

SUBJECT: TRENDING AND ANALYSIS OF OPERATIONS INFORMATION USING PERFORMANCE INDICATORS

1. PURPOSE. To establish a uniform system of Performance Indicators (PIs) for trending and analyzing operational data from Department of Energy (DOE) facilities. The PI program defined in this Order will help assess and support progress in improving performance and in strengthening DOE line management control of operations in accordance with the policy set forth in Paragraph 5 of this Order.
2. SCOPE. The provisions of this Order apply to all Departmental Elements and to covered contractors to the extent implemented under a contract or other agreement. A covered contractor is a seller of supplies or services, involving a DOE-owned or -leased nuclear facility, under a contract or subcontract containing one of four contract clauses as follows: (a) Safety and Health (Government-owned or -leased facility) [DEAR 970.5204-2], (b) Nuclear Facility Safety (DEAR 970.5204-26), (c) Radiation Protection and Nuclear Criticality [DEAR 952.223-72], or (d) another clause whereby DOE elects to require compliance with DOE nuclear safety requirements. The provisions of this Order will be applied to DOE-owned nuclear facilities and operations exempt from Nuclear Regulatory Commission (NRC) licensing, excluding those facilities and activities conducted under Executive Order 12344 and Public Law 98-525. This Order describes the requirements for trending, analyzing, and reporting of PIs and other operational data at all DOE facilities and a minimum set of PIs, described in DOE-STD-1048-92, related to the operation of those DOE-owned or operated facilities which are included in the DOE PI program. Specifically excluded from this Order are:
 - a. Facilities and activities that are subject to licensing or regulation by the Nuclear Regulatory Commission;
 - b. The Naval Nuclear Propulsion Program (Paragraph 6g); and
 - c. Office space acquired through the General Services Administration.
3. REFERENCES.
 - a. DOE 5000.3B, OCCURRENCE REPORTING AND PROCESSING OF OPERATIONS INFORMATION, of 1-19-93, which establishes a single comprehensive system for the reporting of operations information related to DOE-owned or operated facilities and the processing of that information to provide for appropriate corrective action.
 - b. DOE-STD-1048-92, Performance Indicator Guidance Document, of December 31, 1992, which provides information on the format and content of the contractor, Field Office, and Program Secretarial Officers' (PSOs) quarterly reports; detailed descriptions/definitions of the Department's PIs; detailed listing of the facilities, programs, or activities included in the DOE PI program; guidance on the trending methodology and analysis to be included in the program; and schedule information for preparation of the PI quarterly reports.
4. DEFINITIONS.
 - a. Facility. Any equipment, structure, system, process, or activity that fulfills a specific purpose. Examples include, but are not limited to, accelerators, storage areas, fusion research devices, nuclear reactors, production or processing plants, coal conversion plants, magnetohydrodynamic experiments, windmills, radioactive

plants, magnetohydrodynamic experiments, windmills, radioactive waste disposal systems and burial grounds, environmental restoration activities, testing laboratories, research laboratories, transportation activities, and accommodations for analytical examinations of irradiated or unirradiated components.

- b. Facility Manager. That individual, or his or her designee usually, but not always, a contractor who has direct line responsibility for operation of a facility or group of related facilities, including authority to direct physical changes to the facility. The facility manager designee is a person within the facilities operations organization who has been delegated responsibility by the facility manager.
- c. Performance Indicators. Operational information which is indicative of the performance or condition of a facility, group of facilities, or site.
- d. Reportable Occurrence. Events or conditions to be reported in accordance with the criteria defined in DOE 5000.3B.

5. POLICY. It is the policy of the Department that:

- a. A positive attitude be encouraged toward reporting occurrences, Performance Indicators, and other operations information to assure that both DOE and DOE contractor line management, including the Office of the Secretary, are kept fully and currently informed;
- b. DOE and DOE contractor line management utilize this information to perform trend analysis which may assist in early identification of potential environment, safety, health (ES&H), and operational conditions/problems; deteriorating/improving ES&H conditions; lessons learned; and good practices.

6. RESPONSIBILITIES AND AUTHORITIES.

- a. Assistant Secretary for Nuclear Energy (NE-1), in addition to the responsibilities prescribed in this Order and in paragraph 6d below, shall:
 - (1) Develop, promulgate, and maintain policies necessary to implement and sustain the Department's overall policy with regard to trending and analysis of Performance Indicators and other operations information, such as reportable occurrences;
 - (2) Develop, promulgate, and maintain guidance materials and conduct workshops, as necessary, for implementing the requirements of this Order;
 - (3) Maintain the listing of facilities, proposed by the cognizant PSOs, which are included in the DOE PI program;
 - (4) Prepare a DOE quarterly summary PI report for the Secretary with distribution to all PSOs and Managers of DOE field organizations; and
 - (5) Monitor appraisal reports relative to this Order at DOE facilities to assess implementation of the requirements of this Order and to identify needed improvements.
- b. Director of Office of Nuclear Safety (NS-1), acting as the independent element responsible for nuclear safety oversight of line management for the Department, shall:
 - (1) Monitor and assess all aspects of the implementation of this Order related to nuclear safety including review of facility

specific operations information; and

- (2) Review Performance Indicators and other operations information, such as reportable occurrences, in the areas of NS responsibility to assess facility or site performance and make recommendations to cognizant PSOs on possible improvements.
- c. Assistant Secretary for Environment, Safety and Health (EH-1), acting as the independent element responsible for environment, occupational safety and health, and safeguards and security oversight of line management for the Department, shall:
- (1) Monitor and assess all aspects of the implementation of this Order related to the EH functional areas of responsibility including review of facility specific operations information; and
 - (2) Review Performance Indicators and other operations information, such as reportable occurrences, in the areas of EH responsibility to assess facility or site performance and make recommendations to cognizant PSOs on possible improvements.
- d. Program Secretarial Officers, in addition to other responsibilities prescribed in this Order, shall carry out responsibilities which include but are not limited to:
- (1) Assuring that contractors, in coordination with the respective DOE Heads of Field Organization, establish a program for the preparation and reporting of Performance Indicators as prescribed in this Order;
 - (2) Assuring that DOE and DOE contractor line management utilize Performance Indicators and other operations information, such as reportable occurrences, for performing trending and analysis to provide early identification of potential ES&H and operational problems and/or deteriorating/improving ES&H conditions;
 - (3) Overseeing and assessing facilities under their cognizance relating to trending and analysis of PIs and other operations information;
 - (4) Identifying Performance Indicators, in addition to those specified in Paragraph 7c, "Reportable Performance Indicators," to objectively evaluate performance trends for facilities under their cognizance at all departmental sites;
 - (5) Identifying to NE-1 any additions or deletions to the facilities currently included in the DOE PI program as identified in DOE-STD-1048-92;
 - (6) Assuring that, through the implementation of this Order, lessons-learned and generic or programmatic implications are identified and acted upon as appropriate;
 - (7) Preparing quarterly PI reports for facilities under their cognizance in accordance with the requirements of this Order;
 - (8) Providing quarterly PI reports and PI data to NE-1, EH-1, and NS-1 in accordance with the schedule, format, and content requirements of this Order; and
 - (9) Maintaining direct responsibility for ensuring the

preparation and accuracy of PI data for facilities under their cognizance.

- e. DOE Heads of Field Organizations cognizant of the reporting activity shall:
 - (1) Ensure that contractors under their cognizance prepare and promulgate procedures that are compatible with and serve the policies of this Order;
 - (2) Appraise and assess contractor capability and performance in carrying out the requirements of this Order;
 - (3) Ensure that DOE contractors under their cognizance prepare quarterly PI reports and utilize Performance Indicators and other operations information, such as reportable occurrences, for performing trending and analysis to provide early identification of potential ES&H problems and/or deteriorating/improving ES&H conditions;
 - (4) Ensure that contractors under their cognizance, through the implementation of this Order, identify lessons-learned and generic or programmatic implications and utilize this information in the improvement of operations at their facilities;
 - (5) Identify Performance Indicators, in addition to those specified in Paragraph 7c, "Reportable Performance Indicators," to objectively evaluate performance trends for facilities at their site(s);
 - (6) Prepare quarterly PI reports for facilities at their sites included in the DOE PI program and utilize these reports to trend and analyze PI data to provide early identification of potential ES&H problems and/or deteriorating/improving ES&H conditions; and
 - (7) Ensure the accuracy of PI data for facilities under their cognizance.
- f. Facility Managers. As defined in paragraph 4 of this Order shall:
 - (1) Assess facility Performance Indicators and other operations information, such as reportable occurrences, for trends in improving or deteriorating conditions; and
 - (2) Identify lessons-learned and good practices that can be used to improve facility operations.
- g. Director of the Naval Nuclear Propulsion Program. Presidential Executive Order 12344, statutorily prescribed by Pub. L. 98-525, 42 U.S.C. Subsection 7158 note (1984), establishes the responsibilities and authorities of the Director, Naval Nuclear Propulsion Program (who is also the Deputy Assistant Secretary for Naval Reactors within the Department) over all facilities and activities which comprise the Program, a joint Navy-DOE organization. These executive and legislative actions establish that the Director is responsible for all matters pertaining to naval nuclear propulsion for all program facilities and activities. Accordingly, the provisions of this Order do not apply to the Naval Nuclear Propulsion Program.

7. REQUIREMENTS.

- a. Performance Indicators.

- (1) For all DOE facilities included in the DOE PI program, contractors shall provide their PI report addressing the specified list of Performance Indicators, provided in subparagraph c below, to the cognizant PSO, through the cognizant Field Organization, on a quarterly basis. For those facilities identified in Appendix 1 of DOE-STD-1048-92, which do not report to a Field Office, their quarterly report should be sent directly to the cognizant PSO.
- (2) Departmental elements not included in the formal DOE PI Program shall internally establish and track operations using PIs appropriate to their organizations but are excluded from formal reporting requirements defined in DOE-STD-1048-92.
- (3) Performance Indicators are designed to be reportable as numerical values on a consistent basis so that they are readily usable in trending analysis. For each facility included in the DOE PI program, the contractor shall gather, analyze and report the Performance Indicators data, to include narrative data, according to the requirements of this Order and the guidance provided in DOE-STD-1048-92.
- (4) The quarterly contractor, Field Office, and PSO Performance Indicator reports shall follow the format and content provided in DOE-STD-1048-92.
- (5) The detailed schedule for submittal of PI data and all quarterly PI reports is provided in DOE-STD-1048-92.

b. Trending and Analysis.

- (1) Contractors for each facility, group of facilities, or site shall review and assess their Performance Indicators and other operations information such as reportable occurrences. Facility Managers shall assess their facility operating information for trends and indications of deteriorating/improving conditions and identify lessons-learned and good practices that should be used in their facility to prevent occurrences or to improve safety and/or operations.
- (2) Each level of DOE line management shall adopt the use of trending and analysis of Performance Indicators and other operations information, such as reportable occurrences, at all levels of operations to provide ongoing feedback to operators, support personnel, and managers of the condition and performance of their operations with the intent of identifying deficiencies/good practices and opportunities for improvement in safety and performance of their operations.

c. Reportable Performance Indicators.

The Performance Indicators delineated in DOE-STD-1048-92 are the minimum required to be reported for each facility. For some facilities, certain information may not be applicable and, therefore, need not be reported. However, the report should so indicate. It is also expected that DOE line management may request additional Performance Indicators to be reported which they may determine to be relevant to their facilities. Detailed definitions and information concerning these PIs can be found in DOE-STD-1048-92.

James D. Watkins
Admiral, U.S. Navy (Retired)

