

U.S. NUCLEAR REGULATORY COMMISSION

REGION III

AND

THE DIVISION OF FACILITIES AND SECURITY

Docket No: 70-7002
Certificate No: GDP-2

Report No: 70-7002/99008(DNMS)

Facility Operator: United States Enrichment Corporation

Facility Name: Portsmouth Gaseous Diffusion Plant

Location: 3939 U.S. Rt. 23
Piketon, OH 45661

Date: June 14-17, 1999

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EXECUTIVE SUMMARY

United States Enrichment Corporation Portsmouth Gaseous Diffusion Plant NRC Inspection Report 70-7002/99008(DNMS)

NRC performed a security inspection of the Portsmouth Gaseous Diffusion Plant located in Piketon, Ohio, on June 14-17, 1999. The main objective of this inspection was to ensure compliance with the certificate holder's Protection of Classified Matter Plan and Physical Security Plan. The inspection team, with the assistance of the NRC Resident Inspector, reviewed five core areas of the Portsmouth security program. Those areas were physical security, storage and control of classified matter, classification, communications security, and computer security.

One violation involving a classified electronic typewriter was identified. The violation was corrected during the course of the inspection and appropriate corrective actions were implemented.

This inspection was conducted through a review of selected records, interviews with personnel, and direct observation of work activities.

- Except for the protection of one classified typewriter ribbon, implementation of the Classified Matter Plan and the Physical Security Plan, and associated implementing procedures was in compliance with NRC criteria.
- Security event reports were adequately reviewed and reported to the NRC.
- Security plan revisions, which did not decrease the effectiveness of the security plan, were adequately implemented and submitted to the NRC.
- Security personnel were knowledgeable of their duties and responsibilities.

Report Details

01. Inspection

Areas examined during the security inspection covered the commitments contained in the Protection of Classified Matter Plan (CMP) and the Physical Security Plan. The inspection centered on detailed reviews of five core areas of the security plans: Physical Security (e.g., protective personnel, physical barriers, site security procedures, and personnel identification and control); Classification (e.g., proper marking of and accounting for classified material); Telecommunications of Classified Information (e.g., accounting for Secure Telephone Units (STU-III)s and other equipment used to facilitate secure communications of classified information); and Computer Security.

02. Physical Security

a. Inspection Scope

The inspectors examined Portsmouth's physical security and access control practices to ensure compliance with the requirements of the Portsmouth Physical Security Plan and Protection of CMP. The inspection included a review of the physical barriers, alarms, locks and keys, and personnel access controls and badges.

The inspectors also reviewed Portsmouth's Badge Issuing Procedure XP4-SS-SE1060.

b. Observations and Findings

A review of the site physical security posture consisted of interviews with plant personnel and individual guards, observations of activities, tests, and reviews of procedures. Gates, vehicle barriers, and guard portals were observed to be intact and adequately manned. Plant personnel and visitors were properly identified, registered, badged, and escorted as required. Personnel security clearances and the need for access to the Controlled Access Area (CAA) of the plant were being verified and packages/briefcases were visually inspected by security officers at the entrance to the CAA as required by the Physical Security Plan and the CMP.

The inspectors observed two alarm tests performed by the plant Protective Force Security Manager. The first alarm tested was the Central Files Vault in the X-100 Building. The other alarm was located at the X-100 Building emergency exit gate. Both alarms tested positive according to the plant's Central Alarm Station operator and were verified by the inspectors through the use of the Protective Force Security Manager's hand held radio.

The types, design, fabrication, and destruction of security identification badges were found to be consistent with the approved security plan commitments. Procedures for lost badges were reviewed and found accurate. Use of proper forms, retention periods for records and inventory of badging materials were also confirmed. The badge computer database was reviewed and found to be consistent with Procedure XP4-SS-SE1060, "Security Badging Requirements."

To determine if adequate protection was being afforded to the low enriched uranium (LEU) onsite, the inspectors toured the CAA and observed the integrity of the fence,

gates, and vehicle barriers. The fences, gates, and vehicle barriers were intact and adequately maintained.

All officers were armed with a handgun and equipped with a radio. The inspectors witnessed radio tests and concluded that there was appropriate communication capability within the CAA.

The inspectors also interviewed officers posted and on patrol, and found them to be knowledgeable of their duties and responsibilities. Security procedures were reviewed and updated as required, located in the appropriate locations, and determined to provide adequate guidance for security officer duties.

As a result of the tour of the CAA, the inspectors determined that all LEU was either stored or used within the CAA.

While reviewing the CAA fence line, the inspectors noticed that the vegetation around the fence was extremely high (approximately 2-3 feet). Patrolling security officers must be able to observe and assess the entire fence to determine if anyone is hiding or has breached the fence by tunneling under or cutting through it. The tall grass and weeds can make assessments difficult for officers and could potentially conceal small animals that could cause harm to officers physically checking the fence. The certificate holder began mowing the vegetation during the inspection, agreed with the inspectors assessment, and agreed to keep the vegetation at an appropriate level.

c. Conclusions

The inspectors verified that no violations or deviations of commitments existed with respect to the Portsmouth CMP and the physical security plan in the area of physical security.

Through observations, interviews, independent verification and records review, the inspectors verified that the protection being afforded the LEU at Portsmouth was in compliance with physical security plan commitments.

03. Storage and Control of Classified Matter

a. Inspection Scope (81820)

The inspectors examined Portsmouth's storage and control of classified matter practices to ensure adequate protection for classified matter being used, processed, stored, reproduced, transmitted, or handled in connection with the gaseous diffusion process. The inspection included a review of the Portsmouth Security Education Program; the Foreign Ownership, Control or Influence Program (FOCI); physical checks of classified containers/vaults/cages; classified lock combinations; and reports to the NRC (i.e., 30-day logable security event notifications).

The inspectors also reviewed Procedures XP2-SS-SS1039, "Handling and Control of Classified Documents," and XP2-SS-SS1036, "Security/Classification Orientation and Education."

b. Observations and Findings

A review of the process by which classified material was used, processed, stored, reproduced, transmitted, and handled consisted of interviews with plant staff, observations of activities, and reviews of procedures. While reviewing various classified security containers/vaults/cages in Buildings X-300, X-333, X-705, and X-1020, the inspectors were able to confirm that Standard Form 702's, "Security Container Check Sheets," were being utilized in accordance with the commitments contained in the approved CMP. The inspectors also noted that all Standard Form 700's, "Security Container Information," reviewed indicated that the combinations to these classified storage facilities were in compliance with the CMP commitments in that no combinations were overdue to be changed.

The inspectors reviewed the Portsmouth Security Education Program, to include plant Procedure XP2-SS-SS1036, "Security/Classification Orientation and Education," and found that the plant was in compliance with the commitments contained in the CMP. However, there was one finding during the course of the inspection where it appears a plant employee was not provided a "site specific" security briefing which led to a violation of plant Procedure XP2-SS-SS1039, "Handling and Control of Classified Documents." Details of this incident are noted in the "Computer Section" of this report.

The FOCI program was also reviewed and found to adequately meet the commitments contained in the CMP. The inspectors also noted that the plant has adequately conformed to the NRC assuming from Department of Energy the cognizant security authority for all FOCI actions associated with the Portsmouth and Paducah Gaseous Diffusion Plants.

Security Event Reports

The certificate holder provided the following security-related logable events for the period May 1-31, 1999. The inspectors reviewed any immediate security concerns at the time of the initial receipt of the events. There were no significant issues or compromises of classified information identified from these reviews. The root cause for these events was determined to be personnel error and appropriate corrective actions have been taken or were in the process of being taken.

<u>Number</u>	<u>Date</u>	<u>Title</u>
*99-02758	05/18/99	Classified print cabinet left unattended when moved to X-1020.
99-02761	05/18/99	Computer diskette contained unclassified files that if merged could have classified information.
99-02826	05/19/99	X-300 Cascade Controller Qualification Standard discovered to contain classified information.
*99-03011	05/27/99	Classified information on database and engineering drawing.

*Denotes events that are considered closed.

c. Conclusions

The inspectors verified that no violations or deviations of commitments existed with respect to the Portsmouth CMP in the area of storage and control of classified matter, except as noted in the Computer Security section of this report.

05. Classification

a. Inspection Scope

The inspectors examined Portsmouth's policies and procedures for the classification of information to ensure compliance with the commitments in the approved CMP and appropriate Executive Order (E.O.). The inspectors reviewed the procedures for classifying information, classification guidance, and classification marking. In addition, the inspectors reviewed Portsmouth's Authorized Derivative Classifiers (ADCs) Training Program and the procedures concerning E.O. 12958, "Classified National Security Information."

b. Observations and Findings

A review of the Portsmouth classification program consisted of an interview with the Site Classification Officer, reviews of procedures, and reviews of classified documents. The inspectors were able to confirm that the Site Classification Officer was knowledgeable of the requirements of E.O. 12958, the new marking requirements of 10 CFR Part 95.37, and appropriate classification guidance. It was also verified that the Portsmouth plant was equipped with the proper stamps for marking classified documents in accordance with E.O. 12958. A review of the Portsmouth ADC Training Program showed that the program adequately covered the requirements of E.O. 12958, appropriate classification guidance, and the commitments contained in the Portsmouth CMP.

c. Conclusions

The inspectors verified that no violations or deviations of commitments existed with respect to the Portsmouth CMP in the area of classification.

06. Telecommunications of Classified Information

a. Inspection Scope

The inspectors examined Portsmouth's telecommunications requirements and equipment to ensure classified matter was adequately protected while being telecommunicated. The inspectors reviewed Portsmouth's Communication Security (COMSEC) Program including sighting of COMSEC equipment and physical security controls.

b. Observations and Findings

A review of Portsmouth's Telecommunication of Classified Information Program consisted of an interview with the Portsmouth COMSEC Custodian, reviews of procedures, and observations of COMSEC holdings. The inspectors examined a random number of STU-III's and confirmed that the units were handled and operated in

accordance with the commitments contained in the approved CMP. It was also confirmed that the encrypted keys used in connection with the STU-IIIs were being secured in classified storage containers when not in use, as required. In addition, the inspectors informed the Portsmouth COMSEC Custodian that all STU-IIIs were scheduled to be phased out in the near future and replaced with the new "Secure Terminal Equipment (STE)." The inspectors noted that if the Portsmouth plant plans to continue telecommunicating classified information, all plant STU-IIIs will eventually have to be replaced with the STE.

c. Conclusions

The inspectors verified that no violations or deviations of commitments existed with respect to the Portsmouth CMP in the area of telecommunication of classified information.

07. Computer Security

a. Inspection Scope

The inspectors reviewed Portsmouth's methods for processing classified data on mainframe computer systems, local area networks, and designated stand-alone personal computers to ensure that classified data being processed was adequately protected.

b. Observations and Findings

The inspectors reviewed Portsmouth's Computing and Telecommunication Security Program to ensure that there were measures in place to control access and protect the classified systems in operation at the Portsmouth Gaseous Diffusion Plant. At the time of the inspection Portsmouth had five classified mainframe computer systems, one classified local area network, ten classified stand-alone microcomputer systems, and one mag-card typewriter in operation. Each system was operating under an approved computer security plan which formally documented the measures used to control access and protect the classified systems and the information. These plans were accredited at 3-year intervals to ensure that the systems continue to be in compliance with the requirements contained in the "Master Security Plan for Classified Microcomputer Systems Portsmouth Gaseous Diffusion Plant" and that the protective features and assurances continued to be effective. All systems' plans reviewed were found to be current.

While reviewing classified storage containers that house removable hard drives, the inspectors noted several Standard Form 702's (forms that accompany classified containers) were missing the "Month/Year" in the "FROM" column which is required in plant Procedure XP2-SS-SS1039, "Handling and Control of Classified Documents." The inspectors reviewed the subject procedure and met with Portsmouth security staff who were able to demonstrate that corrective actions were being taken (e.g., a laminated neon red card was attached to a security container by plant security staff whenever a classified container was found to not be in compliance with plant procedures.) The card requires the custodian of the container to report to the Portsmouth Security Office for a security refresher briefing. Also, in each instance where the inspectors found an

incomplete Form 702, immediate action was taken by the Portsmouth staff to correct the form.

Throughout the inspection, the inspectors noted instances in mainframe, personal computer, and terminal use areas where equipment employed for classified processing was potentially too close to unclassified telecommunication lines/jacks/instruments. The Master ADP Security Plan requires that telephone wires, unclassified data communication lines, or unclassified transmission lines of any type are not to be placed within 1 foot of a classified microcomputer system. In each instance where the inspectors noted a possible abridgement, immediate actions were taken by plant staff to correct item.

While reviewing classified systems in the Nuclear Materials Accounting Section, the inspectors noted an electronic typewriter which was labeled CONFIDENTIAL-Restricted Data (CRD). It was identified that the employee responsible for the typewriter had not been properly briefed by the section supervisor regarding the distinction and care of the classified typewriter. Plant Procedure XP2-SS-SS1036 required that each employee assigned to an organization receive a job specific security/classification briefing within 2 weeks of change in assignment by organization/section management. Also, the inspector identified that a typewriter ribbon cartridge was not properly labeled CRD as required by the Master ADP Security Plan and was not being properly stored in a classified security container. Plant Procedure XP2-55-551039 required that ribbons used in classified typewriters be placed in classified storage when unattended. Failure to properly mark and store the typewriter ribbon, and the failure to properly brief an employee on job specific security requirements are considered a violation of plant procedures and the Portsmouth CMP. (VIO 070-7002/99008-01)

Following the inspector's identification of the above violation, the Portsmouth Security Group performed an in-depth review of the incident and determined that there was no classified information contained on the typewriter ribbon; however, they did confirm that the ribbon was not properly marked CRD and was not being stored in a classified repository as required by Procedure XP2-SS-SS1039. The group's review also determined that there was no indication of a compromise or potential compromise of classified information. They also found that the plant employee had not received the appropriate security classification/security briefing by section management as required by Procedure XP2-SS-SS1036.

The following corrective actions were taken:

- A Fast Track Communication Message was immediately sent to all plant employees through Portsmouth's E-mail system advising of the typewriter incident.
- A briefing was given concerning typewriters used for generating classified information at the Plant Managers daily morning meeting with Organization Managers. Each Organization Manager was directed to review their operations for typewriters being used for classified purposes.
- A classification review was conducted by the Site Classification Officer regarding the information that is presently being prepared on the classified typewriter in question.

- Notices were to be published in the plant's daily publication "Open Line" advising that typewriter ribbons utilized for typing classified information must be protected at the same classification level as a paper document.
- The use of typewriters for preparing classified documents will be part of the annual security refresher training.
- A security plan for the typewriter was prepared and the typewriter ribbon was labeled CRD.
- A problem report was written.
- The employees involved were given additional training on the proper handling and control of classified matter.

c. Conclusions

The inspectors concluded that the overall implementation of the computer security program was adequate. When concerns were identified, corrective actions were immediately taken. Plant staff were knowledgeable of requirements and procedures, and generally performed duties well. The corrective actions taken for the identified violation appeared adequate and should prevent recurrence. This item will be reviewed during future inspections.

08 Exit Meeting Summary

The inspectors presented the preliminary inspection results to members of the plant's management at the conclusion of the inspection on June 17, 1999. Although classified information was reviewed during this inspection, no classified information was removed from the plant site.

PARTIAL LIST OF PERSONS CONTACTED

T. Bonner, Portsmouth Site Classification Officer, USEC
J. Brown, Portsmouth General Manager, USEC
J. Cox, Manager, Portsmouth Site and Facility Support, USEC
A. Grace, Manager, Paducah Security Section, USEC
D. Hupp, Manager, Portsmouth Security Department, USEC
M. Kelly, Portsmouth Security Section, USEC
M. Lombard, Nuclear Regulatory Affairs, USEC/HQS
T. Sensue, Portsmouth Nuclear Regulatory Affairs, USEC
E. Smith, Manager, Portsmouth Security Section, USEC
J. Snodgrass, Manager, Portsmouth Protective Force, USEC
D. Stadler, Paducah Nuclear Regulatory Affairs, USEC
C. Stollings, Portsmouth Computer Security Section, USEC

INSPECTION PROCEDURES USED

IP 81820: Physical Protection Facility Approval and Safeguarding of National Security Information and Restricted Data.
IP 81431: Fixed Site Physical Protection of Special Nuclear Material of Low Strategic Significance.
IP 81402: Reports of Safeguards Events.
IP 81401: Plans, Procedures, and Reviews.

ITEMS OPENED, CLOSED AND DISCUSSED

Open

70-7002/99008-01 VIO Failure to mark typewriter ribbon used on classified machine and failure to provide security brief to plant personnel.

Closed

None

Discussed

None

LIST OF ACRONYMS USED

ADC	Authorized Derivative Classifier
CAA	Controlled Access Area
CFR	Code of Federal Regulations
CMP	Classified Matter Plan
CRD	Confidential Restricted Data
COMSEC	Communication Security
DNMS	Division of Nuclear Materials Safety
E.O.	Executive Order
FOCI	Foreign Ownership, Control or Influence
LEU	Low Enriched Uranium
NRC	Nuclear Regulatory Commission
STE	Secure Terminal Equipment
STU	Secure Telephone Units