DEFENSE NUCLEAR FACILITIES SAFETY BOARD

November 23, 1993

MEMORANDUM FOR: Woody Cunningham, Technical Director

COPIES: Board Members

FROM: Paul F. Gubanc, Savannah River Site Program Manager

SUBJECT: Report on Review of DOE Savannah River Site Facility Representatives Conducted November 8 - 9, 1993

1. Purpose: This report documents DNFSB staff observations from a review of DOE-Savannah River Operations Office (DOE-SR) Facility Representative programs conducted November 8 - 9, 1993.

2. Summary: DOE-SR has addressed the major concerns that the DNFSB has identified in its correspondence with DOE regarding implementation of Recommendation 92-2, so far as it is within the purview of the Operations Office. In June 1993, DOE-SR conducted a self-assessment of its various Facility Representative programs. This assessment revealed that these programs were not uniformly implemented and that improvements were necessary to provide consistency and firm requirements. DOE-SR issued two core implementing procedures for use sitewide in October 1993, with supporting procedures expected to be completed by the end of 1993. These two DOE-SR procedures are consistent with the guidance provided in the DOE Standard on Facility Representatives. All DOE-SR Facility Representatives are required to complete qualification to the revised requirements by the end of 1994. DNFSB Technical Staff conducted informal walking tours with four DOE-SR Facility Representatives; the current incumbents appeared capable of performing their function, however, the quality of existing DOE-SR Facility Representative programs is widely variable between facilities.

3. Background: On November 8 - 9, 1993, Paul F. Gubanc and Timothy J. Dwyer of the DNFSB Staff reviewed DOE-SR implementation of the Facility Representative Program. The review was directed primarily at the upgrades recently implemented by DOE-SR for this program. Four DOE-SR Facility Representatives were also accompanied on their rounds by the review team, at each of their respective facilities: K-Reactor, Solid Waste Facilities (2 Facility Representatives), and the F-Tank Farm.

   DNFSB Recommendation 92-2 (Ref. 1) was issued on May 28, 1992 to recommend improvements to DOE's Facility Representative Programs. DOE's Implementation Plan (Ref. 2) and subsequent Action Plan (Ref. 3) specified that each field organization would conduct a self-assessment using the recently issued DOE Standard

   DOE-STD-1063-93, Establishing and Maintaining a Facility Representative Program at

DOE Nuclear Facilities (Ref. 4). The DOE-SR Performance Assurance Office (PAO) issued its assessment (Ref. 5) of the various Facility Representative programs within DOE-SR in July 1993. (Note that this assessment was conducted prior to issuance of the DOE Standard, but was conducted using the Guidancefor Establislting and Maintaining a Facility Representative Program at DOE Nuclear Facilities issued by DOE headquarters as a precursor to the DOE standard.)

The following DOE-SR divisions have Facility Representative programs:

1) Reactors Division; 2) Separations Division; 3) Manufacturing Division, which includes tritium facilities; 4) Defense Waste Processing Division; 5) Solid Waste Division; 6) Environmental Restoration Division; 7) Liquid Waste Division; and 8,) Savannah River Technology Center (SRTC). Each of these programs is based on a central (sitewide) implementing procedure. The PAO review assessed seven of these programs (SRTC was inadvertently overlooked) for consistency and effectiveness. The PAO review concluded that the level, rigor, and consistency of implementation among these divisions was highly variable and that more uniform and rigorous central guidance was necessary. As a result, the PAO issued eight recommendations (listed in Attachment A) to improve the central guidance. The DNFSB Staff reviewed the PAO assessment report shortly after its issuance and found the report to be thorough, well-supported, insightful and focused.

4. Discussion: DOE-SR has addressed the major concerns that the DNFSB has identified in its correspondence with DOE regarding implementation of Recommendation 92-2, so far as it is within the purview of the Operations Office.

The DOE-SR Manager tasked an ad hoc committee of his senior managers, familiar with the more mature Facility Representative programs on site, as well as the Nuclear Regulatory Commission Resident Inspector Program, to develop improved sitewide@ Facility Representative procedures based upon the recommendations in the PAO report. This committee drafted and DOE-SR issued revised, consolidated Facility Representative Program and Training & Qualification procedures (Refs. 6 and 7) on October 1, 1993. The DNFSB review team observed the following relative to these two Savannah River Implementing Procedures (SRIPs):

a. The consolidated DOE-SR procedures are consistent with the minimum requirements and guidance provided in DOE Standard DOE-STD-1063-93. (The DOE Standard has been formally imposed on the Operations Offices by Headquarters as indicated in the Recommendation 92-2 Implementation Plan.)

b. The consolidated DOE-SR procedures provide for the following, each of which exceeds the requirements of the DOE Standard:

    1. Use of a common procedure (i.e., SRIP 5480.19. IB) in developing each division-specific Facility Representative program.

2. Qualification standards, qualification cards, and achievement standards for each facet of Facility Representative training and qualification.

3. Initial screening criteria, core training and qualification; facility-specific training and qualification; and mandatory continuing training and requalification.

4. Assignment of meaningful responsibilities beyond those assigned in DOE Order 5000.3, Occurrence Reporting and Processing of Operations Information and DOE Order 5480.19, Conduct of Operations for DOE Facilities.

5. Dealing with personnel who are unable to qualify.

6. Monetary and career incentives to become qualified and remain in the Facility Representative program.

c. DOE-SR has decided to make its Facility Representative program apply to non-nuclear as well as nuclear facilities (exceeds the requirements of the DOE Standard).

d. DOE-SR has established a deadline of December 31, 1994, by which all DOESR Facility Representatives will be qualified to the new requirements and the use of "interim qualified" Facility Representatives will no longer be permitted (exceeds the requirements of the DOE Standard, which does not specify dates).

e. DOE-SR has established a formal advisory group called the Facility Representative Program Committee (FRPC), which has representation from each Assistant Manager's office and reviews (but does not approve) all DOE-SR Facility Representative program materials to assure consistency and rigor. No FRPC membership changes are expected for at least the next year. (This exceeds the requirements of the DOE Standard. By contrast, personnel at DOE headquarters responsible for the Facility Representative program have not yet been formally assigned.)

During the review, DOE-SR identified a number of open items and barriers to progress. As discussed below, each of these items is being actively pursued at the highest levels in DOE-SR. Of note, the DOE Standard does not provide specific requirements or explicit guidance on these subjects.

a. DOE-SR identified three additional sitewide procedures that need to be issued in support of Facility Representative program implementation:

1. SRIP 3410. 1. 1A, Training Administration, which will identify the minimum requirements for instructors. A completed draft is due in

December 1993.

2. SRIP 34 10. 1. 1 OA, Position Training Needs Analysis, an instruction on how to conduct a formal needs analysis, which is expected to be drafted by the end of 1993 although the formal issue date is committed as May 1994.

3. SRIP 3410.1.12A, Training Requirements Matrices, which will provide a revised format for presenting qualification status information. A prototype matrix is due by the end of November 1993.

   Items 2 and 3 are considered enhancements (as opposed to requirements); the fact that they are not yet issued should not slow the pace of implementation of the two core SRIPS.

b. Facility-specific programs for Facility Representative training and qualification within each DOE-SR division possessing Facility Representatives are not yet issued. DOE-SR has set a deadline of December 31, 1993 for each division to formulate its program.

c. The two core SRIPs do not address disqualification (for cause) of qualified Facility Representatives, time limits on how long a candidate may pursue qualification, or time limits on how long a qualification signature is valid. The DOE-SR FRPC Chairman agreed to consider each of these points explicitly with the FRPC.

d. DOE-SR personnel stated that it was currently not permissible under Office of Personnel Management (OPM) rules to hire a federal employee contingent upon qualification as a Facility Representative. As currently structured, if a new hire fails to qualify, DOE-SR must find a new position for him in the organization. If the person fails in other essential job performance categories, however, he may be processed for termination.

e. A Facility Representative career path is not yet identified. However, DOE-SR is contemplating several incentive programs for Facility Representatives:

   1. DOE-SR is working to develop the position of Senior Facility Representative. Such personnel would not be supervisory, but rather they would be the lead spokesmen for a group of Facility Representatives all assigned to the same facility or major area (e.g., DWPF or Separations).

   2. DOE-SR is investigating the possibility of providing bonuses for achievement of Facility Representative certification and recertification(every 3 years).

   3. DOE-SR is examining the possibility of providing premium pay to Facility Representatives, based on the fact that the Facility Representatives receive

frequent calls and interruptions after normal working hours due to their responsibilities.

The DNFSB review team also met and performed facility tours with four DOE-SR Facility Representatives. Observations from those tours are as follows:

a. The K-Reactor Facility Representative was "interim qualified" under the old K-Reactor program. There are three Facility Representatives in various stages of qualification assigned to Reactors Division; specific facility assignments are rotated weekly. The DNFSB review team visit coincided with day two of this representative's assignment to K-Reactor.

   The K-Reactor Facility Representative exhibited good attention to ongoing and scheduled work, and his technical knowledge of the facility, operating conditions, and use of resources to fill knowledge gaps was satisfactory. He was often accompanied by a support contractor upon whom he frequently relied. Those items that the Facility Representative brought to the attention of shift management appeared to cause effective action.

   However, in several instances in which discrepancies were found (e.g., status boards out of date, alarm panel audits informally completed, inadequately controlled maintenance work) the Facility Representative appeared to concentrate on treating the symptoms rather than curing the root cause.

b. The two Solid Waste Facility Representatives were "interim qualified" to the old DOE-SR program. A new divisional qualification card had been received (in DRAFT form) the week of the DNFSB review team visit. Achievement standards, examination banks, and standard "tour checklists" were in various stages of development. Both Facility Representatives were very familiar with their facility, recording discrepancies observed both on note pads and a Polaroid camera (an idea of their own).

   Although they occasionally had to be prompted to identify observed conditions as discrepant or inconsistent, both were considered to be conscientious and technically skilled. It was very apparent that the program that governs them is largely undefined and mostly of their own making.

   The DNFSB review team did not have an opportunity to observe Facility Representative interaction with WSRC management.

c. The F-Area Tank Farm Facility Representative has been "interim qualified" to the new program for one week. (A second F-Area Tank Farm Facility

Representative was unavailable due to attendance at training; he is not qualified under the new program and is serving in an "acting" capacity.)

The Facility Representative was conducting an independent technical surveillance of specific tank farm ventilation equipment. His review appeared thorough, well-prepared, and focused. He also noted deficiencies and changes in operating conditions (since the previous day) which were not directly related to the technical surveillance.

It was not apparent, however, that the Facility Representative could effect any actions to correct noted deficiencies. He stated that he is frustrated by a lack of WSRC management attention to issues he identifies.

In general, the review team found each of the Facility Representatives encountered to be technically competent personnel. Based on this and prior involvement with the DOE-SR Facility Representatives, the DNFSB Staff concludes that DOE-SR currently has sufficient numbers of competent, capable personnel to implement the more rigorous Facility Representative program requirements.

5. Future DNFSB Staff Actions: In the near term, DOE-SR Facility Representative qualifications will be reviewed on a facility-specific basis as DOE-SR facility startup schedules dictate. A follow-up review of DOE-SR implementation of the consolidated program will be conducted in mid-1994 to assess overall progress against the DOE-SR schedule.

REFERENCES

1. DNFSB Recommendation 92-2 dated May 28, 1992 regarding DOE Facility Representatives.

2. DOE Recommendation 92-2 Implementation Plan dated November 5, 1992.

3. DOE Recommendation 92-2 Action Plan dated April 1993.

4. DOE Standard, DOE-STD-1063-93, Establishing and Maintaining a Facility Representative Program at DOE Nuclear Facilities, August 1993.

5. DOE-SR Performance Assurance Office Assessment of DOE-SR Facility Representative Program, issued July 14, 1993.

6. DOE-SR Implementing Procedure, SRIP 34 1 0. 1. I 1 B, Facility Representative Training and Qualification, October 1, 1993. (DNFSB Log# 93:6017)

7. DOE-SR Implementing Procedure, SRIP 5480.19. IB, Facility Representative Program, October 1, 1993. (DNFSB Log# 93:5928)

ATTACHMENT A

Facility Representatives Training and Qualification Program Recommendations from the DOE-SR PAO Assessment of DOE-SR Facility Representative Program, issued July 14, 1993.

1. Develop a position description for Facility Representative which will identify minimum education and experience requirements.

2. Revise SRIP 3410.1.11A, Facility Representative Training & Qualification to include:
   - A structured Facility Representative continuing training and re-qualification program.
   - Facility walk downs be required as a part of the Facility Representative qualification program.
   - Require learning objectives for formal courseware.
   - Identify common administration, grading techniques (including passing criteria), and actions required upon examination failure.
   - Require supporting documentation in justifying qual-card equivalencies.

3. Further develop the following items for a more consistent and effective Facility Representative training and qualification program:
   - Provide specific direction regarding content and conduct of oral examinations.
   - Define the process used to conduct a needs analysis.
   - Simplify the structure and format of the Facility Representative qual-cards.

4. Identify the minimum qualifications of instructors, evaluators, and oral board examiners.

5. Provide requirements for the control and storage of training and qualification materials (including written and oral examinations).

6. Delineate a process for the collection and use of post-qualifications feedback to improve training program content.

7. Simplify the Training Requirements Matrix (TRM) to clearly show the qualification status of individuals (required training versus optional training).

8. Specify the level of detail appropriate for Site-wide and program-level procedures.