The Deputy Secretary of Energy
Washington, DC 20585

December 22, 1999

MEMORANDUM FOR DISTRIBUTION

FROM: T. J. GLAUTHIER

SUBJECT: Readiness Review Program Follow-up Actions

Attached is the report prepared by the Headquarters review team from the results of the individual site assessments of the status of implementation of DOE O 425.1A, Startup and Restart of Nuclear Facilities. The report was prepared in response to my memorandum of October 19, 1999, subject: Readiness Review Program. The entire effort is in response to a letter from the Defense Nuclear Facilities Safety Board (Board) that identifies several issues with the status of implementation of DOE O 425.1A.

The report contains recommendations for actions to improve the status of implementation of the Readiness Review Program across the DOE Complex. The reports of the individual site assessments identified local issues and provided corrective action plans. It is my intention that these site-specific issues be managed, tracked, and closed by local site management, and Lead Program Secretarial Officers (LPSOs) will oversee this process to assure its effectiveness. The purpose for this memorandum is to address the recommendation in the attached report for Headquarters action, including those actions that are common at all sites with nuclear facilities.

I approve the recommendations in the report and direct the following actions and responsibilities:

Promulgate a revision to DOE O 425.1A and the associated standard, DOE-STD-3006-95 to:

- clarify the intent of the Startup Notification Report process, including the requirement for periodic submittal and DOE review and approval;
- amplify the expectation for utilization of the graded approach in development of Readiness Assessment plans; and
- specify the requirement that readiness reviews required by the Order will be Operational Readiness Reviews or Readiness Assessments as appropriate. ***Action: EH Lead, DP, Due 6/00.***

Promulgate a revision to DOE Functions, Responsibilities, and Authorities Manual (FRAM) to clarify the expectations for DOE review and approval of Startup Notification Reports (SNRs) and EH responsibilities for oversight of the Readiness Review process, and reiterate the requirement to oversee field execution of delegated functions through DOE P 450.5 oversight processes. ***Action: EH, Due next annual revision.***

Provide a briefing to the responsible line managers at the next available Field Managers' meeting to provide the information contained in this assessment to the appropriate decision-makers and highlight resulting changes in requirements. ***Action: Headquarters review team, Due 6/00***

Each LPSO and Cognizant Secretarial Officers (CSOs) if appropriate, oversee the field office processes for correcting the deficiencies identified by their reports. Conduct an oversight review upon completion of the corrective actions, but not later than 09/00. Document these results and make them available to EH-2 during the next Safety Management Evaluation (SME). ***Action: LPSOs/CSOs, Due 09/00.***

Each LPSO and field office manager implement the guidance and interpretation associated with Startup Notification Reports and Readiness Assessments Graded approach contained in the attached white papers in anticipation of the updates to the Order and Standard. ***Action: All, Due 3/00.***

MA take over administrative control of the ORR training course. MA should ensure this course meets Technical Qualification Program guidelines and that its availability is known throughout the complex. I expect DP to provide MA assistance in this ORR training. LPSOs and field personnel are encouraged to utilize this resource as the need is identified. ***Action: MA lead, DP, due 6/00.***

All sites conducting startups or restarts of nuclear facilities are reminded of the requirement in DOE O 425.1A to forward required documentation to EH-2, Headquarters. ***Action: All, continuing.***

EH will evaluate organizational priorities to assign greater priority to the oversight of startup and restart activities, to monitor ORR schedule adjustments and better support schedule changes, and review restart documentation in a more timely manner. EH will assess oversight protocol to ensure consistency with the upcoming changes in the FRAM, the Order and standard. ***Action: EH, due 3 months following next annual FRAM revision.***

I am confident that the conscientious effort of all addressees to implement the actions discussed above as well as complete the corrective actions identified at the individual sites will result in the process improvement in the Readiness Review program that is required.

Attachments

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December 3, 1999

Readiness Review Program Interpretative Guidance White Paper

STARTUP NOTIFICATION REPORTS

The Startup Notification Report (SNR) Process is an important element in the management of the readiness review process. Through the intended use of the SNR, line management from the contractor facility management through the Lead Program Secretarial Officer is included in the decision process as to the type of readiness review that will be conducted for EVERY startup or restart of the nuclear facilities including nuclear activities within a nuclear facility.

The requirements for the SNR are included in DOE O 425.1A, sections 4.b(1), 4.c(1), attachment 1 section 2.b(1) and 2.c(1). Discussion of the expectations for SNRs are expanded in DOE-STD-3006-95, sections 3.40, 4.2.1, 5.1.2, 5.2.2, 5.3.1.3, 5.10.1(5). The SNR process at every nuclear site should meet a minimum set of expectations. Failure to meet these expectations is a major factor contributing to the deficiencies that are identified by the DNFSB Letter of August 26, 1999 and confirmed by the individual site assessments of the readiness review process.

This Interpretative Guidance White Paper is prepared to provide immediate clarification of the minimum essential elements of the SNR process in anticipation of updates to DOE O 425.1A and DOE-STD-3006-95.

Each site with nuclear facilities should have procedures to describe a SNR process with the following essential elements:

- An SNR is submitted periodically by the contractor that updates information from previous period for startups that have not yet occurred and adds information for each startup or restart that has been identified since the last quarterly report. The SNR should project startups and restarts at least 1 year ahead.

- Minimum information to be included in the SNR for each startup or restart should include a description of the facility or program work; reason for non-operation (e.g. maintenance or modification outage, no program work, new facility, shutdown for safety concerns, etc); the approximate date operations were last conducted (for restarts) and the projected date for the startup; proposed type of readiness review; basis or justification for proposed type of readiness review; proposed startup or restart authority.

- Each periodic SNR should be reviewed and approved by DOE Field Office Management. In those cases when the startup authority resides with the PSO, the Field Office Management should comment and make a recommendation regarding approval.

- Each periodic SNR, including the Field Office comments and actions, should be forwarded to the cognizant PSO and the site LPSO.

- Contractor readiness review action to start or restart operations should not commence until the DOE startup or restart authority has approved the proposed readiness review process.

- Every startup or restart of a nuclear operation other than routine resumption of operations after short, planned interruption should be included in the SNR. These startups, requiring review, should be started or restarted using an ORR or properly scoped RA as appropriate. Other routine resumptions of operations can be conducted without a readiness review using normal contractor procedures for the facility or activity. Contractor routine procedures should not be developed for the purpose of avoiding a properly scoped Readiness Assessment.

Procedures that meet these expectations should be implemented as an immediate corrective action for the readiness review program assessment.

December 3, 1999

Readiness Review Program Interpretative Guidance White Paper

READINESS ASSESSMENT GRADED APPROACH

The DOE Readiness Review Program (program) required by DOE O 425.1A and discussed in DOE-STD-3006-95 is intended to verify that readiness to conduct nuclear operations has been achieved prior to the start of the nuclear operations. The program is intended to be conducted with a minimum of administrative effort, consistent with the necessary formality to assure competent management of nuclear operations.

These directives identify criteria for startup and restart for which Operational Readiness Reviews (ORR), and Readiness Assessments (RA) are required. When these criteria apply, only the appropriate one of these type reviews may be used. When these criteria do not apply, such as a routine restart of an activity delayed only briefly for scheduling or programmatic reasons, then standard contractor operating procedures may be used to support safe restart. If a review is needed, the level of readiness review is intended to be graded or tailored to a degree that is consistent with the circumstances, changes, duration, and confidence since the operations were last conducted. The major flexibility for utilization of the graded approach is in the requirements and expectations for the RA. The RA should evaluate the minimum items that have changed or become stale since operations were stopped. DOE-STD-3006-95, section 5.10 contains a detailed discussion of the expectations and the flexibility of the RA process.

Some key elements of flexibility provided for in the expectations for an RA include:

- The procedure or plan for the conduct of the RA may be as complex as for an ORR, as simple as a pre-approved checklist or a level of detail in between based on the facts of the situation. In every case, the DOE startup authority will concur with the plan.
- When an RA is appropriate, expectations for DOE oversight are flexible, from routine observations by the Facility Representative, concurrent formal oversight by an appointed team, or an independent RA either in series or parallel with the contractor RA. The level of DOE oversight should be documented. This oversight should never used to justify delegation, but should be a verification of adequacy.
- Team member independence requirements are not specified beyond no team member verifying his own work.
- Prerequisites to commence operations should be specified, either in the routine contractor pre-approved checklist or in a planning document for the RA.

In view of the flexibility to fit the rigor of the RA to the circumstances of the startup situation, it should not be necessary for contractors to develop readiness review processes similar to RAs but called something different. The flexibility of the RA process allows for the development of the appropriate review process without excessive administrative burden while maintaining the level of rigor, formality, and documentation to demonstrate competent management of nuclear operations.

REPORT ON IMPLEMENTATION STATUS OF DOE ORDER 425.1A, "START UP AND RESTART OF NUCLEAR FACILITIES"

December, 1999

Multi-Program Team
U.S. Department of Energy
Washington, D.C. 20585

EXECUTIVE SUMMARY

This report is in response to a memo from the Deputy Secretary directing a departmental review and correction of issues identified by the Defense Nuclear Facilities Safety Board (DNFSB). A DNFSB letter dated 26 August 1999 identified issues concerning the startup and restart process for DOE nuclear facilities. Specifically, the letter noted that in some cases, reviews were not properly independent of line management; facilities and activities repeatedly declared readiness to start reviews prematurely; and line managers (both contractor and DOE) used readiness reviews to assist in attaining readiness, rather than as an independent confirmation of readiness. The letter also identified that DOE operations offices and their contractors sometimes take extraordinary steps to avoid performing Operational Readiness Reviews (ORRs) or Readiness Assessments (RAs) due to a perceived administrative burden.

In response to this letter, the Deputy Secretary directed a multi-program Headquarters team led by Defense Programs to review these issues. The field offices were also directed by the Deputy Secretary to review their startup and restart processes and procedures and forward the results to this team. The Headquarters team provided guidelines for the field review, assisted in its conduct, reviewed the results independently, and provided evaluation of the final results and corrective action plans. Criteria for this review were established which focused the review on the issues identified in the DNFSB letter noted above. The field offices conducted these reviews, noted any shortfalls, and provided corrective action plans for the noted deficiencies. These evaluations were then provided to the headquarters team to ensure that the reports addressed the issues at an appropriate depth. The Headquarters team then consolidated issues that should be appropriately addressed at the headquarters level. The overall objective of this evaluation was the invigoration of the readiness review program.

Although in some cases, the Headquarters team was required to initiate communications with the field to ensure the goals of the review were met, ultimately the reviews conducted by the field were adequate and the corrective actions were responsive to the identified issues. Throughout the process, the Headquarters team interacted with the field counterparts conducting the review to foster consistency and assure focus on the issues identified in the DNFSB letter. The field reports are summarized in the body of this report. The associated corrective actions are a field responsibility and closure will be verified at the field level through existing tracking systems. It is a recommendation of this report that Lead Program Secretarial Officers (LPSOs) oversee this process to ensure the effectiveness of corrective actions.

The Headquarters team's analysis of the field reports identified six factors that contributed to the problems identified by the DNFSB, which are most appropriately addressed at the Headquarters level. In many cases, corrective actions associated with these factors are also part of corrective action plans generated by field offices. They are as follows:

(1) The process for selecting the suitable review methodology does not engage the appropriate decision-makers early in the process.

(2) Some LPSOs have delegated the authority for startup/restart approval to the field elements. The problems identified through this review process indicate that line oversight was inadequate to assure the expected level of implementation by delegated authorities.

(3) Most independent reviews by the department have been adequate, but some contractor reviews have used processes which were not approved by the department as required, have been conducted before reasonable readiness was achieved, and have lacked objectivity or independence from programmatic incentives.

(4) The issues identified regarding misunderstandings of existing requirements (e.g., Startup Notification Reports (SNRs) and RA grading) and guidance contained in DOE Order 425.1A and associated standard indicate a need for order revisions and additional training regarding the process. Field sites have identified this as a need.

(5) Field office personnel have indicated confusion regarding where to send the required ORR documentation for independent review. As a result, the required oversight has not been completed in some cases.

(6) Independent Oversight (EH-2) has not been effective in preventing the problems identified in this report.

The following corrective actions are proposed to resolve the root causes and provide continuing improvements in the readiness review process:

(A) Promulgate a revision to DOE O 425.1A and the associated standard, DOE-STD-3006-95 to:

1. Clarify the intent of the Startup Notification Report process, including requirements for periodic submittal and DOE review and approval;
2. Amplify the expectation for utilization of the graded approach in development of Readiness Assessment plans;
3. Specify the requirement that readiness reviews required by the order will be ORRs or RAs, as appropriate.

(B) Promulgate a revision to DOE Functions, Responsibilities, and Authorities Manual (FRAM) to clarify the expectations for DOE review and approval of SNRs and EH responsibilities for oversight of the Readiness Review process, and reiterate the requirement to oversee field execution of delegated functions through the DOE P 450.5 oversight processes.

(C) Provide a briefing to the responsible line managers at the next available Field Managers' meeting to provide the information contained in this assessment to the appropriate decision-makers and highlight resulting changes in requirements.

(D) The Deputy Secretary should send a memorandum to the field offices and LPSOs that highlights the necessary changes and clarifications, and requires expeditious implementation of the same. Also, specify the expectation that site-level corrective action plans will be managed and tracked locally. LPSOs will provide oversight of the process and review the final outcome. The memorandum will include white papers discussing the requirements for SNR and the flexibility provided by the graded approach to RAs.

(E) EH should evaluate organizational priorities to assign greater priority to the oversight of startup and restart activities, to monitor ORR schedule adjustments and better support schedule changes, and review restart documentation in a more timely manner. EH will assess oversight protocol to ensure consistency with the upcoming changes in the FRAM, the Order and standard.

DOE believes that the corrective actions identified herein will achieve the objective of reinvigorating the readiness review process, as well as provide consistency with the Secretary's order throughout the DOE complex. The ISM feedback and improvement function should be used by LPSOs to gain continuous improvements to the startup/restart process. Each of the factors identified above reflects needed growth in the implementation of ISM. The faithful implementation of the DOE policy on oversight, DOE P 450.5, will be a key factor in sustaining the improvements presented by the corrective actions forwarded in this report.

There were no instances identified in this review where these deficient processes resulted in an unsafe startup. However, there were cases where inadequate readiness reviews were planned, or were conducted before readiness could be demonstrated. The Department acknowledges that each level of oversight contributed to identification of such problems and the resultant successful review process. It is intended that the corrective actions identified in this review cause our process to become more systematically efficient and less reliant upon oversight to assure success. This is in keeping with the departmental commitments to continuous improvement as a key aspect of ISM. Some improvement in clarity of the expectations contained in the governing directives is needed. Further, authoritative emphasis upon those expectations will facilitate the timeliness of the desired improvement.

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1.0 PURPOSE

On 26 August 1999, the Deputy Secretary of Energy received a letter from the Defense Nuclear Facilities Safety Board (DNFSB) regarding the readiness review process at DOE nuclear facilities. This letter pointed out deficiencies noted in the conduct of the readiness review process throughout the complex. Specifically noted were: (1) the failure to conduct independent reviews; (2) facilities and activities repeatedly declaring readiness to start reviews prematurely; and (3) line managers (contractor and Department of Energy [DOE]) using readiness reviews to assist in attaining readiness, rather than as an independent confirmation of readiness.

The DNFSB also noted in the letter that the parent DOE Order 425.1A, *Startup and Restart of Nuclear Facilities*, and its associated standard describe a technically sound and flexible approach for contractor and DOE readiness reviews that is consistent with the principles of Integrated Safety Management (ISM). It was the judgement of the DNFSB however, that there are significant issues with the execution of these requirements at the levels of the operations office and subordinate units.

In response to the issues noted in this letter, a multi-program team was assembled to review the DNFSB issues and develop a response. The focus of the response was an evaluation of the implementation of the requirements of DOE O 425.1A. The goal of this evaluation was to reinvigorate the readiness review program throughout the DOE complex, in keeping with the ISM function of continuous improvement. Further, given that the existing directives are adequate, an additional objective was to evaluate the consistency with which those requirements are being carried out across the complex. This report summarizes the work of this team in conjunction with the DOE field sites conducting nuclear activities.

2.0 SCOPE

As the readiness review process applies to nuclear facilities and activities across the DOE complex, this evaluation incorporated all field sites that manage nuclear facilities or activities, and was not limited to defense nuclear facilities.

All of the program offices involved were represented by a member of that program on the Headquarters team. This team was responsible for developing a review strategy, requesting data and action from field/line elements, ensuring appropriate depth of the reviews, evaluating corrective actions from the field responses, and generating corrective actions that were judged to apply complex-wide. Those corrective actions uniquely applicable to a site, facility, or activity are captured in the corrective action plans forwarded by the field office managers as part of this evaluation.

Due to their expertise in the readiness review area, the Office of Defense Programs (DP) was tasked to lead this evaluation. This is an integrated, DOE-wide response, which was cooperatively developed and has application to field, Headquarters line, Headquarters staff, and Headquarters oversight organizations.

3.0 PROCESS

The Deputy Secretary directed a two step process to complete this evaluation. The first step was a field/line assessment of implementation of the DOE O 425.1A requirements. Prior to the evaluation, a guidance document was generated. This review guide was written in the form of a Criteria and Review Approach Document (CRAD). This is the method normally used in the Operational Readiness Review and Readiness Assessment process. The criteria included in this CRAD were the requirements applicable to the issues identified by the DNFSB in their letter of 26 August. This CRAD was provided to the field/line organization to focus the assessment and to provide for some consistency in the review process. LPSOs were encouraged to participate in the review by providing program staff to assist in the assessment process. Field sites coordinated their completed assessments with their respective program offices, and some have provided additional input to this report.

The second step of the process was to provide an independent evaluation of each site's submittal, and develop a summary of the field reports, and consolidate department-wide corrective actions. A team member assigned to the LPSO staff responsible for that facility completed this step. The purpose of this step was to provide a second check for the field/line evaluations to ensure the appropriate questions were addressed and assure that corrective action plans were established and entered into the appropriate tracking systems to provide a positive path to closure. Further, the consolidation allowed for the identification of complex-wide issues that were more appropriately handled at the headquarters level with respect to corrective actions.

The sites completed their reviews in November. The Headquarters team reviewed the data, interfaced with the sites and line to resolve questions, and to get clarification on issues and corrective action plans. During this period, responsible individuals from the Headquarters team requested additional reviews, discussed changes to corrective action plans, and coordinated due dates with the various field/line elements. Members of the Headquarters team provided on-site assistance during the review process. This, and extensive communication between the LPSOs, field offices, and the Headquarters team helped to foster consistency and completeness in the process, in addition to adding a level of independence to the field office reports. The field offices will retain the responsibility for the completion of these corrective actions, though LPSO oversight is appropriate and recommended later in this report. The team then consolidated the broader complex-wide issues and provided a headquarters' level corrective actions plan to respond to these issues, as well.

Brief summaries of the field reports are provided in the following section of this report. The full reports will be provided under separate correspondence due to their volume. The summaries of the field reports are provided here to give a context for the broader, complex-wide issues that follow.

4.0 OPERATIONS OFFICE SUMMARIES

The following summarizes the results of the field office reviews of the implementation of DOE O 425.1A requirements. The field offices were provided guidance for conduct of the review in

the form of a CRAD that was included in the tasking letter from the Deputy Secretary. LPSOs were also encouraged to participate and directed to do so in those cases where approval authority had been delegated to the field sites. In most cases, Headquarters personnel experienced in the ORR/RA process interfaced with field entities, provided advice and comment, and participated as appropriate.

These summaries of the field reports have been prepared in a specific format to allow for comparison and establish the context for the complex-wide issues. This format includes a discussion of the method of evaluation used (e.g., the CRAD or some other equivalent method), the conclusions of the field office review, and a summary of the corrective actions specific to that field office.

4.1 Albuquerque Operations Office

Approach Used: The Albuquerque Operation Office conducted reviews of three area offices and their associated contractors including Amarillo, Kirtland, and Los Alamos. Document reviews and interviews were conducted at each area office. The CRAD was used to develop a detailed assessment plan at each of the area offices. Kansas City Area Office, Grand Junction Project Office and the Waste Isolation Pilot Plant are not included in the review because of limited applicability of DOE O 425.1.

Conclusions: The review at Pantex concluded that the basic requirements of DOE O 425.1A have been followed, although multiple names have been used for some contractor readiness reviews. AL has recently instituted changes to the supplemental directive governing these activities to require that reviews conducted are either ORRs or RAs. At the time of this report, it is not possible to evaluate the impact of the new requirements on the process. It was also determined that the contractor had a comprehensive set of procedures to implement the requirements of the DOE Orders. DOE O 425.1A however, is not in the current contract with the Mason-Hanger Corporation. In the interim, the order requirements are included in the MHSM Management Integration and Controls document. It will be included in an upcoming contract revision.

As a result of previous identified concerns, the AL and Amarillo Area Office have instituted several improvements to the startup process prior to the initiation of this review. These improvements were to focus on process improvements and the ability of the contractor to conduct assessments. Specifically, revised AL Directive (SD 425.1) and Amarillo Area Office Procedures (115.1.0) will clarify the startup/restart process. In addition, the contractor has made a significant effort to train managers and personnel in assessment techniques to better conduct Readiness Assessments.

The review conducted at Sandia National Laboratories and its Kirtland Area Office indicate that the DOE O 425.1A is contained in the current contract. The actual implementing procedure is undergoing revision that will incorporate guidance for line management to conduct management self-assessments to ensure readiness to proceed with independent reviews. With one exception,

all personnel interviewed were knowledgeable regarding the Order. Personnel interviewed did not understand the proper application of the Startup Notification Report process.

The AL team also conducted a review of the startup process at Los Alamos. Although the contract requires DOE O 425.1A to be the process to confirm readiness to proceed with work at nuclear facilities, their Laboratory Implementing Requirement documents that would support implementation of DOE O 425.1 were in draft form and not yet issued at the time of the review. These implementing documents have since been issued and applicable facilities at Los Alamos are developing plans to implement them within six months. Two Readiness Assessments were conducted jointly by LANL and DOE. The local office and contractor were instructed by AL to cease this process.

While it appears that the overall startup/restart process at AL is improving, two issues were noted that repeated themselves among the different area offices. The first is a lack of formal training on the DOE O 425.1 that leads to different interpretations of significant processes within the Order. Examples include the application of CRADs to ORRs and RAs and the use of minority opinions in final report preparation. The second issue pertains to the use and application of the Startup Notification Reports.

Corrective Actions: The corrective action identified in the AL report was to improve and present additional training. The Headquarters team noted that an additional corrective action is needed. Specifically, the Amarillo Area Office Procedure (115.1.0) requires updating and formal issue. This has not yet been completed. It is the opinion of the team that the increased training coupled with the actions discussed in this report will adequately resolve the issues that were identified during the AL review.

4.2 Chicago Operations Office

Approached Used: The Chicago Operations Office (DOE-CH) performed an assessment of compliance to DOE O 425.1A at the Argonne National Laboratory - East (ANL-E), the Argonne National Laboratory - West (ANL-W), the Brookhaven National Laboratory (BNL), and the New Brunswick Laboratory (NBL). The Princeton Plasma Physics Laboratory notified CH that they did not consider the request applicable to their facilities and did not conduct an assessment. Facility Representatives conducted the assessments at ANL-E, ANL-W and NBL, and the quality assurance manager at BNL with cognizance over ORRs and RAs conducted the BNL assessment. Contractor counterparts participated in the assessments. The Criteria, and Review Approach Document (CRAD) that was provided as a guide in the Deputy Secretary's tasking memorandum was used in these assessments and a specific evaluation was provided for each element.

Conclusions: Detailed reviews were completed for the facilities assessed and the results were documented in the assessment report of December 2, 1999. The report concludes that DOE O 425.1A is being adequately used at CH nuclear facilities with some areas needing improvement noted.

A problem was noted that ANL has not issued annual startup notification reports that cover all nuclear facilities. It is not clearly understood by the Laboratory that the SNR is a required deliverable.

At ANL-E, a problem was noted on one recent Laboratory ORR with respect to ensuring independence for the ANL ORR Team.

At ANL-W, they use a site procedure to implement the RA requirements of DOE Order 5480.31 (DRAFT). This procedure has not been updated since 1993 to implement the requirements of DOE O 425.1A. In addition, weaknesses were noted at ANL-W in achieving readiness prior to commencement of one recent DOE RA.

The assessment of BNL identified no significant issues with respect to adequate implementation of DOE O 425.1A.

NBL is a GOGO laboratory that does not operate under a contract and no formal procedures are in place to address DOE O 425.1A. No ORRs or RAs are planned. Should one become necessary, it will be performed in accordance with DOE O 425.1A under CH oversight.

Corrective Actions: CH has formally reminded the Laboratory that the startup notification report is an annual deliverable and has requested submittal by January 1 each year. Specific guidance has been formally transmitted to the Laboratory on the definition of "independence" to ensure future compliance with the intent of DOE O 425.1A. ANL-W will complete updating their procedure by February, 2000, and will institute formal RA Team Leader training by March, 2000

4.3 Idaho Operations Office

Approach Used: The Idaho Operations Office (DOE-ID) performed an assessment of compliance to DOE O 425.1A at the Idaho National Engineering and Environmental Laboratory (INEEL) using a member from their Operational Safety Division and one of their Facility Representatives. Both were experienced with Readiness Reviews. The assessment included personnel from the M&O Contractor, Bechtel, Babcox and Wilcox Idaho (BBWI), to assist in the review. They used the CRAD that was provided in the Deputy Secretary's tasking memo as a guide. They appropriately tailored the CRAD for INEEL and divided the assessment responsibilities between DOE-ID and BBWI to ensure that the criteria were adequately evaluated. Using the CRAD, DOE-ID team members reviewed all documentation generated by DOE personnel (along with the contractor's Startup and Restart procedure MCP-2783), and interviewed four relevant DOE personnel. Likewise, BBWI assessors reviewed all contractor-generated documentation and interviewed all relevant contractor personnel.

Conclusions: The DOE-ID review was completed on time and the assessment report of November 2, 1999 documents the conclusion that DOE O 425.1A is being used at INEEL to ensure readiness of nuclear facilities. However, there were areas identified in need of improvement. The major areas for improvement follow.

The contractor uses the Contractor Expanded Review (CER) process when DOE-ID or higher approval to commence operations is not required. DOE-ID line management should ensure that startups/restarts requiring contractor ORRs/RAs are not circumvented by the use of a CER. In their review of the report, the Headquarters team noted that one of the examples cited in the report for the use of a CER incorrectly stated that the Advanced Test Reactor shutdown "was initiated due to potential operations outside of the facility safety basis." The cause of the shutdown was due to a new information resulting in an Unreviewed Safety Question and DOE-ID completed an RA following the contractor's CER.

ID Notice 425.1 is not in compliance with DOE O 425.1A. The parent order now includes important references to Integrated Safety Management and Authorization Agreements, among other changes.

In some cases, it was noted that readiness to commence operations had not been achieved prior to starting the ORR or RA. Instead, it appeared the ORR or RA was used to upgrade operations, which is contrary to the requirements of the Order and the guidance in its associated standard, DOE-STD-3006-95.

The contractor procedure MCP-2783 has not been approved by DOE-ID as required by the Order.

Corrective Actions: DOE-ID took action on the conclusions of their assessment and followed up their assessment with a corrective action plan that was submitted to Headquarters on November 15, 1999. The corrective action plan was responsive and detailed, with the responsible individuals for each action identified by name, and with specific due dates for both DOE-ID and BBWI actions. The corrective actions are all scheduled to be completed by May 2000. In reviewing the assessment report, the Headquarters team observed that the INEEL contractor was not able to locate the majority of the required SNRs indicating weaknesses in the DOE-ID process for formal agreement and approval of the appropriate level of readiness review. The Headquarters team asked that corrective action be taken to address the SNR weakness and DOE-ID included that area in their corrective action plan. Correcting the SNR weakness should also serve to complement actions being taken to ensure that the CER process does not circumvent the use of ORR/RAs when required.

4.4 Nevada Operations Office

Approach Used: The Nevada Operations Office responded to the Deputy Secretary's tasking memo regarding the conduct of Readiness Assessments at Nevada, but failed to address all the criteria in the review guide. Nevada Operations Office provided additional information upon request of the Headquarters team. They state that DP Headquarters successfully conducted an ORR for DAF several years ago. Nevada Operations Office also states that their procedures and two Nevada orders have been drafted and are being prepared to fully coordinate their handling of nuclear facility startups and restarts. These procedures were initiated in response to a recent EH-2 evaluation that took issue with the startup/restart process in use at the test site.

Conclusions: While Nevada initially identified itselve as "in full compliance" with DOE O 425. 1A, the lack of approved procedures was later noted. No restart of a category 3 or above facility has occurred in the last 12 months. The most recent facility startup was an ORR of the Device Assembly Facility that was lead by staff from Headquarters. Weakness in a contractor startup of the WETF facility were identified in a recent EH-2 SME. For less than category 3 facilities, Nevada gave all startup authority to Bechtel. Nevada provided Bechtel's procedures for restart in their response. No Nevada processes or procedures were provided as they are in draft form. The evaluation of the completion of this action should be part of the LPSO oversight process recommended later in this report.

Corrective Actions: Nevada has drafted a procedure and two applicable orders which are being finalized as their necessary corrective action to address this matter.

4.5 Oak Ridge Operations Office

Approach Used: The Oak Ridge Operations Office (ORO) assembled a team to respond to the Deputy Secretary's tasking memo regarding the conduct of Readiness Assessments at Oak Ridge. The team was composed of representatives from each of the line organizations. The team used the review criteria in the tasking memo, gathering documentation relative to each review question and interviewing DOE line representatives, contracting officer representatives, ORR/RA team leaders, and subject matter experts.

Conclusions: Most ORO contractors use a DOE 0 425.1A (or its predecessor) process. ORO has a number of contractors and each contractor has a different approach to startup/restart. Not all contracts contain requirements to perform readiness reviews. Startup Notification Reports are generally prepared, but not always, and are not consistently generated. The ORO order (which defines the process ORO uses for requiring and assessing readiness) needs to be improved.

The ORO report indicates that DOE O 425.1A and its implementing standard (DOE-STD-3006-95) do not provide sufficient guidance for determining when a Readiness Assessment (RA) is needed. At present, the ORO line organization is starting some nuclear facility activities using lower tiered requirements that they feel should not be considered RAs. This is based upon the requirements for RAs as defined by the ORO Directive 420, Chapter IX. However, the DOE order and standard are unclear as to whether this practice is acceptable. This raises concerns as to whether these activities are being started with the proper level of documentation and approval.

Several ORRs/RAs at ORO sites were conducted when the prerequisites had clearly not been met. This occurred despite an evident understanding of this requirement by DOE and contractor line management.

Corrective Actions: Revise the ORO restart order to provide more guidance. ORO will issue a memo to line managers instructing them to use SNRs. Contracts are to be modified to include requirement for DOE O 425.1A. ORO line managers will be asked to ensure that contractors have procedures for facility or activity startup/restart.

4.6 Oakland Operations Office

Approach Used: There have been no Operational Readiness Reviews conducted at the Oakland Operations Office (OAK) since the promulgation of DOE Order 5480.31 in late 1993. A Readiness Assessment was conducted in 1995 at the Plutonium Facility at Lawrence Livermore National Laboratory (LLNL). This Readiness Assessment followed the DOE Order 5480.31 requirements for Readiness Assessments.

Verification reviews of the Integrated Safety Management System implementation at LLNL identified the lack of procedures for implementing the DOE O 425.1A. Corrective actions are being taken to mitigate this problem by developing and implementing procedures.

Conclusions: DOE O 425.1A is not yet implemented at OAK. The implementing procedure is scheduled to be completed and in place by February 1, 2000. This procedure contains contractor requirements and is currently being reviewed by LLNL. Procedures to implement DOE O 425.1A are being developed at LLNL. The Oakland Operations Office has recognized its problems with DOE O 425.1A and is taking appropriate corrective action.

The DOE O 425.1A is in the contract with the University of California. It is discussed in the LLNL EH Manual, however no processes to implement these actions currently exist.

Corrective Actions: Corrective actions being taken to implement DOE O 425.1A at OAK include the following items.

Line managers at OAK's LLNL Site Office are using DOE O 425.1A to set expectations for LLNL regarding readiness reviews. The Oakland Operations Office is requiring LLNL to submit a corrective action plan for the "Opportunities for Improvement" identified in the Superblock Integrated Safety Management System Verification report.

LLNL and OAK managers are reviewing the OAK implementing procedure for DOE O 425.1A. The Oakland Operations Office draft implementing procedure will require LLNL to develop implementing procedures for DOE O 425.1A.

Startup Notification Reports will be required quarterly. Review team independence requirements will be established. Plans of Action for ORRs and RAs to address prerequisites that are tied to the Individual Core requirements of DOE O 425.1A will be developed.

4.7 Ohio Field Office

Approach Used: The Ohio Field Office (OH) conducted a review of their implementation of DOE O 425.1 through a review of existing procedures and startup notification reports. Questions contained in the CRAD were answered either yes or no; no evaluation was provided as to the effectiveness of the ORR process at OH. OH is comprised of five project offices; however, two

of the five sites are licensed by the Nuclear Regulatory Commission and are exempt from DOE requirements.
The Project Office Directors have been delegated approval authority for startup/restart of category 3 nuclear facilities and below. The startup/restart of category 2 facilities requires the approval of the Field Office Manager. However, all startup/restart of category 2 nuclear facilities in Ohio have been approved by EM-1.

Conclusions: The answers to the CRAD questions are in tabular format attached to the response letter by OH. The response indicates that the Fernald, Miamisburg, and West Valley sites are under the requirements of DOE O 425.1 and this Order is included in current contracts. Contractors provide startup notification reports to the Ohio site offices. The annual schedules were provided for Mound and Fernald in tabular format. Contractors have procedures for conducting ORRs and Readiness Assessments. OH also reports that the site offices have procedures for conducting ORRs and RAs and that readiness reviews and assessments are not allowed to start prior to achieving readiness status. Finally, the contractor and site offices have procedures that require plans-of-action for ORRs and RAs.

However, the supporting documents supplied with the response indicate issues with the ORR process. Mound indicated that contractor and DOE reviews would be conducted concurrently for a radiological activity startup in a category 2 facility and for a category 3 activity. In the Contractor Readiness Assessment Implementation Plan for work involving stable tritiated particulates and organically bound tritium at Mound, "items found to be in noncompliance may be resolved and closed out prior to the final Readiness Report being generated." These actions are being taken to expedite processes in order to meet schedule requirements.

During OH's review, it was noted that a procedure does not exist for the startup/restart of category 2 nuclear facilities.

Corrective Action: An Ohio Field Office Safety Policy covers the review requirements. OH is preparing the necessary procedures to address the deficiency noted above, related to the startup/restart of category 2 nuclear facilities, and have scheduled a due date of January 15, 2000.

4.8 Richland Operations Office

Approach Used: A team of experienced Federal employees and contractor personnel reviewed the startup and restart readiness verification process in place for Richland Operations Office (RL), Office of River Protection (ORP), and their four nuclear contractors. Input was provided by a headquarters staff report of line oversight of the ORP program. The review was performed using the approach suggested by the CRAD accompanying the tasking from Headquarters. The review included assessment of documented of planning and reviews conducted for the past year, local Department and contractor directives, interviews with related managers, and review team leaders.

Conclusions: The current version of DOE directive, DOE O 425.1A, was not yet incorporated in the contracts or the S/RIDS for contractors. Earlier versions of the related order were in each contract.

Neither RL nor ORP had formally submitted required documentation (ORR plans and reports) to Headquarters EH-2 as required (since the EH site representative reorganization).

Neither RL nor ORP had formally approved startup notification reports or submitted them to Headquarters as guided by the DOE technical standard. The reports had been reviewed informally, and some evidence of feedback existed. In some cases, the level of startup readiness review was incorrectly assigned, resulting in subsequent iterations to planning and resource allocation.

One contractor's readiness verification directive increases the potential that the screening process would incorrectly eliminate startups/restarts from consideration for readiness reviews.

It was not clear that RL managers of the readiness verification process were properly trained.

Corrective Actions: The requirements of DOE O 425.1A will be incorporated in contracts. Both RL and ORP directives will require preparation and submission of plans and reports to headquarters per DOE O 425.1A. The RL and ORP directives will require review and approval of Startup Notification Reports and submission to Headquarters per DOE O 425.1A and DOE-STD-3006. Both RL and ORP directives will be revised to more clearly identify when an RA is required. Numerous detailed action are identified in the site report, with assigned responsibility and planned due dates.

The RL directive will more clearly identify training requirements. Contractor directives will be revised to implement DOE requirements, and will be approved by the respective DOE offices.

4.9 Rocky Flats Field Office

Approach Used: The Rocky Flats Field Office (RFFO) performed an assessment of compliance to DOE Order 425.1 at the Rocky Flats Environmental Technology Site (RFETS) using a six-member team. Members of the assessment team were selected based on their technical expertise, assessment experience, independence, and knowledge of specific disciplines. No one from the Lead Program Secretarial Office, nor personnel from their Integrating & Management Contractor, Kaiser Hill (K-H) assisted in the review. They held an in-brief, daily meetings, and an out-brief, all of which were attended by K-H representatives. The review team used the CRAD that was provided as a guide in the Deputy Secretary's tasking memo to prepare a set of eight assessment criteria. They appropriately tailored the CRAD for RFETS and divided the assessment responsibilities among the six team members to ensure that the eight criteria were adequately evaluated. The team conducted the assessment primarily through a review of documents and personnel interviews of DOE, K-H, and subcontractor personnel. Tours of facilities were conducted only as needed to verify the condition of systems and activities but no actual readiness reviews were being conducted at the time of the assessment.

Conclusions: The RFFO review was completed on time and submitted to the Assistant Secretary for Environmental Management on November 3, 1999. The assessment report of October 21, 1999 documents the conclusion that the readiness determination program at RFETS is generally compliant with DOE Order 425.1. Independent reviews are of good quality and have served to identify and resolve important safety issues prior to startup. However, there were areas identified in need of improvement. The major areas identified for improvement are as follows.

There is a persistent, site-wide problem with premature declaration of readiness. Multiple factors involving project planning, management, and communications conspire to result in premature declaration of readiness. K-H needs a more systematic approach to achieving readiness that will be applied during the planning phase of nuclear projects and activities.

RFFO Order 420.1 does not adequately incorporate the DOE O 425.1 requirement for field offices to specify when Readiness Assessments are required. RFFO Order 420.1 should be revised (1) to provide more explicit definitions for terms (e.g., safety basis): (2) to include criteria for when an RA should be conducted; and (3) to correct inappropriate application of the graded approach.

Corrective Actions: RFFO took action on the conclusions and recommendations in their assessment report and began a review of the findings to determine root causes and appropriate corrective actions. An RFFO corrective action plan was provided with the assessment report on November 3, 1999 but the contractor's corrective action plan was not expected until January 15, 2000. The headquarters team determined that the lack of a contractor corrective action plan was not responsive to the Deputy Secretary's tasking memo and asked for a plan to be submitted sooner. In December, the contractor developed and submitted a corrective action plan that addressed all but one of the issues. The contractor expects to submit their complete plan by the end of December.

4.10 Savannah River Operations Office

Approach Used: A team of experienced Federal employees and a knowledgeable contractor employee reviewed the startup and restart readiness verification process in place for Savannah River Operations Office and their nuclear contractors. A person from the Lead Program Secretarial Office participated in the review. The review was performed using an approach similar to that suggested by the CRAD accompanying the tasking from Headquarters. The review included documentation of planned and completed reviews for the past year, local Department and contractor directives, and interviews with related managers. The review focused upon local DOE and contractor implementing directives.

Conclusions: Savannah River's startup and restart programs have been largely successful as evidenced by many satisfactory nuclear facility startups/restarts.

An S/RID change incorporating DOE O 425.1A was completed during the review period. Some additional needed changes were identified. Local directives require additional guidance

differentiating when contractor Readiness Assessments should be done rather than standard contractor line readiness reviews.

Startup Notification Reports are being prepared on a case-by-case basis rather than periodically. These determinations have been approved by DOE, but they have not been submitted to Headquarters. Startup/restart plans and reports should be provided to EH-2 as required by DOE O 425.1A.

As an enhancement to the program, local procedures should be modified to require that a graded line management startup review should be done for nuclear facilities that are below category 3.

Corrective Actions: The local DOE procedure will be modified to require that contractor RA (appropriately graded) should be used in lieu of contractor "Line Management Reviews" when a contractor review is deemed to be appropriate. The DOE local directive should mandate a periodic Startup Notification Report be approved by the DOE startup authority and provided to HQ. Contractor directives shall be modified to comply with DOE O 425.1A (individual changes may be made and approved on a case-by-case basis and reflected in the next periodic report). The scheduled date for completion of these items is March 30, 2000.

Plans and reports for future startups/restarts will be forwarded to EH-2 as required. This will be mandated by January 30, 2000.

5.0 KEY FINDINGS

The Headquarters team reviewed the input from each site, gathered comments from their individual organizations, and initiated actions to ensure adequacy of the evaluation process, interfacing with field/line counterparts. This review resulted in an extensive dialog with the field site and LPSO representatives on the team. These discussions were used to develop any additional questions to pursue at the field sites as well as evaluate the corrective actions that were submitted. At the completion of this evaluation, it was the judgement of the Headquarters team that the site corrective actions would enhance the readiness review processes. It was noted that in some cases, these procedures are yet to be developed. In these cases where significant corrective actions are called for, LPSO involvement in the corrective action process to ensure successful correction of the identified problems is essential. This recommendation is included in the corrective actions delineated in paragraph 6.0 of this report.

In addition to these efforts to ensure valid results at the site level, the individual site assessment reports were reviewed in detail by the Headquarters team to look for broad themes that could most appropriately be addressed at the headquarters level. A number of these issues were discovered which have contributed to the deficiencies noted by the DNFSB in their letter of 26 August 1999. These are described in the following paragraphs.

(1) The process for selecting the suitable review methodology does not engage the appropriate decision-makers early in the process.

Contributing to the lack of independent reviews and premature declaration of readiness noted by the DNFSB is the lack of involvement of key managers at the early stages of the process, specifically the startup authority. Often the DOE and the contractor have not established the startup/restart methodology until late in the progression, where schedules and associated incentives play a large role in the decision-making process. The method envisioned by the authors of the order to address this issue is the Startup Notification Report (SNR). This report is required by the order and discussed in the standard. The purpose is to provide a mechanism for startup/restart review decisions to be elevated to the appropriate level (the responsible line manager – the startup authority) early in the process. The contractor should use this report to identify upcoming startups and recommend a review methodology if required, either an ORR or an RA. The startup authority should then evaluate this recommendation and concur or open a dialog with the contractor to resolve any questions. It was noted during the review of the field reports, that SNRs were not being used. While some contractors provided these reports, very few were reviewed by DOE and none were formally approved. None were forwarded to Secretarial Offices as discussed in the Standard. A formal review and approval would provide a forcing function to require evaluation and commitment on the part of both parties to the review process. Clarification of this requirement and its relationship to the overall process is needed.

(2) Some LPSOs have delegated the authority for startup/restart approval to the field elements. The problems identified through this review process indicate that line oversight was inadequate to assure the expected level of implementation by delegated authorities.

The field office review self-identified several problems in the startup/restart process for DOE nuclear facilities. Some of these issues involve interpretation of the requirements specified in the DOE O 425.1A. Though several LPSOs have delegated the authority for startup/restart to the field office level, responsibility continues to reside at the LPSO level. As stated in the FRAM, it is incumbent upon the LPSOs to provide appropriate oversight to the field elements to which authority has been delegated to ensure correct execution of program requirements. This policy is clearly set forth in DOE P 450.5. The fact that these problems exist may indicate broader problems with LPSO and independent oversight.

(3) Most independent reviews by the department have been adequate, but some contractor reviews have used processes which were not approved by the department as required, have been conducted before reasonable readiness was achieved, and have lacked objectivity or independence from programmatic incentives.

The DOE has not consistently approved contractor procedures as required. DOE startup and restart authorities have not consistently approved contractor readiness reviews as required. The department should assure that the intended features of a readiness review process are developed and used by contractors. This is most simply achieved by contractor use of a Readiness Assessment (RA) when the startup/restart provisions of DOE O 425.1A apply, and an ORR is not required. Some contractors have named and described processes that are apparently intended to endorse departures from DOE expectations. The DOE order intends that designated DOE officials approve review types and plans. The DOE order intentionally allows great flexibility in the determination of scope and approach for RAs. That flexibility is not apparently fully

understood. Ambiguity in order wording is being misunderstood in some cases to enable delegation of startup and restart authority to contractors and use of contractor procedures without DOE approval. Key attributes of the DOE readiness review process are not always addressed in local DOE and contractor directives, including procedures to ensure that; the review is a verification of readiness rather than a process to determine and plan preparations; objectivity and independence of review approach and personnel from the work under review; and independence of the review team from accountability for the cost/scope and schedule of the work being reviewed. These attributes, including the approval of the described approach by the responsible line manager (startup authority) are essential elements. Other review methodologies dilute the process and have the potential to circumvent these key tenets. It should also be made clear that the requirement to conduct an ORR or RA is not an indication of deficient operation nor should a negative connotation be derived. In fact, the conduct of a properly scoped Readiness Assessment is indicative of a mature operational control program.

(4) The issues identified regarding misunderstandings of existing requirements (e.g., SNR and RA grading) and guidance contained in DOE Order 425.1A and associated standard indicate a need for order revisions and additional training regarding the process. Field sites have identified this as a need.

The previous two issues and some of the field reports indicate that training on the DOE Order 425.1A requirements and expectations could improve the process. One of the field reports noted that training had not been offered at their facilities since January of 1998. EH offered a training course on the Order following its issue. The funding for this training was curtailed. Defense Programs currently offers a course on the ORR/RA process, however, due to resource constraints, this course is only presented upon a specific request from field sites. Our evaluation indicates that the availability of this course was not widely known throughout the complex. There was also some reluctance to cross program boundaries to request this training as it was prepared and offered by a line organization as opposed to EH or MA.

(5) Field office personnel have indicated confusion regarding where to send the required ORR documentation for independent review. As a result, the required oversight has not been completed in some cases.

The Order specifically requires EH-2 to assess the procedures used by LPSOs, operations offices, and contractors for startup and restart and provide periodic reports to the Secretary. Some Safety Management Evaluations (SMEs) addressed these concerns. The Order further requires EH-2 to review the ORR/RA documents, and comment on final reports and corrective actions. In many cases, this was done through the EH site representative. The site representative program however, has been curtailed. In some cases, the confusion caused by this change has resulted in the required oversight not taking place. Headquarters LPSO and independent oversight organizations have been changed since the original protocol was established. The assignment of responsibility for headquarters review to individuals is not clear, so no headquarters organizations objected to lack of receipt of the required reports.

(6) Independent Oversight (EH-2) has not been effective in preventing the problems identified in this report.

EH-2 has conducted oversight reviews of ORR's through their Safety Management Evaluations, reviews of restart documentation and direct observation of operational activities associated with the ORR process. Some problems have been identified. Although the Order requires Plans of Action, Implementation Plans, and reports be provided to EH-2 for review and comment, this process is not always effective in executing the order (see issue #5). In some cases, the documentation is not provided in a timely manner, hampering the ability of EH-2 to provide an adequate review.

6.0 CORRECTIVE ACTIONS

As noted earlier in this report, field offices have developed site, facility, and activity-specific corrective action plans based on their analysis of the issues. These individual corrective action plans are included with the reports received from each field office. The full reports will be forwarded under separate correspondence due to their volume. These corrective action plans are the responsibility of the local field and area offices. As stated earlier, LPSO oversight of these corrective actions is essential to realizing the improvement of these corrective actions. Recommendations for LPSO participation in the corrective action process are included in this section in response to key finding number 2. This report does not provide a final judgement as to the adequacy of these corrective actions, as success will be determined only in the end result. The Headquarters team did evaluate and compare the corrective actions with the identified deficiencies to ensure these deficiencies were addressed. The headquarters agrees that these actions will help to improve and invigorate the readiness review process. The recommended LPSO oversight will help assure these corrective actions serve to improve the process. Further, EH-2 oversight of the readiness review process will increase the probability of success. This combination of oversight elements will ultimately determine if the expected continuous improvement, resulting from these corrective actions, is being achieved.

The following corrective actions are directly associated with contributing factors identified in the previous section of this report. They are included here for direct reference to the corrective actions. The appropriate Headquarters entity (LPSO) responsible for the corrective actions are identified. The identified LPSO retains responsibility for the tracking and completion of the associated corrective actions.

(1) The process for selecting the suitable review methodology does not engage the appropriate decision-makers early in the process.

Corrective Actions –

1A. Promulgate a revision to DOE O 425.1A to clarify the purpose and use of the Startup Notification Report currently contained in the ORR Standard DOE-3006-95. Specify the requirement for approval of the planned startup/restart action by the startup/restart Approval Authority. ***Action – Complete Change Process, EH, due 6/00***

1B. Promulgate a revision to the DOE Functions, Responsibilities, and Authorities Manual (FRAM) to clearly delineate the responsibilities for the decisions pertaining to this program. This will also highlight DOE responsibilities for startup/restart for those facilities and activities using some other method (other than DOE O 425.1A) through the work smart standards process. ***Action – Complete Change Process, EH, due during next annual review***

1C. Prepare and promulgate a revision to the Standard that supports DOE O 425.1A, DOE-STD-3006-95. The revision should expand and clarify the discussion of the purpose for the Startup Notification Report (SNR) as well as the expectation for review and approval at the field and LPSO level. ***Action– Complete change process, DP, due 6/00.***

1D. During this interim period while changes to governing documents are in process, issue a memorandum from the Deputy Secretary to the field office managers highlighting the purpose of these corrections and the expectation that the field office managers will faithfully execute these requirements in the intervening period. ***Action – Draft memo for Deputy Secretary signature, HQ 425.1A Implementation Review Team, complete.***

(2) Some LPSOs have delegated the authority for startup/restart approval to the field elements. The problems identified through this review process indicate that line oversight was inadequate to assure the expected level of implementation by delegated authorities.

Corrective Actions –

2A. LPSOs, assisted by the CSO as appropriate, oversee the field office processes for correcting the deficiencies identified in the field reports to ensure that the field startup/restart programs are adequate. Conduct an oversight review upon completion of the corrective actions, but not later than 9/00. The results of this process should be documented and made available for EH-2 during their next SME review. ***Action – Conduct oversight activities and review, LPSOs, due 09/00***

2B. Revise the DOE FRAM to expand the discussion of the requirement that the office from which the authority was delegated must monitor the effectiveness of the execution of delegated authority. ***Action – Complete change process, EH, next annual revision.***

(3) Most independent reviews by the department have been adequate, but some contractor reviews have used processes which were not approved by the department as required, have been conducted before reasonable readiness was achieved, and have lacked objectivity or independence from programmatic incentives.

Corrective Actions –

3A. Prepare and promulgate revisions to the Standard, DOE-STD-3006-95, and the DOE O 425.1A. The revision should expand and clarify the discussion of the graded approach associated with Readiness Assessments with an emphasis on the flexibility that should be exercised. In approving RA plans, startup authorities shall assure that prerequisites for the commencement of the review are identified. The order will indicate that reviews required by the order will be ORRs or RAs. The discussion should also reflect the principle that a properly planned Readiness Assessment is an indication of a mature operational organization and not indicative of a deficient operation. The intent is to clarify that other types of reviews, which do not incorporate the expectations for plan approval by DOE and independence, are not acceptable. Readiness Assessments con be made both efficient and effective. ***Action– Complete change process, DP, due 6/00.***

3B. LPSOs incorporate the evaluation of these issues in the oversight process specified in corrective action 2A above. Critical elements of line management accountability from the contractor through to the DOE Startup Authority for the decisions made in this process need to be highlighted. The LPSO oversight process should also highlight the flexibility of the existing processes in DOE O 425.1A. ***Action – include results in oversight report, LPSOs, due 09/00***

3C. Conduct training focused on the key decision-makers in the process. Prepare briefing for the next available Field Managers' meeting to highlight the results of this assessment and emphasize the intent of the changes called out in the previous corrective action. ***Action – Conduct Briefing at upcoming Field Managers' Meeting, Headquarters evaluation team, due 06/00***

(4) The issues identified regarding misunderstandings of existing requirements (e.g., SNR and RA grading) and guidance contained in DOE Order 425.1A and associated standard indicate a need for order revisions and additional training regarding the process. Field sites have identified this as a need.

Corrective Actions –

Corrective actions 1A, 1C, 1D, 3A, and 3C apply here, Additionally -

4A. MA will assume administrative control of the DP- managed ORR training course. The course will be upgraded to meet TQP requirements and to reflect lessons learned from this evaluation. Identify availability of the course complex-wide and present as requested with DP assistance. ***Action – Update course, MA Lead and DP, due 06/00***

(5) Field office personnel have indicated confusion regarding where to send the required ORR documentation for independent review. As a result, the required oversight has not been completed in some cases..

Corrective Actions –

5A. Corrective action 3C above applies. Additionally, the requirement to forward ORR/RA documentation to EH-2 will be promulgated in the memorandum from the Deputy Secretary to field organizations and LPSOs. ***Action – Headquarters Team, Complete***

(6) Independent Oversight (EH-2) has not been effective in preventing the problems identified in this report.

Corrective Actions –

6A. EH should evaluate organizational priorities to assign greater priority to the conduct of startup and restart activities. ***Action – EH, due 03/00***

6B. EH should monitor ORR schedule adjustments and better support schedule changes, and review restart documentation in a more timely manner. ***Action – EH, due 03/00***

6C. EH should assess oversight protocol to ensure consistency with the upcoming changes in the FRAM, the Order and standard. ***Action – EH, 3 months following next annual FRAM update.***

7.0 RECOMMENDATIONS

It is the recommendation of the Headquarters review team that the following corrective actions as discussed in the report be directed by the Deputy Secretary:

Promulgate a revision to DOE O 425.1A and the associated standard, DOE-STD-3006-95 to:

1. Clarify the intent of the Startup Notification Report process, including requirements for periodic submittal and DOE review and approval;
2. Clarify the expectation for utilization of the graded approach in development of Readiness Assessment plans; and
3. Specify the requirement that readiness reviews required by the order will be ORRs or RAs as appropriate.

Promulgate a revision to DOE Functions, Responsibilities, and Authorities Manual (FRAM) to clarify the expectations for DOE review and approval of SNRs and EH responsibilities for oversight of the Readiness Review process, and reiterate the requirement to oversee field execution of delegated functions through DOE P 450.5 oversight processes.

Provide a briefing to the responsible line managers at the next available Field Managers' meeting to provide the information contained in this assessment to the appropriate decision-makers and highlight resulting changes in requirements.

The Deputy Secretary should send a memorandum to the field offices and LPSOs that highlights the necessary changes and clarifications, and requires expeditious implementation of the same. Also, specify the expectation that site-level corrective action plans will be managed and tracked locally. LPSOs will provide oversight of the process and review the final outcome. The memorandum will include white papers discussing the requirements for SNR and the flexibility provided by the graded approach to RAs.

EH should evaluate organizational priorities to assign more priority to the oversight of startup and restart activities, to monitor ORR schedule adjustments and better support schedule changes, and review restart documentation in a more timely manner. EH should assess oversight protocol to ensure consistency with the upcoming changes in the FRAM, the Order and standard.

8.0 CONCLUSION

It is the expectation of the DOE that the corrective actions identified herein will improve the efficiency and effectiveness of the combined DOE and contractor readiness review process, as well as provide consistency with the Secretary's order throughout the DOE complex. Although prompted by external oversight concerns, this review was led by DOE field and headquarters line management teams, consistent with DOE P 450.5. The headquarters review team noted several cases in which field officials did not appear to recognize the intent that readiness assessments may be graded in scope and administration, which will permit a reduction in resource requirements, while tailoring the approach to focus upon the pertinent startup or restart concerns. The ISM feedback and improvement function will be used to gain continuous improvements to the startup/restart process. Each of the factors identified above reflects needed growth in the implementation of ISM. The faithful implementation of the DOE policy on oversight, DOE P 450.5, will be a key factor in sustaining the improvements presented by the corrective actions forwarded in this report.

There were no instances identified in this review where these deficient processes resulted in an unsafe startup. However, there were cases where inadequate readiness reviews were planned, or were conducted before readiness could be demonstrated. The Department acknowledges that each level of oversight contributed to identification of such problems and the resultant successful review process. It is intended that the corrective actions identified in this review cause our process to become more systematically efficient and less reliant upon oversight to assure success. This is in keeping with the departmental commitments to continuous improvement as a key aspect of ISM. Some improvement in clarity of the expectations contained in the governing directives is needed. Further, authoritative emphasis upon those expectations will facilitate the timeliness of the desired improvement.