

U.S. Department of Energy Orders Self-Study Program

DOE O 231.1

ENVIRONMENT, SAFETY, AND HEALTH REPORTING



ALBUQUERQUE OPERATIONS OFFICE

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**DOE ORDER O 231.1
ENVIRONMENT, SAFETY, AND HEALTH REPORTING
FAMILIAR LEVEL**

OBJECTIVES

Given the Familiar Level of this module and the resources listed below, you will be able to perform the following:

1. State the objective of DOE Order 231.1.
2. State the responsibilities associated with DOE Order 231.1.
3. List the types of reports DOE elements are required to file.
4. List the types of reports contractors are required to file.

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| <p>Note: If you think that you can complete the practice at the end of this level without working through the instructional material and/or the examples, complete the practice now. The course manager will check your work. You will need to complete the practice in this level successfully before taking the criterion test.</p> |
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RESOURCES

DOE Order O 231.1, Environment, Safety, and Health Reporting, 9/30/95.
DOE Manual M 231.1-1, Environment, Safety, and Health Reporting Manual, 9/30/95.
DOL OSHA 1220-0029, Record Keeping Guidelines for Occupational Injuries and Illnesses, latest edition.
29 CFR 1904, Recording and Reporting Occupational Injuries and Illnesses

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INTRODUCTION

The Familiar Level of this module is divided into two sections. In the first section, we will discuss the objective of DOE Order O 231.1 and the responsibilities associated with the Order. In the second section, we will discuss the requirements included in DOE M 231.1-1 and the additional resources. We have provided several examples and practices throughout the module to help familiarize you with the material. The practices will also help prepare you for the criterion test.

Before continuing, you should obtain a copy of all the resources listed for this module. Copies of the Orders are available on the Los Alamos National Laboratory Website at <http://iosun.lanl.gov:1776/htmls/directives.html> or through the course manager. Spend some time reviewing the documents so that you are familiar with the sections each contains. You will need to refer to these documents to complete the examples, practice, and criterion test.

SECTION 1, DOE ORDER O 231.1, ENVIRONMENT, SAFETY, AND HEALTH REPORTING

OBJECTIVE

To ensure that information on environment, safety, and health that is required by law, or that is essential for evaluating DOE operations and identifying opportunities for improvement, is collected and reported.

RESPONSIBILITIES

Heads of DOE Elements

- Meet the reporting requirements in DOE M 231.1-1, Chapters II and III.
- Report work-related fatalities, injuries, and illnesses occurring among DOE and contractor employees arising out of work primarily performed at DOE-owned or - leased facilities according to DOE M 231.1-1.
- Report work-related damage or loss of property and according to DOE M 231.1-1.
- Report work-hours and vehicle usage according to DOE M 231.1-1.
- Report DOE annual estimated property valuation according to DOE M 231.1-1.
- Report interim exposure data reporting according to DOE M 231.1-1.
- Report work-related ionizing radiation exposure data pertaining to an individual who visits a DOE or DOE contractor site or facility to the Radiation Records Repository, to the individual's employer, and to that individual.
- Report annual exposure data according to DOE M 231.1-1.

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- Submit radiological exposure reports to individuals according to DOE M 231.1-1.
- Submit Annual Summary of Fire Damage according to DOE M 231.1-1.
- Submit epidemiologic analyses -- Excess injuries and illnesses according to DOE M 231.1-1. Notify the Assistant Secretary for Environment, Safety, and Health of suspected excesses of illnesses or injuries that require epidemiologic analyses to determine if the excesses are work related.
- Submit occupational safety and health (OSH) information in support of epidemiological studies conducted by external organizations according to DOE M 231.1-1. Submit OSH information, upon request, to Centers for Disease Control officials, state health officials, their contractors, and grantees conducting epidemiological studies.

Cognizant Secretarial Officers (CSO)

- Report annually on the progress made in implementing, and the effectiveness of, any commitment for environmental impact mitigation that is essential to render the impact of a proposed action not significant or that is made in a record of decision.
- Prepare an annual National Environmental Policy Act planning summary.
- Upon receipt of a draft inspection report containing a marginal or unsatisfactory rating or other finding of noncompliance with requirements or performance weakness, the lead CSO shall report on corrective actions to the Under Secretary.

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Assistant Secretary for Environment, Safety, and Health

- Prepare a report on the status and adequacy of DOE and contractor performance of their OSH responsibilities.
- Prepare a DOE-wide summary of accident data.
- Inform the CSO when a Headquarters employee's occupational ionizing radiation exposure for a given period approaches 70% of an administrative or regulatory limit.
- Approve the use of alternate media for submitting information to the Radiation Records Repository as required by this Order.
- Prepare a quarterly DOE Summary Performance Indicator report.

Heads of Field Elements (Managers and Directors)

- Report annually on the progress made in implementing, and the effectiveness of, any commitment for environmental impact mitigation that is essential to render the impact of a proposed action not significant or that is made in a record of decision.
- Prepare an annual National Environmental Policy Act planning summary.
- Prepare a summary of environmental data annually to characterize site environmental management performance.

Assistant Secretary for Human Resources and Administration

- Prepare and submit reports required by this Order that relate to work-related injuries, illnesses, property damage, vehicle damage, work-hours, and vehicle usage involving DOE Headquarters.

Note: You do not have to do Example 1 on the following pages, but it is a good time to check your skill and knowledge of the information covered. You may do the Example 1 or go to Section 2.

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EXAMPLE 1

Using the Familiar level of this module and the resources, complete the following exercises.

1. State in your words what the DOE hopes to achieve by implementing DOE Order O 231.1.

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2. Match the following positions with the correct responsibility statements by placing the letter of the position in the space to the left of each responsibility statement. The positions may be used more than once or not at all. Some responsibility statements may apply to more than one position.

Positions

- A. Assistant Secretary for Environment, Safety, and Health
- B. Assistant Secretary for Human Resources and Administration
- C. CSOs
- D. Heads of DOE Elements
- E. Heads of Field Elements

- 1. Inform the CSO when a Headquarters employee's occupational ionizing radiation exposure for a given period approaches 70 percent of an administrative or regulatory limit.
- 2. Prepare an annual National Environmental Policy Act planning summary.
- 3. Report annually on the progress made in implementing any commitment for environmental impact mitigation.
- 4. Prepare a summary of environmental data to characterize site environmental management performance.
- 5. Report annual estimated property valuation.

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| Note: When you are finished, compare your answers to those contained in the Example 1 Self-Check. When you are satisfied with your answers, go to Section 2. |
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EXAMPLE 1 SELF-CHECK

Using the Familiar level of this module and the resources, complete the following exercises.

1. State in your words what the DOE hopes to achieve by implementing DOE Order O 231.1. The DOE hopes to ensure that information on environment, safety, and health that is required by law, or that is essential for evaluating DOE operations and identifying opportunities for improvement, is collected and reported.
2. Match the following positions with the correct responsibility statements by placing the letter of the position in the space to the left of each responsibility statement. The positions may be used more than once or not at all. Some responsibility statements may apply to more than one position.

Positions

- A. Assistant Secretary for Environment, Safety, and Health
- B. Assistant Secretary for Human Resources and Administration
- C. CSOs
- D. Heads of DOE Elements
- E. Heads of Field Elements

- A 1. Inform the CSO when a Headquarters employee's occupational ionizing radiation exposure for a given period approaches 70 percent of an administrative or regulatory limit.
- C&E 2. Prepare an annual National Environmental Policy Act planning summary.
- C&E 3. Report annually on the progress made in implementing any commitment for environmental impact mitigation.
- C 4. Prepare a summary of environmental data to characterize site environmental management performance.
- D 5. Report annual estimated property valuation.

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SECTION 2, DOE M 231.1, ENVIRONMENT, SAFETY, AND HEALTH MANUAL

This section will address the requirements contained in the manual that supplements DOE Order 231.1. The information contained in this section is divided into four subsections. The subsections deal with the four chapters in the manual. The four chapters discussed are: Reporting Environmental Protection Information, Reporting OSH Information, Reporting Ionizing Radiation Exposure Information, and Safeguards and Security Corrective Action Reports

REPORTING ENVIRONMENTAL PROTECTION INFORMATION

Annual Site Environmental Report

Each DOE Field Element manager and director is required to prepare an integrated Annual Environmental Report for each calendar year. The report presents a environmental data summary to characterize site environmental management performance and to estimate radiological doses to the public associated with releases of radioactive material for DOE sites. The report should

- summarize any environmental occurrences and responses made thereto that were reported during the calendar year,
- confirm compliance with environmental standards and requirements, and
- highlight significant programs and efforts, including environmental performance indicators and/or performance measures programs.

An information copy of the Annual Site Environmental Report should be submitted to the Assistant Secretary for Environment, Safety and Health by October 1 of the following year.

National Environmental Policy Act Reporting

CSOs and Heads of Field Elements are required to:

- Report annually on the progress in implementing any mitigation essential to render the impacts of a proposed action insignificant.
- Submit an annual National Environmental Policy Act planning summary to the Assistant Secretary for Environment, Safety and Health by 1-31 of each year and make it available to the public.

REPORTING OCCUPATIONAL SAFETY AND HEALTH INFORMATION

Accident Record Keeping and Reporting

U.S. Department of Energy elements should record and report occupational fatalities and work-related injuries and illnesses occurring among their employees. The Log and Summary of Occupational Injuries and Illnesses, OSHA Form 200, should be used to log and summarize all occupational injuries and illnesses occurring to Federal employees.

The DOE elements and DOE contractors should use the Individual Accident/Incident Report, DOE F 5484.3, to record and report work-related injuries and illnesses. This report must be submitted quarterly on or before the 25th of the month following the end of the quarter. Reports are submitted to the Computerized Accident/Incident Reporting System (CAIRS).

The following definitions are useful in determining what is a reportable injury.

Recordable occupational injuries or illnesses are any occupational injuries or illnesses that result in:

- Fatalities, regardless of the time between the injury and death, or the length of the illness.
- Injuries or illnesses, other than fatalities, that result in lost workdays.
- Nonfatal cases without lost workdays that result in transfer to another job or termination of employment, or require medical treatment (other than first aid) or involve loss of consciousness or restriction of work or motion. This category also includes any diagnosed occupational illnesses that are reported to the employer but are not classified as fatalities or lost workday cases.

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- Medical treatment includes treatment administered by a physician or by registered professional personnel under the standing orders of a physician. Medical treatment does not include first aid treatment even though provided by a physician or registered professional personnel.
- First Aid is any one-time treatment, and any follow up visit for the purpose of observation, of minor scratches, cuts, burns, splinters, and so forth, which do not ordinarily require medical care. Such one- time treatment, and follow up visit for the purpose of observation, is considered first aid even though provided by a physician or registered professional personnel.
- Lost workdays are the number of days (consecutive or not) after, but not including, the day of injury or illness during which the employee would have worked but could not do so; that is, could not perform all or any part of his normal assignment during all or any part of the workday or shift, because of the occupational injury or illness.

Additional guidelines for determining if incidents are reportable are available in 29 CFR 1904.12, Reporting Occupational Injuries and Illnesses and DOL OSHA 1220-0029, Record Keeping Guidelines for Occupational Injuries and Illnesses.

The DOE elements and contractors are required to record and report;

- estimated loss or damage to DOE or other property amounting to at least \$5,000, and
- estimated damage of \$1,000 or more to Federal government-owned vehicles.

Property and vehicle loss estimates should be recorded on DOE F 5485.3 and submitted to CAIRS.

Work hours, vehicle usage, and property valuation are reported quarterly on Part A of DOE F 5484.4, Tabulation of Work-Hours, Vehicle Usage, and Property Valuation. The reports are submitted to CAIRS.

The Assistant Secretary for Environment, Safety, and Health maintains a database that compiles all of the reports mentioned above.

The DOE elements and DOE contractors are required to retain records of personal injuries and illnesses, property damage, and vehicle damage. Employees, former employees, and their representatives have the right to access OSHA Form 200 and any DOE F 5484.3 that contains

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their name. Requests to access such records must be written.

Annual Summary of Fire Damage

The DOE elements and contractors are required to submit an annual report of fire damage to the DOE fire protection authority. The details of the report are available in Appendix F of DOE M 231.1-1. Guidelines for estimating fire loss are available in Appendix C of DOE M 231.1-1.

Reporting Information for Epidemiologic Analysis

The DOE elements and DOE contractors are required to notify the Assistant Secretary of Environment, Safety, and Health of a unusually high number of epidemiologic cases that are occurring among a group of workers. Any worker may identify such excesses and report them. The Assistant Secretary of Environment, Safety, and Health directs the investigations of all suspected excesses.

Reporting Performance Indicator Data

The DOE contractors are required to report performance indicator data quarterly to the Office of Operating Experience Analysis and Feedback.

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REPORTING IONIZING RADIATION EXPOSURE INFORMATION

Interim Exposure Data Reporting by DOE Elements and Contractors

Radiological exposure data for a DOE employee must be reported to the Radiation Records Repository within 30 days after the dosimetry results are determined.

Radiological exposure data pertaining to a visiting DOE contractor must be reported to the individual's employer within 30 days after the dosimetry results are determined.

Each DOE or DOE contractor employee who visits a radiological site outside of the DOE must arrange to have all pertinent occupational radiological exposure data reported to his or her employer within 30 days after the dosimetry results are determined.

Annual Exposure Data Reporting

Each DOE elements and DOE contractor is required to report radiological exposure data summaries to the Radiation Records Repository by March 31st for each individual monitored for radiological exposure during the preceding calendar year.

SAFEGUARDS AND SECURITY CORRECTIVE ACTION REPORTS

Unsatisfactory Inspection Rating Response Reports

The lead CSO is required to notify the Under Secretary of interim corrective actions taken within 15 working days of the receiving a draft inspection report containing an unsatisfactory rating. If the rating indicates a significant vulnerability, such as unacceptable risk in the areas of special nuclear material theft or diversion, radiological or industrial sabotage or espionage, the lead must identify and implement interim corrective actions within 24 hours of receiving the draft inspection report. The CSO must then submit a plan that details the permanent protective measures required to reduce the level of risk to an acceptable level. The plan is submitted to the Under Secretary.

Marginal Inspection Rating Response Reports

The lead CSO is required to report any corrective actions within 15 working days of receiving a

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draft inspection report containing a marginal rating to the Under Secretary. The CSO must report any permanent changes required to mitigate the identified risk.

Noncompliance Inspection Finding Response Reports

The lead CSO is required to notify the Under Secretary of any steps taken to correct and prevent recurrence of items reported in a draft inspection report that contains a finding of noncompliance. The report must be completed within 15 days of receiving the draft inspection report.

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| Note: You do not have to do Example 2 on the following page, but it is a good time to check your skill and knowledge of the information covered. You may do the Example 2 or go directly to the practice. |
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EXAMPLE 2 SELF-CHECK

1. List the document that must be completed to record occupational and work-related injuries and illnesses.
Occupational illnesses and injuries are reported on the Log and Summary of Occupation Injuries and Illnesses, OSHA Form 200. Work-related illnesses and injuries are reported on DOE F 5484.3, Individual Accident/Incident Report.
2. State the threshold minimums for reporting property and vehicle damage to DOE-owned assets.
The minimum for property damage is \$5,000. The minimum for vehicle damage is \$1,000.
3. State the organization to which reports of accident, injuries, illnesses, or property and vehicle damage are submitted.
Reports are submitted to the Computerized Accident/Incident Reporting System.

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PRACTICE

This practice is required if your proficiency is to be verified at the Familiar Level. The practice will prepare you for the criterion test. You will need to refer to the resources to answer the questions in the practice correctly. The practice and criterion test will also challenge additional analytical skills that you have acquired in other formal and on-the-job training.

PRACTICE

1. Match the following positions with the correct responsibility statement by placing the letter of the correct position in the space to the left of the responsibility statement. Each position may be used more than once or not at all. Some responsibility statements may apply to more than one position.

Positions

- A. Heads of Field Elements
- B. Assistant Secretary for Environment, Safety, and Health
- C. Heads of DOE Elements
- D. CSOs
- E. Assistant Secretary for Human Resources and Administration

Responsibility Statements

- 1. Prepare an Annual Environmental Report.
- 2. Prepare an annual report on the progress in implementing any mitigation essential to render the impacts of a proposed action insignificant.
- 3. Submits a report to the Secretary describing the status and adequacy of DOE and contractor performance of their OSH responsibilities.
- 4. Records and reports occupational fatalities, injuries, and illnesses occurring among employees.
- 5. Maintains a database that compiles accident, injury and illness reports.

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5. List the components that are included in property valuation.

Note: The course manager will check your practice and verify your success at the Familiar Level. When you have successfully completed this practice, go to the General Level module.

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**DOE ORDER O 231.1
ENVIRONMENT, SAFETY, AND HEALTH REPORTING
GENERAL LEVEL**

OBJECTIVES

Given the Familiar Level of this module, a scenario, and an analysis, you will be able to perform the following:

1. Describe the actions you would expect DOE and/or the contractor to take in the situation described in the scenario; and
2. State which requirements included in the resources apply to the situation described in the scenario.

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| <p>Note: If you think that you can complete the practice at the end of this level without working through the instructional material and/or the examples, complete the practice now. The course manager will check your work. You will need to complete the practice in this level successfully before taking the criterion test.</p> |
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RESOURCES

DOE Orders Self Study Program, DOE Order O 231.1, Familiar Level, 5/1/98.
DOE Order O 231.1, Environment, Safety, and Health Reporting, 9/30/95.
DOE Manual M.231.1-1, Environment, Safety, and Health Reporting Manual, 9/30/95.
DOL OSHA 1220-0029, Record Keeping Guidelines for Occupational Injuries and Illnesses.
29 CFR 1904, Recording Occupational Injuries and Illnesses.

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INTRODUCTION

The Familiar Level of this module introduced DOE Order O 231.1. Several responsibilities and requirements from the resources were discussed. In the General Level of this module, students are asked to apply the information contained in the resources to a series of questions related to the Order. Students are also presented with a scenario that depicts a work situation related to the Order. The example scenario includes a situation, the actions taken to remedy the situation, and the requirements related to the situation. Students will be asked to review the actions taken and decide if they are correct. Students will also be asked to decide if the correct requirements were cited in each situation. Please refer to the resources to make your analysis and answer the questions. You are not required to complete the example. However, doing so will help prepare you for the criterion test.

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| Note: You do not have to do the example on the following page, but it is a good time to check your skill and knowledge of the information covered. You may do the example or go on to the practice. |
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EXAMPLE SCENARIO

An employee is copying documents when the copier jams. Upon removing papers from the machine's internal workings, the employee's ring finger contacts the hot drum resulting in a burn. First aid is immediately administered at the site and the injury is classed as a first-aid case because only redness is present at the time of treatment. The following day, the finger is re-examined and no changes to the wound's appearance are detected. However, on the third day a blister has formed where the burn occurred, but no treatment is given. The blister is left to heal and disappears within the next few days.

Actions Taken

In this case, the contractor did not take any action because only first aid was applied, and the contractor decided that the incident was not recordable.

Requirements that apply

29 CFR 1904.12

Recordable occupational injuries are nonfatal cases without lost workdays that result in transfer to another job or termination of employment, or require medical treatment (other than first aid) or involve loss of consciousness or restriction of work or motion.

First Aid is any one-time treatment, and any follow up visit for the purpose of observation, of minor scratches, cuts, burns, splinters, and so forth, which do not ordinarily require medical care. Such one-time treatment, and follow up visit for the purpose of observation, is considered first aid even though provided by a physician or registered professional personnel.

Take some time to review the example scenario and the actions the contractor took or didn't take to correct the situation. Then decide if the contractor's actions were complete and correct. Finally, identify the requirements included in the resources that apply to the situation described in the scenario. Write your answer below and then compare your answer to the one contained in the example self-check.

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EXAMPLE SELF-CHECK

Your answer does not have to match the following exactly. You may have added more corrective actions or cited other requirements from the resources that apply. To be considered correct, your answer must include, at least the following.

The contractor should record the incident as an injury.

The requirement stated is correct. However DOL OSHA 1220-0029 also applies to this situation. Although Federal regulations state that an injury that only requires first aid is not recordable, the record keeping guidelines consider this incident recordable. Any work related second degree burn that is larger than a pinhead or any work related third degree is considered a non-minor injury for record keeping purposes regardless of the treatment given. As found on page 42 of the Guidelines, a non-minor injury is one that results in damage to the physical structure of a non-superficial nature. All work related non-minor injuries must be recorded. Work related first degree burns and pinhead sized second-degree burns are considered minor injuries and not recordable by nature. However, first degree burns and pinhead sized second degree burns, like any other minor injury, are recordable if they involve medical treatment (other than first aid), loss of consciousness, transfer to another job, or restriction of work or motion (see pages 28 and 43 of the Guidelines).

PRACTICE

This practice is required if your proficiency is to be verified at the General Level. The practice will prepare you for the criterion test. You will need to refer to the resources to answer the questions in the practice correctly. The practice and criterion test will also challenge additional analytical skills that you have acquired in other formal and on-the-job training.

Please review the following scenario and answer the following questions.

1. Was the situation handled correctly? If not, what should have been done?
2. Was the list of requirements relevant to the resources in this module complete and correct? If not, state the correct or omitted requirements.

SCENARIO

While driving his own vehicle on business travel an employee was making a left-hand turn and ran into another vehicle during normal business hours. Mileage records were not being kept for this employee's private vehicle usage. The employee's vehicle struck the other vehicle on the left front quarter panel. No one was injured. Total estimated damage to both vehicles was \$1,050.00. The employee was issued a citation for failure to yield.

Actions taken by contractor

- Completed an accident report and submitted it to the Computerized Accident/Incident Reporting System.

Requirements stated in this module that are related to this scenario include the following.

- DOE Order M 231.1-1, Chapter 2, paragraph c(2)
Estimated damage of \$1,000 or more that involves Federal Government-owned or privately operated while on official business shall be considered a recordable case and shall be reported.

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Write your answers to questions 1 and 2 and then bring the completed practice to the course manager for review.

Note: The course manager will check your practice and verify your success at the General Level. When you have successfully completed this practice, the course manager will give you the criterion test.