

2/25/92

DOE WEST VALLEY PROJECT OFFICE
OPERATIONAL READINESS REVIEW PLAN
for
RESUMPTION OF IRTS OPERATIONS
High Level Waste Treatment
Phase II - Sludge Wash

REVIEWED ACTIVITY

1. Facility:

West Valley Demonstration Project IRTS (Integrated Radwaste Treatment System) High Level Waste Treatment - Sludge Wash Phase II

2. Cognizant Division Director:

T. J. Rowland, Director, West Valley Project Office

3. Completion Milestone:

Final report and recommendation submitted to ID Manager:
March 27, 1992

4. ORR Number:

PURPOSE

By DOE Order 5480.5, Safety of Nuclear Facilities, DOE Idaho Order 5480.5A, Safety of Nuclear Facilities, and as described by DOE-ID-ER&WM Procedure 603, and DOE-HQs NE-2 Memorandum, Nuclear Facility Restart Procedure, dated July 31, 1991, DOE is required to review the operational readiness of any nuclear facility having an approved process objective.

This is an "independent" DOE Operational Readiness Review (ORR) and is in addition to the internal readiness review conducted by the on-site operating contractor West Valley Nuclear Services Co., Inc. (WVNS).

SCOPE

West Valley has a mandate to demonstrate the vitrification of High-Level Radioactive Waste (HLW). To do so, five process steps are anticipated:

- 1) Supernatant treatment
- 2) Sludge wash
- 3) Acid waste neutralization
- 4) Zeolite transfer and waste blending
- 5) Vitrification

The first step was declared complete in April 1991 using the Integrated Radwaste Treatment System (IRTS). The second step was divided into two phases. Phase I consisted of the addition of five mixing pumps in Tank 8D-2, installation of a caustic addition system, and commencement of operations to mobilize the HLW sludge. It was declared operationally ready in October 1991. The first sludge mixing campaign is now complete. The pumps are de-energized, and sludge settling is occurring. Treatment of the liquid wash water supernatant will begin soon and is the subject of the Phase II Sludge Wash ORR activities.

Execution of Phase II sludge wash is to be accomplished by the continuation of IRTS Operations. Using the same equipment and facilities, treatment of the sludge wash water will duplicate the operations used in the supernatant treatment step. The washing process, now underway and driven by several in-tank mixing pumps, causes certain chemical "salts," primarily sulfates, to dissolve into the wash water. The resultant liquid, after the sludge resettles, will again be fed to the IRTS as in the supernatant treatment step. And again the HLW components, which will now include not only cesium remnants but also trace amounts of plutonium and possibly other radionuclides, will be stripped by ion-exchange. The resultant low-level waste will be converted to a Class C cement waste form.

It is important to recognize that Phase II is not a start-up of a new operational facility, nor is it the restart of a previous operation shut down for safety reasons or equipment failure. It is the continuation of an active operation wherein the "feed" to the system has changed from cesium loaded supernatant to a dissolved salts loaded supernatant. All of the IRTS subsystems have remained operational since November of 1990. Each of the IRTS subsystems have been operated periodically, some as frequently as weekly, others monthly and quarterly. New equipment has been added to repair failed parts or subsystem elements where needed (preventative maintenance). Procedures remain up-to-date and exercised regularly. The greatest difference from supernatant treatment to sludge wash treatment is the change in the ion exchange material to be used to capture the HLW radionuclides. A changeover to a titanium coated ion exchange media will be done as Phase II operations begin.

Although the resumption of operations is a relatively minor activity, DOE-WVPO will conservatively evaluate the readiness of the operating contractor to proceed with operations. An ORR will be conducted that examines five major areas of interest from the perspective of performance, as well as the current vogue - "compliance."

READINESS REVIEW ORGANIZATION

To determine "readiness" a team of reviewers will be assembled forming an official DOE Operational Readiness Review Board (ORRB). The team will consist of a variety of experts in a wide range of disciplines - safety, nuclear criticality, environment, engineering design/construction, operations, etc.

The Board will meet periodically in accordance with an established schedule, and will prepare, approve, and utilize an ORR "tree" and a "checklist" covering the proposed operations. The Board's objective will be to issue a recommendation of acceptance of the state of readiness of WVNS and the proposed sludge wash operation to the approving official.

The Board will consist primarily of DOE members from the Project Office and Field Office as well as two representatives from the New York State Energy and Research Development Authority (NYSERDA). The Board will perform its activities over a period of approximately two months keeping pace with the contractor's progress towards readiness.

Appendix A is the makeup of the Board.

APPROVAL AUTHORITY

Authority to start or restart operations of nuclear facilities is described in DOE Order 5480.5, Safety of Nuclear Facilities, SEN-16A-90, SEN-16B-91, and an NE-2 Memorandum, dated July 31, 1991. None of these explicitly address the West Valley situation on the continued operation of an existing facility. However, based on a review of the guidance with HQ's program management, it has been determined that the Field Office Manager has the authority to continue operations of a nonreactor nuclear facility where the program objectives have been established and approved earlier.

The DOE Board will prepare an independent recommendation characterizing the readiness condition of the proposed operations for transmittal to the ID Field Office Manager for approval with copies to the DOE-HQs Program Manager for information. In addition, interested HQs organizations will be invited to visit the Project during the readiness review preparation, and in particular to attend an "observers" meeting upon completion of the review, but prior to authorization to commence operations.

SUMMARY WORK PLAN

The readiness review work plan follows five major areas of interest shown in the ORR "tree" (Figure 1). These are management and personnel; equipment and hardware; procedures; technology; and safety, environmental and regulatory compliance.

1. Organization and Personnel: Both the DOE and WVNS organizations will be examined to determine whether the responsible groups have sufficient resources to provide sustained support for the operations of the sludge wash system. This will include the status of the management control and reporting systems, "off-normal" reporting, emergency control, and procedures by which management and support groups provide assistance to operations.

Engineering support will be examined to ascertain if sufficient technical support is available to provide technical resolution of upset conditions, corrective action needs, and technical consultation on a sustained basis.

Operations itself will be reviewed to determine if sufficient manpower is dedicated to sustain full scale operations and if sufficient resources are provided to properly maintain and upgrade the system as needed.

SLUDGE WASH

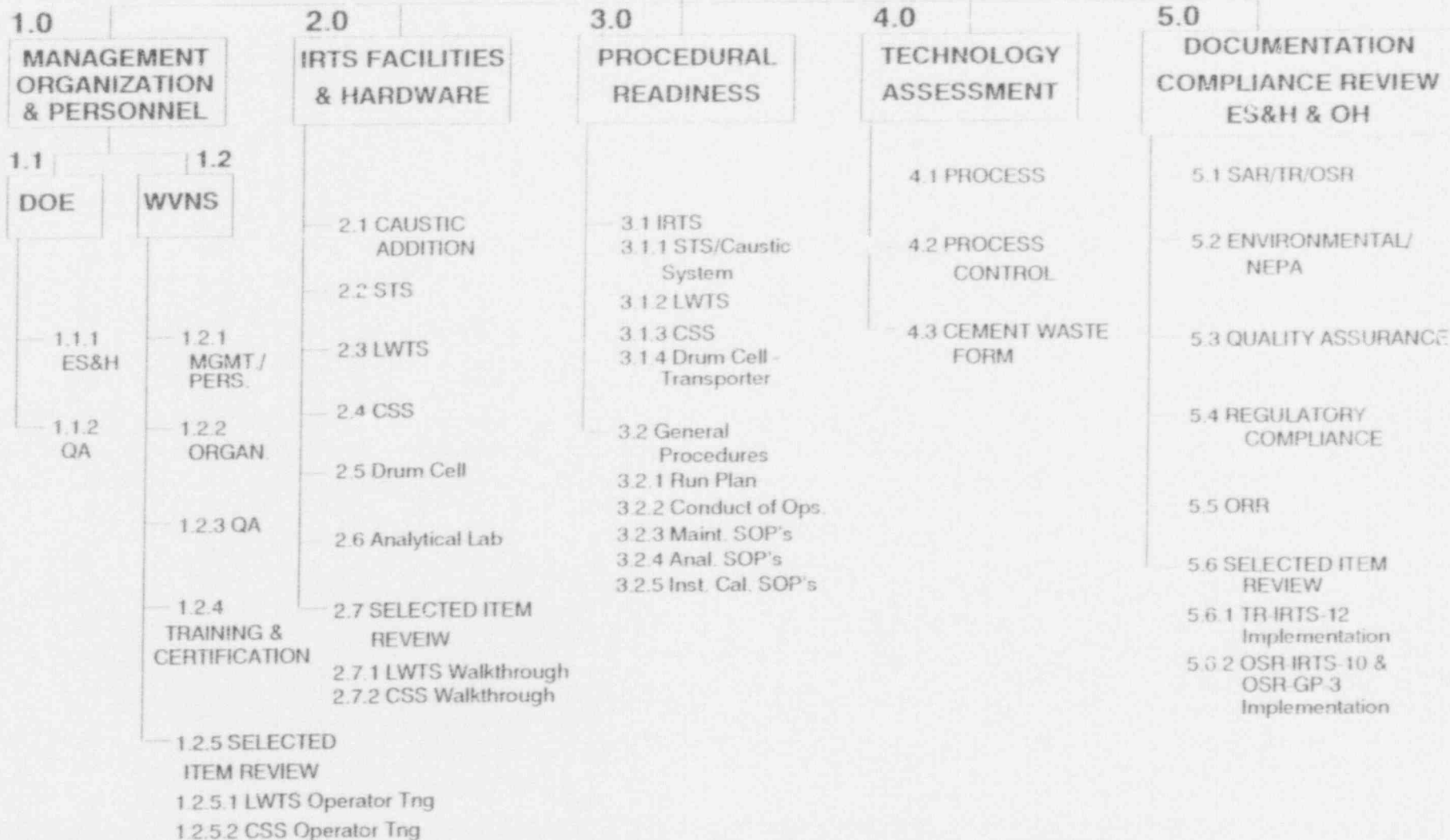


Figure 1

2. Facilities and Hardware: The IRTS will be evaluated from a "mechanical readiness" viewpoint keeping in mind the fact that this system is currently "operational" and is not a new system. Documentation assuring that the IRTS has been maintained during the period of modification and changeover to sludge wash will be reviewed.
3. Operating Procedures: Procedural readiness will be examined by reviewing the procedures, technical requirements (TR), operational safety requirements (OSR), as well as operator training and certification.

The procedures will include a full set for each of the process steps. For example, operational control and monitoring of the waste tank, the ion exchange system (STS), the evaporator cycle, cement solidification system (CSS), cross site waste transfer, Drum Cell storage operations, etc. Integration of the procedures for each of the interrelated operational steps will be examined, and the provisions for handling operational upsets, or "disconnects" between steps will be considered. Provisions for emergency responses and tie-ins to the West Valley Emergency Plan will be examined.

The TRs and OSRs will be compared to the proposed operations and procedures. A systematic review to judge the operational options available for "workarounds" and recovery from upset conditions will be done.

Training and certification of operators will be examined. Training records and operator certifications will be reviewed for currency and technical application. The composition of shift crews will be evaluated for the proper mix of experienced and novice operators.

4. Technology Assessment: Final testing results in support of the process chemistry, plutonium suppression and ion exchange efficiency will be reviewed.

The development process for the cement waste form will be examined. The methodology and scientific approach used to perform the testing and qualification of the "recipe" will be evaluated. The completeness of the documentation will be reviewed.

5. Documentation Compliance: In this area, the review will focus on the adequacy of the implementation of DOE orders, ES&H requirements, quality assurance, and related regulatory requirements throughout the proposed system. Satisfactory

"closure" of environmental/NEPA issues will be examined. A "compliance" review of the WVNS internal ORR process will be performed. Adequacy of the quality assurance programs applied to the sludge wash activities will be reviewed. Approvals and closure of all safety analysis work and documentation will be included.

Appendix B is the ORRB Checklist to be used by the Board to assist in examining each of the areas described above. The checklist is as comprehensive as can be done in advance, however, additions may be made during the review process as new information is made available to the Board.

SCHEDULE

The ORR will be scheduled to coincide with the development of documents needed by WVNS to fully characterize the "state of readiness" of the sludge washing process. The on-site members of the ORR Board will attend all WVNS readiness review presentations which are planned through the month of February 1992. The entire DOE Board will meet during the week of March 9, 1992, to close out any remaining checklist items, or actions. Finally, an overview and status presentation to interested HQs and Field Office representatives is scheduled for March 19, 1992, prior to submitting the Board recommendation to the authorizing official. Appendix C is the proposed schedule.

ADMINISTRATION

The Board will document and track its activities on a daily basis or as appropriate. Open items will be monitored on the WVNS Open Items tracking system as "J2" actions. Signoffs of all items on the checklist will be the "affidavits" of the Board members. Finally, a recommendation report will be prepared and transmitted through the concurrence chain to the ID Manager for final approval.

APPENDIX A

DOE WEST VALLEY PROJECT OFFICE
OPERATIONAL READINESS REVIEW BOARD

for

RESUMPTION OF IRTS OPERATIONS -SLUDGE WASH

MEMBERSHIP

Persons listed below are official board members and are responsible for supporting the DOE Phase-II Operational Readiness Review in accordance with the approved Plan.

Chairman

W. Stephen Ketola

DOE-WVPO

Members

Alan Yeazel

DOE-WVPO, Operations

Rick Provencher

DOE-WVPO, ES&H/QA

Joe Desormeau

DOE-WVPO, Qualification

Ted Sonntag

NYSERDA, Equipment

Paul Piciulo

NYSERDA, Technology

Jack Sanders

DOE-ID, Procedures

Joel Case

DOE-ID, Compliance

DOE WEST VALLEY PROJECT OFFICE
OPERATIONAL READINESS REVIEW BOARD

1-21-92

for

RESUMPTION OF IRTS OPERATION - SLUDGE WASH

MANAGEMENT/ORGANIZATION AND PERSONNEL CHECKLIST

PHASE II

1.0 MANAGEMENT AND ORGANIZATION

COMPLETED
DATE/INITIALS

1.1 DOE

1.1.1 ES&H

1.1.1.1 Are there Safety, Environment, Health and Operating goals established for operations to measure operating effectiveness?

Action:

=====

1.1.1.2 Are there clear responsibilities defined for each job position?

Action:

=====

1.1.1.3 Are safety and operating limits and administrative controls for the facilities part of the working knowledge required by DOE ES&H personnel and is the training in place to ensure that this information is routinely provided to the overview staff?

Action:

DOE WEST VALLEY PROJECT OFFICE
OPERATIONAL READINESS REVIEW BOARD

1-21-92

for
RESUMPTION OF IRTS OPERATION - SLUDGE WASH

MANAGEMENT/ORGANIZATION AND PERSONNEL CHECKLIST

PHASE II

1.0 MANAGEMENT AND ORGANIZATION (CONTINUED)

COMPLETED
DATE/INITIALS

1.1 DOE (Continued)

1.1.1 ES&H (Continued)

1.1.1.4

Action:

=====

1.1.1.5

Action:

=====

1.1.2 Quality Assurance

1.1.2.1 Is there a policy in place explaining the DOE
Project Office QA role?

Action:

=====

DOE WEST VALLEY PROJECT OFFICE
OPERATIONAL READINESS REVIEW BOARD
for
RESUMPTION OF IETS OPERATION - SLUDGE WASH
MANAGEMENT/ORGANIZATION AND PERSONNEL CHECKLIST

1-21-92

PHASE II

1.0 MANAGEMENT AND ORGANIZATION (CONTINUED)

COMPLETED
DATE/INITIALS

1.1 DOE (Continued)

1.1.2 Quality Assurance (Continued)

1.1.2.2 Is there a required reading program/file
implemented for DOE Project Office staff covering
operations, support, overview, etc.?

Action:

=====

1.1.2.3

Action:

=====

1.1.2.4

Action:

DOE WEST VALLEY PROJECT OFFICE
OPERATIONAL READINESS REVIEW BOARD

1-21-92

for
RESUMPTION OF IRTS OPERATION - SLUDGE WASH

MANAGEMENT/ORGANIZATION AND PERSONNEL CHECKLIST

PHASE II

1.0 MANAGEMENT AND ORGANIZATION (CONTINUED)

COMPLETED
DATE/INITIALS

1.2 WVNS

1.2.1 Management and Personnel

- 1.2.1.1 Is the Phase II IRTS Sludge Wash scope described in a Program Plan, or similar document, in sufficient detail to clearly show all operating systems? Does this include justification for the system to be used, yet not reviewed for readiness? (E.g., corrosion monitoring, level control, etc.)

Action:

- 1.2.1.2 Is there facility guidance available that describes safety preplanning requirements for all operational activities which explains the role of safety analysis reviews, job safety analyses, and the handling of safety matters?

Action:

- 1.2.1.3 Is there an Industrial Safety Program in place?

Action:

DOE WEST VALLEY PROJECT OFFICE
OPERATIONAL READINESS REVIEW BOARD

1-21-92

for
RESUMPTION OF IRTS OPERATION - SLUDGE WASH
MANAGEMENT/ORGANIZATION AND PERSONNEL CHECKLIST

PHASE II

1.0 MANAGEMENT AND ORGANIZATION (CONTINUED)

COMPLETED
DATE/INITIALS

1.2 WVNS (Continued)

1.2.1 Management and Personnel (Continued)

1.2.1.4 Is a Program/Project Management Plan in place and approved which covers the scope of the IRTS resumption and the scheduled activities once operations commence?

Action:

1.2.1.5

Action:

1.2.1.6

Action:

DOE WEST VALLEY PROJECT OFFICE
OPERATIONAL READINESS REVIEW BOARD

1-21-92

for
RESUMPTION OF IRTS OPERATION - SLUDGE WASH

MANAGEMENT/ORGANIZATION AND PERSONNEL CHECKLIST

PHASE II

1.0 MANAGEMENT AND ORGANIZATION (CONTINUED)

COMPLETED
DATE/INITIALS

1.2 WVNS (Continued)

1.2.2 Organization

1.2.2.1 Are responsibilities/authority clearly defined and
documented down to the operator level? _____

Action: _____

=====

1.2.2.2 Demonstrate sufficient staffing to provide
necessary calibration and preventive maintenance
for IRTS operations. _____

Action: _____

=====

1.2.2.3 Demonstrate sufficient staffing for sample taking
and subsequent analysis during IRTS operations for
all anticipated shifts. _____

Action: _____

DOE WEST VALLEY PROJECT OFFICE
OPERATIONAL READINESS REVIEW BOARD

1-21-92

for
RESUMPTION OF IRTS OPERATION - SLUDGE WASH

MANAGEMENT/ORGANIZATION AND PERSONNEL CHECKLIST

PHASE II

1.0 MANAGEMENT AND ORGANIZATION (CONTINUED)

COMPLETED
DATE/INITIALS

1.2 WVNS (Continued)

1.2.2 Organization (Continued)

1.2.2.4

Action:

1.2.2.5

Action:

1.2.3 Quality Assurance

1.2.3.1 Is there a reporting/recording system in place to document operating problems, assessments of problems and corrective actions to be taken to improve operations performance?

Action:

DOE WEST VALLEY PROJECT OFFICE
OPERATIONAL READINESS REVIEW BOARD

1-21-92

for
RESUMPTION OF IRTS OPERATION - SLUDGE WASH

MANAGEMENT/ORGANIZATION AND PERSONNEL CHECKLIST

PHASE II

1.0 MANAGEMENT AND ORGANIZATION (CONTINUED)

COMPLETED
DATE/INITIALS

1.2.3 Quality Assurance (Continued)

1.2.3.2

Action:

1.2.3.3

Action:

1.2.4 Training and Certification

1.2.4.1 Is there an on-the-job training program documented
and in place for personnel under instruction?

Action:

DOE WEST VALLEY PROJECT OFFICE
OPERATIONAL READINESS REVIEW BOARD

1-21-92

for
RESUMPTION OF IRTS OPERATION - SLUDGE WASH

MANAGEMENT/ORGANIZATION AND PERSONNEL CHECKLIST

PHASE II

1.0 MANAGEMENT AND ORGANIZATION (CONTINUED)

COMPLETED
DATE/INITIALS

1.2.4 Training and Certification (Continued)

1.2.4.2 Is there an operator and shift supervisor qualification program formally documented, including classroom requirements, written exam/results, and instructor qualification? _____

Action: _____

=====

1.2.4.3 Does certification of operators include one-on-one instruction at the work station? _____

Action: _____

=====

1.2.4.4 Is a refresher training program in place for operators and shift supervisors? _____

Action: _____

=====

1.2.4.5 Is there a required reading program implemented for both operators and shift supervisors to cover such materials as changes to procedures, Safety Analysis/OSR's, equipment modifications, etc.? _____

Action: _____

DOE WEST VALLEY PROJECT OFFICE
OPERATIONAL READINESS REVIEW BOARD

1-21-92

for
RESUMPTION OF IETS OPERATION - SLUDGE WASH

MANAGEMENT/ORGANIZATION AND PERSONNEL CHECKLIST

PHASE II

1.0 MANAGEMENT AND ORGANIZATION (CONTINUED)

COMPLETED
DATE/INITIALS

1.2.4 Training and Certification (Continued)

1.2.4.6 Does training include SA/OSR working knowledge? _____

Action: _____

=====

1.2.4.7 Identify any training necessary that resulted from
changes to the process plan for LWTS. _____

Action: _____

=====

1.2.4.8 Does training for CSS operators include re-
qualification requirements? _____

Action: _____

=====

1.2.4.9 Have operators been trained to requirements of new
cement recipe? _____

Action: _____

DOE WEST VALLEY PROJECT OFFICE
OPERATIONAL READINESS REVIEW BOARD

1-21-92

for
RESUMPTION OF IRTS OPERATION - SLUDGE WASH

MANAGEMENT/ORGANIZATION AND PERSONNEL CHECKLIST

PHASE II

1.0 MANAGEMENT AND ORGANIZATION (CONTINUED)

COMPLETED
DATE/INITIALS

1.2.4 Training and Certification (Continued)

1.2.4.10

Action:

1.2.4.11

Action:

1.2.5 SELECTED ITEM REVIEW

1.2.5.1 LWTs Operator Training

Action:

DOE WEST VALLEY PROJECT OFFICE
OPERATIONAL READINESS REVIEW BOARD

1-21-92

for
RESUMPTION OF IRTS OPERATION - SLUDGE WASH
MANAGEMENT/ORGANIZATION AND PERSONNEL CHECKLIST

PHASE II

1.0 MANAGEMENT AND ORGANIZATION (CONTINUED)

COMPLETED
DATE/INITIALS

1.2.5 SELECTED ITEM REVIEW (Continued)

1.2.5.2 CSS Operator Training

Action:

=====

1.2.5.3

Action:

=====

1.2.5.4

Action:

=====

DOE WEST VALLEY PROJECT OFFICE
OPERATIONAL READINESS REVIEW BOARD
for
RESUMPTION OF IRTS OPERATION - SLUDGE WASH

1-21-92

Facilities & Hardware Checklist

PHASE II

2.0 IRTS FACILITIES & HARDWARE

COMPLETED
DATE/INITIALS

2.1 Caustic Addition System (Modifications for Phase II)

2.1.1 Has hard piping been installed and inspected? _____

Action: Need to walk over hard piping and review inspection reports.

=====

2.1.2 Have P&ID's been changed to reflect the new hard pipe changes? _____

Action: Need revised P&ID's.

=====

2.1.3 Is a system test for new hard piping planned? What are test parameters versus design and/or operating? _____

Action: Need test plan or procedure.

=====

2.1.4 Are demin water storage tanks and supply system large enough to handle expected maximum throughput? _____

Action: _____

DOE WEST VALLEY PROJECT OFFICE
OPERATIONAL READINESS REVIEW BOARD
for
RESUMPTION OF IRTS OPERATION - SLUDGE WASH

1-21-92

Facilities & Hardware Checklist

PHASE II

2.0 IRTS FACILITIES & HARDWARE

COMPLETED
DATE/INITIALS

2.1 Caustic Addition System (Modifications for Phase II)
(Continued)

2.1.5

Action:

2.1.6

Action:

2.2 STS Resumption for Sludge Wash:

2.2.1 What changes and/or lessons learned have been
incorporated into facilities and hardware?

Action:

DOE WEST VALLEY PROJECT OFFICE
OPERATIONAL READINESS REVIEW BOARD
for
RESUMPTION OF IRTS OPERATION - SLUDGE WASH

1-21-92

Facilities & Hardware Checklist

PHASE II

2.0 IRTS FACILITIES & HARDWARE

COMPLETED
DATE/INITIALS

2.2 STS Resumption for Sludge Wash: (Continued)

2.2.2 Have P&ID's been revised to reflect changes needed to incorporate use of Ti-zeolite and/or changes deemed necessary from lessons learned?

Action: Need latest P&ID's.

2.2.3 Have OPDR's or ECN's been prepared? Are they dispositioned?

Action: Need deficiency logs for outstanding items.

2.2.4 Is testing and/or system check-out planned?

Action: Need test plan document.

2.2.5 Will a new system be added to collect and recycle zeolite wash water?

Action: Decision based upon whether or not SPDES permit requires modification.

DOE WEST VALLEY PROJECT OFFICE
OPERATIONAL READINESS REVIEW BOARD

1-21-92

for
RESUMPTION OF IRTS OPERATION - SLUDGE WASH

Facilities & Hardware Checklist

PHASE II

2.0 IRTS FACILITIES & HARDWARE

COMPLETED
DATE/INITIALS

2.2 STS Resumption for Sludge Wash: (Continued)

2.2.5.1 If new system is to be added, has design been
prepared, reviewed, and approved? _____

Action: Need design specifications and drawings.

=====

2.2.5.2 If new system is to be added, is testing/check-out
planned? _____

Action: Need test plan document.

=====

2.2.6

Action: _____

=====

2.2.7

Action: _____

DOE WEST VALLEY PROJECT OFFICE
OPERATIONAL READINESS REVIEW BOARD

1-21-92

for
RESUMPTION OF IRTS OPERATION - SLUDGE WASH

Facilities & Hardware Checklist

PHASE II

2.0 IRTS FACILITIES & HARDWARE

COMPLETED
DATE/INITIALS

2.3 LWTS Resumption for sludge wash:

2.3.1 What changes and/or lessons learned have been incorporated into facilities and hardware? _____

Action: _____

=====

2.3.2 Have P&ID's been revised to reflect changes needed to accommodate sludge wash solutions in the LWTS and/or changes deemed necessary from lessons learned? _____

Action: Need latest P&ID's. _____

=====

2.3.3 Have OPDR's or ECN's been prepared? Are they dispositioned? _____

Action: Need deficiency logs for outstanding items. _____

=====

2.3.4 Is testing and/or system check-out planned? _____

Action: Need test plan document. _____

DOE WEST VALLEY PROJECT OFFICE
OPERATIONAL READINESS REVIEW BOARD

1-21-92

for
RESUMPTION OF IRTS OPERATION - SLUDGE WASH

Facilities & Hardware Checklist

PHASE II

2.0 IRTS FACILITIES & HARDWARE

COMPLETED
DATE/INITIALS

2.3 LOTS Resumption for sludge wash: (Continued)

2.3.5

Action:

2.3.6

Action:

2.4 CSS Resumption for sludge wash:

2.4.1 What changes and/or lessons learned have been
incorporated into facilities and hardware?

Action:

DOE WEST VALLEY PROJECT OFFICE
OPERATIONAL READINESS REVIEW BOARD

1-21-92

for
RESUMPTION OF IRTS OPERATION - SLUDGE WASH

Facilities & Hardware Checklist

PHASE II

2.0 IRTS FACILITIES & HARDWARE

COMPLETED
DATE/INITIALS

2.4 CSS Resumption for sludge wash: (Continued)

2.4.2 Have P&ID's been revised to reflect changes needed to accommodate new recipe for sludge wash solutions and/or changes deemed necessary from lessons learned?

Action: Need latest P&ID's.

2.4.3 Have OPDR's or ECN's been prepared? Are they dispositioned?

Action: Need deficiency logs for outstanding items.

2.4.4 Is testing and/or system check-out planned?

Action: Need test plan document.

2.4.5

Action:

DOE WEST VALLEY PROJECT OFFICE
OPERATIONAL READINESS REVIEW BOARD

1-21-92

for
RESUMPTION OF IRTS OPERATION - SLUDGE WASH

Facilities & Hardware Checklist

PHASE II

2.0 IRTS FACILITIES & HARDWARE

COMPLETED
DATE/INITIALS

2.4 CSS Resumption for sludge wash: (Continued)

2.4.6

Action:

2.5 Drum Cell Resumption for sludge wash:

2.5.1 What changes and/or lessons learned have been
incorporated into facilities and hardware?

Action:

2.5.2 Have P&ID's been revised to reflect changes deemed
necessary from lessons learned?

Action: Need latest P&ID's.

DOE WEST VALLEY PROJECT OFFICE
OPERATIONAL READINESS REVIEW BOARD
for
RESUMPTION OF IRTS OPERATION - SLUDGE WASH

1-21-92

Facilities & Hardware Checklist

PHASE II

2.0 IRTS FACILITIES & HARDWARE

COMPLETED
DATE/INITIALS

2.5 Drum Cell Resumption for sludge wash: (Ccontinued)

2.5.3 Have OPDR's or ECN's been prepared? Are they
dispositioned? _____

Action: Need deficiency logs for outstanding items.

=====

2.5.4 Is testing and/or system check-out planned? _____

Action: Need test plan document.

=====

2.5.5

Action: _____

=====

2.5.6

Action: _____

DOE WEST VALLEY PROJECT OFFICE
OPERATIONAL READINESS REVIEW BOARD
for
RESUMPTION OF IRTS OPERATION - SLUDGE WASH

1-21-92

Facilities & Hardware Checklist

PHASE II

2.0 IRTS FACILITIES & HARDWARE

COMPLETED
DATE/INITIALS

2.6 Analytica' Lab, Resumption for Sludge Wash

2.6.1 What new hardware and/or equipment has been added
to provide analysis during sludge wash processing? _____

Action: _____

=====

2.6.2 Has new equipment been calibrated and tested? _____

Action: Need calibration and testing records. _____

=====

2.6.3

Action: _____

=====

DOE WEST VALLEY PROJECT OFFICE
OPERATIONAL READINESS REVIEW BOARD
for
RESUMPTION OF IRTS OPERATION - SLUDGE WASH

1-21-92

Facilities & Hardware Checklist

PHASE II

2.0 IRTS FACILITIES & HARDWARE

COMPLETED
DATE/INITIALS

2.6 Analytical Lab, Resumption for Sludge Wash
(Continued)

2.6.4

Action:

=====

2.7 SELECTED ITEM REVIEW

2.7.1 Walk through LWTS to review changes/operational
status.

Action: Need to set up walk through with LWTS Operators. Coordinate with
other ORRB reviews.

=====

2.7.2 Walk through CSS to review changes/operational
status.

Action: Need to set up walk through with CSS Operators. Coordinate with
other ORRB reviews.

=====

DOE WEST VALLEY PROJECT OFFICE
OPERATIONAL READINESS REVIEW BOARD
for
RESUMPTION OF IRTS OPERATION - SLUDGE WASH

1-21-92

Facilities & Hardware Checklist

PHASE II

2.0 IRTS FACILITIES & HARDWARE

COMPLETED
DATE/INITIALS

2.7 SELECTED ITEM REVIEW (Continued)

2.7.3

Action:

=====

2.7.4

Action:

=====

DOE WEST VALLEY PROJECT OFFICE
OPERATIONAL READINESS REVIEW BOARD
for
RESUMPTION OF IRTS OPERATION - SLUDGE WASH

1-21-92

Procedural Readiness Checklist

PHASE II

3.0 PROCEDURAL READINESS

COMPLETED
DATE/INITIALS

3.1 IRTS

3.1.1 Supernatant Treatment System/Caustic Addition System

3.1.1.1 Are operating procedures current, approved, and issued to the field? _____

Action: _____

=====

3.1.1.2 Have operating procedures been validated? _____

Action: _____

=====

3.1.1.3 Independent review/walkthrough been performed on selected procedures. _____

Action: _____

=====

3.1.1.4 Are Operational Safety Requirements/Technical Requirements incorporated into operating procedures? _____

Action: _____

DOE WEST VALLEY PROJECT OFFICE
OPERATIONAL READINESS REVIEW BOARD
for
RESUMPTION OF IRTS OPERATION - SLUDGE WASH

1-21-92

Procedural Readiness Checklist

PHASE II

3.0 PROCEDURAL READINESS

COMPLETED
DATE/INITIALS

3.1 IRTS (Continued)

3.1.1 Supernatant Treatment System/Caustic Addition
System (Continued)

3.1.1.5 Are OSR's updated to reflect Mod's? _____

Action: _____

=====

3.1.1.6 How have "lessons learned" from the previous 21
campaigns been factored into existing procedures? _____

Action: _____

=====

3.1.1.7 Procedure for load/discharge of Ti-zeolite and
normal zeolite. _____

Action: _____

DOE WEST VALLEY PROJECT OFFICE
OPERATIONAL READINESS REVIEW BOARD
for
RESUMPTION OF IRTS OPERATION - SLUDGE WASH

1-21-92

Procedural Readiness Checklist

PHASE II

3.0 PROCEDURAL READINESS

COMPLETED
DATE/INITIALS

3.1 IRTS (Continued)

3.1.1 Supernatant Treatment System/Caustic Addition
System (Continued)

3.1.1.8 Are procedures in place to allow for maintenance? _____

Action: _____

=====

3.1.1.9

Action: _____

=====

3.1.1.10

Action: _____

DOE WEST VALLEY PROJECT OFFICE
OPERATIONAL READINESS REVIEW BOARD
for

1-21-92

RESUMPTION OF IRTS OPERATION - SLUDGE WASH

Procedural Readiness Checklist

PHASE II

3.0 PROCEDURAL READINESS

COMPLETED
DATE/INITIALS

3.1.2 Liquid Waste Treatment System

3.1.2.1 Are operating procedures current, approved, and
issued to the field?

Action:

3.1.2.2 Have operating procedures been validated?

Action:

3.1.2.3 Independent review/walkthrough been performed on
selected procedures.

Action:

3.1.2.4 Are Operational Safety Requirements/Technical
Requirements incorporated into operating
procedures?

Action:

DOE WEST VALLEY PROJECT OFFICE
OPERATIONAL READINESS REVIEW BOARD
for
RESUMPTION OF IRTS OPERATION - SLUDGE WASH

1-21-92

Procedural Readiness Checklist

PHASE II

3.0 PROCEDURAL READINESS

COMPLETED
DATE/INITIALS

3.1 IRTS (Continued)

3.1.2 Liquid Waste Treatment System (Continued)

3.1.2.5 How have "lessons learned" from the previous 21
campaigns been factored into existing procedures? _____

Action: _____

=====

3.1.2.6

Action: _____

=====

3.1.2.7

Action: _____

DOE WEST VALLEY PROJECT OFFICE
OPERATIONAL READINESS REVIEW BOARD
for
RESUMPTION OF IRTS OPERATION - SLUDGE WA:R

1-21-92

Procedural Readiness Checklist

PHASE II

PROCEDURAL READINESS

COMPLETED
DATE/INITIALS

3.1.3 Cement Solidification System

3.1.3.1 Are operating procedures current, approved, and
issued to the field? _____

Action: _____

3.1.3.2 Have operating procedures been validated? _____

Action: _____

3.1.3.3 Independent review/walkthrough has been performed
on selected procedures. _____

Action: _____

3.1.3.4 Are Operational Safety Requirements/Technical
Requirements incorporated into operating
procedures? _____

Action: _____

DOE WEST VALLEY PROJECT OFFICE
OPERATIONAL READINESS REVIEW BOARD

1-21-92

for
RESUMPTION OF IRTS OPERATION - SLUDGE WASH

Procedural Readiness Checklist

PHASE II

3.0 PROCEDURAL READINESS

COMPLETED
DATE/INITIALS

3.1 IRTS (Continued)

3.1.3 Cement Solidification System (Continued)

3.1.3.5 How have "lessons learned" from the previous 21 campaigns been factored into existing procedures? _____

Action: _____

=====

3.1.3.6 Do the procedures explain how to disposition out-of-spec drums? _____

Action: _____

=====

3.1.3.7 Have procedures been modified to reflect the new cement recipe? _____

Action: _____

=====

3.1.3.8

Action: _____

=====

DOE WEST VALLEY PROJECT OFFICE
OPERATIONAL READINESS REVIEW BOARD
for
RESUMPTION OF IRTS OPERATION - SLUDGE WASH

1-21-92

Procedural Readiness Checklist

PHASE II

3.0 PROCEDURAL READINESS

COMPLETED
DATE/INITIALS

3.1 IRTS (Continued)

3.1.3 Cement Solidification System (Continued)

3.1.3.9

Action:

3.1.4 Drum Cell/Transporter

3.1.4.1 Are operating procedures current, approved, and issued to the field?

Action:

3.1.4.2 Have operating procedures been validated?

Action:

3.1.4.3 Independent review/walkthrough has been performed on selected procedures.

Action:

DOE WEST VALLEY PROJECT OFFICE
OPERATIONAL READINESS REVIEW BOARD
for
RESUMPTION OF IRTS OPERATION - SLUDGE WASH

1-21-92

Procedural Readiness Checklist

PHASE II

3.0 PROCEDURAL READINESS

COMPLETED
DATE/INITIALS

3.1 IRTS (Continued)

3.1.4 Drum Cell/Transporter (Continued)

3.1.4.4 Are Operational Safety Requirements/Technical
Requirements incorporated into operating
procedures?

Action:

=====

3.1.4.5 How have "lessons learned" from the previous 21
campaigns been factored into existing procedures?

Action:

=====

3.1.4.6

Action:

=====

DOE WEST VALLEY PROJECT OFFICE
OPERATIONAL READINESS REVIEW BOARD
for
RESUMPTION OF IRTS OPERATION - SLUDGE WASH

1-21-92

Procedural Readiness Checklist

PHASE II

3.0 PROCEDURAL READINESS

COMPLETED
DATE/INITIALS

3.1 IRTS (Continued)

3.1.4 Drum Cell/Transporter (Continued)

3.1.4.7

Action:

=====

3.2 General Procedures

3.2.1 Run Plan

3.2.1.1 Is the run plan current, approved, and issued?

Action.

=====

3.2.1.2 Independent review/walkthrough has been performed
of the run plan.

Action:

=====

DOE WEST VALLEY PROJECT OFFICE
OPERATIONAL READINESS REVIEW BOARD
for
RESUMPTION OF IRTS OPERATION - SLUDGE WASH

1-21-92

Procedural Readiness Checklist

PHASE II

3.0 PROCEDURAL READINESS

COMPLETED
DATE/INITIALS

3.2 General Procedures (Continued)

3.2.1.3

Action:

3.2.1.4

Action:

3.2.2 Conduct of Operation

3.2.2.1 Are the implementing procedures for DOE Order
5480.19 current, approved, and issued?

Action:

DOE WEST VALLEY PROJECT OFFICE
OPERATIONAL READINESS REVIEW BOARD
for
RESUMPTION OF IRTS OPERATION - SLUDGE WASH

1-21-92

Procedural Readiness Checklist

PHASE II

3.0 PROCEDURAL READINESS

COMPLETED
DATE/INITIALS

3.2 General Procedures (Continued)

3.2.2 Conduct of Operation (Continued)

3.2.2.2 Independent review/walkthrough has been performed
of selected Conduct of Operations procedures.

Action:

=====

3.2.2.3 Are there procedures which define corrective
actions required when unusual instrument readings
are observed? Are the monitoring instruments
clearly defined (labeled, locations, etc.) and
instructions prepared to clearly show how to read
the instruments?

Action:

=====

3.2.2.4 Is a procedure in place to ensure narrative logs of
the operations records are being prepared by all
key positions each shift in sufficient detail to
provide an accurate history of operations in
sequence to include activities, transfer of
information among operators, and deficiencies
observed?

Action:

DOE WEST VALLEY PROJECT OFFICE
OPERATIONAL READINESS REVIEW BOARD
for
RESUMPTION OF IRTS OPERATION - SLUDGE WASH

1-21-92

Procedural Readiness Checklist

PHASE II

3.C PROCEDURAL READINESS

COMPLETED
DATE/INITIALS

3.2 General Procedures (Continued)

3.2.2 Conduct of Operation (Continued)

3.2.2.5 Is shift turnover covered by procedure to ensure that checklists are prepared, discussion/exchange of responsibilities between both supervisors and operators, shift crew briefings, turnover for reliefs, control panel walkdowns, log/document reviews? Is there a procedure that prescribes oncoming personnel to arrive early and outgoing personnel to leave late?

Action:

3.2.2.6

Action:

3.2.2.7

Action:

DOE WEST VALLEY PROJECT OFFICE
OPERATIONAL READINESS REVIEW BOARD
for
RESUMPTION OF IRTS OPERATION - SLUDGE WASH

1-21-92

Procedural Readiness Checklist

PHASE II

3.0 PROCEDURAL READINESS

COMPLETED
DATE/INITIALS

3.2.3 Maintenance Procedures

3.2.3.1 Are the necessary maintenance procedures current,
approved, and issued?

Action:

3.2.3.2 Independent review has been performed of selected
Maintenance procedures.

Action:

3.2.3.3

Action:

DOE WEST VALLEY PROJECT OFFICE
OPERATIONAL READINESS REVIEW BOARD
for
RESUMPTION OF IRTS OPERATION - SLUDGE WASH

1-21-92

Procedural Readiness Checklist

PHASE II

3.0 PROCEDURAL READINESS

COMPLETED
DATE/INITIALS

3.2.3 Maintenance Procedures (Continued)

3.2.3.4

Action:

=====

3.2.4 Analytical Procedures

3.2.4.1 Are the required Analytical procedures current,
approved, and issued?

Action:

=====

3.2.4.2 Independent review has been performed of selected
Analytical procedures.

Action:

=====

DOE WEST VALLEY PROJECT OFFICE
OPERATIONAL READINESS REVIEW BOARD
for
RESUMPTION OF IRTS OPERATION - SLUDGE WASH

1-21-92

Procedural Readiness Checklist

PHASE II

3.0 PROCEDURAL READINESS

COMPLETED
DATE/INITIALS

3.2 General Procedures (Continued)

3.2.4 Analytical Procedures (Continued)

3.2.4.3

Action:

=====

3.2.4.4

Action:

=====

3.2.5 Instrument Calibration Procedures

3.2.5.1 Are the required Instrument Calibration procedures
current, approved, and issued?

Action:

=====

DOE WEST VALLEY PROJECT OFFICE
OPERATIONAL READINESS REVIEW BOARD
for
RESUMPTION OF IRTS OPERATION - SLUDGE WASH

1-21-92

Procedural Readiness Checklist

PHASE II

3.0 PROCEDURAL READINESS

COMPLETED
DATE/INITIALS

3.2 General Procedures (Continued)

3.2.5 Instrument Calibration Procedures (Continued)

3.2.5.2 Independent review has been performed of selected
Instrument Calibration procedures.

Action:

3.2.5.3 Instrument calibrations required for IRTS
operations have been complete.

Action:

3.2.5.4 Is a formal instrument calibration procedure in
place?

Action:

DOE WEST VALLEY PROJECT OFFICE
OPERATIONAL READINESS REVIEW BOARD

1-21-92

for
RESUMPTION OF IRTS OPERATION - SLUDGE WASH

Procedural Readiness Checklist

PHASE II

3.0 PROCEDURAL READINESS

COMPLETED
DATE/INITIALS

3.2 General Procedures (Continued)

3.2.5 Instrument Calibration Procedures (Continued)

3.2.5.5

Action:

3.2.5.6

Action:

DOE WEST VALLEY PROJECT OFFICE
OPERATIONAL READINESS REVIEW BOARD
for
RESUMPTION OF IRTS OPERATION - SLUDGE WASH

1-21-92

Technology Checklist

PHASE II

4.0 TECHNOLOGY ASSESSMENT

COMPLETED
DATE/INITIALS

4.1 Process

- 4.1.1 Radiolysis of water is expected to increase with the build-up of Pu in the columns. Are there provisions for H₂ monitoring and gas purging in the columns?

Action:

- 4.1.2 Have the final Ti-zeolite test results been published?

Action:

- 4.1.3 How were the Ti-zeolite test results verified? Peer reviewed?

Action:

- 4.1.4 How was "QA" applied to the LAB and verification of results from Ti-zeolite, sludge, and process feed testing?

Action:

DOE WEST VALLEY PROJECT OFFICE
OPERATIONAL READINESS REVIEW BOARD
for
RESUMPTION OF IRTS OPERATION - SLUDGE WASH

1-21-92

Technology Checklist

PHASE II

4.0 TECHNOLOGY ASSESSMENT

COMPLETED
DATE/INITIALS

4.1 Process (Continued)

- 4.1.5 Has the elution potential of Ti-zeolite been tested over the range of wash water feeds, and process flushes expected during the sludge wash campaigns? _____

Action: _____

- 4.1.6 Have the effects of pH control been demonstrated over the full range of tank chemistry expected from all four washes? _____

Action: _____

- 4.1.7 Has the corrosion control program for 8D-2 been completed and approved? Are all technical analyses and reports complete verifying the adequacy of the program? _____

Action: _____

DOE WEST VALLEY PROJECT OFFICE
OPERATIONAL READINESS REVIEW BOARD
for
RESUMPTION OF IRTS OPERATION - SLUDGE WASH

1-21-92

Technology Checklist

PHASE II

4.0 TECHNOLOGY ASSESSMENT

COMPLETED
DATE/INITIALS

4.1 Process (Continued)

4.1.8

Action:

=====

4.1.9

Action:

=====

4.2 Process Control

4.2.1 Does the current analytical method for Pu determination take into account the possibility that some Pu may be present as a polymer (fine colloid)?

Action:

=====

DOE WEST VALLEY PROJECT OFFICE
OPERATIONAL READINESS REVIEW BOARD
for
RESUMPTION OF IRTS OPERATION - SLUDGE WASH

1-21-92

Technology Checklist

PHASE II

4.0 TECHNOLOGY ASSESSMENT

COMPLETED
DATE/INITIALS

4.2 Process Control (Continued)

4.2.2 Will a column be taken off line if Cs or Pu breakthrough is detected? Also, Are there provisions for discontinuing use of a column if mass of Pu removed by that column reaches a certain limit?

Action:

=====

4.2.3 Will Ti-zeolite be used for all sludge wash cycles (#'s 1, 2, 3, 4) or only SW-1?

Action:

=====

4.2.4 Has the evaporator (LWTS) been tested or evaluated for performance using the "new chemistry" of the expected sludge wash feeds, i.e., washes 1-4?

Action:

DOE WEST VALLEY PROJECT OFFICE
OPERATIONAL READINESS REVIEW BOARD
for
RESUMPTION OF IRTS OPERATION - SLUDGE WASH

1-21-92

Technology Checklist

PHASE II

4.0 TECHNOLOGY ASSESSMENT

COMPLETED
DATE/INITIALS

4.2 Process Control (Continued)

4.2.5

Action:

4.2.6

Action:

4.3 Cement Waste Form

4.3.1 Does the cement recipe accept high pH? Does the
test program prove it?

Action:

DOE WEST VALLEY PROJECT OFFICE
OPERATIONAL READINESS REVIEW BOARD
for
RESUMPTION OF IRTS OPERATION - SLUDGE WASH

1-21-92

Technology Checklist

PHASE II

4.0 TECHNOLOGY ASSESSMENT

COMPLETED
DATE/INITIALS

4.3 Cement Waste Form (Continued)

4.3.2 Are the results from the Waste Form development plan in accordance with the acceptance criteria? _____

Action: _____

=====

4.3.3 Explain the process for resolution of comments by NRC, others? _____

Action: _____

=====

4.3.4 Will the test plans cover ranges of behavior? _____

Action: _____

=====

4.3.5 Demonstrate compliance with the 10 CFR 61 requirement for "classifying" waste as required by PCP #1 and the current PCP revision for the sludge wash waste form. _____

Action: _____

=====

LOE WEST VALLEY PROJECT OFFICE
OPERATIONAL READINESS REVIEW BOARD
for
RESUMPTION OF IRTS OPERATION - SLUDGE WASH

1-21-92

Technology Checklist

PHASE II

4.0 TECHNOLOGY ASSESSMENT

COMPLETED
DATE/INITIALS

4.3 Cement Waste Form (Continued)

4.3.6 Is the cement recipe fully qualified for all Phase
II Sludge Wash chemistry's (i.e., sludge wash 1, 2,
3, and 4)?

Action:

4.3.7

Action:

4.3.8

Action:

DOE WEST VALLEY PROJECT OFFICE
OPERATIONAL READINESS REVIEW BOARD
for
RESUMPTION OF IRTS OPERATION - SLUDGE WASH

1-21-92

ESH & QA COMPLIANCE CHECKLIST

5.0 DOCUMENTATION COMPLIANCE REVIEW - ES&H AND QA

COMPLETED
DATE/INITIALS

5.1 SAR/TR/OSR

5.1.1 Approval status of SAR for SMS/STS.

Action:

=====

5.1.2 Have the appropriate changes been made to the SAR's/OSR's to reflect the changes made to the IRTS? STS? Are the SAR's/OSR's all approved by DOE?

Action:

=====

5.1.3 Have all safety-related SAR requirements been comprehensively followed through the OSR and down into the operating procedures to ensure that the safety documentation is in concert with one another and sufficiently implements the safety requirements for the facility?

Action:

=====

5.1.4 Are the SAR's for the CSS and Drum Cell Systems up-to-date and approved by DOE?

Action:

DOE WEST VALLEY PROJECT OFFICE
OPERATIONAL READINESS REVIEW BOARD
for
RESUMPTION OF IRTS OPERATION - SLUDGE WASH

1-21-92

ESH & QA COMPLIANCE CHECKLIST

5.0 DOCUMENTATION COMPLIANCE REVIEW - ES&H AND QA

COMPLETED
DATE/INITIALS

5.1 SAR/TR/OSR (Continued)

5.1.5 Has the Drum Cell SAR been evaluated in relation to potential need to produce lower weight percentage cement drums? Is a revision necessary? If so, has it been approved by the Project Office?

Action:

5.1.6 Do the LWTs, CSS, and Drum Cell comply with applicable portions of OSR/GP-5?

Action:

5.1.7 Is it necessary to revise TR-IRTS-2 to reflect a new or modified CSS cement recipe? If so, has it been done and approved by the Project Office?

Action:

5.1.8 Has compliance with OSR/IRTS-3 been demonstrated?

Action:

DOE WEST VALLEY PROJECT OFFICE
OPERATIONAL READINESS REVIEW BOARD
for
RESUMPTION OF IRTS OPERATION - SLUDGE WASH

1-21-92

ESH & QA COMPLIANCE CHECKLIST

5.0 DOCUMENTATION COMPLIANCE REVIEW - ES&H AND QA

COMPLETED
DATE/INITIALS

5.1 SAR/TR/OSR (Continued)

5.1.9 Are programs and procedures in place to
successfully operate in compliance with TR-IRTS-11? _____

Action: _____

=====

5.1.10 Review Phase I WTFVS and PVS operating logbooks.
Did systems operate as required during Phase I with
high heat and condensate levels? Do modifications
need to be made to support washes 2, 3, and 4? _____

Action: _____

=====

5.1.11

Action: _____

=====

DOE WEST VALLEY PROJECT OFFICE
OPERATIONAL READINESS REVIEW BOARD
for
RESUMPTION OF IRTS OPERATION - SLUDGE WASH

1-21-92

ESH & QA COMPLIANCE CHECKLIST

5.0 DOCUMENTATION COMPLIANCE REVIEW - ES&H AND QA

COMPLETED
DATE/INITIALS

5.1 SAR/TR/OSR (Continued)

5.1.12

Action:

5.2 Environmental/NEPA

5.2.1 Is there approved NEPA documentation for all IRTS
subsystems?

Action:

5.2.2 Assuming a SPDES modification is not obtained prior
to resumption, has WVNS established another process
to handle the Titanium wash water that would
otherwise be discharged to the Lagoon system? If
so, do procedures exist to cover this backup
process?

Action:

DOE WEST VALLEY PROJECT OFFICE
OPERATIONAL READINESS REVIEW BOARD
for
RESUMPTION OF IRTS OPERATION - SLUDGE WASH

1-21-92

ESH & QA COMPLIANCE CHECKLIST

5.0 DOCUMENTATION COMPLIANCE REVIEW - ES&H AND QA

COMPLETED
DATE/INITIALS

5.2 Environmental/NEPA (Continued)

5.2.3 Has compliance with OSR's GP-1 and GP-2 been demonstrated for the various subsystems? _____

Action: _____

=====

5.2.4 Review logs and analytical data to ensure transfers to interceptors from the evaporator overheads are conducted in accordance with SOP's 71-2 and 15-13. _____

Action: _____

=====

5.2.5

Action: _____

=====

5.2.6

Action: _____

=====

DOE WEST VALLEY PROJECT OFFICE
OPERATIONAL READINESS REVIEW BOARD

1-21-92

for
RESUMPTION OF IRTS OPERATION - SLUDGE WASH

ESH & QA COMPLIANCE CHECKLIST

5.0 DOCUMENTATION COMPLIANCE REVIEW - ES&H AND QA

COMPLETED
DATE/INITIALS

5.3 Quality Assurance

5.3.1 Does a QA Plan for resumption of operations exist? _____

Action: _____

=====

5.3.2 Does an inspection plan for resumption of operations exist? _____

Action: _____

=====

5.3.3 Have hold points been established for resumption of activities? _____

Action: _____

=====

5.3.4 Have nonconformances (per NCR's, RCA's, etc.) been addressed and resolved? _____

Action: _____

=====

DOE WEST VALLEY PROJECT OFFICE
OPERATIONAL READINESS REVIEW BOARD
for
RESUMPTION OF IRTS OPERATION - SLUDGE WASH

1-21-92

ESH & QA COMPLIANCE CHECKLIST

5.0 DOCUMENTATION COMPLIANCE REVIEW - ES&H AND QA

COMPLETED
DATE/INITIALS

5.3 Quality Assurance (Continued)

5.3.5

Action:

5.3.6

Action:

5.4 Regulatory Compliance

5.4.1 Have occurrence reports been evaluated for
applicability and resolved?

Action:

DOE WEST VALLEY PROJECT OFFICE
OPERATIONAL READINESS REVIEW BOARD
for
RESUMPTION OF IRTS OPERATION - SLUDGE WASH

1-21-92

ESH & QA COMPLIANCE CHECKLIST

5.0 DOCUMENTATION COMPLIANCE REVIEW - ES&H AND QA

COMPLETED
DATE/INITIALS

5.4 Regulatory Compliance (Continued)

5.4.2 Does Tank 8D-3 and the transfer line from STS to
LWTS contain leak detection? If so, has it been
tested? If not, why? _____

Action: _____

=====

5.4.3 Has an ALARA evaluation been performed per 5480.11
and procedure? _____

Action: _____

=====

5.4.4 Is the Emergency Preparedness (EP) Program in place
and approved? Have the necessary revisions been
made to the Plan? _____

Action: _____

=====

5.4.5 Has WVNS conducted an emergency exercise recently
to test the response capabilities and effectiveness
as they relate to the IRTS resumption effort? Have
lessons learned been incorporated into the program? _____

Action: _____

=====

DOE WEST VALLEY PROJECT OFFICE
OPERATIONAL READINESS REVIEW BOARD
for
RESUMPTION OF IRTS OPERATION - SLUDGE WASH
ESH & QA COMPLIANCE CHECKLIST

1-21-92

5.0 DOCUMENTATION COMPLIANCE REVIEW - ES&H AND QA

COMPLETED
DATE/INITIALS

5.4 Regulatory Compliance (Continued)

5.4.6 Are the EP equipment and personnel available and trained/ready? _____

Action: _____

=====

5.4.7 Has a formal determination been performed to ensure that operating permits (Clear Air Act), RCRA Part A interim status permit, and NESHAPS permit do not require modification? Do existing permits cause constraints to the IRTS operational condition currently being proposed for resumption? _____

Action: _____

=====

5.4.8 Are there provisions to safely store all chemicals? _____

Action: _____

=====

5.4.9 _____

Action: _____

DOE WEST VALLEY PROJECT OFFICE
OPERATIONAL READINESS REVIEW BOARD
for
RESUMPTION OF IRTS OPERATION - SLUDGE WASH
ESH & QA COMPLIANCE CHECKLIST

1-21-92

5.0 DOCUMENTATION COMPLIANCE REVIEW - ES&H AND QA

COMPLETED
DATE/INITIALS

5.4 Regulatory Compliance (Continued)

5.4.10

Action:

5.5 ORR

5.5.1 Are the ORR trees and checklists reviewed and approved?

Action:

5.5.2 How were "lessons learned" incorporated into the upgrades/maintenance of existing systems? Is there a regular method for inputting "lessons learned".

Action:

DOE WEST VALLEY PROJECT OFFICE
OPERATIONAL READINESS REVIEW BOARD
for
RESUMPTION OF IRTS OPERATION - SLUDGE WASH
ESH & QA COMPLIANCE CHECKLIST

1-21-92

5.2 DOCUMENTATION COMPLIANCE REVIEW - ES&H AND QA

COMPLETED
DATE/INITIALS

5.5 ORR (Continued)

5.5.3

Action:

5.5.4

Action:

5.6 SELECTED ITEM REVIEW

5.6.1 TR-IRTS-12 Implementation, Supernatant Treatment
System Feed Requirements.

Action:

DOE WEST VALLEY PROJECT OFFICE
OPERATIONAL READINESS REVIEW BOARD
for
RESUMPTION OF IRTS OPERATION - SLUDGE WASH

1-21-92

ESH & QA COMPLIANCE CHECKLIST

5.0 DOCUMENTATION COMPLIANCE REVIEW - ES&H AND QA

COMPLETED
DATE/INITIALS

5.6 SELECTED ITEM REVIEW (Continued)

5.6.2 OSR-GP-3 and OSR-GP-10.

Action:

5.6.3

Action:

5.6.4

Action:

IRTS PHASE 11 SUMMARY SCHEDULE

		1992											
		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP			
ACTIVITY	DESCRIPTION	START	FINISH										
CEMENT QUALIFICATION													
1	CEH00312 IMPROVE 90 DAYS 3.22Z CURES IN DEMIN WATER	5 FEB-92	19 MAR-92										
2	CEH00331 ASSESS 90 DAY INTERIM NRC RESULTS ON 207 CURES	21 MAR-92	75 MAR-92										
3	CEH00710 MAKE 11 CONFIRM CURE USING 20Z SALT RECIPE	6 APR-92	7 APR-92										
4	CEH00730 FINISH 20 DAY CURE ON 20Z SALT RECIPE CONFIRM CURES	12 APR-92	5 MAY-92										
5	CEH00801 IMP 3 CONFIRM CURE 90 DAYS 1 DEMIN	7 MAY-92	4 AUG-92										
6	CEH00810 ASSESS 20Z TDS RECIPE RESULTS	6 AUG-92	18 AUG-92										
7	CEH00820 OBTAIN INTERIM NRC AGREEMENT ON RECIPE	18 AUG-92	31 AUG-92										
DOE OPER READINESS REVIEW													
8	DOR00130 DOE ORRB MEETINGS	9 FEB-92	11 MAR-92										
9	DOR00145 DOE RELCA 7 TO RUN STS	21 MAR-92	30 MAR-92										
10	DOR00150 DOE APPR FULL IRTS RESUMPTION	1 SEP-92	3 SEP-92										
LUTS SER													
11	LUT00144 IRTS REVIEWS & ISSUES SER FOR LUTS	3 JAN-92											

PROGRESS

CURRENT SCHEDULE

ACCOMPLISHMENT POINT

ALTERNATE SCHEDULE

PREPARED BY: T. B. GREEN

STATUS DATE: 5-FEB-92

PAGE 3 OF 4

REVISION UNDER

IRTS PHASE II SUMMARY SCHEDULE

