DEFENSE NUCLEAR FACILITIES SAFETY BOARD

March 6, 1995

MEMORANDUM FOR:	G. W. Cunningham, Technical Director
COPIES:	Board Members
FROM:	J. T. Arcano, Jr.
SUBJECT:	Savannah River Site (SRS) - Review of In-Tank Precipitation (ITP) Facility Contractor Operational Readiness Review Process and Quality Assurance Program

1. **Purpose:** This Report documents a review by Defense Nuclear Facilities Safety Board (Board) technical staff member, T. Arcano and Outside Expert, R. West, January 9-13, 1995, regarding the Westinghouse Savannah River Company (WSRC) process for conducting Operational Readiness Reviews (ORRs) and quality assurance program.

2. **Summary:** The review focused on the preparations for and the conduct of the WSRC ORR performed at the In-Tank Precipitation Facility in October 1994, and implementation of Criteria 2, 9, and 10 of the U.S. Department Of Energy (DOE) Order 5700.6C, *Quality Assurance*. The following major observations were noted:

   a. *WSRC ORR Procedures*: WSRC has promulgated a Startup and Operational Readiness Manual (WSRC Procedure Manual 12Q) which formalizes and generally meets the intent of DOE Order 5480.31, *Startup and Restart of Nuclear Facilities*. The Board's staff believes that a requirement in Procedure ORR-2 of this manual for the ORR Board to oversee line management's Readiness Self-Assessment (RSA) of readiness for operation removes the independence of these two reviews contrary to the DOE Order.

   b. *WSRC ORR Performance*: Several errors were seen in implementing the requirements of the WSRC Manual that adversely impacted the thoroughness of the review and the degree of performance-based assessment conducted. For example, the ORR was started prematurely because several significant areas were not ready to be reviewed, which further decreased the thoroughness of the review. Also, although the opportunity was present, the WSRC ORR did not observe simulant operations that would have provided a better review of conduct of operations.

   c. *DOE Savannah River Office (DOE-SR) Validation of the WSRC ORR*: The DOE validation of the WSRC ORR, required by DOE Order 5480.31, lacked formality and was poorly documented.

   d. *Implementation of Quality Assurance Requirements*: Interviews with In-Tank Precipitation (ITP) personnel responsible for implementing Criterion 2 of DOE Order 5700.6C, indicate that they have not yet fully grasped the quality assurance implications of training and qualification beyond the requirements of

DOE Order 5480.20, *Personnel Selection, Qualification, Training, and Staffing Requirements at DOE Reactor and Non-Reactor Nuclear Facilities*.

3. **Discussion:**

   a. **ITP WSRC Operational Readiness Review**

      1. *WSRC ORR Manual*: WSRC Procedure Manual 12Q, *Startup and Operational Readiness Manual*, establishes a formalized process for the startup/restart of nuclear activities at Savannah River Site (SRS). This manual implements the contractor's ORR requirements that are defined in DOE Order 5480.31, *Startup and Restart of Nuclear Facilities*, and DOE Savannah River Implementing Procedure 5480.31.1A, *Facility Startup and Approval Process*. The Board staff found several deficiencies with this Manual. DOE Order 5480.31 requires a review of readiness to start or restart operations, independent of line management. However, the WSRC 12Q procedure directs significant involvement of the ORR Board in the structuring and performance of the RSA which is line management's determination of facility readiness. The process in the manual improperly restricts the scope of review and provides insufficient guidance for use of the minimum core requirements. Therefore, the independence of the ORR Board and the thoroughness of their review have been impacted.

      2. *Review of ITP WSRC ORR Plan of Action*: The WSRC ORR Plan of Action (POA) conformed to the WSRC 12Q Manual requirements. The POA set forth the minimum core requirements in a bullet form that generally captured the sense of the required set of minimum core requirements in DOE Order 5480.31. However, in the areas of training and qualification and startup test program it did not. The prerequisites listed in the POA did not specify the required material status for the facility prior to starting the ORR, as required by DOE Order 5480.31 Minimum Core Requirement 5.

      3. *Review of ITP WSRC ORR Implementation Plan*: The Implementation Plan (IP), which provided the specific criteria and lines of inquiry for the review, conformed to the format provided in the WSRC 12Q manual. The Board staff noted problems with some core requirements not being covered adequately and inconsistences in the use of core requirements. Deficiencies were noted with the coverage of key elements of functional areas. The resumes for the members of the ORR Board met personnel qualification requirements of DOE Order 5480.31 except in the areas of procurement, safeguards and security, and packaging and transportation. Some important items, such as evaluation of the training staff, on-the-job performance evaluation, and routine drill program, were not included in the criteria to be reviewed. Some lines of inquiry were not performance-based. Thus the Board staff believes that the Implementation Plan limited

the effectiveness of the subsequent ORR.

4. ***Review of ITP WSRC ORR Performance***: The Board staff believes that the ITP WSRC ORR was started prematurely. Numerous operating and surveillance procedures had not been approved as required by an ORR POA prerequisite. Safety analysis issues concerning benzene generation had not been resolved at the time of starting the ORR despite a prerequisite that the authorization basis documents are completed and approved. In fact, WSRC memorandum, *ITP Readiness For WSRC ORR* of October 7, 1994, stated that ITP was "... not fully ready for startup in the strict sense of DOE Order 5480.31...," however WSRC management recommended starting the WSRC ORR anyway.

   The problems described above with the POA and Implementation Plan appeared to carry through to the performance of the ORR and, thereby, reduce the thoroughness of coverage of the review. Board staff believes that the oversight of the RSA by the ORR Board provided for a lack of independence in conduct of the review contrary to DOE Order 5480.31. Interviews of personnel found repeated reference to direction of the ORR Board in establishing the method for performing the RSA. Interviews and ORR results indicated that ORR reviews were influenced by what the ORR Board members had seen during the RSA.

   A review of the completed ITP WSRC ORR checklist forms found problems with the performance of the lines of inquiry and the development of findings. Examples were seen of reviews that noted incomplete programs but made no findings. For example, quality assurance assessors did not observe performance of quality improvement processes, management assessments, or independent assessments, because such actions were not being performed However, no findings were issued. Interviews during the visit found that the simulant operations conducted to verify system operability were not observed by the ORR Board as part of the ORR. The Board staff believes that they could have provided a more realistic measure of operational performance.

5. ***DOE-SR Validation of the WSRC ORR***: DOE Order 5480.31 assigns responsibility to the DOE operations office to ensure that the results of the responsible contractor ORR are adequate to verify the readiness of hardware, personnel and management programs for operations. DOE-SR developed a validation program that consisted of performance-based assessments of the WSRC RSA and ORR, and an independent performance-based assessment of ITP startup activities. A review of the DOE-SR files indicated that DOE-SR had performed substantial monitoring of the RSA. The DOE team leader expressed general satisfaction with the ORR but was unable to describe all the significant findings relative to the WSRC ORR. The files contained few comments to substantiate the team leader's satisfaction with the ORR.

b. **WSRC ITP Implementation of Quality Assurance Requirements**

1. ***Quality Assurance Program (Criterion 1)*** - WSRC has a SRS-wide quality assurance program, originally based on American Society of Mechanical Engineers Quality Assurance Program Requirements for Nuclear Facilities (NQA-1), but modified to adapt to changes required by DOE Order 5700.6C. The foundation of the SRS quality assurance program is the WSRC Quality Assurance Manual (1Q). WSRC management indicated that they completed program changes to meet DOE Order 5700.6C in September 1994, however, no sitewide administrative Compliance Assessment and Implementation Report was generated.

   WSRC is now implementing the DOE safety rule 10 CFR 830.120, *Quality Assurance Requirements*. WSRC anticipates that they will be in compliance with the rule by April 1, 1995 following field verification. According to WSRC, its quality assurance program for 10 CFR 830.120 was developed using the Implementation Guide in DOE Order 5700.6C.

2. ***Training and Qualification (Criterion 2)*** - Interviews with ITP personnel responsible for implementing Criterion 2 of DOE Order 5700.6C, indicate that they have not yet fully grasped the quality assurance implications of training and qualification beyond the requirements of DOE Order 5480.20. These personnel were unable to discuss how Criterion 2 requirements for training and qualification apply to all personnel, beyond the requirements of DOE Order 5480.20.

3. ***Management Assessment (Criterion 9)*** - ITP is consolidating its management assessments program into an integrated program based on the WSRC-SCD-4, *Operational Readiness Functional Area Requirements*, continuing Order adherence compliance assessment program. If properly implemented, this program will evaluate day to day operations relative to Order requirements. The success of this program depends on WSRC senior management involvement, including the ongoing evaluation of assessments regarding their effectiveness and whether they are performance-based. Currently, this program is in its early stages.

   Board staff observed an assessment of a safety related system work package conducted by the ITP Maintenance Manager. The assessment was thorough and identified several significant work control problems regarding loss of material control, lack of adequate testing, lack of appropriate verification points, etc.

4. ***Independent Assessment (Criterion 10)*** - Recent consolidation of WSRC independent oversight activities at SRS has evolved into the WSRC Facility Evaluation Board (FEB) which uses common assessment criteria across the site (WSRC-SCD-4, Operational Readiness Functional Area

Requirements). FEB reviews, lasting approximately two weeks, are supposed to be performance-based and interdisciplinary, and conducted annually at nuclear facilities. ITP is scheduled for a FEB review between July 31 - August 11, 1995.

4. **Future Staff Actions:** Board staff will follow up on:

   a. WSRC actions to compensate for a premature ORR in the areas of procedures and safety documentation.

   b. WSRC actions to compensate for not meeting the minimum core requirements of DOE Order 5480.31 in the areas of quality assurance and startup test program.

   c. Evaluating the effectiveness of the new management and independent assessment programs.

DETAILED COMMENTS ON REVIEW OF ITP WSRC OPERATIONAL READINESS REVIEW

1. WSRC ORR Manual: Procedure Manual 12Q, *Startup and Operational Readiness Manual*, establishes a formalized process for the startup/restart of nuclear activities at Savannah River Site (SRS) and provides procedures for the uniform conduct of Westinghouse Savannah River Company (WSRC) Readiness Self-Assessments (RSAs), WSRC Operational Readiness Reviews (ORRs), and WSRC Readiness Assessments (RAs). This manual implements the contractor's ORR requirements which are defined in the U.S. Department of Energy (DOE) Order 5480.31, *Startup and Restart of Nuclear Facilities*, and DOE Savannah River Implementing Procedure (SRIP) 5480.31.1A, *Facility Startup and Approval Process*.

   Procedure ORR-1 of the 12Q Manual describes how to determine the level of review for a startup/restart. It also describes WSRC ORR or RA requirements and provides for nuclear activity startup/restart planning. A process is set forth to develop a proposed level of review and obtain the necessary concurrences. It describes the development of a WSRC Startup Plan, WSRC ORR POA, WSRC RA Action Plan and Startup Schedules.

   When a DOE ORR is determined to be necessary, this procedure requires the line manager for the activity to prepare a WSRC Startup Plan. This plan provides a facility or process description, startup classification and startup approval authority, organizational responsibilities, startup approval mechanics, startup requirements, major milestones, program schedule and DOE Order compliance status. The Startup Plan provides startup requirements for each of the 22 functional areas defined in WSRC-SCD-4, *Operational Readiness Functional Area Requirements*, and designates the portions of these areas that are applicable to the planned startup.

When a DOE ORR is required, the line manager also prepares a WSRC ORR POA. This document addresses each of the 17 minimum core requirements which are set forth in the DOE Order to establish the breadth of the startup and WSRC ORR. ORR-1 requires that for each minimum core requirement that is applicable to the startup, a summary of the startup performance requirements be provided on how the assessments will be conducted. ORR-1 also requires the POA to detail prerequisites (specific verifiable items/tasks for each minimum core requirement identified as applicable to the activity startup) to be met prior to starting the WSRC ORR. The plan also includes ORR start date, duration and the ORR Board chairman.

Procedure ORR-3 provides the requirements and guidance for planning a WSRC ORR. It defines the responsibilities for appointing the ORR Board chairman and members. This procedure details the form and content of the ORR Implementation Plan (IP). The procedure requires the plan to be based on the Startup Plan and POA. The IP is to define the breadth and depth of the ORR activities; the rationale for the process by which the ORR will be conducted; the selection of Startup Plan Criteria from each functional area to be evaluated and verification approaches to be used; and orientation of ORR Board members. ORR-3 specifically requires involvement by the ORR Board in the oversight of RSA performance in all functional areas identified in the Startup Plan. The procedure requires that the IP identify the functional areas to be independently verified by the ORR Board and identify the defined boundaries for those areas, based on the information provided in the approved Startup Plan and POA. The Methodology section of the Implementation Plan is to include identification of WSRC ORR activity to review the RSA plan, oversee the RSA process and review the RSA Report. ORR-3 provides the criteria and process for appointing the ORR Board chairman and members.

Procedure ORR-4 provides the process to conduct a WSRC ORR. It sets forth the responsibilities of the chairman and the ORR Board members. The process for conducting Board business is provided. ORR-4 stresses that the purpose of the ORR is to independently verify the adequacy of the line organization's RSA and to independently assess readiness based on limited sampling. It goes on to require that the ORR Board separately determine the acceptability of the initial RSA planning documents; oversee portions of the conduct of the RSA for adequacy; review the RSA Report for adequacy of product; and finally, to conduct limited-sample independent field verifications to establish an independent determination of operational readiness. The Conduct of the WSRC ORR section of the procedure has separate subsections about review of the RSA Plan, performance of RSA oversight and review of the RSA Report. The final subsection describes the limited-sample observations or reviews that are targeted at issues critical to activity startup, including the minimum core requirements as identified in the WSRC ORR POA.

Procedure ORR-5 provides the requirements for documentation, control and closure of WSRC ORR findings and corrective actions. Procedure ORR-6 provides the process for preparation and approval of reports generated by the WSRC ORR. The report format requires a summary of the state of activity readiness, the performance of RSA oversight, the performance of independent field verifications, and the performance of

subject matter expert reviews, and documents all ORR Board findings and lessons learned. The procedure establishes a Resolution Report to be issued when all pre-start action items have been completed. Procedure ORR-7 provides the process for obtaining authorization for nuclear activity startups after performance of a WSRC ORR.

Procedure ORR-8 provides the requirements for performing a WSRC Readiness Assessment. The procedure states that Readiness Assessment performance closely parallels that of a RSA, but startup criteria are fewer in number and there is no WSRC ORR Board involvement. However, the principles of line of inquiry development, use of performance-based assessment techniques, thorough reporting of Readiness Assessment results and adequate correction of deficiencies are used to ensure activity operational readiness. The procedure relies on the Readiness Assessment Action Plan described in ORR-l to define the extent of a Readiness Assessment.

2. *Analysis of WSRC ORR Manual*: The 12Q Manual provides a formalized, detailed process for the startup and review of readiness for startup of nuclear facilities at SRS. There are several deficiencies with this manual. DOE Order 5480.31 policy requires that readiness reviews are not to be tools of line management to confirm readiness. Rather, the readiness reviews are to provide an independent review of readiness to start or restart operations. The WSRC 12Q process does not comply with this requirement in that it directs significant involvement of the ORR Board in the structure and performance of the RSA which is line management's determination of facility readiness. Paragraph 9.b(3) of the DOE Order requires line management to develop the breadth of the ORR and document it in the POA. The ORR-1 procedure establishes the startup requirements using functional areas of SCD-4 and then requires the POA to summarize the startup performance requirements covered in the Startup Plan for each minimum core requirement of the DOE Order. The DOE Order states that the ORR team shall determine the criteria and review approaches to be used for the review. ORR-3 does not follow the Order in that it requires the use of the functional area, element, performance objective and criterion from the Startup Plan. ORR-3 directs that the ORR perform independent field verification activities for a limited sample of Startup Plan Criteria, sufficient to confirm the adequacy of the RSA. This potentially limits the thoroughness of the ORR and limits the independence of the review. This is contrary to the general policy section of the DOE Order which states that the readiness reviews provide an independent review of readiness to start or restart.

Procedure ORR-1 includes a matrix which cross references SCD-4 functional areas to DOE Order 5480.31 minimum core requirements. A review of this table showed several problems. Minimum Core Requirement 7, which concerns the systematic review of the facility's conformance with DOE Orders, was shown in the WSRC 12Q Manual as applicable to only two functional areas: organization and staffing, and packaging and transportation. Order compliance assessment programs are performed at the functional area level and should be reviewed by the program expert in the applicable areas to determine assessment thoroughness and timeliness. The matrix table in the WSRC 12Q Manual shows Minimum Core Requirement 3, which concerns the level of knowledge of personnel, as cross referenced only to the construction, organization and staffing, and training functional areas, but it would appear that it

should also be referenced to other areas such as maintenance, fire protection and radiation protection. The breakdown of the SRS functional areas does not include a section for Engineering Support (as the DOE ORR has done to ensure a more focused review of this critical area).

3. ***Review of ITP WSRC Startup/Restart Plan***: The Startup/Restart Plan for this facility was issued in July 1993. The WSRC 12Q Manual was issued in June 1994. The ITP Plan does not adhere to the guidance of the Manual and no effort was made to bring it into compliance since the Readiness Self Assessment was starting at about the same time and the WSRC ORR was to start shortly thereafter. A review of a draft Restart Plan for another facility showed that it used the startup requirements to define the areas to be covered in subsequent reviews rather than define the functional areas applicable to the planned startup as stated in the WSRC 12Q Manual. For example, in the area of conduct of operations only six of 18 key functional area elements were marked as applicable. Areas such as communications and lockouts/tagouts were marked as not applicable but obviously are applicable to the formality of the operations to be conducted. The discussion in the plan states that the program was recently reviewed and further review is not necessary, but this is not what the description of the purpose for this section of the plan states. Since the elements for the future WSRC ORR are drawn from the applicability listing it reduces the scope of this ORR. The ORR should not be influenced to limit the look in an area as essential as conduct of operations.

4. ***Review of ITP WSRC ORR POA***: The POA for the WSRC ORR, which was conducted in October 1994, conformed to the guidance in the WSRC 12Q Manual. The POA sets forth the minimum core requirements in a bullet form that generally capture the sense of the DOE Order 5480.31 minimum core requirements, but in some cases did not. For example, Minimum Core Requirement 2 in DOE Order 5480.31 requires that training and qualification programs for operations and operations support personnel have been established, documented and implemented. However, the POA Minimum Core Requirement 2 required:

   o The tasks required for competent job performance shall be identified, documented and included in the training program as appropriate.
   o Training program content shall provide the trainee with the knowledge and skills needed to perform tasks associated with the position for which the training is being conducted.
   o Training shall be provided to the operations and operations support staff prior to startup of the ITP facility.

   The POA Minimum Core Requirement 2 does not capture the elements of the Order's Minimum Core Requirement 2 with respect to qualification.

   Also, Minimum Core Requirement 10 of the DOE Order requires that an adequate startup or restart test program has been developed that includes adequate plans for graded operations testing to confirm operability of equipment, the viability of procedures and the training of operators. However, the POA Minimum Core

Requirement 10 required:

- o The Startup Testing Plan shall be developed from the types of tests listed in the test index derived from design basis documents.

- o Test Plans and summary reports shall be completed and approved, and all open items reviewed for impact on safety.

- o Operability of equipment using validated procedures and qualified operators shall be demonstrated.

    In this case, the POA minimum core requirement has lost the sense of reviewing an integrated document that describes the sequence of testing along with a process to validate operators performing operations for the first time with procedures that have never been used on an operating system.

    The DOE Order requires the POA to provide the prerequisites to be met prior to the start of the contractor's ORR. A section of the POA did provide prerequisites for each minimum core requirement as required by the Order, but did not include the required material status for the facility prior to starting the ORR.

5. ***Review of ITP WSRC ORR IP***: The document conformed to the format provided in the WSRC 12Q Manual. The ITP ORR checklists of intended field verification were compared with the scope specified in the POA. Some problems were noted with some minimum core requirements not being covered adequately, inconsistences in the use of minimum core requirements and checklists indicating coverage of minimum core requirements without sufficient justification. Some deficiencies were noted with the coverage of key elements of various functional areas.

    As indicated above in the review of ORR-1, the minimum core requirement/functional area matrix referenced Minimum Core Requirement 7 concerning the systematic review of the facility's conformance with DOE Orders in only two areas. However, no checklist could be found in either area to cover this minimum core requirement. There also were no indications of review of Order compliance assessment in the individual functional areas where the program experts should recognize the effectiveness of the specific program elements.

    A review of the training and qualification functional area revealed important elements that were not covered by the Implementation Plan. There were no criteria associated with evaluating the performance, qualification and/or evaluation of the training staff. No criteria required the observation of Job Performance Measure (on-thejob training evaluation) performance which is a key element in ensuring the proper level of knowledge of personnel as well as compliance with conduct of operations requirements. No observation was made of the routine drill program as required by Minimum Core Requirement 9. Although many reviews relied on training records for validation, no criterion required validation of these records against DOE requirements.

Some examples of lines of inquiry not being performance-based are:

a. Conduct of Operations: The criterion for checklist 22-01 deals with the periodic internal assessment of operating performance. The lines of inquiry required only a review of facility monitoring documentation and attendance at periodic meetings to assess identification, ownership and action progress on key issues. No line of inquiry required performance-based verification of the quality of the monitor program by observation of monitoring or at least interviewing monitors.

b. Training and Qualification: Checklist 4-05 had a criterion about the development and implementation of procedures that establish a performance-based training program. The line of inquiry only required the interview of two instructor/developers to verify compliance. No performance-based assessment (by direct observation) was made to verify the job task analysis was accomplished and used in a satisfactory manner. Checklist 4-06, dealing with the continuing training program, required only two manager interviews and thereby did not provide a performance-based assessment of this program. Checklist 4-07, dealing with technical support training, required only a review of training records and training schedules for technician/maintenance and technical support personnel. Technician and maintenance personnel are included in a separate section of the WSRC SCD-4 Manual. The section of the DOE Order concerning training referenced on the checklist was the one for technician and maintenance personnel and not for technical support personnel. The line of inquiry for this form continued the confusion between technician/maintenance and technical support personnel in that it required the review of training records of technician/maintenance and technical support personnel.

DOE Order 5480.31 requires that team members be technically qualified, thoroughly familiar with the activity being reviewed and have experience or training in performance-based review techniques. A review of resumes of ITP WSRC ORR Board members found that most members met these qualifications except for the areas of safeguards and security, and packaging and transportation.

6. ***Review of WSRC ORR Performance***: The problems with the POA and Implementation Plan (described above) were noted to carry through to the performance of the ORR and thereby reduce the thoroughness of coverage of the review. Also, the oversight of the RSA by the ORR Board provided for a lack of independence in conduct of the ORR, contrary to the DOE Order. Interviews of personnel found repeated reference to direction of the ORR Board in establishing the method for performing the RSA. Interviews and ORR results indicated that ORR reviews were influenced by what the ORR Board members had seen during the RSA.

A review of the completed ORR checklist forms found problems with the performance of the lines of inquiry and the development of findings. Following are some examples of these types of problems:

a. Conduct of Operations: Checklist 22-01 reported verification results of the review of the internal assessment program when the self-assessment cards were established for only eight of the 22 functional areas. Although the program was just being put in place and had insufficient evidence of performance, no finding was made to ensure a formal review later to verify performance.

b. Training and Qualification: Checklist 4-04 required verification that certification is granted only after qualification requirements have been satisfied. This checklist found that certification exams were still in progress and the records portion could not be satisfied; instead, the checklist was considered satisfied by observing the conduct of certification examinations for two shift crews. No finding was made to require satisfaction of the card's criterion when the program was complete. Checklist 4-06 (continuing training program) found that the program was not in place but no finding was made. Checklist 4-07 (technical support training) used record reviews of two maintenance mechanics, two shift managers and two shift technical engineers (STEs). However, the STEs are the only individuals that meet the criteria of technical support personnel in the DOE training Order. Also, the review of training records without interviews and/or a more in-depth look at the process for assessing the knowledge of these people does not provide sufficient performance-based validation. Interviews during the visit found that the simulant operations conducted to verify system operability were not observed by the ORR Board as part of the ORR. At the time of the WSRC ORR it was intended to perform simulant operations for the DOE ORR and thereby, the system operations should have been available for demonstration of conduct of operations. Simulant operations would have provided a better review of conduct of operations by the WSRC ORR team.

The Board staff believes that the ITP WSRC ORR was started prematurely. In the area of procedures, the POA prerequisite for starting the WSRC ORR required that operating, surveillance, calibration and abnormal response procedures be issued and approved. Checklist 5-02 noted that all surveillance procedures had not been issued and checklist 5-03 noted that the system operating procedures required for operations of the facility were not yet approved and available to the operating personnel. Safety analysis issues concerning benzene generation had not been resolved at the time of starting the ORR despite a prerequisite that the authorization basis documents are completed and approved.

7. ***DOE-SR Validation of the WSRC ORR***: One of the minimum core requirements in DOE Order 5480.31 requires that the results of the responsible contractor ORR are adequate to verify the readiness of hardware, personnel and management programs for operations. The operations office is responsible for meeting this minimum core requirement. DOE-SR developed a validation program which consisted of performance-based assessments of the WSRC RSA and ORR, and an independent performance-based assessment of ITP startup activities. This validation began in June 1994 and is continuing. There are 16 team members involved in the validation. A

review of the DOE-SR files indicated that the office had performed substantial monitoring of the RSA. The team leader expressed general satisfaction with the ORR but was unable to describe the significant findings relative to the WSRC ORR. The files contained few comments about monitoring the ORR.