

**[DOE MEMORANDUM]**  
**OAK RIDGE OPERATIONS OFFICE**

**DATE:** April 28, 1995

**REPLY**

**TO** DP-81:Wall

**ATTN OF:**

**SUBJECT: DNFSB RECOMMENDATION 94-4 APRIL DELIVERABLES**

**TO:** RADM Charles J. Beers, Jr., Deputy Assistant Secretary for Military Application and Stockpile Support, DP-20, FORS

The attached documents meet the specified commitments contained in the DNFSB Recommendation 94-4 Implementation plan.

Near term deliverable N.1.1:

*Y/DD-679, Preliminary Evaluation of the Y-12 Nuclear Criticality Safety Program, Criticality Safety Approvals, and Operational Safety Requirements Supporting Receipt, Storage, and Shipment of Special Nuclear Materials, dated April 26, 1995.*

Near term deliverable N.2.2:

*DNFSB Recommendation 94-4 Implementation Plan Item N.2.2 Corrective Action Plan for ORO Role in Y-12 Incident, transmitted by memorandum from Terry B. Olberding to David L. Wall, dated April 27, 1995.*

If you have any questions related to this matter, please contact David Wall of my staff at (615) 576-1989.

Robert J. Spence  
Y-12 Site Manager

Attachments

cc w/o attachments:  
John Rothrock, SE-33, ORO  
John Ford, EW-92, ORO  
John Rayside, 9115, MS 8223, Y-12

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**[DOE MEMORANDUM]**

**OAK RIDGE OPERATIONS OFFICE**

**DATE:** April 27, 1995  
**REPLY**  
**TO**  
**ATTN OF:** SE-34:Olberding  
**SUBJECT:** **DNFSB RECOMMENDATION 94-4 IMPLEMENTATION PLAN ITEM N2.2 CORRECTIVE ACTION PLAN**  
**TO:** D. L. Wall, Y-12 Site Office, DP-81

Two deliverables were identified in Item N2.2 of the DOE Implementation Plan. The first deliverable, completed October 13, 1994, was the DOE/ORO report on the role of ORO oversight in the Y-12 incident. The second deliverable was the corrective action plan for the seven deficiencies identified in the report. Attached is the corrective action plan which fulfills this requirement. This submittal supercedes the April 20th submittal. If you have any questions regarding this transmittal, please call me at extension 6-2550.

Terry B. Olberding, Leader  
Facility Safety Engineering Team

Attachment:  
As stated

cc w/attachment:  
R. W. Bonnett, SE-34  
C. Broughton, SE-30  
J. A. Ferrer, SE-34  
F. E. Kendall, SE-332  
H. J. Monroe, SE-332  
R. W. Poe, SE-30  
J. D. Rothrock, SE-33  
W. J. Vosburg, DP-83

**DNFSB Recommendation 94-4 Implementation Plan Item N2.2  
Corrective Action Plan for ORO Oversight Role in Y-12 Incident**

DNFSB Recommendation 94-4 was issued to address a concern with the conduct of operations at Y-12, with emphasis on procedural control of criticality safety. The DOE Implementation Plan for 94-4 includes Item N2.2 which deals with oversight. Item N2.2 requires a DOE/ORO report on the role of ORO oversight in the Y-12 incident. This report was issued October 13, 1994, (Memo: Poe to La Grone dated October 13, 1994, Subject: DETERMINATION OF THE DOE/ORO ROLE IN THE Y-12 INCIDENT). This action is considered complete. However, the report identified seven deficiencies which require corrective actions. These deficiencies and corrective actions are described below. Status of corrective actions will be tracked and updated on a quarterly basis (next update will be July 3, 1995).

**1. Performance Indicators and Analyses**

Review existing monthly data to determine if new performance indicators should be added or old ones deleted. New performance indicators which would be useful for conduct of operations include causal factors for occurrences (i.e., procedural, management systems, etc.) and percent of people trained.

ACTION: Review performance indicators  
DELIVERABLE: Report of recommended changes  
DATE COMPLETED: 3-31-95  
STATUS: Open (See Attachment 1 Report)

Currently the distribution of the performance indicators is limited. To broaden the distribution, it was suggested that the performance indicator reports could be put on the network. Also, the official distribution list should be updated and expanded as appropriate.

ACTION: Investigate distribution of performance indicator's  
DELIVERABLE: Updated distribution list  
DATE COMPLETED: 3-29-95  
STATUS: Closed (see Attachment 2)

ACTION: Investigate the distribution of the PI report over the ORO LAN  
DELIVERABLE: Investigation of proposed action  
DATE COMPLETED: 4-21-95  
STATUS: Closed (see Attachment 2)

## **2. ORO Oversight not Consistently Challenging Laxity**

Offer a conduct of operations self-study course which would emphasize attention to detail and the standards based approach.

ACTION: Develop self-study guide on conduct of operations  
DELIVERABLE: Conduct of Operations Self-Study Guide  
DUE DATE: 6-30-95  
STATUS: Open

Modify our appraisal training to include conduct of operations as the responsibility of everyone.

ACTION: Functional Appraisal Training Course  
DELIVERABLE: Revised Functional Appraisal Training Course

DUE DATE: Training provided on as-needed basis  
STATUS: Open

### **3. Inadequate Staffing of the Facility Representative Program**

The Y-12 Site Office was slow in staffing their Facility Representative vacancies. YSO has hired six new facility Representatives which brings the Defense Programs total to seven. All of the newly hired personnel have reported for duty and are working on completion of their interim qualification.

ACTION: Fill Facility Representatives Vacancies  
DELIVERABLE: Hire six new facility Representatives  
DATE COMPLETED: 4-3-95  
STATUS: Closed

### **4. Clarification of Authority for Facility Representatives**

Facility Representatives were unsure as to their shutdown authority, since historically shutdown authority was allowed only in imminent danger situations. YSO procedure 1.6 was amended on December 13, 1994, to provide clarification and to extend shutdown authority in accordance with the DOE letter from the Manager and Deputy Manager, ORO, to Distribution List, Subject: "Shutdown Authority," Dated: October 6, 1994.

ACTION: Issue ORO wide policy on shutdown, authority  
DELIVERABLE: Letter to ORO distribution  
DATE COMPLETED: 10-6-94  
STATUS: Closed

ACTION: Revise YSO procedure 1.6  
DELIVERABLE: Revised YSO procedure 1.6  
DATE COMPLETED: 12-13-94  
STATUS: Closed

### **5. Incorporating Conduct of Operations (COO) into our Internal Value Systems**

Upper management support is critical to this element. A briefing on COO will be provided to upper management. Conduct of operations will be retained as an element to be evaluated in management appraisals.

ACTION: Brief Sr. Management Board on Conduct of Operations;  
Presentation to 819 Staff Meeting  
DELIVERABLE: Briefing/Big Staff Meeting  
DUE DATE: June 6, 1995  
STATUS: Open

## 6. **Crisis de Jour Mentality**

In order to minimize the amount of time in the reactionary mode, ORO will have to do a better job of anticipating problem areas and planning accordingly. Participation in program definition will facilitate a proactive management style. Planning, including resource allocation studies to ensure that we are effectively using our resources, needs to receive a higher priority.

Issues will be tracked in an issues management program. Meaningful root-cause analyses will contribute to a more systematic approach to handling issues. As a part of this, adequacy of corrective actions need to be verified.

ACTION: Develop Issues Management Program  
DELIVERABLE: Issues Management Tracking System and Program  
DUE DATE: 6-30-95  
STATUS: Open

## 7. **HQ Funding and Support to Implement Conduct of Operations**

DP funding and support were evaluated and found to be adequate to support resumption. Task 4 of DOE Implementation Plan for DNFSB Recommendation 94-4 addresses conduct of operations. Two independent teams will evaluate the full conduct of operations program against DOE Order 5480.19. The issue of HQ funding and support will be included in that evaluation.

ACTION: Review HQ funding and support in Task 4  
DELIVERABLE: Assessment Report  
DUE DATE: August, 1995  
STATUS: Tracked in Task 4 of DOE Implementation Plan

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Attachment 1

CORRECTIVE ACTIONS - OAK RIVER PERFORMANCE INDICATOR (PI) PROGRAM

### **I. Current Program Background**

The current program of formal PI data collection and reporting began with the first quarter of calendar year 1991 under the primary guidance of a memorandum issued by NE-1 in April 1991 and SEN-29-91. This program was later revised beginning with the first quarter of calendar year 1993 to its current status under DOE Order 5480.26 and its related standard document (DOE STD 1048-92). Data from calendar years 1991 and 1992 was backfitted to the newer 5480.26 criteria. ORO currently has a four-year-old data base consisting of 26 performance indicators (along with seven sub-indicators) for seven ORO facilities operated by two prime contractors. The last quarter of published data is the 4th quarter of calendar year 1994. ORO reports have been produced for each quarter, and have been continuously improved.

## **II. Anticipated Changes (New DOE Guidance)**

New DOE guidance is expected to significantly reduce the PIs required to be reported by contractors. The minimum set of indicators is expected to include Collective Radiation Doses; a new PI for Workmen's Compensation Payments; Lost Work-Day Case Rate; Environmental Incidents; and Skin/Clothing Contaminations. It appears that most currently reported indicators will become optional.

## **III. Planned Actions for the ORO PI Program**

ORO's proposed course of action is to continue our current program and make value added changes for improvement. The following action steps are proposed:

<b><u>ACTION STEPS</u></b>	<b><u>DATE</u></b>
A. Coordinate improvements with the ORO PI Program coordinators; make changes as needed	June 95
B. Present proposed improvements to ORO senior management for approval; make changes as needed	June 95
C. Establish environmental sub-team to identify improvements for environmental PIs	July 95
D. Communicate improvements to ORO contractors and implement data collection	Aug 95
E. Publish PI report with S&H improvements	Oct 95
F. Incorporate environmental PI improvements	Nov 95

## **IV. Proposed Improvements**

### **Discontinue Statistically Insignificant PIs**

PI 1.3, Internal Contaminations; PI 1.4, Rad/Haz Material Overexposures; and PI 2.5, Substance Abuse Incidents are all statistically insignificant for ORO and will be dropped.

PI's with an average of five or less events per quarter are considered rare or statistically insignificant and will be dropped. For ORO, the following indicators will be discontinued: PI 1.3, with an average of 0.4 events per quarter, PI 1.4 with an average of 0.6 events per

quarter, and PI 2.5 with an average of 0.6 events per quarter. These averages consider all ORO events for 15 calendar year quarters.

### **Personnel Safety PI's**

PI 1.6, OSH Recordable Injury/Illnesses Rate will be continued as is. This PI, along with PI 1.5 (required), are standard industry measures of safety performance and are as defined by OSHA.

### **Operational Incidents PI's**

PI's 2.1, Unplanned Safety Function Actuations, and 2.3, Unplanned Shutdown, will be modified to include a larger subset of ORPS occurrences for better statistical control based on input from ORO line PI Program coordinators, and PI 2.2, Procedure Violations, will continue as is.

The PI 2.4 definition will be expanded from only Emergency and Unusual Occurrence reports to also include Off-Normal Occurrence reports. This will provide better information (i.e., all reportable events) and considerably improve statistical accuracy.

An additional indicator to track the number of **Nuclear Criticality Safety Violations** will be added. This new indicator would incorporate reportable occurrences from ORPS and the contractors in-house category nonroutine occurrence reports.

### **Environmental PI's**

PI's 3.X, Environmental, need major overhaul. Some of the current indicators are useful; however, some have variability that is always constant due to yearly totals simply being divided by four, or variability that is completely wild.(i.e. spans five decades on the log scale) or which provide incomplete and/or misleading information. An ORO environmental sub-team will be proposed to ORO senior management to study and propose more meaningful indications of performance.

### **Management PI's**

PI's 4.1 and 4.2, DOE and External Organization Audit Issues Open, will be modified in definition from issues open > 90 days to issues overdue.

Some audit issues and corrective actions remain open longer than 90 days as a matter of planned practice. Changing the definition from the arbitrary > 90 days" to "overdue" will increase accuracy.

PI-4.3, OSH Violations, will be changed to reflect only the more serious violations (Risk Acceptance Codes 1 through 3). Currently this indicator has little meaning due to the relative insignificance of the lower category Risk Acceptance Code 4 and 5 violations.

PI's 4.4 and 4.5, Corrective and Preventive Maintenance, will continue to be tracked, but will not be calculated as backlogs (i.e., the number of issues overdue). PI 4.6, Occurrence Reports

with Incomplete Corrective Actions, will continue to be tracked as is.

Backlog percentages have little meaning; however, the subindicator data which is used to calculate these backlogs is relevant and important. For Corrective Maintenance the number of items overdue (not > 90 days as per above discussion) will be tracked, and for Preventive Maintenance, the number of items not completed (or similar measure) will be tracked.