identified as part of an ongoing setpoint assessment program.

O1.3 Nuclear Criticality Safety Violations During Operations

a. Inspection Scope

The inspectors reviewed the implementation status of nuclear criticality safety approval (NCSA) requirements for ongoing operations.

b. Observations and Findings

On November 21, 1996, during the conduct of routine inspection activities in Building 310, the inspectors identified several potential violations of applicable NCSA requirements. Specifically, the inspectors observed several containers, some opened and some closed, which appeared to exceed the NCSA volume limitations. The inspectors provided these observations to

operations staff present in the area. The operations staff immediately reacted to address the potential violations. However, the inspectors noted that staff had been in the area for some time without identifying the apparent violations.

As a followup to these observations and those made in previous NRC Observation Reports, the inspectors reviewed the plant's problem reporting system for other recent examples of NCS violations. The inspectors identified a continuing trend of NCS violations. Most of the violations appeared related to weaknesses in: 1) the initial implementation of new NCSA requirements, and; 2) some plant staff's knowledge of and adherence to NCSA requirements. None of these examples appeared to violate the NCS double contingency principle.

During the observation period exit meeting, the engineering manager indicated that the plant performance indicators had also identified NCSA adherence as an area of concern. As a partial response, the engineering manager had increased the infield time of his NCS staff. This initiative was intended to allow the NCS staff to perform an independent check of the initial implementation of NCSA requirements.

c. Conclusions

Weaknesses in: 1) the initial implementation of some new NCSA requirements, and; 2) some plant staff's knowledge of and adherence to existing NCSAs, appeared to contribute to recurring NCSA violations.

O1.4 Criticality Accident Alarm System (CAAS) Operability Assessment

a. Inspection Scope

The inspectors reviewed an operability assessment and the subsequent staff actions taken in response to CAAS surveillance testing anomalies.

b. Observations and Findings

On November 27, 1996, plant staff performed a routine periodic surveillance of a portion of the Building 310 CAAS system. As a result of the surveillance, plant staff identified that the CAAS rotating warning beacons, located on the exterior of the building, illuminated but rotated at an extremely slow rate. This fact was noted on the surveillance testing paperwork. Following completion of the test, the surveillance testing paperwork was provided to the shift engineer and the plant shift superintendent (PSS) for

review and use in returning the system to service. Following their review and some requested retesting, the PSS declared the system "operable but degraded" at 5:00 a.m. Because of the degraded nature of the system, the PSS made a courtesy notification of the issue to the NRC Resident Inspectors.

During the routine morning meeting held at 7:00 a.m., the inspectors noted only a limited discussion of this issue. Following the meeting, the inspectors discussed with the engineering manager the operability assessment. The manager concurred with the inspectors observation that the system did not appear to be able to perform its intended function and was therefore inoperable. The manager also indicated plans to discuss this item further with operations staff.

The inspectors discussed with operations staff their use of the classification of "operable but degraded" for this situation. The PSS and onshift engineer informed the inspectors that they did not have a specific technical basis for use of this classification. At the time the decision was made, the surveillance information indicated that some of the beacons would only rotate at one to two revolutions per minute (rpm). The manufacturer's design rotational speed for these beacons was 60 rpm. During discussions with the inspectors, the operations staff indicated that they may not have declared the system inoperable even if the beacons lit with no rotation.

Following additional engineering review of the issue and discussion with Operations, the PSS declared the Building 310 CAAS system inoperable and entered the appropriate Limiting Conditions for Operation (LCO) Action Statement. The Action Statement required: 1) a halt to the movement of potentially fissile materials, and; 2) the monitoring of certain equipment temperatures and pressures. Because of the initial incorrect operability assessment, these actions were not fulfilled for a period of approximately 4 hours while the CAAS system was inoperable.

During the exit meeting, the engineering manager acknowledged the need for increased coordination between engineering and operations staffs relative to operability assessments. In addition, the manager indicated that communication changes, focused on ensuring full, coordinated engineering input to the morning meetings, were in the process of being implemented.

c. Conclusions

Weaknesses in Operations' application of the operability determination process to surveillance data resulted in activities occurring without proper compensation for inoperable equipment.

O1.5 Feed Cylinder Rotation During Heating/Feeding

a. Inspection Scope

The inspectors reviewed the operation staff's response to anomalies encountered during the heating of a feed cylinder.

b. Observations and Findings

On December 20, 1996, during removal of an empty feed cylinder from the Building 333A 4-north autoclave, operators observed that the cylinder had rotated. Specifically, the cylinder rotated from the normal position, cylinder valve in the twelve o'clock location, counter-clockwise by approximately thirty degrees. The operators also observed that the cylinder had shifted, or rotated perpendicular to its long axis, such that one of the lifting lugs contacted the autoclave shell.

The inspectors discussed the occurrence with Building 333A staff and were informed that loud rumbling sounds emanated from the autoclave during the initial cylinder heatup. These noises were described as more intense then those normally experienced during cylinder heatups. However, the operators indicated that no specific action was taken. The inspectors also noted that the copper tubing, "pigtail," connecting the cylinder to the feed manifold was slightly elongated. This elongation appeared to be the result of either cylinder rotation during heating or cylinder movement during opening of the autoclave.

This was the second cylinder rotation event during the year. The previous event occurrence was in March and was attributed to the placement of liquid cylinders on uneven surfaces for cooling. Following this previous event, plant staff reviewed their feed cylinder supplier's cooling protocols. Only minor anomalous conditions were identified as a result of this review.

As an immediate response to the current event, operations management placed a hold on the heating of feed cylinders from the involved supplier. In addition, a second round of reviews were conducted of the supplier's operations. Concurrent with these actions, engineering evaluations were performed to determine if an acceptable limit for "out-of-balance" cylinders could be defined. The results of these evaluations were incorporated into an engineering notice in an effort to preclude future events.

The inspectors independently reviewed the history of the two cylinders involved in the rotation events to ascertain if other generic issues were involved. No specific issues were developed; however, the inspectors could not objectively determine that the same event could not occur with feed cylinders provided by other suppliers.

c. Conclusions

Operations staff did not aggressively pursue anomalous noises heard during the heatup of a feed cylinder. The cylinder was subsequently found in a rotated position.

Operations and engineering staff actions taken to minimize recurrence appeared effective; however, the root cause for the phenomena had not been identified as of the end of the observation period.

O1.6 Operations Implementation of Reduced CAAS Coverage Area

a. Inspection Scope

The inspectors reviewed the implementation of Operation's restrictions developed in response to CAAS coverage area limitations.

b. Observations and Findings

During a review of the CAAS design, plant staff identified an inconsistency in the calculations used to determine the CAAS area of coverage for some of the cascade buildings. Specifically, the calculations assumed a uniform thickness of six inches for the floor between the detectors, located on the cell floor, and the area of coverage on the operating floor below. However, some areas of the floor were significantly thicker. In response to the finding, a reduced coverage area was defined based upon hand calculations. This work resulted in a need to limit the movement of potentially fissile materials within some areas of the cascade buildings. These limitations were issued to operations' staff through a long term order (LTO).

During routine tours of the cascade buildings, the inspectors observed the availability, within the Area Control Rooms (ACRs), of the involved LTO. The inspectors discussed the LTO with several operators, each of whom demonstrated a familiarity with the LTO and its limitations. Walkdowns of the area under restricted movement were also conducted. The inspectors did not identify any materials incorrectly stored in or being moved through the areas.

c. Conclusions

Operations staff were knowledgeable of and appeared to have effectively implemented an LTO related to CAAS coverage area limitations.

II. Maintenance and Surveillance

M1. Conduct of Maintenance and Surveillance

M1.1 General Comments

During routine tours of plant facilities, the inspectors observed the general materiel condition of plant equipment and some in-progress maintenance activities. The inspectors also reviewed some maintenance records and maintenance-related nonconformance reports. The focus of the observations was to assess the overall performance of maintenance activities relative to approved procedures, guides, and industry codes or standards.

M1.2 CAAS Quarterly Functional Testing

a. Inspection Scope

The inspectors reviewed periodic testing of the Building 310 CAAS system.

b. Observations and Findings

1. Building 310 "G" Cluster CAAS Surveillance Test

On November 27, 1996, plant staff conducted tests of the Building 310 CAAS "G" cluster. During these tests, instrument mechanics noted that the building lights (beacons) illuminated, but turned "very slowly." This information was documented on the test paperwork. The test results were reviewed and accepted by craft and building management. However, subsequent shift engineer and PSS reviews of the information resulted in the test being repeated. This action was taken in order to obtain more quantitative results.

Following the second performance of the surveillance test, the craft documented that the beacons turned at rates ranging from a slow of 1/2 rpm to greater than 40 rpm. Based upon this information, the PSS declared the system operable but degraded (see Section O1.4).

The inspectors reviewed the surveillance paperwork, the associated procedure, and discussed the issue with plant staff. The inspectors noted that the procedure, CP4-GM-6209, "Criticality Accident Alarm Safety System Local Horns and Building Horns Functional Test," included a step to assess the functionality of the beacons. However, the procedure did not define the acceptance criteria.

Based upon the absence of approved acceptance criteria for the test and the operability concerns raised by the inspectors, plant engineering developed acceptance criteria for the beacons. This

resultant criteria, a minimum rotational speed of 20 rpm, was based upon industry data for visual recognition of a flashing light. Subsequent testing of the Building 310 and other building CAAS systems identified several additional failed beacons and an apparent generic weakness in the plant's preventative maintenance protocols for the beacons.

2. Failed CAAS Horn Solenoid During Testing

On December 18, 1996, plant staff conducted a routine quarterly surveillance of the entire Building 310 CAAS system. The surveillance activity was initiated at approximately 5:00 p.m. and the appropriate Limiting Conditions for Operation (LCO) Action Statements were entered. Significant among these Action Statements was a requirement to discontinue the movement of all liquid filled UF_6 cylinders. At the time the surveillance was initiated, operations staff estimated that withdrawal activities could continue, without the need to move a liquid filled cylinder, for approximately 30 hours.

During the surveillance, instrument maintenance staff identified a failed CAAS horn system solenoid. This failure was identified at approximately 6:00 p.m., one hour after the test was started. As a result of the finding, plant staff initiated efforts to replace the solenoid. However, the inspectors noted that almost no work occurred until the afternoon of December 19th. Repairs and retesting of the system were completed at 8:15 p.m. At this point the system had been out of service for some 27 hours.

Throughout this evolution, the inspectors observed the communication and coordination of plant staff to resolve the surveillance findings. Although the issue was identified late in the afternoon on December 18th, limited action was taken overnight to initiate the needed repairs. This appeared to be a result of logistical problems caused by the solenoid's location, on a high platform beyond the reach of in-building ladders and cranes.

Management discussion of the issue during the morning meeting indicated sensitivity to the LCO Action Statements implied time limits; however, this did not result in prompt action to return the system to service. As a result, the inspectors noted that infield work to resolve the issue did not begin, in earnest, until late on December 19th.

A failure to return the system to service within the approximate 30 hour time limits, would have necessitated plant operations in recycle or other non-normal configurations. At the time of this event, these operational configurations were not approved or proceduralized.

c. Conclusions

Inadequate management review and oversight of surveillance activities resulted in: 1) the inappropriate return to service of an inoperable safety system, and 2) plant operation under an LCO Action Statement for an extended period of time following a surveillance identified system inoperability.

M1.3 Cascade Materiel Condition and Spare Parts Control

a. Inspection Scope

The inspectors reviewed the current status of cascade materiel condition, housekeeping, and the control of spare parts.

b. Observations and Findings

During the observation period, the inspectors noted a continuing positive trend in the overall status of cascade building materiel condition, housekeeping, and control of spare parts. This was evident by the increased visibility given to the identification, prioritization, and resolution of cascade materiel condition issues. In addition, the cascade buildings' general housekeeping was observed to be significantly improved over the past year. It was generally now maintained at a higher level than previously observed. Associated with this observation, the inspectors were aware of several plant actions taken to resolve long standing weaknesses in the area of spare parts control. Most of these appeared to have been successful.

Notwithstanding these observations, the inspectors noted that several recent nuclear criticality safety violations were related to weak maintenance housekeeping practices (see Section O1.3). Additionally, some maintenance-related spare part control problems continued to occur. Recent examples included the infield presence of: 1) new, uncontrolled spare fire protection safety components, and 2) spent, removed, and inoperable process gas leak detection sensors.

c. Conclusions

A positive trend was noted in plant materiel condition, cascade building housekeeping, and the control of spare parts. However, several recent events indicated continuing problems in these areas.

III. Engineering

E1. Conduct of Engineering

E1.1 General Comments

Throughout the observation period, the inspectors observed facility engineering activities, particularly the engineering organization performance of routine and reactive site activities, including identification and resolution of technical issues and problems.

E1.2 Cylinder Metal Wastage

a. Inspection Scope

The inspectors reviewed the resolution of concerns with UF_6 cylinder metal wastage as a result of environmental conditions.

b. Observations and Findings

During the observation period, the plant staff documented in a problem report concerns with UF_6 cylinder metal wastage as a result of environmental conditions experienced by the cylinders during normal use. The environmental conditions included: 1) external cylinder weathering during long periods of outside storage, and 2) external cylinder corrosion by steam during repeated autoclave heating cycles. These conditions appeared to create a situation whereby the cylinder tare weight could change appreciably during the 5 year time period between recertification cycles.

Potential safety issues associated with this finding related to the unknown presence, in the cylinder, of excessive quantities of reactive or moderating material as a result of incorrect cylinder tare weights. UF_6 cylinder tare weights were used as a part of nuclear criticality safety (NCS) controls for the cylinder filling process.

As an immediate response to the issue, plant management stopped the filling of all cylinders whose tare weights had not been reverified immediately prior to filling. In addition, NCS engineering staff were directed to reevaluate the current NCS approval and to assess the potential for this finding to affect other areas.

Although these actions appeared appropriate, the inspectors noted that the problem report lagged staff identification of the issue by almost three months. The issue was originally identified during review of NCS controls and calculations for the cylinder wash station. At the initial time of discovery, the issue was raised through engineering and identified as a potential unreviewed safety question (USQ). However, part of the review

process included approval by the Plant Operations Review Committee's (PORC) Nuclear Safety Subcommittee. Through discussions, the inspectors determined that disagreements between the subcommittee and engineering staff significantly contributed to the lag time between initial identification of the issue in August and its documentation as a USQ in November.

Following documentation of the problem as a USQ and additional engineering reviews, the inspectors were briefed as to the perceived extent of the concern and associated generic impacts. For each potential impact, the NCS staff had identified administrative or other controls by which to identify and preclude the use of cylinders containing excessive residual materials or anomalous tare weights.

Through these discussions, the inspectors noted plans to place a heavy reliance on the nuclear materials control system recorded tare weights. The staff indicated that this was the only place that tare weights were recorded and tracked following cylinder cleaning. This appeared inconsistent with the American National Standard Institute (ANSI) N14.1, "Uranium Hexaflouride - Packaging for Transport," requirement that the tare weight be stamped on the cylinder. Based upon this practice and field inspections, the inspectors determined that the plant previously may have shipped cylinders without conforming to the requirements of ANSI N14.1 or the current transportation certificate. This information was provided to the DOE SSR for action, as appropriate

Following completion of the engineering review and revision of the NCS controls for this process, the results were presented to and approved by the PORC. The inspectors reviewed the materials and noted several deficiencies. These included: 1) the use of assumptions which were beyond plant staff control, and; 2) the reliance in the evaluations on controls which were not incorporated into the final safety approval. The inspectors discussed these findings with the engineering staff. Subsequent to these discussions, the PORC rescinded their approval of the revised NCS calculations pending resolution of these confirmed weaknesses in the package.

c. Conclusions

Engineering reanalysis of an ongoing activity alertly identified a previously unevaluated cylinder metal wastage phenomenon with safety implications. However, elevation of the issue for management action was not prompt.

Engineering reviews and calculations performed in response to a cylinder metal wastage issue were non-comprehensive. In addition, engineering work products did not ensure that the nuclear criticality safety controls were sufficiently identified.

E1.3 Engineering Evaluation of Building 360 Unreviewed Safety Question (USQ)

a. Inspection Scope

The inspectors reviewed Engineering's evaluation and resolution of a USQ in Building 360.

b. Observations and Findings

Engineering staff performed a review of the Safety Analysis Report (SAR), Operational Safety Requirements (OSRs), and Technical Safety Requirements (TSRs) for Building 360 operations. The review was conducted to support transition of the facility from the OSRs to the TSRs. During the review the staff identified differences between current operations and the SAR. One difference involved a SAR accident analysis which assumed operator response actions to a UF_6 liquid release and limitations placed on operator actions ("see and flee") by other sections of the SAR and plant procedures. This difference was determined to be a USQ.

During the observation period, the inspectors reviewed the engineering staff's resolution of this issue as approved by the PORC and transmitted to the DOE for their concurrence. The inspectors noted that the resolution: 1) did not fully characterize that portion of the physical plant associated with the issue; 2) did not completely delineate the capabilities of the involved systems, and; 3) did not adhere to or explain the bases for deviation from the SAR described response actions. In addition, the inspectors determined that several of the analysis assumptions could not be independently validated. These observations were discussed with the DOE SSR.

Later in the observation period, Engineering revised the evaluation. The revised evaluation included a greater level of detail and revised assumptions; however, some of the original evaluation weaknesses were not addressed. In addition, this version also did not appear to support the proposed changes.

c. Conclusions

Proactive engineering involvement in the transition of Building 360 from OSRs to TSRs identified several important safety issues, including a USQ.

However, engineering followup evaluations of and proposed resolutions to the issue were non-rigorous.

E1.4 Plant Operations Review Committee (PORC) Reviews

a. Inspection Scope

The inspectors attended several PORC meetings held during the period to assess the scope and technical adequacy of the PORC's activities.

b. Observations and Findings

During the observation period, the inspectors observed several PORC meetings. The meetings addressed a wide variety of issues ranging from procedures changes and upgrades to engineering safety evaluations and proposed TSR clarifications. The inspectors noted that the quality of materials presented to the PORC for review and the depth of questioning by the PORC members had significantly improved since last discussed in NRC Observation Report 70/7001-95003(DNMS).

Notwithstanding the improved materials provided to the PORC and increased questioning by PORC members, as discussed above, the inspectors noted recent examples of weaknesses in PORC's review of some items.

As noted in Section E1.2 above, the inspectors observed the PORC's review and approval of a safety evaluation and revised nuclear criticality safety controls to address concerns with the UF_6 cylinder metal wastage issue. The inspectors noted the PORC's review of these materials was not sufficiently rigorous to identify missing assumptions, uncontrolled conditions, and incomplete implementation of NCS controls. As a result, the PORC approved changes to the safety evaluation and nuclear criticality controls which included inaccuracies. Upon review of these observations, the PORC rescinded the approvals until each issue was corrected.

The inspectors also reviewed a PORC approved TSR clarification. The clarification involved TSR 2.4.4.1, "UF_6 Release Detection System," Action C. The TSR clarification focused on definition of the term, "Section". The inspectors noted that the clarification defined the term differently then the TSR bases statement. This change re-divided the cascade coverage areas making three larger areas versus the TSR discussed five smaller areas. The clarification also significantly increased the number of UF_6 detector heads available to satisfy the TSR minimum operable heads requirement.

The inspectors discussed these differences with the NRC Project Manager and confirmed that the TSR clarification appeared to conflict with the current stated certification basis. As a followup to these communications, the inspectors informed the plant management of the apparent inconsistency. Subsequent

additional engineering reviews and PORC action was taken to revise the TSR clarification to ensure consistency with the TSR bases statement.

c. Conclusions

Materials presented to and the rigor of questioning by the PORC was noted to have significantly improved. However, recent PORC actions indicated some continuing weaknesses.

IV. Plant Support

S1. Conduct of Security and Safeguards Activities

S1.1 Contraband Materials Onsite

a. Inspection Scope

The inspectors reviewed the circumstances associated with the presence of prohibited materials onsite.

b. Observations and Findings

On December 12, 1996, during the backshift, the PSS was informed that plant staff had discovered prohibited articles onsite. Specifically, the plant staff found two full cans of beer in Building 400. The cans were in an overcoat which had recently been removed from a vehicle used onsite. As of the end of the observation period, the plant staff had not determined how the materials were brought onsite.

The inspectors noted that plant staff had previously, within the past two years, found empty beer cans onsite. Additionally, several other lapses in security protocol were documented within the past 6 months, i.e. inadequate control of the site gates and uncompensated breaches in the site boundary fence.

c. Conclusions

Several recent events appeared to indicate weaknesses in implementation of and adherence to the site security requirements, including the presence of unauthorized articles within the security perimeter.

V. Management Meetings

X1. Exit Meeting Summary

The inspectors met with facility management representatives and the DOE Site Safety Representatives throughout the observation period and on January 6, 1997. The likely informational content of the observation report with regard to documents or processes reviewed was discussed.

Information highlighted during these meetings is contained in the Executive Summary. No classified or proprietary information was identified.

PARTIAL LIST OF PERSONS CONTACTED

Lockheed Martin Utility Services (LMUS)

* S. A. Polston, General Manager
* H. Pulley, Enrichment Plant Manager
* W. E. Sykes, Nuclear Regulatory Affairs Manager
* S. R. Penrod, Operations Manager

United States Enrichment Corporation

J. H. Miller, Vice President - Production
* J. M. Brown, Engineering Manager
* J. A. Labarraque, Safety, Safeguards and Quality Manager

United States Department of Energy (DOE)

* G. A. Bazzell, Site Safety Representative

Nuclear Regulatory Commission (NRC)

* K. G. O'Brien, Senior Resident Inspector
* J. M. Jacobson, Resident Inspector

* Denotes those present at the routine resident exit meeting held on January 6, 1997.

Other members of the plant staff were also contacted during the observation period.

ITEMS OPENED, CLOSED, AND DISCUSSED

Opened

None

Closed

None

Discussed

None

Certification Issues

None