



Strengthening Line Management Oversight and  
Federal Monitoring of Nuclear Facilities

***Standard Review Plan  
Preparation for Facility Operations***



***August 2013***

**OFFICE OF ENVIRONMENTAL MANAGEMENT**

**Standard Review Plan (SRP)**

**Preparation for Facility Operations**

Applicability						
CD-0	CD-1	CD-2	CD-3	CD-4	Operation	Post Operation
				✓	✓	



**August 2013**

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## Objective

The objective of this Standard Review Plan (SRP) on Preparation for Facility Operations is to provide consistency guidance to evaluate the effectiveness of the final project closure of major construction projects for transition from Critical Decision-4 (CD-4) to facility operations.

This SRP is to be used in conjunction with the Checkout, Testing, and Commissioning SRP and the Readiness Review SRP as depicted in Figure 1. Chronologically, the Checkout, Testing, and Commissioning Plan is developed prior to CD-3 approval and implemented during CD-3. An Operational Readiness Review (ORR) or Readiness Assessment (RA) Plan is developed prior to CD-4 approval and implemented during CD-4. After the ORR or RA, the CD-4 requirements and guidance contained in this SRP is implemented. Figure 1 also illustrates the various facility testing needs to be performed during design, construction, cold commissioning, hot commissioning, and operations. It also shows the relationship among the various reviews, including: Management Safety Assessment (MSA); Contractor Operational Readiness Review (CORR), DOE Operational Readiness Review (DORR); and tests performed by the State and EPA.

Attachment 1 contains a set of lines of inquiry (LOIs) to assist in the review of the preparation for facility operations activities. The set of LOIs was developed based on the requirements and guidance of the DOE directives listed in the Primary References section. The set of LOIs also contain the best management practices on facility startup of nuclear facilities.

For nuclear facilities, a Startup Plan is a major component of the transition to operations. The Startup Plan identifies post CD-4 operational activities required to accomplish the safe and orderly progression from startup authorization to normal unrestricted operations for nuclear facilities. The objective of the startup period is to simultaneously confirm operability of equipment, the viability of procedures, and the performance and knowledge of the operators using actual material. Attachment 2 describes the startup activities in more details for nuclear facilities.

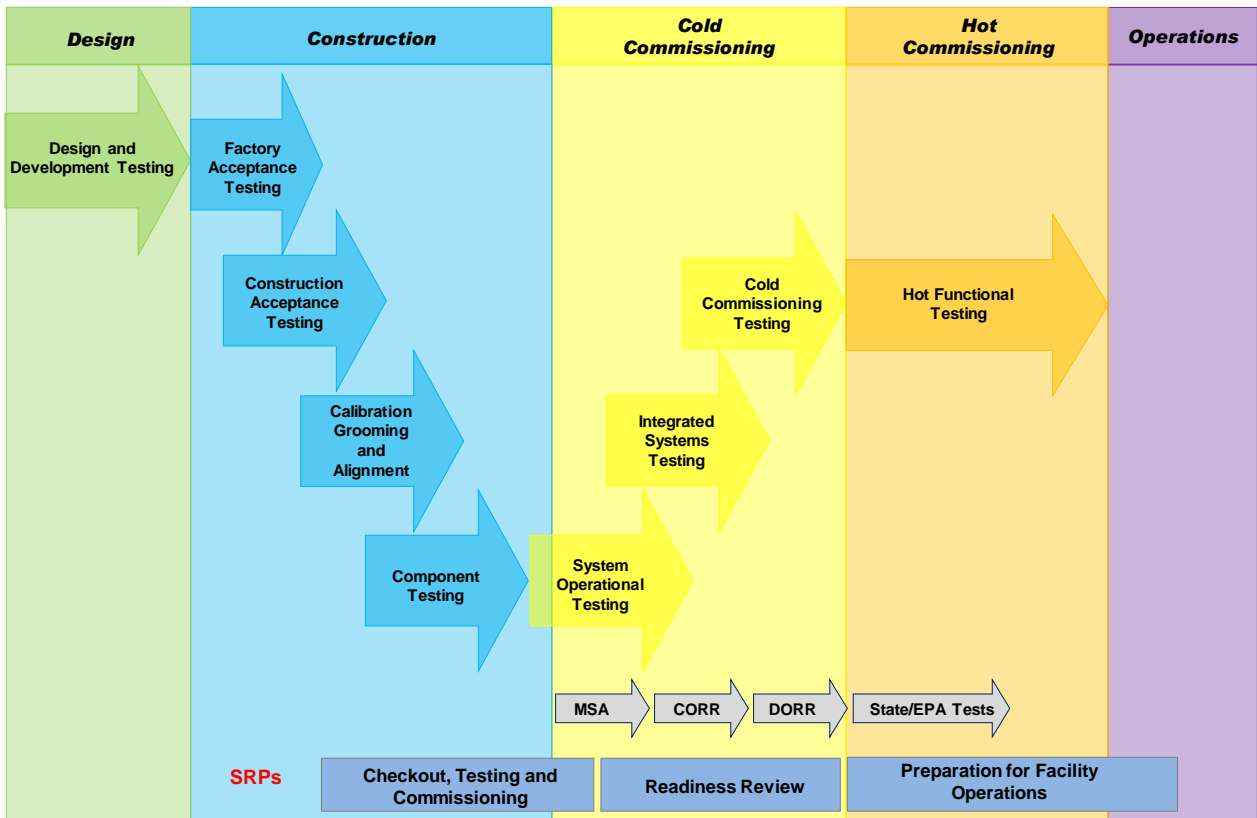
## Requirements

DOE O 413.3B established the following requirements for CD-4, *Approve Start of Operations or Project Completion*:

*CD-4 is the achievement of the completion criteria defined in the PEP and approval of transition to operations and marks the completion of the execution phase. The approval of CD-4 is predicated on the readiness to operate and/or maintain the system, facility, or capability. Transition and turnover does not necessarily terminate all project activity. In some cases, it marks a point known as Beneficial Occupancy Date (BOD) at which the operations organizations assume responsibility for starting operations and maintenance. The SAE or AE approves CD-4 upon notification from the project team that all prerequisites have been met. Table 2.4 lists the requirements needed to attain CD-4.*

DOE O 425.1D established the requirements for verifying readiness for startup of new Hazard Category 1, 2, and 3 nuclear facilities, activities, and operations, and for the restart of existing Hazard Category 1, 2, and 3 nuclear facilities, activities, and operations that have been shut down. It specifies that DOE-STD-3006 provides guidance on approaches and methods approved as acceptable for implementing the requirements of the Order.

**Figure 1 -- Facility Testing, Reviews, and SRP Applications Timeline**



## Primary References

- DOE O 413.3B, *Program and Project Management for Acquisition of Capital Assets*, November 2010
- DOE G 413.3-16A, *Project Completion/Closeout Guide*, October 2011
- DOE O 425.1D, *Admin Chg 1, Verification of Readiness for Startup or Restart of Nuclear Facilities*, April 2013
- DOE-STD-3006-2010, *Planning and Conducting Readiness Reviews*
- DOE O 422.1, Admin Chg 1, *Conduct of Operations*, June 2013
- DOE O 426.2, *Personnel Selection, Training, Qualification, and Certification Requirements for DOE Nuclear Facilities*, April 2010
- DOE O 226.1B, *Implementation of Department of Energy Oversight Policy*, April 2011

**Attachment 1 -- Lines of Inquiry for Preparation for Facility Operations**

	<b>Line of Inquiry (LOI)</b>	<b>Reference</b>
<b>DOE O 413.3B CD-4 and Project Closeout Requirements and Guidance</b>		
1	Have the <b>Key Performance Parameters (KPPs)</b> or <b>Project Completion Criteria (PCC)</b> been met and their verified and mission requirements achieved? Does the project achieve its intended design requirements?	<ul style="list-style-type: none"> <li>• DOE O 413.3B, Appendix A, Table 2.4</li> <li>• DOE G 413.3-16A Section 2</li> </ul>
2	Has the Federal Project Director (FPD) verified and documented the following? <ul style="list-style-type: none"> <li>• Accomplished project scope</li> <li>• Total Project Cost,</li> <li>• KPPs met/not met</li> <li>• Completion date as it relates to the original CD-2 performance baseline and the latest approved baseline change</li> </ul>	DOE G 413.3-16A Section 2
3	Has a <b>Project Transition to Operations Plan (TOP)</b> been issued that meets the requirements and guidance of the DOE directives?	DOE O 413.3B, Appendix A, Table 2.4
4	Does the <b>TOP</b> address/define the basis for attaining initial operating capability and the basis for attaining full operating capability?	DOE O 413.3B, Appendix A, Table 2.4
5	Does the <b>TOP</b> include documentation, training, interfaces and schedules?	<ul style="list-style-type: none"> <li>• DOE O 413.3B, Appendix A, Table 2.4</li> <li>• DOE G 413.3-16A, Section 5</li> </ul>
6	Does the <b>TOP</b> address the following? <ul style="list-style-type: none"> <li>• Project description and mission</li> <li>• Planning management, organization and control</li> <li>• DOE Orders and program guidance</li> <li>• Key transition phase steps and deliverables</li> <li>• Strategy</li> <li>• Operation or long term stewardship cost</li> <li>• Organization, stakeholders and public interfaces</li> <li>• Transition team roles and responsibilities</li> <li>• Configuration control</li> <li>• Project key performance elements and completion criteria</li> <li>• Schedule and key milestones</li> <li>• Readiness review</li> <li>• Operations and maintenance management</li> </ul>	DOE G 413.3-16A, Section 5

	<b>Line of Inquiry (LOI)</b>	<b>Reference</b>
	<ul style="list-style-type: none"> <li>• Facility support, operations and maintenance training</li> <li>• Environment, safety and health, and quality assurance</li> <li>• Safeguards and security</li> <li>• Permits and licenses</li> <li>• Authorization and notification</li> <li>• Project acceptance, beneficial occupancy, and transfer to operations</li> <li>• Business functions</li> <li>• Project information and records turnover</li> <li>• Transition to operations reporting</li> <li>• User/operating organization staff planning</li> <li>• Lessons learned and process improvement</li> <li>• Project organization and de-staffing planning</li> </ul>	
7	For a nuclear project, has a <b>Checkout, Testing, and Commissioning Plan</b> been developed after CD-1 and was initiated in preparation for the acceptance and turnover of the structures, systems, and components (SSCs) at CD-4?	<ul style="list-style-type: none"> <li>• DOE O 413.3B, Appendix A, Table 2.1</li> <li>• DOE G 413.3-16A, Section 4</li> </ul>
8	Has the <b>Environmental Management System</b> been revised to ensure that it incorporates new environmental aspects related to turnover and operation activities?	<ul style="list-style-type: none"> <li>• DOE O 413.3B, Appendix A, Table 2.4</li> <li>• DOE O 450.1A</li> <li>• DOE G 413.3-16A, Section 7</li> </ul>
9	For non-nuclear projects, has a formal assessment been conducted on the project's <b>Readiness to Operate</b> ?	DOE O 413.3B, Appendix A, Table 2.4
10	Have the <b>Documented Safety Analysis and Technical Safety Requirements</b> been prepared for Hazard Category 1, 2 and 3 nuclear facilities?	<ul style="list-style-type: none"> <li>• 10 CFR 830 Subpart B</li> <li>• DOE O 413.3B, Appendix A, Table 2.4</li> <li>• DOE G 413.3-16A, Section 8</li> <li>• <i>Nuclear Safety Basis Review Program SRP</i>, draft, December 2012</li> </ul>
11	Has DOE prepared a <b>Safety Evaluation Report (SER)</b> based on the review of the Documented Safety Analysis?	<ul style="list-style-type: none"> <li>• 10 CFR 830 Subpart B</li> <li>• DOE O 413.3B, Appendix A, Table 2.4</li> <li>• DOE G 413.3-16A, Section 8</li> </ul>



	<b>Line of Inquiry (LOI)</b>	<b>Reference</b>
12	Has an <b>Operational Readiness Review (ORR)</b> or <b>Readiness Assessment (RA)</b> for Hazard Category 1, 2 and 3 nuclear facilities been conducted?	<ul style="list-style-type: none"> <li>• DOE O 413.3B, Appendix A, Table 2.4</li> <li>• DOE G 413.3-16A, Section 3</li> <li>• DOE O 425.1D</li> <li>• DOE-STD-3006</li> <li>• <i>Readiness Review SRP</i> Volume 1, March 2010</li> </ul>
13	Has the <b>Hazard Analysis Report</b> been finalized and approved by DOE for facilities that are below Hazard Category 3 threshold as defined in 10 CFR 830 Subpart B?	<ul style="list-style-type: none"> <li>• DOE O 413.3B, Appendix A, Table 2.4</li> <li>• DOE G 413.3-16A, Section 8</li> </ul>
14	If applicable, has the <b>Contractor Evaluation Document</b> been completed and submitted to the Acquisition Executive and appropriate project authorities?	<ul style="list-style-type: none"> <li>• DOE O 413.3B, Appendix A, Table 2.4</li> <li>• Federal Acquisition Regulation (FAR) Subpart 42.15</li> </ul>
15	Is the <b>Code of Record</b> included as part of the turnover documentation from a design and construction phase contractor to the operating phase contractor?	<ul style="list-style-type: none"> <li>• DOE O 413.3B, Appendix A, Table 2.4</li> <li>• EM Interim Policy, <i>Code of Record for Nuclear Facilities</i>, September 2009</li> <li>• <i>COR SRP</i>, draft, February 2012</li> </ul>
16	Have all the required <b>CD-4 documents</b> been submitted to the DOE Office of Acquisition and Project Management (APM)?	DOE O 413.3B, Appendix A, Table 2.4
17	Has the <b>Project Assessment and Reporting System (PARS II)</b> reporting been finalized, including earned value data?	DOE O 413.3B, Appendix A, Table 2.4
18	Has a <b>Lessons Learned Report</b> been submitted to the Program Secretarial Office (PSO) and APM within 90-days of CD-4 approval regarding project execution and facility startup?	DOE O 413.3B, Appendix A, Table 2.4
19	Has an initial <b>Project Closeout Report</b> been prepared?	<ul style="list-style-type: none"> <li>• DOE O 413.3B, Appendix A, Table 2.5</li> <li>• DOE G 413.3-16A, Section 9</li> </ul>

	<b>Line of Inquiry (LOI)</b>	<b>Reference</b>
20	Have the <b>Facility Sustainment</b> goals been documented and verified by an independent third-party entity within one year of facility occupancy?	<ul style="list-style-type: none"> <li>• DOE O 413.3B, Appendix A, Table 2.5</li> <li>• EO 13423, Section 2(f)</li> <li>• EO 13514, Section 3</li> <li>• <i>High Performance Sustainable Building Design</i> SRP, Volume 2, March 2010</li> </ul>
21	Has the project establish the property record in the <b>Facilities Information Management System (FIMS)</b> for all construction of or modifications to real property?	DOE O 413.3B, Appendix A, Table 2.5
22	Has the site's <b>Ten-Year Site Plan</b> been updated?	<ul style="list-style-type: none"> <li>• DOE O 413.3B, Appendix A, Table 2.5</li> <li>• DOE O 430.1B, <i>Real Property and Asset Management</i></li> </ul>
23	Has the <b>Security Vulnerability Assessment Report</b> and any required security plan been finalized?	<ul style="list-style-type: none"> <li>• DOE G 413.3-16A, Section 8</li> <li>• <i>Safeguard and Security and Cyber Security</i> SRP Volume 2, March 2010</li> </ul>
24	Has the <b>Quality Assurance Plan</b> been updated and issued to address testing, identified deficiencies, and startup, transition, and operation activities?	<ul style="list-style-type: none"> <li>• DOE G 413.3-16A, Section 6.0</li> <li>• <i>Quality Assurance for Critical Decision</i> SRP, Volume 2, March 2010</li> </ul>
<b>Startup Plan Requirements Guidance, and Best Practices</b>		
25	Has Technology Readiness Assessment (TRA) documented that the facility has reached Technical Readiness Level (TRL) 7/8 upon completion of the DORR and prior to Hot Functioning testing?	<ul style="list-style-type: none"> <li>• <i>Technology Readiness Assessment (TRA)</i> SRP Volume 1, March 10, 2010</li> </ul>
26	Are procedures/test instructions the latest revision?	DOE O 422.1, Attachment 2, Section 2a
27	Are procedures/test instructions authorized working copies?	Procedures related best practice
28	Can procedure/test instructions steps be performed as written?	DOE O 422.1, Attachment 2, Section 2b
29	Are the Radiological Work Permits (RWPs) current?	DOE O 422.1, Attachment 2, Section 2a
30	Do the RWPs reflect the work to be performed?	RWP related best practice

	<b>Line of Inquiry (LOI)</b>	<b>Reference</b>
31	Are RWP requirements followed during task execution?	DOE O 422.1, Attachment 2, Section 2a
32	Are Operating Limits, including limiting control settings and limiting conditions, maintained to ensure safe operation of nuclear facility?	DOE STD 3006
33	Are postings observed?	DOE O 422.1, Attachment 2, Section 2c
34	Are required supplies and equipment available prior to start of evolution?	Conduct of Operations related best practice
35	Was an effective pre-job brief conducted?	DOE 450 Series Directives on <i>Integrated Safety Management System</i>
36	Are required documents available prior to start of the evolution?	DOE O 422.1, Attachment 2, Section 2a
37	Do operators and supervisors comply with procedural requirements?	DOE O 422.1, Attachment 2, Section 2b
38	Do personnel understand their responsibilities during the evolution?	<ul style="list-style-type: none"> <li>• DOE O 426.2</li> <li>• DOE-STD-3006</li> </ul>
39	Do personnel understand the interaction between the procedures and the Startup Plan?	<ul style="list-style-type: none"> <li>• DOE O 426.2</li> <li>• DOE-STD-3006</li> </ul>
40	Are communication lines established to ensure appropriate notification and reporting of issues or events?	DOE O 422.1, Attachment 2, Section 2d
41	Do communications systems support the formal communications of the operations? Are the communications understandable?	DOE O 422.1, Attachment 2, Section 2d
42	Are support organizations available to support the evolution as required?	Support organization responsiveness related best practice
43	Is the test equipment calibrated or certified?	System/equipment condition and function related best practice
44	Is the required safety significant equipment operable?	<ul style="list-style-type: none"> <li>• DOE-STD-3006</li> <li>• 10 CFR 830, Subpart B</li> <li>• DOE G 423.1-1A</li> <li>• DOE-STD-1186</li> <li>• DOE-STD-1104</li> <li>• DOE-STD-3009</li> </ul>
45	Have Management Observation (MO) personnel qualifications been developed? Is there documented process for any exemptions to these qualification criteria?	MO personnel related best practice
46	If the MOs are internal to the organization, have their normal duties been back-filled by qualified personnel for the length of their assignments?	MO personnel related best practice

	<b>Line of Inquiry (LOI)</b>	<b>Reference</b>
47	How are changes to the Startup Plan controlled and approved?	Process related best practice
48	Are management approvals and hold points incorporated into tests or significant activities?	DOE-STD-3006
49	Is there a documented process for procedure changes resulting from field-identified inadequacies?	Process related best practice
50	What process is in place that ensures that vital maintenance procedure changes be approved by the Commissioning Manager or Startup Review Board (SRB)?	Process related best practice
51	How does the maintenance staff stay cognizant of these procedural changes?	Process related best practice
52	Have instrumentation and equipment needed to support the startup testing program been identified? Is a sufficient inventory available?	Process related best practice
53	Have instruments that require calibration been properly calibrated on time and labeled?	Process related best practice
54	Has Post Maintenance Tests (PMT) required for first use activities been identified?	Process related best practice
55	What are the procedures for equipment layup and/or maintenance from the time of turnover from construction to time of need during startup testing?	Process related best practice
56	Do the test plans contain prerequisites, precautions and acceptance criteria?	DOE O 425.1D
57	Are the acceptance criteria traceable?	Objective criteria related best practice
58	Does each first use evolution have objective criteria identified?	Objective criteria related best practice
59	Are compensatory measures identified along with the criteria for phasing these controls out?	Objective criteria related best practice
60	Are turn-back criteria established for components/systems that fail during startup testing?	Objective criteria related best practice
61	Are the Activity Hazards Analyses and associated exposure monitoring requirements addressed in Startup Plan?	Objective criteria related best practice
62	Is there a procedure that requires the MO to conduct and document a post startup review upon completion or termination of each first use evolution? Does the SRB review the results of each post-evolution review?	Feedback related best practice
63	How are improvements identified during the post startup review for the evolution incorporated prior to repeating the evolution?	Feedback related best practice
64	Is a critique process developed for use during startup?	Feedback related best practice

	<b>Line of Inquiry (LOI)</b>	<b>Reference</b>
65	Have available documented evidence of the results of Cold Commissioning tests and related operational procedures necessary for hot operations been updated and modified as necessary, based on Cold Commissioning testing experience?	Feedback related best practice
66	Has the facility obtained all necessary permits, licenses, etc., for operation?	Contract List A&B Requirements
67	Has a summary-level schedule that clearly illustrates the systematic approach to full operations been developed?	Management and control related best practice
68	Has operations established and cold-tested (or otherwise verified) the necessary interfaces to support Hot Operations, including the necessary utilities (power, water, etc.)?	Operations related best practice
69	Have the functions, assignments, responsibilities, and reporting relationships (including those between the line operating organization and environment, safety, and health (ES&H) support organizations) been clearly defined, understood, and effectively implemented, with line management responsibility for safety during the startup period?	DOE 450 Series Directives on <i>Integrated Safety Management System</i>

## **Attachment 2 - Startup Plan Best Practices**

The Startup Plan (SP) is applicable to nuclear facilities but can also be applied to other facilities such as those containing chemical or biological hazards whose actual operations are not authorized until after passing Readiness Reviews. Since actual operations cannot be evaluated by an Operational Readiness Review (ORR) or Readiness Assessment (RA) team, the plans and precautions described here are warranted for initial operations with the hazardous material. Furthermore, the workings of the 3 additional controls (Management Observation (MO), First Use Checklist, and Startup Review Board) described later, employed during Startup must also be demonstrated to the readiness review teams.

For nuclear facilities, the SP is a major component of the transition to operations. The TOP defines the basis for attaining initial operating capability and includes documentation, training, interfaces, and draft schedules. It is basically an agreement between the project organization (Federal Project Director), DOE program, and the user/operating organizations that describes the process for implementing transition to operations activities.

The SP best practices contained in Attachment 1 identify post CD-4 operational activities required to accomplish the safe and orderly progression from startup authorization to normal unrestricted operations for nuclear facilities. In addition to the term Startup as used here, this phase of project life in nuclear facilities is colloquially known by various other names including: Limited Operations, Deliberate Operations, Hot Functional Testing (HFT), Hot Commissioning, etc. These terms are not accurate as these activities, such as Hot Functional Testing, are actually individual aspects of the overall Startup. The SP must address all the activities in the timeframe. Additional guidance for development of Startup plans is found in DOE-STD-3006.

The objective of the Startup period is to simultaneously confirm operability of equipment, the viability of procedures, and the performance and knowledge of the operators using actual material. Additionally, the objectives include further developing a trained Operations and Maintenance (O&M) staff, using proper procedures to operate in a safe manner and complete the personnel qualifications processing actual material.

The SP therefore must specify validation processes for equipment, procedures, and operators including any required restrictions and additional oversight. The plan must provide for a controlled, deliberate approach to achieving safe, hot operations. The plan details implementation of management and facility activities necessary to achieve full operations for the first time. A key element involves the participation of qualified management and support personnel in the observation and evaluation of initial hot operations in a formalized specific observer responsibility role. This aspect of additional control (referred to here as Management Observation (MO) but also commonly known as Senior Supervisory Watch (SSW)), used in conjunction with two other controls, the First Use Control (whose main constituent is the First Use Checklist) and a Startup Review Board (SRB), form a triad to build a successful Startup.

Implementation of the Startup phase begins once DOE issues the “Authorization to Proceed” letter to the Contractor. The first major series of activities following receipt of the letter is

preparation for the Hot Functional Tests. Prior to initiation of HFT, integrated system testing (IST) has been successfully completed under conditions that did not include hazardous materials. The IST demonstrated that the process equipment and safety controls functioned as designed with the exception of hazardous material. The test plans and instructions used during IST provide a good first draft for the development of the hot functional test plan and instructions. Performance of each Hot Functional Tests will be defined by an individual test instruction (i.e., Hot Functional Test Procedure) which coordinates the use of approved Operations procedures. Management observation and oversight must ensure adherence to the requirements in the Startup Plan and the appropriate application of first use protocols to evolutions. The first use controls are employed during Startup beginning with the first time the Operating procedures are utilized for the introduction or generation of hazardous materials. The First Use checklist's overarching objective is to ensure that certain prerequisites and tasks have been completed prior to initiating first use operations. Hold points are highlighted on the checklists to ensure the appropriate disciplines have reviewed the proposed test/operation and concur with execution. The checklists should also direct the users to other procedures and processes if not self contained on the subject checklist for actions to respond to upset conditions or unforeseen circumstances that are encountered during execution.

The SRB will usually be represented by the following functional areas: Plant Manager (Chairperson), Startup Manager, Operations Manager, ESH & Q Manager, Nuclear Safety Manager, the Design Authority Representative (DAR), and often times an DOE Observer. In addition, Subject Matter Experts (SME) will be called upon when needed. Oversight of the startup process is the responsibility of the SRB. The SRB must have an approved charter to operate within. The SRB's responsibilities include: reviewing upset conditions or unforeseen circumstances that arise during first use evolutions, reviewing the results of the First Use checklist and each checklist that has a hold point, and reviewing and approving the Post Evolution reviews/critiques. The SRB will be responsible for recommending subsequent actions from any of the review activities and eventually readiness to proceed with the next step in the startup sequence. The Board must also review and disposition recommendations and observations from the MO.

Specific milestones of HFT include:

- Qualification of O&M staff under radioactive operating conditions
- Continued verification of procedures used for operational and industrial safety
- Evaluation of operating procedures under radioactive feed conditions
- Evaluation of maintenance procedures with radioactive material and maintenance personnel working under radiation exposure conditions
- Verification of operational radiation dose rates in accordance with previously developed shielding analysis, use of this resulting data to modify, if needed, operating and maintenance procedures
- Verify accuracy of process instrumentation and analytical procedures, using radioactive material
- Evaluate radiochemistry and sampling techniques and accuracy
- Complete the performance of State and/or EPA Environmental Testing and Permitting processes using radioactive material

Simulant selection and management is a critical aspect of Startup. Simulant for Cold runs should be selected to mimic as many of the properties of the hot material as possible, instead, often times facilities default to just using plain water. The simulant should also be selected with dilutative qualities in mind--Unless the simulant can be used as a dilutant with the actual radioactive material, the simulant from Cold Commissioning has the potential for cross-contamination and extensive cleanup may be necessary For the initial Hot Operations, often times use of a feed with reduced activity level is a good choice as it will limit risks associated with system upsets during this time period. It could also confirm radiation shielding adequacy. Since reduced activity feeds contains radioactive contaminants, it will allow the Commissioning and Operations staffs to gain familiarity with actual conditions and allow for phased step-up and time sequencing of higher-concentration feeds to be introduced.

Once the test instructions and corresponding Hot Functional Test Procedure have been successfully performed, and any necessary modifications have been made, the final system operating procedures will be issued as “First Use Operating Procedures”. First use will continue until operating personnel have demonstrated proficiency to operate, the operating procedures are verified as capable, and the equipment has been proven to work as designed. The revised procedures will be submitted to the SRB which then approves unrestricted procedure release as recommended by MO results. Operators will remain provisionally qualified and under MO watch until individually recommended by the associated MO personnel and approved by the Operations Manager for full qualification on a procedure-by-procedure basis. Demonstration of proficiency and operational knowledge after the implementation of system operational limits will be required. The Startup phase is considered complete once verification of HFT objectives has been achieved, and the MO Oversight is discontinued by recommendation of the SRB. The Startup Plan should address the following responsibilities, duties and qualifications of the MO personnel.

Prior to initial first use operations involving hazardous materials, the MO member should—

- Verify that training is complete and qualifications are current for all ops and support personnel;
- Ensure that supervision has verified that qualified operations personnel are assigned to specific process
- Ensure that the surveillance tests and Preventive Maintenance (PM) items have been verified to be current.
- Verify that Operations has the Lockout/Tagout under control;
- Verify that required valve line ups have been walked down

Attachment 1 contains a set of lines of inquiry for the MO member to use.