Department of Energy
Washington, DC 20585

OCT 26 1994

The Honorable John T. Conway
Chairman
Defense Nuclear Facilities
Safety Board
625 Indiana Avenue, NW, Suite 700
Washington, DC 20004

Dear Mr. Chairman:

The Department of Energy committed in revision 2 of its implementation plan for responding to the Defense Nuclear Facilities Safety Board (DNFSB) Recommendation 91-6 to provide quarterly status reports to the Board on the progress of completing commitments made in this implementation plan. The fifth quarterly report is enclosed.

As we have committed in the cover letter of our previous status report to you, we are specifically addressing the issues you raised in your letter to us dated August 12, 1994. These issues are discussed in subtask 2.1.1 (background), subtask 3.1, (background), subtask 3.2 (status), and subtask 4.3 (background).

Should you or your staff have any questions regarding this status report, please contact Mr. C. Rick Jones on (301) 903-6061.

Sincerely,

for Tara O'Toole, M.D., M.P.H.
Assistant Secretary
Environment, Safety and Health

Enclosure

Department of Energy
Quarterly Status Report - September 1994
DNFSB Recommendation 91-6 Implementation Plan

Task 1: Develop and issue a Department of Energy policy statement on radiological health and safety. [*Responds to Board specific recommendation 1.*]

IMPLEMENTATION PLAN COMMITMENT:

The "Department of Energy Radiological Health and Safety Policy" was signed by the Secretary of Energy on June 8, 1993, and will be published in the Federal Register and as a Department of Energy Notice as soon as possible. No further action is planned on this task.

STATUS:

COMPLETE. The policy statement was issued as DOE Notice 5480.8 on June 8, 1993. The signed policy statement was forwarded to the DNFSB on June 9, 1993. The policy statement was published in the Federal Register on June 21, 1993.

Task 2: Review existing radiation protection training programs at defense nuclear facilities, and develop and implement a plan for an expanded training program at these facilities.

Subtask 2.1: Radiological Control Training [*Responds to Board specific recommendations 2a and g.*]

Subtask 2.1.1

IMPLEMENTATION PLAN COMMITMENT:

1. Based on the approved site-specific Radiological Control Manual implementation plans, the Department will provide the Board with a complete listing of standardized core training material implementation milestones by June 30, 1993. These milestones will identify when standardized core course materials will be fully implemented including development of the site-specific training materials. General Employee Radiological Training, Radiological Worker I and II Training, and Radiological Control Technician Training for all affected workers using the standardized core training material will be

completed by December 1994. A brief explanation of the current development status, including milestones for development, use, and implementation, for each of the additional standardized core training courses will be provided to the Board by June 30, 1993. Since the Department is to update the Secretary on Radiological Control Manual implementation progress in an annual report that is expected to be issued at the end of each calendar year beginning in 1993, the Department will advise the Board of the status of efforts to fully implement the standardized core training courses during the first quarterly status report following the secretarial update.

STATUS:

A. Standardized Core Courses

The Department provided the DNFSB a complete listing of standardized core training material implementation milestones for its defense nuclear facilities on June 30, 1993.

The schedule for developing additional courses, which was originally provided to the DNFSB, has been delayed. An updated schedule for these additional courses is appended to this status report.

The Department has funded one of its contractors to expedite completion of the additional course material. A program management plan was provided to the contractor on August 10, 1994. The Department has noted significant progress in the submission of these additional courses.

B. Annual Report

The annual report to the Secretary on Radiological Control Manual implementation is being reviewed by the Radiological Control Coordinating Committee. A draft of this report has been provided to the DNFSB staff. The RCCC chairman and several key members met with DNFSB staff on September 9, 1994, to discuss the delay in issuing this report, as well as other concerns of the DNFSB staff. The RCCC is proceeding with final concurrence, and the Department expects this report to be issued by November 1994.

BACKGROUND:

A. Standardized Core Courses

In order to assist DOE defense nuclear facilities in implementing training requirements in the DOE Radiological Control Manual, the Department initiated efforts to develop generic training programs for use within the DOE defense nuclear complex. The Department's first priority resulted in issuing four standardized core courses for General Employee Radiological Training (GERT), Radiological Worker I and II (RW I&II), and Radiological Control Technician

(RCT) in October 1992. The additional courses identified to the DNFSB were envisioned to be developed by training committees composed of volunteers from DOE contractor training organizations. Task groups for each identified additional core course were formed. As these groups progressed with the development of their courses, schedule delays were experienced. Once these delays were identified to the Department, measures were taken to facilitate completing development of these courses. Specifically, the Department funded a contractor to expedite completion of the additional core courses. This contractor is also tasked with maintaining and updating the four original core courses.

B. Annual Report

The Radiological Control Coordinating Committee (RCCC) is chartered to provide the Secretary of Energy an annual report on the status of DOE Radiological Control Manual implementation at DOE facilities. The draft of the report for calendar year 1993 was completed in the spring of 1994. The RCCC has been reviewing and resolving comments for several months. Concerns from the DNFSB regarding the delay in issuance of the annual report were cited in a letter to the Secretary on August 12, 1994. The RCCC was informed of these concerns and the need to fulfill the Department's commitment in a timely manner. These concerns were also addressed in the meeting with RCCC members and DNFSB staff on September 9, 1994. The Department has kept the DNFSB apprised of the status of this report. The RCCC is now proceeding with final concurrence. The annual report to the Secretary is an agenda item for the RCCC meeting on October 3, 1994. It is expected that the final report will be available within one month of RCCC concurrence. In the interim, the draft report has been provided to the DNFSB staff. The Department has and will continue to encourage rapid disposition of comments and issuance of this report.

PROGNOSIS:

A. Standardized Core Courses

The four existing core courses are currently being reviewed by their associated teams for applicability and content. This maintenance of course material is an ongoing process that is organized by a Department funded training contractor. The majority of additional standardized core courses are currently being submitted to or being evaluated by the Office of Environment, Safety and Health (EH). The progress of the remainder of these courses is being tracked and managed by EH. The attachment provided with this quarterly report summarizes the status of the standardized core courses and the additional core courses.

B. Annual Report

The Department currently expects the RCCC to issue their annual report to the Secretary by November 1994.

Subtask 2.1.2

IMPLEMENTATION PLAN COMMITMENT:

2. By December 1993, for each of the existing standardized core training courses, the Department will document each course's technical basis including a description of how pertinent references and standards were used or why certain documents were not used including, at a minimum, those references suggested by the Board in Recommendation 91-6 and its attachment. In addition to the technical basis for each training course, the basis for any identified refresher or continuing training requirements will also be documented.

Similar technical basis documentation will be included during the development of future courses, as well. As course materials are revised and updated, these technical bases will be updated as needed.

STATUS:

The technical bases for the existing standardized core training courses have been developed. This information was provided to the DNFSB staff on March 8, 1994. As the Department reviews additional core course material, it will ensure that the technical bases are included and are appropriate.

BACKGROUND:

The technical bases for the existing standardized core courses identify a series of technical references used in developing these courses. The Department reviewed the list of references provided by the DNFSB in Recommendation 91-6 and discussed how these references were used or why they were not used in the March 8, 1994, correspondence to the DNFSB.

PROGNOSIS:

Once the additional core courses are fully developed with their technical bases, the Department will forward this material to the DNFSB. Appended to this report is the current schedule for completion of these courses.

Subtask 2.1.3

IMPLEMENTATION PLAN COMMITMENT:

3. The Department's defense nuclear facilities will also ensure the effectiveness of Department and contractor training provided to workers through post-training evaluations on a continuing basis. Post-training evaluations will be used to identify opportunities for improving course materials and upgrading instruction methods and techniques. These evaluations will also be used to identify needs for additional training. By October 1993, the Department will identify the criteria to be used for developing a post-training evaluation program. The post-training evaluation program will be developed and distributed to the Department of Energy contractors by May 1994. Because not all defense nuclear facilities have fully implemented the standardized core training materials, contractors will be permitted 6 months to fully implement a post-training evaluation program following implementation of the standardized core training. Those defense nuclear facilities that have implemented the standardized core training materials prior to the availability of the post-training evaluation program must implement the program by December 1994.

At least annually, Cognizant Secretarial Officers and Operations Offices will request and coordinate contractor recommendations to the Office of Health Physics and Industrial Hygiene for upgrading and improving standardized core training materials. These recommendations will be evaluated and incorporated, as appropriate. Additionally, the post-training evaluations will be used to maintain and upgrade the site-specific portions of these training courses. The Department of Energy oversight organizations will monitor program implementation and adequacy.

STATUS:

The post training evaluation program was forwarded on September 8, 1994, to the Office of Field Management for distribution to DOE sites and contractors. The post training evaluation program contains retention testing criteria, as discussed in the status on Subtask 2.2, action 7. Although implementation of the program by December 1994 will be requested, the Department expects that some contractors may need up to 6 months to fully implement a post training evaluation program.

Concerning the updating of the four existing core courses, as discussed under the previous action (number 2 above), course materials are currently undergoing revision. The status of these revisions is discussed in the attachment to this report.

With regard to the status of DOE oversight organizations, the Office of Environment, Safety and Health is finalizing its reorganization plan. Once completed, this reorganization will identify missions, functions, and organizational responsibilities for conducting oversight. EH-41 has forwarded a memorandum dated August 4, 1994, to the new oversight organization advising them of commitments made under this implementation plan and offering assistance in understanding commitments in the plan.

BACKGROUND:

The Department completed its identification of the post-training evaluation program criteria in October 1993 and, at the DNFSB staff's request, provided these criteria to the Board on March 8, 1994. The draft post training evaluation program was completed during May 1994. This draft program was distributed for review to several DOE contractors. Following review and resolution of comments, the final program was delivered to DOE Headquarters during July 1994. The final post training evaluation program was forwarded to the Office of Field Management for issuance during September 1994.

PROGNOSIS:

Because not all DOE defense nuclear facilities have fully implemented the standardized core courses, the Department expects that some facilities may take up to six months, after December 1994, to fully implement this program. There are some facilities that currently have similar programs in place, and the conversions at these facilities are expected to take place quickly.

Subtask 2.2: Qualification and Performance of Radiation Protection Personnel [*Responds to Board specific recommendations 2b through f*]

Subtask 2.2.1

IMPLEMENTATION PLAN COMMITMENT:

1. The Department will determine the key radiation protection positions both as identified in the Radiological Control Manual and any additional positions with a discretionary decision-making role in radiological matters (e.g., Radiological Control Manager, Radiological Control Program Advisors, Health Physicists, Radiological Control/Health Physics Technicians, Dosimetrists, Facility Representatives, managers, and supervisors) at defense nuclear facilities by August 1993.

STATUS:

COMPLETE. The Department developed a definition for key radiation positions. This definition and listings of key radiation protection positions were provided to the DNFSB staff on August 4, 1994.

Subtask 2.2.2

IMPLEMENTATION PLAN COMMITMENT:

2. The Department will complete the identification of the level of knowledge, skills, abilities, and other qualifications needed for each key radiation protection position consistent with Office of Personnel Management and the Department of Energy contracting procedures by February 1994. A comprehensive document describing the level of knowledge, skills, abilities, training and other qualifications for these key radiation protection positions will be developed by April 1994. Position descriptions and their corresponding training and qualification requirements for key radiation protection positions will be documented in the appropriate Department of Energy Order, Notice, and/or the Radiological Control Manual by August 1994. As provided in the Board's specific recommendations 2a and 2b, the identification of the level of knowledge, skills, and abilities will include comparison with guidance on training contained in "Guide to Good Practice in Radiation Protection Training," Training Resources and Data Exchange Oak Ridge Associated Universities 88/4-99 and "Guidelines for Training and Qualification of Radiological Protection Technicians," Institute of Nuclear Power Operations 87-088. The Department will base the identification of the level of knowledge, skills, abilities, and other qualifications on professional and industry standards. In defining the qualification requirements for radiation protection positions, consideration will be given to including association or interaction with professional health physics organizations, such as the Health Physics Society, the American Board of Health Physics certification, and the National Registry of Radiation Protection Technologists registration for appropriate professionals.

STATUS:

A draft of the document describing the level of knowledge, skills, abilities, and other qualifications (KSA) was completed and provided to the DNFSB staff on March 8, 1994. In response to comments from DNFSB staff and to provide the DOE complex with a more comprehensive document, the draft KSA document was revised. The revised KSA document is being forwarded to the DOE complex for review and comment. The revised KSA document includes a master list of detailed knowledge, skills, and abilities which DOE and DOE contractor personnel can tailor to specific key radiation protection positions in their organizations. The revised document also includes one complete example of how this is to be accomplished for a particular position. The revised KSA

document requires contractors to identify key radiation protection positions in their organizations. The draft revised KSA document was provided to DNFSB staff on August 4, 1994. The Department currently plans to finalize and release the KSA document for implementation by the end of the year.

DNFSB recommendation 93-3 addresses training and qualifications of individuals within the defense nuclear complex. In order to assure consistency in its programs, the Department is coordinating the KSA development efforts described above with those in response to DNFSB recommendation 93-3.

BACKGROUND:

The Department of Energy has defined "key radiation protection positions" as "DOE and contractor personnel specifically designated by their organization to exercise discretionary authority and/or make independent judgements and decisions beyond those covered by established procedures concerning radiation protection issues associated with the design, construction, operation and maintenance, or decommissioning of defense nuclear facilities."

The Department committed to identify the level of knowledge, skills, abilities, and other qualifications necessary for each of these key radiation protection positions. The Department has also committed to developing radiological control performance criteria that will be included in performance standards for each key position to provide management with measurable milestones to monitor the performance of individuals in key radiation protection positions.

In developing the qualification criteria for key radiation protection positions identified in the KSA document, the Department used the "DOE Radiological Control Manual" and ANSI N3.1-1993. The TRADE 88/4-99 and INPO 87-088 documents are no longer current but were reviewed to identify any additional useful criteria. None was found.

PROGNOSIS:

The Department expects to release the KSA document for comment by October 1994. Comments will be requested by late November or possibly early December 1994. Following review and resolution of comments, the document will be revised and provided to the Office of Human Resources (HR) for incorporation into the existing efforts of recommendation 93-3. The revised document is expected to be issued to HR by January 1995. The Department expects to release radiation protection KSA's during the spring of 1995 with implementation completed by the summer of 1995.

Subtask 2.2.3

IMPLEMENTATION PLAN COMMITMENT:

3. Radiological control performance criteria will be included in performance standards for each key position to provide management with measurable milestones to monitor the performance of individuals in key positions. Standardized radiological control performance criteria will be developed by April 1994 and incorporated into individual performance evaluation plans and standards by June 1994.

STATUS:

Draft performance criteria and guidance have been included for review and comment in the KSA document. The finalized KSA document will request that radiological performance criteria be incorporated into individual performance evaluation plans and standards within six months following the KSA documents distribution.

BACKGROUND:

The performance criteria and guidance, which have been included with the KSA document, reproduce radiological protection data that are available in the DOE "Occurrence Reporting System" and performance indicators required to be reported in accordance with the Radiological Control Manual. Due to the diversity of operations and missions within the defense nuclear complex, the performance criteria and guidance will require DOE and DOE contractor radiological protection management and staff to identify mutually acceptable and appropriate performance measures for specific positions. Emphasis on the need for these performance measures to contain challenging goals and objectives is incorporated into the guidance.

PROGNOSIS:

See the prognosis for the previous action regarding the KSA document (Subtask 2.2, action 2).

Subtask 2.2.4

IMPLEMENTATION PLAN COMMITMENT:

4. In response to the Board's specific recommendations 2c and 2d, consistent with Office of Personnel Management regulations for Federal employees and the Department of Energy contracting practices for contractor employees, the Department or contractor, as applicable, will compare the level of knowledge, skills, and abilities of incumbents in key positions to the criteria identified in the previous commitment above. The comparison will include a

list of training courses attended with dates, duration of course, and sponsor, as well as a list of any professional certifications and affiliations. The Department or contractor, as applicable, will also compare the existing training and/or training that is concurrently under development for radiation protection positions against the level of knowledge, skills, abilities, and other qualifications and identify upgrades to the existing training, and/or the need for the development of supplemental training necessary to ensure that radiation protection personnel meet the qualifications for their respective positions. The comparison will be completed by August 1994. Based upon this comparison, the Department will develop and/or upgrade standardized core training courses, as necessary. New courses will be developed as needed and ongoing upgrades of the standardized core courses will be conducted on an annual basis.

STATUS:

When the KSA document is distributed in final form, managers of key radiation protection positions will be requested to begin conducting comparisons of the level of knowledge, skills, and abilities of incumbents in key positions against the criteria identified in the final document. The comparison should be completed within six months of distribution of the document.

Feedback received from within the defense nuclear facility complex indicates that the major needs identified for additional training will be addressed by the additional standardized core courses that are under development. The schedule for development and distribution of these courses is appended to this report.

BACKGROUND:

In responding to DNFSB Recommendation 93-3, the Department committed to the preparation and use of Individual Development Plans (IDP's) for its employees. IDP's will be used to document the training requirements to meet performance expectations until position qualification standards have been established. IDP's for all DOE technical employees and managers should be completed no later than October 1, 1994, or within 30 days of placement in a new position. These IDP's are envisioned to be used as the basis for reviewing individual qualifications against the qualification standards contained in the KSA document. Similar actions will be undertaken by defense nuclear facility contractors, as outlined in the KSA document, but will not be implemented until the KSA document is formally issued in final form.

PROGNOSIS:

The Department currently expects to release the KSA document by the end of 1994. Expedited implementation will be encouraged, but completion of required actions may not occur until the summer of 1995 for some DOE offices and contractor facilities. Until the KSA document is released for use, determining a more descriptive and definitive schedule is not practical.

Subtask 2.2.5

IMPLEMENTATION PLAN COMMITMENT:

5. As a matter of management prerogative, two options are available for cases where an incumbent does not meet the level of knowledge, skills, and abilities required of their position. First, the employee can be reassigned to another position of equal grade, if available, or second, the incumbent may be offered supplemental training to ensure that they develop the level of knowledge, skills, and abilities necessary for their position. Where the supplemental training option is chosen by management, the Department or contractor and affected incumbent will mutually identify the supplemental training necessary to upgrade their level of knowledge, skills, and abilities by December 1994. The identified supplemental training requirements will be provided to the incumbent's direct supervisor for incorporation in each incumbent's individual development plan established for Federal employees and similar contractor programs. Supplemental training must be completed within 2 years of identification for incumbents to continue in their position. The need for interim measures will be identified and implemented by management. The incumbent's knowledge, skills and abilities will be evaluated through appropriate written, oral, or practical examination at the conclusion of each supplemental training course to ensure that the course content is valid and effective for increasing the level of knowledge, skills, and abilities identified in the previous commitment number 2 above. The impact of the training on performance will be evaluated during the ongoing performance management process.

STATUS:

The KSA document describing the level of knowledge, skills, abilities, and other qualifications discusses options regarding incumbents who do not meet the requisite qualifications for their position. As discussed under the previous action under this subtask, IDPs for Federal positions will be developed by October 1994. Under commitments made in response to DNFSB Recommendation 93-3, supplemental or remedial training will be completed within a 12 to 36 month period. For training determined by any affected employee and their management to be critical to effective performance in a key radiation protection position, an accelerated schedule will be implemented ensuring completion of necessary training within 2 years. A similar process

will be followed for contractor positions; however, the implementation schedule will be extended as described under the previous subtask discussion.

BACKGROUND:

The Department recognized the need to take action where the qualifications of an incumbent in a key radiation protection position was no longer commensurate with their position. The Office of Environment, Safety and Health has updated its mission since the time the implementation plan for recommendation 91-6 was written. Because EH maintains a staff with a broad range of technical qualifications, EH can now offer technical assistance on request. This assistance provides additional resources that can be made available to other DOE offices and to DOE contractors in cases where an incumbent does not meet the qualification standards for a key radiation protection position. Other options will be identified and considered by managers and supervisors of any affected key radiation protection position.

PROGNOSIS:

In general, contractors and DOE offices have upgraded staffing in key radiation protection positions since recommendation 91-6 was issued. The Department expects only a minimal number of situations where incumbents do not meet qualification standards. Following sufficient time to conduct the evaluations of personnel qualifications committed to under action 4 of this subtask, the Department will determine the actual status of staffing qualifications in key radiation protection positions. At that time, the Department can determine what further actions, if any, may be required. This information will be discussed with the DNFSB staff.

Subtask 2.2.6

IMPLEMENTATION PLAN COMMITMENT:

6. The Department commits to have its oversight organizations specifically evaluate program performance to identify deficiencies in the knowledge, skills and abilities of key personnel. These evaluations will be used to identify specific areas where improvements in performance and training are needed.

STATUS:

With regard to the status of DOE oversight organizations, the Office of Environment, Safety and Health is finalizing its reorganization plan. Once completed, this reorganization will identify mission and functions and organizational responsibilities for conducting oversight. EH-41 has forwarded a memorandum dated August 4, 1994, to the new oversight organization advising them of commitments made under this implementation plan and offering assistance in understanding commitments in the plan.

BACKGROUND:

See status above.

PROGNOSIS:

See status above.

Subtask 2.2.7

IMPLEMENTATION PLAN COMMITMENT:

7. The criteria for adequate retention of knowledge, skills, and abilities will be developed as part of a retention testing program to help identify when individual performance or testing fails to meet expectations. One of the methods that will be utilized in developing and conducting the retention testing program will be the use of the radiological performance goals provided in article 131 of the Radiological Control Manual. Both independent and management radiological performance assessments will also be used to provide management with a series of indicators that can assist in the identification of adverse trends in performance. The retention criteria will be disseminated to contractors by May 1994. Sites will begin retention testing 6 months following scheduled implementation of the standardized core training material. For sites that have already implemented the standardized core training, retention testing will begin by December 1994. Corrective actions for deficiencies detected as a result of the retention testing will be incorporated into the individual's development plan and the site's training program on an appropriate schedule.

STATUS:

The principal method for determining the adequacy of the retention of knowledge, skills, and abilities for individuals in key radiation protection positions is through performance measurement. Performance measurement is discussed under actions 1 through 5 above. Personnel in key radiation protection positions will be subject to performance evaluation against goals and objectives that they have agreed to meet as previously discussed under action 4 above. Retention testing, where core training has been provided, is included in the post training evaluation program previously discussed under action 3 of subtask 2.1 in this report.

BACKGROUND:

See status above.

PROGNOSIS:

See status above.

Task 3: Evaluate the adequacy of the Department infrastructure and resources dedicated to radiation protection at defense nuclear facilities. [*Responds to Board specific recommendations 3 and 4*]

Subtask 3.1

IMPLEMENTATION PLAN COMMITMENT:

1. The Department will establish an Evaluation Team to conduct an independent, external evaluation of the Department Headquarters, Operations, and contractor radiation protection infrastructure and resources dedicated to radiation protection at defense nuclear facilities. The Evaluation Team is anticipated to be composed of members from other Federal agencies, private industry, and academia, with representation by the Department. The Team members will be appointed by September 1993. The Department will notify the Board of the Evaluation Team's membership.

Consistent with the Board's third specific recommendation, the Evaluation Team will be tasked with examining the existing infrastructure for radiation protection program development and implementation at the Department of Energy Headquarters to determine if resource, organizational, or managerial changes are needed to:

a. emphasize the priority and importance of the radiation protection program to assuring public health and safety;
b. communicate the importance of the radiation protection program from the highest level of management to all appropriate Department personnel;
c. expand the radiation protection program and increase program resources to facilitate the rapid development and implementation of radiological protection standards throughout the defense nuclear facility complex; and
d. make other changes as warranted.

In response to the Board's fourth specific recommendation, the Evaluation Team will also be tasked with examining the corresponding radiological protection organization units at the Department's Operations Offices and contractor organizations to determine if those organizations' radiological protection programs' infrastructure and responsibilities can be strengthened to expedite

implementation of radiological protection standards. A critical aspect of this review will be the assessment of management's involvement and effectiveness in implementing radiological protection programs and management's ability to communicate the steps to be taken to implement an effective radiological protection program to all levels within relevant Department and contractor units, particularly with line organizations.

STATUS:

COMPLETE. The evaluation team chairman and membership have been identified. Team membership was provided to the DNFSB on October 26, 1993.

BACKGROUND:

The evaluation team was delayed in initiating its evaluation of the radiological protection infrastructure within DOE and at DOE contractors. The Department notified the DNFSB of this delay in a letter dated February 22, 1994. In order to facilitate expeditious completion of the evaluation, the Department has provided contractor support to the team. The evaluation team developed a plan to complete its evaluation of the radiological protection infrastructure within the DOE defense nuclear complex. This plan was provided to the DNFSB staff. This plan called for the completion of the evaluation by September 1994 and forwarding a completed report to the Assistant Secretary by October 1994. Due to competing commitments of the team members, completion of the report has been further delayed until December 1994. The DNFSB noted concerns for the schedule of this report in a letter to the Secretary on August 12, 1994. The evaluation team has been informed of this letter and the priority of this task. After considering the urgency of this task along with the team's current progress and their personal schedules, the team has firmly committed to completing the report under the revised schedule. The Department has and will continue to support the team in order to facilitate completion of their evaluation and subsequent report.

PROGNOSIS:

The Department expects the team to complete and issue their report by the end of December 1994. The Assistant Secretary will review this report in January 1995. The final report will be provided to the Board by the end of January 1995.

Subtask 3.2

IMPLEMENTATION PLAN COMMITMENT:

2. The Evaluation Team will report directly to the Assistant Secretary for Environment, Safety and Health. The Evaluation Team will complete its evaluation by January 1994. As a result of their evaluation, the Team will prepare a report that summarizes their findings related to the organizations'

radiological protection programs' infrastructure, resources, and delegation of responsibilities. Any recommendations made by the Team should include options to implement the recommendations, including necessary changes to implementing directives and taking into account available resources and identifying the need for additional resources. This report will be provided to the Assistant Secretary by March 1994, who will then submit a copy of the report to the Board by April 1994.

STATUS:

The commitment to provide a report to the Assistant Secretary by March 1994 and to the Board by April 1994 has been rescheduled. These delays were noted in a letter from the Department to the DNFSB on February 22, 1994. The evaluation team has completed its site visits with the exception of a brief return visit to DOE Headquarters by November 1994. The report will be finalized and forwarded to the Assistant Secretary by December 31, 1994.

BACKGROUND

See status above.

PROGNOSIS

See status above.

Subtask 3.3

IMPLEMENTATION PLAN COMMITMENT:

3. The Assistant Secretary for Environment, Safety and Health will review the Evaluation Team's report and confer with the Radiological Control Coordinating Committee to obtain their views on the report. The Assistant Secretary will then identify those recommendations and options appropriate for the Office of Environment, Safety and Health to implement and those recommendations and options necessary for the Secretary's consideration. This review will be completed by April 1994. For those recommendations and options accepted by the Office of Environment, Safety and Health, the Assistant Secretary will develop corrective actions and schedules for completion by June 1994. Following consideration of the recommendations and options referred to the Secretary, corrective actions and schedules for those recommendations and options accepted will be developed by July 1994. For each corrective action accepted by either the Secretary or Assistant Secretary, aggressive schedules for identifying critical milestones to achieve successful implementation will be developed. To assure milestones in this Implementation Plan are achieved, the Department will conduct annual oversight assessments of progress towards implementing corrective actions. These assessments will be provided to the Secretary annually with a copy provided to the Board.

STATUS:

The Assistant Secretary will review the evaluation team's report once it is issued. Given the December 1994 report schedule, following the Assistant Secretary's review, the final report will be forwarded to the DNFSB by January 1995.

BACKGROUND:

As discussed previously in this quarterly report, the Department provided the RCCC Chairman a listing of DNFSB Recommendation 91-6 commitments requiring RCCC action. The RCCC's input on the evaluation team's report is one of the listed action items.

PROGNOSIS:

The Department will confer with the RCCC once the evaluation team's report is submitted. As previously mentioned, the original commitment for review of this report in April 1994 has been delayed. The review process will be accomplished in January 1995. For those recommendations and options accepted by the Office of Environment, Safety and Health, the Assistant Secretary will develop corrective actions and implementation milestones by March 1995. Following consideration of the recommendations and options referred to the Secretary, corrective actions and implementation milestones for those recommendations and options accepted will be developed by April 1995.

Subtask 3.4

IMPLEMENTATION PLAN COMMITMENT:

4. The Department will centralize current contractor Radiological Control Manual implementation plans for defense nuclear facilities of the Offices of Defense Programs and Environmental Restoration and Waste Management, and these plans will be provided to the Board by October 1993.

STATUS:

COMPLETE. Radiological Control Manual implementation plans have been centralized and are available through the Radiological Control Program Advisor in the Office of Environmental Management formerly the Office of Environmental Restoration and Waste Management. These plans were forwarded to the DNFSB on October 28, 1993.

Subtask 3.5

IMPLEMENTATION PLAN COMMITMENT:

5. The Department commits to providing the Board with the credentials and qualifications of individuals currently conducting the Department of Energy internal oversight activities relating to radiological protection by October 1993.

STATUS:

COMPLETE. Credentials and qualifications of individuals conducting internal oversight activities related to radiological protection were provided to the DNFSB on October 29, 1993. Additional resumes were subsequently provided.

Task 4: Analysis of reported occurrences and correction of radiation protection program deficiencies at defense nuclear facilities.
[Responds to Board specific recommendation 5]

Subtask 4.1

IMPLEMENTATION PLAN COMMITMENT:

1. By August 1993, meet with current Department of Energy Headquarters Occurrence Reporting and Processing System program manager to determine current Occurrence Reporting and Processing System capabilities.

STATUS:

COMPLETE. Occurrence Reporting and Processing Systems capabilities are provided in DOE Order 5000.3B and supplemented in the "ORPS User's Manual."

Subtask 4.2

IMPLEMENTATION PLAN COMMITMENT:

2. By October 1993, complete an evaluation of defense nuclear facilities use of the Occurrence Reporting and Processing System information, how useful is the information that is available, and solicit recommendations from users for improvement.

STATUS:

COMPLETE. A survey of users of ORPS for radiological occurrence data analysis has been disseminated and responses collected and analyzed by the task force described under subtask 4.3.

Subtask 4.3

IMPLEMENTATION PLAN COMMITMENT:

3. By November 1993, convene a task force of Headquarters, Operations, and contractor personnel to evaluate the data regarding the current use and capabilities of the Occurrence Reporting and Processing System and make recommendations for improvement by February 1994. The Occurrence Reporting and Processing System management and the Radiological Control Coordinating Committee will evaluate these recommendations and develop a schedule with milestones for implementing corrective actions by June 1994. Goals of the task force evaluation and areas for recommended improvements will include the following:

- Develop lessons learned with supporting information from throughout the Department of Energy defense nuclear facilities complex that includes input from top management to worker level. Improve worker performance through awareness of previous related occurrences. Management should identify adverse trends in performance to prevent occurrences.

- Include lessons learned by management during training (both initial and periodic refresher), by safety committees, at meetings, and from reading files. Incorporate lessons learned into future assessments to ensure assessments are properly focused.

- Operating experience feedback--similar to a formalized program used in the commercial nuclear power industry to identify generic problems, apprise the industry of these problems, and document measures at individual sites to prevent problems from occurring and recurring.

Other opportunities for communicating lessons learned and good practices across the Department of Energy complex will be pursued, encouraged, and implemented.

STATUS:

The report is being reviewed by the Radiological Control Coordinating Committee. The RCCC chairman provided the report to the committee members in September 1994 with comments due by October 1994. Comments provided by the RCCC will be incorporated, as appropriate, in the final report. The report will be forwarded to the Secretary and the DNFSB following program office review and concurrence. The Department expects the report to be finalized and issued by December 1994.

BACKGROUND:

Meetings of the task force were conducted in November 1993 and February 1994. The task force reviewed the survey results, ORPS data elements, and the ORPS implementing Order (DOE 5000.3B). The task force identified that many activities targeted for improving ORPS and its application are currently in progress within the Department. The results of the task force evaluation were provided to the DNFSB staff on March 11, 1994.

The delay in the review of the ORPS report is a concern that was mentioned by the DNFSB in correspondence from the Board to the Secretary on August 12, 1994. This concern was also discussed in a meeting with the RCCC chairman and the DNFSB staff on September 9, 1994. As a result of these discussions, the RCCC chairman has requested the RCCC members to provide comments on the report by the October 1994 RCCC meeting.

PROGNOSIS:

The Department expects the RCCC to complete their review by October 1994 and provide comments by November 1994. The report should be issued by December 1994.

Task 5: Document technical basis for departmental radiation protection standards and remedial actions during standards implementation at defense nuclear facilities. *[Responds to Board specific recommendations 6 and 7]*

Subtask 5.1

IMPLEMENTATION PLAN COMMITMENT:

1. The Department will further document the technical basis for developing the Radiological Control Manual that will include a description of how

pertinent references and standards were used or why certain documents were not used, including, at a minimum, those references suggested by the Board in Recommendation 91-6 and its attachment. This technical basis document will be completed and provided to the Board by December 1993.

STATUS:

COMPLETE. A technical basis data base for the Radiological Control Manual was developed and forwarded to the DNFSB on December 31, 1993.

Subtask 5.2

IMPLEMENTATION PLAN COMMITMENT:

2. In the event that the Department identifies any gaps in the standards used during the development of the Radiological Control Manual, Department of Energy Order 5480.11, or title 10 Code of Federal Regulations part 835, the affected document will be corrected. Future oversight assessments of the Department's radiological protection programs and practices at defense nuclear facilities will be conducted based upon these upgraded standards.

STATUS:

This is an ongoing commitment with no specific schedule identified. Consistent with this commitment, however, the Department is considering the impact and application of recommendations recently published in the National Council on Radiation Protection and Measurements (NCRP) Report Number 116, "Limitation of Exposure to Ionizing Radiation."

BACKGROUND:

The Department will rely on 10 CFR part 835 to provide definitive radiological protection requirements for occupational exposure. DOE 5480.11 will only apply those requirements contained in the rule, as well as other pertinent standards, such as sealed source control and recordkeeping. In efforts to maintain the standards contained in the rule current, the Department is active in both international and domestic regulatory and standards advisory organizations. The Department reviews new standards and guidance issued for occupational radiological protection, but will not typically change standards without consensus among other Federal agencies responsible for regulating occupational radiological exposure. To date, the most current occupational radiological protection Federal guidance approved by the President was issued in January 1981. The Department will continue to actively participate with other Federal agencies in developing guidance which incorporates the recommendations contained in the International Commission on Radiological Protection (ICRP) Publication 60 and NCRP Report 116.

programs must be submitted to the Department by January 1, 1995, for approval. The Department has been monitoring the status of radiation protection program development. No requests for exemptions from the requirements of 10 CFR part 835 have been received from any contractor, although there are early indications of the need for some exemptions.

Originally, not all defense nuclear facilities committed to full implementation of the Radiological Control Manual by October 1, 1996. The provisions of the Radiological Control Manual embody the Department's views regarding excellence in radiological protection; implementation of these provisions provides reasonable assurance that the regulatory requirements invoked by 10 CFR part 835 will be met. In order to ensure that the Department's radiological control standards are fully implemented in the shortest reasonable time period, the Department worked closely with these facilities to accelerate their implementation schedules. All defense nuclear facilities have committed to implementation of the Radiological Control Manual by October 1996, except for Rocky Flats, which is committed to implementation by December 1, 1996.

PROGNOSIS:

The Department expects all defense nuclear facilities to be in full compliance with 10 CFR part 835 by January 1, 1996, unless specific exemptions are requested and approved. These contractors should fully implement the Radiological Control Manual by the end of October 1996, except for Rocky Flats, which is committed to December 1, 1996, implementation.

Subtask 5.4

IMPLEMENTATION PLAN COMMITMENT:

4. The Radiological Control Coordinating Committee will become more involved in the evaluation of implementation plans for the Radiological Control Manual. Evaluations of the adequacy of interim actions being taken by contractors prior to full implementation are being performed by the Cognizant Secretarial Officers and supported by the Radiological Control Coordinating Committee based on the information provided in the implementation plans. The status of Radiological Control Manual implementation is provided by the Cognizant Secretarial Officers to the Secretary in an annual report that is expected to be issued at the end of each calendar year beginning in 1993. The Department will provide a copy of the next annual report to the Board in the first quarterly status report following the availability of the report.

STATUS:

The status of Radiological Control Manual implementation is discussed in the annual report provided to the Secretary. A draft of this report was provided by the RCCC chairman to DNFSB staff, as previously discussed in this quarterly report.

BACKGROUND:

The RCCC members maintain awareness of the status of radiological control programs at facilities under their purview. Cognizant radiological control managers at those facilities may inform the RCCC member of any issues that affect progress toward full implementation of the Radiological Control Manual. In turn, the RCCC members are empowered to resolve these issues or to discuss them at their periodic meetings to develop common, practical solutions. Issues that reflect discrepancies in Radiological Control Manual content or format are considered during the RCCC's deliberations regarding Radiological Control Manual revisions.

PROGNOSIS:

See previous annual report discussion.

Task 6: Status reports for the Defense Nuclear Facilities Safety Board.

Subtask 6.1

IMPLEMENTATION PLAN COMMITMENT:

The Department will provide quarterly status reports to the Board on the progress of completing commitments made in this implementation plan.

STATUS:

Status reports have been provided to the Board in October 1993, January 1994, April 1994, and September 1994. Interim status reports were provided to the DNFSB staff on March 11, 1994, June 3, 1994, and August 4, 1994. Periodic briefings have been provided to the DNFSB staff and will continue through 1995.

Attachment to DNFSB Quarterly Status Report

Standardized Core/Additional Training Overview

CORE COURSES	STATUS AS OF 9/30/94
1. Article 651: Management Training	Three courses will be developed as follows:
1.1 Manager/Radiological Control Manual	Pilot course completed 6/94. Final course materials were delivered to EH-41 9/94. Distribution to sites for use expected 10/94.
1.2 Higher Level Training for Supervisors per DOE 5480.20	Pilot course completed 6/94. Final course materials to be delivered to EH-41 10/94. Distribution to sites for use expected 11/94.
1.3 Auditors and Inspectors	Pilot course completed 6/94. Final course materials to be delivered to EH-41 10/94. Distribution to sites for use expected 11/94.
2. Article 652: Technical Support Personnel (ALARA)/Article 653: Schedulers	Three target areas are consolidated into 1 course and development is as follows:
2.1 Engineers, Architects, and Construction Planners 2.2 Maintenance and Operations Schedulers 2.3 Technical Procedure Writers	Pilot course conducted at Nevada Test Site 5/94. Comments currently being consolidated and reviewed 9/94. Revised draft to EH-41 10/94. Final course material to be issued to EH-41 12/94. Distribution to sites for use expected 1/95.
3. Article 654: Radiological Control Personnel	Five courses have been consolidated into 1 training guide and development is as follows:

Attachment to DNFSB Quarterly Status Report

Standardized Core/Additional Training Overview

CORE COURSES	STATUS AS OF 9/30/94
3.1 Dosimetry Technicians	Draft Training Guide Matrix developed and reviewed by Subject Matter Experts 7/94. Draft Training Guide to be submitted to EH-41 10/94. Final Training Guide available 1/95.
3.2 Instrument Calibration Technicians	
3.3 Records Clerks	
3.4 In-vivo Bioassay Technicians	
3.5 In-vitro Bioassay Technicians and Counting Room Laboratory Technicians	
4. Article 655: Radiographers	Training Guide combined with Radiation Generating Device Operators, Article 655 Training Guide. Draft Training Guide to be sent to EH-41 10/94. Distribution to sites expected 1/95.
5. Article 655: Radiation Generating Device Operators	Training Guide combined with Radiographers, Article 655 Training Guide. Draft Training Guide to be sent to EH-41 10/94. Distribution to sites expected 1/95.
6. Article 656: Emergency Response Personnel	Draft course material to be delivered to EH-41 12/94. Distribution to sites expected 3/95.
7. Article 657: Training for Tour Groups and Visiting Dignitaries, Scientists, and Specialists	Draft Training Guide will be available for review 10/94. Final Training Guide to be submitted to EH-41 12/94. Distribution to sites expected 2/95.
8. Article 661: Plutonium Facilities	Training Course delivered to DOE-DP 9/94. Distribution to sites expected 11/94.

9.	**Article 662: Uranium Facilities**	Development and review committee selection process scheduled for 10/94. Initial draft materials available for review 12/94. Final materials 5/95.
10.	**Article 663: Tritium Facilities**	Draft Training Guide developed 9/94. Final course material delivered to EH-41 1/95. Distribution to site expected 4/95.
11.	**Contamination Control for Bio-Medical Researchers**	Draft Course material sent to reviewers for comments 8/94. Currently resolving comments. Final course material to be delivered to EH-41 10/94. Distribution to sites expected 1/95.
12.	**Health and Safety Technicians**	RPT SIG (TRADE) provided comments on contents 7/94. Final course material delivered to EH-41 3/95. Distribution to sites expected 5/95.

Maintenance of Standardized Core Radiological Training Courses

Training materials for Radiation Worker I/II were updated 12/93 and an additional module for High Radiation Area Workers was developed 3/94. A Radiation Worker Study Guide Development Workshop was held 4/94. A Radiological Control Technician Workshop for 1995 revisions was held 5/94. A RCT TOG workshop is scheduled for 11/94 with revisions to materials to be reviewed and finalized.

Post Training Evaluation Program

The Draft Program was completed on 5/94. This Draft Program was distributed for review by several DOE contractors. Following review and resolution of comments, the Final Program was delivered to DOE-HQ on 7/94. The Post Training Evaluation Program was reviewed by EH and delivered to the Office of Field Management (FM) on 9/94 for issuance to DOE field offices.