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DOE STANDARD

ESTABLISHING AND MAINTAINING A FACILITY REPRESENTATIVE PROGRAM AT DOE NUCLEAR FACILITIES

U.S. Department of Energy
Washington, D.C. 20585

AREA FACR

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FOREWORD

This DOE standard is approved for use by all Components of the Department of Energy.

This DOE standard was developed by a working group with contributions from all Secretarial and oversight organizations having nuclear safety responsibilities and with input from several field organizations.

Beneficial comments (recommendations, additions, deletions) which may be of use in improving this document should be addressed to: Director, Office of Policy and Management, Office of Nuclear Energy (NE-10).

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1. SCOPE

1.1 Scope. The purpose of this DOE standard, "Establishing and Maintaining a Facility Representative Program at DOE Nuclear Facilities", is to help ensure that DOE Facility Representatives are selected based on consistently high standards and from the best qualified candidates available, that they receive the training required for them to function effectively, and that their expected duties, responsibilities, and authorities are well understood and accurately documented. To this end, this guidance provides the following practical information:

- 1) An approach for use in determining the required facility coverage.
- 2) The duties, responsibilities and authorities expected of a Facility Representative.
- 3) The training and qualification expected of a Facility Representative.

Secretarial Officers and Field Organization Managers may develop additional guidance addressing Facility Representative requirements.

1.2 Applicability. This standard is intended for use by all DOE Components in establishing and maintaining Facility Representative programs at DOE owned, contractor operated nuclear facilities. This guidance is not intended for facilities operated exclusively by DOE Federal employees. Although this guidance was written to address Facility Representatives for nuclear facilities, much of this guidance could also apply to Facility Representatives at hazardous non-nuclear facilities. Therefore, applicable portions of this standard should be applied to hazardous non-nuclear facilities, as deemed appropriate by Secretarial Officers and Field Organization Managers.

1.3 Application guidance. Guidance is provided for defining the appropriate duties, responsibilities and qualifications for DOE Facility Representatives, based on facility hazard classification; risks to workers, the public, and the environment; and the operational activity level. The information contained in this standard, as well as any additional facility-specific requirements, should be incorporated into site-specific implementation procedures for DOE Facility Representatives.

2. APPLICABLE DOCUMENTS

2.1 Government Documents. The following Orders and standards form a part of this document to the extent specified herein.

2.1.1 DOE Orders.

DOE 5000.3	Occurrence Reporting and Processing of Operations Information
DOE 5480.19	Conduct of Operations Requirements for DOE Facilities
DOE 5480.20	Personnel Selection, Qualification, Training, and Staffing Requirements at DOE Reactor and Nonreactor Facilities
DOE 5480.23	Nuclear Safety Analysis Reports

2.1.2 DOE standards.

DOE-STD-1009-92	Guide to Good Practices for the Development of Test Items
DOE-STD-1011-92	Guide to Good Practices for the Design, Development, and Implementation of Examinations
DOE-STD-1027-92	Hazard Categorization and Accident Analysis Techniques for Compliance with DOE Order 5480.23, Nuclear Safety Analysis Reports

2.2 Order of precedence. In the event of conflict between the text of this document and a DOE Order, the DOE Order takes precedence. Nothing in this document supersedes applicable laws and regulations.

3. DEFINITIONS

3.1 Activity level. The level of operational activity within the facility. Activity refers to handling or moving hazardous material, or otherwise creating an opportunity for the occurrence of a reportable event.

3.2 Core training program. A training program designed to cover the generic subjects in which Facility Representatives are expected to be knowledgeable.

3.3 Contractor. Any person under contract or subcontract with the Department of Energy with the responsibility to perform activities in connection with any facility, laboratory, or program at a DOE-owned or leased facility.

3.4 Department or DOE. The Department of Energy.

3.5 Facility hazard classifications. A systematic grouping of facility hazards into three categories, described in DOE 5480.23 and DOE-STD-1027-92 as follows:

Category 1 Hazard. The hazard analysis shows the potential for significant off-site consequences.

Category 2 Hazard. The hazard analysis shows the potential for significant on-site consequences.

Category 3 Hazard. The hazard analysis shows the potential for only significant localized consequences.

3.6 Facility Representative. For each major facility or group of lesser facilities, an individual or his or her designee assigned responsibility by the Head of the Field Organization for monitoring the performance of the facility and its operations. This individual will be the primary point of contact with the contractor and will be responsible to the appropriate Secretarial Officer and Head of Field Organization.

3.7 Facility Representative coverage. The degree of attention a Facility Representative is expected to devote to an assigned facility. Coverage is usually expressed in terms of the amount of time, including backshift and weekend time, that the Facility Representative is expected to routinely spend in the facility.

3.8 Field Organization. A DOE Operations Office, Area Office or Project Office as opposed to DOE Headquarters.

3.9 Hazard. A source of danger (i.e., material, energy source, or operation) with the potential to cause illness, injury, or death to personnel or damage to a facility or to the environment (without regard for the likelihood or credibility of accident scenarios or consequence mitigation).

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3.10 Hazardous Materials. Any solid, liquid, or gaseous material that is toxic, explosive, flammable, corrosive, presents a radiological hazard or otherwise physically or biologically threatening to health or the environment.

3.11 Line organization. The unbroken chain of command that extends from the Secretary through the Under Secretary, to the Secretarial Officers who set program policy and plans and develop assigned programs, to the Field Organization Managers who are responsible to the Secretarial Officer for execution of these programs, and to the contractors who conduct the programs. Environment, Safety, and Health (ES&H) are integral parts of each program. Accordingly, line management responsibility for ES&H functions flows from the Secretary through the Under Secretary, the Secretarial Officer, and the Field Organization Manager, to the contractor.

3.12 Nonreactor Nuclear Facility. Those activities or operations that involve radioactive and/or fissionable materials in such form and quantity that a nuclear hazard potentially exists to the employees or the general public. Included are activities or operations that:

- (1) Produce, process, or store radioactive liquid or solid waste, fissionable materials, or tritium;
- (2) Conduct separations operations;
- (3) Conduct irradiated materials inspection, fuel fabrication, decontamination, or recovery operations;
- (4) Conduct fuel enrichment operations; or
- (5) Perform environmental remediation or waste management activities involving radioactive materials.

Incidental use and generating of radioactive materials in a facility operation (e.g., check and calibration sources, use of radioactive sources in research and experimental and analytical laboratory activities, electron microscopes, and X-ray machines) would not ordinarily require the facility to be included in this definition. Accelerators and reactors and their operations are not included.

3.13 Nuclear Facility. Reactor and nonreactor nuclear facilities.

3.14 Occurrence Report. A documented evaluation of an event or condition that is prepared in sufficient detail to enable the reader to assess its significance, consequences, or implications and to evaluate the actions being proposed or employed to correct the condition or to avoid recurrence.

3.15 Program Manager. The DOE Headquarters individual, designated by a Secretarial Officer, who is directly involved in the operation of a facility under his or her cognizance and who holds signature authority to provide technical direction through DOE Field Organizations to contractors for these facilities.

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3.16 Qualifying Official. An individual, designated by the Field Organization Manager, or designee, authorized to sign the Qualification Card after verifying the candidate possesses the appropriate knowledge, skills, or both.

3.17 Reactor Facility. The entire reactor facility, including the housing, equipment, and associated areas devoted to the operation and maintenance of one or more reactor cores. Any apparatus that is designed or used to sustain nuclear chain reactions in a controlled manner, including critical and pulsed assemblies, and research, test, and power reactors, is defined as a reactor. All assemblies designed to perform subcritical experiments that could potentially reach criticality are also to be considered reactors. Critical assemblies are special nuclear devices designed and used to sustain nuclear reactions. Critical assemblies may be subject to frequent core and lattice configuration change and may be used frequently as mockup of reactor configurations.

3.18 Risk. The quantitative or qualitative expression of possible loss that considers both the probability that a hazard will cause harm and the consequences of that event.

3.19 Safety Analysis. A documented process:

- a. to provide systematic identification of hazards within a given DOE operation;
- b. to describe and analyze the adequacy of measures taken to eliminate, control, or mitigate identified hazards; and
- c. to analyze and evaluate potential accidents and their associated risks.

3.20 Safety Analysis Report. That report which documents the adequacy of safety analysis to ensure that the facility can be constructed, maintained, shut down, and decommissioned safely and in compliance with applicable laws and regulations.

3.21 Secretarial Officer. The heads of DOE offices with responsibility for specific DOE nuclear facilities. These include the Assistant Secretaries for Defense Programs and Environmental Restoration and Waste Management, and the Directors of Nuclear Energy, Energy Research, and Civilian Radioactive Waste Management.

3.22 Training equivalency. To refrain from enforcing specific training requirements based on an evaluation of an individual's knowledge or capabilities, gained through prior experience or training, equivalent to that which would be gained by complying with the requirements.

3.23 Training program. A planned, organized sequence of activities designed to prepare persons to perform their jobs, to meet a specific position or classification need, and to maintain or improve their performance on the job.

4. GENERAL REQUIREMENTS

4.1 Purpose and coverage. Because of the importance of the Facility Representative program to the Department's overall commitment to the safe operation of its facilities, this DOE standard has been developed with the intent of placing increased emphasis on recruiting, selection, and training efforts to ensure that Facility Representative positions are filled by highly qualified personnel. This standard should be followed in the establishment and maintenance of Facility Representative programs for DOE nuclear facilities to ensure:

- a. Facility Representatives are selected based on consistently high standards and from the best qualified candidates available,
- b. that they receive the training required to function effectively, and
- c. that their expected duties, responsibilities and authorities are well understood and accurately documented.

4.1.1 DOE Facility Representatives. DOE Facility Representatives perform DOE line management oversight of their assigned facilities to ensure that:

- a. the facilities are operated safely and efficiently,
- b. the contractor's management system is effectively controlling its conduct of operations, and
- c. effective lines of communication between DOE and its operating contractors are maintained during periods of normal operation, and following reportable events, in accordance with DOE Orders and requirements.

4.1.2 Facility coverage and staffing. This standard is designed to provide flexibility to Field Organizations and Secretarial Officers in how they choose to use their available resources in applying this standard for a Facility Representative program. Facility Representatives should be assigned to facilities based on programmatic importance and potential environmental, safety, and/or health impact.

- a. Most hazard category 1 facilities require one or more full time Facility Representatives. For hazard category 2 or 3 facilities, a Facility Representative can be assigned to two or more facilities. In unusual situations, when it is impractical to assign a sufficient number of facilities to occupy a person full-time, the duties of a Facility Representative can be performed part-time as a collateral function.
- b. It is important that a Facility Representative's primary duty of providing DOE an on-site presence not be diminished. Administrative duties should not detract from a Facility Representative's primary duties as provided in Section 5.2. Facility Representatives should spend a significant portion of their time in their assigned facility(s). Administrative work should not prevent Facility Representatives from performing their primary function of monitoring the performance of the facility and its operations.

- c. The assignment of a Facility Representative to facilities is based on the number of buildings or areas involved, their size, complexity, hazard levels and risks, and their level of operational activity. It may also depend on provisions made for extra or special coverage. This means that, as the degree of hazard, complexity, or other governing factors is reduced, the number of processes, facilities, buildings or areas covered by a single individual can be increased. Hazard category 1 nuclear facilities may each be assigned a single or multiple Facility Representatives. Or, if the facility is sufficiently complex, it might be subdivided and assigned to more than one individual. If the contractor has established a building or facility manager concept, it may be appropriate to assign Facility Representatives on a similar basis. Facilities with many configuration changes (like test facilities, for example) require closer observation than facilities with very stable configurations. Also, it may be possible to use special coverage for a facility that operates only intermittently.
- d. It is important for the Field Organization to ensure the proper number of Facility Representative positions are established to maintain adequate coverage. In determining resource requirements, keep in mind that the Facility Representative is part of line management, and therefore certain line management duties that were performed by other Field Organization personnel will now be performed by the Facility Representative. The Secretarial Officers are responsible for allocating staff and necessary resources to provide adequate Facility Representative coverage.

4.2 Unencumbered access. Facility Representatives shall have independent and direct access to contractor personnel, facilities, and records, as necessary, to carry out their assigned responsibilities.

- a. Facility Representatives shall have immediate unannounced access to every assigned facility. They should maintain the proper clearances, training, personal protective equipment, and physical qualifications for such access.
- b. Contractor management should afford the Facility Representative the opportunity to attend all meetings, training classes, operator certification boards/examinations, etc., that may contribute to the execution of the duties and responsibilities of the Facility Representative.
- c. Access to some records may be limited due to Privacy Act considerations.
- d. Due to safeguards and security requirements, access to some areas may require that more than one properly trained and cleared individual be present before access can be gained to those areas.

4.3 Responsibilities and authorities. Responsibilities and Authorities for key positions at DOE Headquarters and Heads of Field Organizations with respect to the Facility Representative program are defined in DOE 5000.3, Occurrence Reporting and Processing of Operations Information, and DOE 5480.19, Conduct of Operations for DOE Facilities. Specifically, the Heads of Field Organizations and Secretarial Officers shall ensure that Facility Representatives are assigned appropriately and have the required support to carry out the functions of the position.

4.4 Supervision, management, and authority. Clear lines of supervision, management, and authority shall be established between the Facility Representative, the Field Organization, and the Secretarial Officer. The Facility Representative shall have the authority to represent DOE to the contractor for operational matters. Each Field Organization should develop more specific guidance that covers the duties and responsibilities of the Facility Representatives for situations specific to their facilities. This specific guidance includes the agreements required by DOE 5000.3 (para 9.d.(2)).

4.5 General Training and qualification requirements. A Facility Representative shall be qualified by education, experience and training to carry out the duties and responsibilities of the position. Facility Representatives are required to meet stringent and comprehensive qualification standards. Facility Representatives should possess a broad technical knowledge in a variety of disciplines and be able to demonstrate an understanding of the management, processes, practices, regulatory requirements, and operating limits of their assigned facilities.

4.5.1 Qualifications. The Field Organization will develop the overall qualification program, including training elements specific to the assigned facilities and systems. The qualifications, and authority of personnel involved in the training of Facility Representatives should be defined and documented. Applicable sections of the "Manager" category of DOE 5480.20, "Personnel Selection, Qualification, Training, and Staffing Requirements at DOE Reactor and Nonreactor Nuclear Facilities," should be used as guidance in developing Facility Representative requirements.

4.5.2 Training requirements. Facility Representatives directly interface with facility management and supervisory personnel. Therefore, Facility Representatives shall have a high level of technical knowledge regarding facility operations in order to intelligently evaluate and discuss the subject with the contractor and DOE management.

4.5.2.1 Tailored program. Development of qualified Facility Representatives shall be accomplished by means of a formal program in which the training requirements are tailored to the specific needs of the facilities involved. Some requirements may be waived by the Field Organization based on documented equivalency of knowledge and experience. The program should define the following:

- a. The minimum educational and experience requirements for entry into the Facility Representative Training and Qualification Program;
- b. A core training program that will cover the generic subjects in which the Facility Representative must be knowledgeable; and
- c. The facility-specific training necessary to effectively perform the duties of the Facility Representative.

4.5.2.2 Training objectives and scope. Training should be directed toward developing an understanding of the technical and management aspects of a facility's operation, and a familiarity with the assigned facility.

4.5.2.3 Training progression. When designing a Facility Representative training program, each Field Organization should consider the desirability of establishing a standard training progression for prospective Facility Representatives. This would create a "pipeline" of qualified people available to fill vacant Facility Representative positions.

4.5.2.4 Advancement considerations. As Facility Representatives gain experience, they become a valuable resource of DOE. This experience should make them prime candidates for positions of higher responsibility both in the field and at DOE Headquarters. Field Organizations and Headquarters should account for this in the personnel development plans for their organizations.

5. DETAILED REQUIREMENTS

5.1 Facility coverage and assignment. Each nuclear facility shall be evaluated by the Field Organization and the responsible Secretarial Officer to determine an appropriate level of coverage by a Facility Representative. This determination should be based on an assessment of the hazards presented by each facility. This assessment will consider risks to the public, workers, and the environment resulting from operation of the facility, the operational status and activity level of the facility, as well as other factors specified in this section. The evaluation of hazards will consider radiological, chemical, and physical dangers to workers, the public, and the environment, as well as the barriers against these dangers provided by the facility.

- a. Existing safety analysis and hazard assessment documentation, as required by DOE 5480.23 and DOE-STD-1027-92, should be used to evaluate hazards. This information provides a basis for the risks associated with the facility and a starting point for selecting the appropriate level of Facility Representative coverage.
- b. Once the facility hazard has been classified, the initial Facility Representative coverage is determined by the operational status and activity level of the facility. Three activity levels are used.

HIGH: Facilities that frequently involve activities related to hazardous operations.

MEDIUM: Facilities that occasionally involve activities related to hazardous operations.

LOW: Facilities that rarely involve activities related to hazardous operations.

- c. Table 1 is the matrix used for determining an appropriate level of coverage.

TABLE 1. Recommended Facility Representative coverage

Hazard Classification	Activity Level		
	High	Medium	Low
Category 1 Hazard	Continual	Frequent	Intermittent
Category 2 Hazard	Frequent	Intermittent	Occasional
Category 3 Hazard	Intermittent	Occasional	Seldom/None

- d. Table 2 provides definitions for each of the coverage terms.

TABLE 2. Coverage definitions

Continual	The Facility Representative is present essentially every day. If a Facility Representative is gone for one week or longer, a temporary replacement should be named. This coverage may require the complete attention of one or more individuals and may require backshift or 24-hour coverage.
Frequent	The Facility Representative is present approximately half of the time. The Facility Representative can be gone for up to two weeks without requiring a temporary replacement. One person can cover multiple facilities. Unusual events are covered using a Facility Representative designee, if necessary.
Intermittent	The Facility Representative is present at least one day per week. One person can cover several such facilities. All unusual events are covered on a call-in basis.
Occasional	The Facility Representative should visit the facility 12-24 days a year. Events are covered on a call-in basis.
Seldom	The Facility Representative should visit the facility 6-12 days a year. Events are covered on a call-in basis.
None	Hazard and Activity level are sufficiently low to justify no coverage. Events are covered as required by Field Organization personnel.

- e. Following establishment of the coverage for each facility, it may be necessary to adjust the level of coverage, taking into consideration factors such as those listed below:
1. History of contractor performance
 2. Potential for DOE or public interest
 3. The risks to successful mission accomplishment
 4. Financial risks
 5. Complexity of the facility and facility operations
 6. Hazardous work environments for workers
 7. Age of facility
 8. Anticipated changes in operational status of facility
 9. Number of facilities on site.
- f. The level of Facility Representative coverage could increase or decrease based on the above additional considerations. Additionally, personnel resource limitations may limit the number of available Facility Representatives. The Secretarial Officers and Field Organizations should agree as to which facilities require coverage with the available resources.

5.2 Duties and responsibilities of a Facility Representative. The following paragraphs describe the duties and responsibilities normally expected of a Facility Representative. Additional duties and responsibilities should be tailored to reflect the specific requirements of the site, the facility, the operational activities, and the involved organizations.

- a. The Facility Representative should maintain frequent communication with Field Organization supervision. The Facility Representative should ensure that DOE line management is cognizant of current facility conditions. Facility Representatives should spend the majority of their time in their assigned facilities observing operations and assessing operating conditions.
- b. A Facility Representative should be thoroughly familiar with site and facility characteristics, operating procedures, and key process control personnel. The Facility Representative should be aware of major work in progress and in planning. The Facility Representative should know the personnel controlling the work, what procedures will be used, whether the workers are trained and qualified, and whether the activity is being performed safely. This knowledge is primarily acquired by facility tours, observations of work in progress, review of facility records and documentation, and attendance at appropriate management meetings of the operating contractor. The Facility Representative should be apprised by the contractor of planning, scheduling, maintenance, operations review, and safety review meetings.
- c. The Facility Representative should be available to respond to facility events and serve as the DOE presence for special operations. The operating contractor should have easy access to the Facility Representative to facilitate the notification, if required, and reporting of occurrences and any safety or operational concerns.
- d. A Facility Representative should not be responsible for the preparation of the budget or schedule for the facility assigned and, therefore, should be in a position to provide information to DOE line management independent of programmatic responsibilities. When it is impractical to assign a Facility Representative as a full-time duty, the separation of programmatic responsibilities, though desirable, may not be possible. The Field Organization Manager or designee should approve assigning Facility Representatives to programmatic responsibilities.
- e. The Facility Representative should observe, evaluate, and report on the effectiveness of the operating contractor in several areas. These areas include operational performance, quality assurance, management controls, and assurance of worker health and safety. Additionally, the Facility Representative should evaluate the overall effectiveness of the operating contractor in implementing corrective actions to deficiencies identified by facility reviews. The frequent presence of a Facility Representative in the facility should improve communication between DOE and the operating contractor. This should lead to a better understanding of DOE expectations by the contractor, and aid in the implementation of enhancements to facility work practices and operating conditions.

5.3 Authority granted to Facility Representatives. The Facility Representative is assigned to monitor the performance of facility operations and management. The Facility Representative is a direct extension of DOE line management to each respective facility. The authority provided to each Facility Representative shall be defined by the responsible Field Organization. Facility Representatives shall have the authority to issue "Stop Work" orders in the facility, except as expressly limited in governing contracts with the operating contractor. This authority shall cover work performed by the contractor and subcontractors. The Facility Representative shall issue "Stop Work" orders in the following instances, as a minimum:

- a. Conditions exist that pose an imminent danger¹ to the health and safety of workers or the public.
- b. Conditions exist, that if allowed to continue, could adversely affect the safe operation of, or could cause serious damage to, the facility.
- c. Conditions exist, that if allowed to continue, could result in release to the environment, of radiological or chemical effluents from the facility, that exceed regulatory limits.

5.4 Facility Assessments. The Facility Representative program should be proceduralized and include a minimum set of assessment requirements. Annual assessment plans should be developed to ensure that a broad-based and systematic review of all aspects of facility operations is conducted over an established period of time.

5.5 Reports. The Facility Representative is the primary point of contact for the contractor to notify DOE of reportable occurrences as prescribed in DOE 5000.3. For the Secretarial Officers and Field Organizations to realize the maximum benefit from the Facility Representative program, carefully considered reporting requirements should be established for each Facility Representative position. Guidance should be provided on the content of periodic or special reports. Care should be taken to ensure that reporting does not become an onerous task that unduly limits the management activities of the Facility Representative. In order to facilitate a direct communications link with senior contractor management, the Facility Representative and DOE management should meet with senior contractor management on a periodic basis to report the results of Facility Representative assessments. The purpose of the meeting should be to discuss trends and systemic issues.

5.6 Relationship of the Facility Representative with other DOE Managers. The Facility Representative's supervision by and relationship with other DOE managers should be clear and defined in writing. Each facility's operation should be clearly assigned to a Facility Representative, a Field Organization Program Manager or Division Director, and a Secretarial Officer. The Facility Representative should have access to the program manager to provide information related to the assigned facilities. It is highly desirable that each Facility

¹ Any condition or practice which is such that a hazard exists that could reasonably be expected to cause death or serious physical harm to employees (Permanent or prolonged impairment of the body or temporary disablement or requiring hospitalization), unless immediate actions are taken to mitigate the effects of the hazard and/or remove employees from the hazard.

Representative only be assigned facilities under a single Program Manager, Division Director and Secretarial Officer. This may not be practical when more than one facility is involved.

5.7 Relationship of Facility Representative with operating contractor. The relationship between the Facility Representative and the facility operator should be clearly defined and understood by both parties. Facility Representatives occupy a unique position in the transmission of information between DOE and its contractors. Facility Representatives should be able to communicate effectively with all levels of the contractor organization. They should be familiar with the contractor chain of command for facility operations. However, the Facility Representatives should not become subverted to the contractor's interests nor simply verify compliance with DOE requirements. Facility Representatives should represent DOE to the contractor and ensure the contractor carries out DOE policies. In defining the relationship between a Facility Representative and contractor, the following points are emphasized:

- a. The Facility Representative is part of DOE line management, and therefore should exercise authority consistent with specific program and management guidance established by the Field Organization.
- b. The contractor is responsible for the safe and efficient operation of the facility. The contractor is accountable to DOE to perform its operations in a manner that ensures the safety and health of personnel and protection of the environment. Any Facility Representative action or inactivity cannot diminish the contractor's responsibility.
- c. The Facility Representative is responsible for ensuring that the contractor is operating the facility in a safe and efficient manner. Facility Representatives fulfill this responsibility by assessing the contractor's performance and discussing identified deficiencies with contractor management.
- d. The responsibility for identifying and correcting deficiencies rests with the operating contractor. If the Facility Representative, and therefore DOE line management, lacks confidence in the contractor's ability to identify and correct deficiencies, the facility should not be allowed to operate. The contractor shall never rely on the Facility Representative to identify or correct deficiencies.
- e. Minor events or problems are frequently clues that indicate more general problems in the contractor's organization, management, personnel abilities, or practices. Therefore, attention to detail in the association and correction of minor problems can result in significant improvements in the contractor's performance. When corrective actions are called for, DOE management should initiate formal action with the operating contractor. The Facility Representative should provide input to formal mechanisms such as confirmation of action letters or orders, if necessary.
- f. The Facility Representative should adhere to certain rules of conduct, or protocol, while performing assigned duties. A formal protocol should be established for Facility Representatives and should include the following:
 1. Facility Representatives should avoid interrupting operators in their work. The Facility Representative should wait for opportune times to transact business with

facility operators. If the Facility Representative is observing operations or activities, the observation should be performed unobtrusively. Operators carry the true burden of safety, and a diversion from their duties could adversely affect plant operations.

2. The Facility Representative should maintain frequent contact with facility management. When Facility Representatives observe something that raises a safety concern, they should discuss their concerns with the facility management. If the response is unsatisfactory, the Facility Representative should discuss the concern with DOE management for appropriate action.
3. All Facility Representative requests for action should go through established chains of command, with the exception of a "stop work" order.
4. Facility Representatives shall keep a record of their activities and observations. This record is subject to review in audits or appraisals and may be a source of information for the contractor evaluation process.

5.8 Specific education, experience, training and qualification requirements.

5.8.1 Education requirements. In order for individuals to enter a Facility Representative training and qualification program, they should meet certain education requirements. This is necessary to ensure that the individuals possess the baseline knowledge to successfully complete the training program, the ability to function independently in the field, and the ability to understand scientific principles and communicate in technical terms. The expected minimum education is that which the Field Organization determines is necessary to provide competent technical assessment of the contractor. This will normally be a Baccalaureate degree or extensive experience in a directly related field such as Naval nuclear power, commercial nuclear power, radioactive waste management, nuclear weapons program, or nuclear research facility programs.

5.8.2 Experience requirements. In order for individuals to enter a Facility Representative training and qualification program, they should meet certain experience requirements. Facility-specific experience criteria should be developed and applied as part of the selection criteria for Facility Representative candidates. The facility-specific experience criteria should reflect the complexity, hazard classification, and activity level of the facility and be commensurate with the responsibilities, authority and duties of the assigned position. Applicable sections of the "Manager" category of DOE 5480.20 should be used as guidance when determining the specific experience requirements.

5.8.3 Qualification card. The Field Organizations should establish a Facility Representative Qualification Card (Qual-Card) for each major facility or group of lesser facilities for which they are responsible. The Qual-Card contains a list of all of the training elements or learning objectives, a corresponding standard of achievement for each objective, and provisions for signatures to attest to satisfactory completion of each objective. Learning objectives should be designated by the Facility Representative's immediate supervisor based on an analysis of training needs, elements of the position description, and facility-specific requirements.

5.8.4 Generic and facility-specific requirements. The Field Organization should identify core training requirements on a Generic Qualification Card, and supplement that with a Facility-specific Qualification Card designed to meet the needs of the individual facility. It is also acceptable to have one Qualification Card that covers both generic and facility-specific requirements. The Facility Representative Qual-Card should include the following:

- a. Self study. All facility related DOE Orders and Standards, Federal and State safety and environmental protection regulations applicable to the assigned facility, the facility safety documentation, and all facility-specific documents and procedures that are pertinent to the responsibilities of the Facility Representative;
- b. Formal training. All formal training, both on-site and off, necessary for the Facility Representative to function effectively. The training may be presented by DOE, contractors, other Federal Agencies, or private firms.
- c. On-the-job training. All knowledge of facility processes, systems and specialized procedures that must be demonstrated to a qualifying official.
- d. Facility walkdowns. A walkdown of the assigned facilities, in the presence of a qualifying official, for the purpose of demonstrating practical skills and knowledge of selected, key elements or systems of the facility.

5.8.5 Training.

5.8.5.1 Needs analysis. The first step in the design of a formal training program for a Facility Representative candidate is to identify and document the requirements of the specific position to be filled. Many of these requirements are generic in nature, since they are common to most Facility Representative positions. However, facility-specific requirements should be defined and added to the generic list. An analysis of the candidate's training needs is then conducted. This is the process by which the tasks, duties, and responsibilities of the position are analyzed to identify formal or informal training, self-study, seminars, on-the-job-training, briefings, rotational assignments, or other types of training necessary for effective job performance.

5.8.5.2 Self-study documents. The Facility Representative should have a working knowledge of the principal DOE Orders, Directives, Notices, etc., and the Federal and state regulations under which the assigned facility operates. In addition, the Facility Representative should be familiar with pertinent national and consensus standards, facility operating procedures, and the facility safety documentation. The list of self-study documents on each Facility Representative's Qual-Card should, therefore, be quite extensive. Some documents may require formal training to ensure a sufficient knowledge level. Each document listed should have a standard of achievement that defines the level of knowledge necessary. The list of DOE Orders should indicate whether a Facility Representative should be required to know, read, or be familiar with each Order, as determined by each respective Field Organization. The following list is representative of the documents which should be included on the Facility Representative Qual-Card unless inapplicable for the assigned facility:

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a. DOE Orders.

1.	DOE 3790.1	Federal Employee Occupational Safety and Health Program
2.	DOE 4330.4	Maintenance Management Program
3.	DOE 5000.3	Occurrence Reporting and Processing of Operations Information
4.	DOE 5400.3	Hazardous and Radioactive Mixed Waste Program
5.	DOE 5400.5	Radiation Protection of the Public and the Environment
6.	DOE 5440.1	National Environmental Policy Act Compliance Program
7.	DOE 5480.1	Environment, Safety, and Health Program for DOE Operations
8.	DOE 5480.3	Safety Requirements for the packaging and Transportation of Hazardous Materials, Hazardous Substances, and Hazardous Wastes
9.	DOE 5480.4	Environmental Protection, Safety, and Health Protection Standards
10.	DOE 5480.5	Safety of Nuclear Facilities
11.	DOE 5480.6	Safety of DOE-Owned Nuclear Reactors
12.	DOE 5480.7	Fire Protection
13.	DOE 5480.10	Contractor Industrial Hygiene Program
14.	DOE 5480.11	Radiation Protection for Occupational Workers
15.	DOE 5480.19	Conduct of Operations Requirements for DOE Facilities
16.	DOE 5480.20	Personnel Selection, Qualification, Training, and Staffing Requirements at DOE Reactor and Nonreactor Facilities
17.	DOE 5480.21	Unreviewed Safety Questions
18.	DOE 5480.22	Technical Safety Requirements
19.	DOE 5480.23	Nuclear Safety Analysis Reports
20.	DOE 5480.29	Employee Concerns
21.	DOE 5482.1	Environment, Safety, and Health Protection Appraisal
22.	DOE 5483.1	Occupational Safety and Health Program for DOE Contractor Employees at Government-Owned-Contractor-Operated Facilities
23.	DOE 5484.1	Environmental Protection, Safety and Health Protection Information Reporting Requirements
24.	DOE 5500.1	Emergency Management System
25.	DOE 5500.2	Emergency Categories, Classes, and Notification Requirements
26.	DOE 5500.3	Planning and Preparedness for Operational Emergencies
27.	DOE 5500.10	Emergency Readiness Assurance Program
28.	DOE 5700.6	Quality Assurance
29.	DOE 5820.2	Radioactive Waste Management
30.	DOE 6430.1	General Design Criteria
32.	DOE N 5480.6	Radiological Control Manual

b. Contractor/Facility-specific documents

1. Facility Safety Documentation
2. Operational Safety Requirements/Technical Specifications
3. Facility Specific Environmental Documentation
4. Contractor ES&H Documentation
5. Contractor Quality Assurance Documentation
6. Contractor Radiation Protection Documentation
7. Contractor Emergency Action Procedures/Documentation
8. Contractor Implementation Plans for DOE Orders
9. Contractor Conduct of Operations Documentation

5.8.5.3 Formal training. The Field Organizations are responsible for ensuring that the Facility Representative receives the training necessary for the position. Frequently, appropriate courses can be found within the DOE complex, other Federal agencies, or from non-government sources within the scientific community. Headquarters, in coordination with the Field Organizations, will develop additional training courses and material to help meet the non-facility-specific Facility Representative training needs. Close collaboration among Field Organizations and Headquarters Line Management is encouraged to minimize development costs for such courses. The following training elements should be addressed in formal training courses:

- a. Environmental laws and regulations, including the Resource Conservation and Recovery Act, Clean Air Act, Clean Water Act, and others as appropriate;
- b. Safety and health laws and regulations, including the Occupational Safety and Health Act;
- c. DOE Conduct of Operations;
- d. DOE Conduct of Maintenance;
- e. Quality Assurance;
- f. Radiation protection;
- g. Fire protection;
- h. Electrical safety;
- i. Industrial hygiene and waste management concerns related to chemical hazards;
- j. Provisions of the governing contract;
- k. Management, Communications, and Interpersonal Skills;
- l. Observation, Assessment, Investigation techniques;
- m. Stop Work Authority and Responsibility;
- n. Occurrence Reporting and Processing Systems; and
- o. Safety Analysis Reports, Technical Safety Requirements and Unreviewed Safety Questions.

5.8.5.4 Training equivalency. Each Field Organization should develop a system for granting equivalency for training requirements on the basis of prior experience or education. Applicable sections of DOE 5480.20 should be used as guidance when determining training equivalency. The Field Organization Manager or his designee should grant equivalency for qualification requirements. Justification should be provided for each equivalency, which will include appropriate support documentation, such as transcripts or certificates of completion.

A copy of the approved equivalency should be maintained in the Facility Representative's Qualification Record.

5.8.6 Examinations. Formal procedures should be developed by the Field Organization for the administration of written and oral examinations. Additional information on examinations is available in DOE-STD-1011-92 and DOE-STD-1009-92.

5.8.6.1 Written examination. Upon satisfactory completion of all Qual-Card requirements, the Facility Representative shall take a written examination. The examination should include only subjects on the Facility Representative's core and facility-specific Qual-Cards.

5.8.6.2 Oral examination. Upon satisfactory completion of the written examination by the Facility Representative candidate, the Field Organization Manager or his designee will convene and chair a Qualification Board for the purpose of conducting an oral examination of the candidate. The composition of the Board will be determined by the Field Organization Manager or designee. Board members should only ask questions identified as learning objectives on the Qualification Cards. Formal guidance for the Qualification Board should be developed by the Field Organization and include: the standards for Qualification, the use of technical advisors by the Board, the questioning procedures or protocol, the voting authorization and procedures, and the Board deliberation and documentation process. The Board may conduct the oral interview as a group or individually. Any questions and answers that result in an oral exam failure should be explicitly documented.

5.8.6.3 Failure of written or oral examinations. Failure to pass a written or oral examination will cause the Facility Representative candidate to go on a special study program designed to strengthen each area of weakness revealed in the examination. The candidate will then be reexamined, with concentration in the weak areas identified. Facility Representative candidates who repeatedly fail examinations, should be reassigned by the Field Organization to a non-Facility Representative position. The final reassignment decision should be made by the Field Organization Manager, who may wish to take any extenuating circumstances into consideration before rendering a decision.

5.8.7 Qualification. Upon completion of all elements of the Qualification Card(s), line management within the Field Organization should review and confirm satisfactory completion of the training requirements and eligibility of the candidate to become a Facility Representative. Qualification is granted by the Field Organization Manager or designee.

5.8.8 Continuing Training. Field Organizations should describe the level of periodic training required to maintain qualification as a Facility Representative. Once the Facility Representative has met the requirements on the Qual-Card, only continuing training is needed. Upon reassignment to a different facility, it is necessary for a Facility Representative to develop an adequate level of knowledge of the newly assigned facility by completing the appropriate facility-specific Qual-Card requirements.

5.8.9 Requalification. Facility Representatives should be required to requalify every three years. DOE Field Organizations will establish the specific requalification training

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designed to update and maintain the qualifications of Facility Representatives. The requalification process should be documented and as a minimum consist of the following:

- a. Items added to the Facility Representative qualification card since the individual originally qualified.
- b. A comprehensive written examination covering new and previous required material.

6. NOTES

This section contains information of a general or explanatory nature that may be helpful, but is not mandatory.

6.1 Intended use. This standard is intended for the use of DOE managers responsible for establishing and maintaining a Facility Representative program at DOE nuclear facilities with the goal of ensuring that the Department's Facility Representatives are selected based on consistently high standards and from the best qualified candidates available, that they receive the training required for them to function effectively, and that their expected duties, responsibilities and authority are well understood and accurately documented. Guidance is provided in the following areas:

- a. Assessing Facility Representative coverage requirements for nuclear facilities,
- b. Defining Facility Representative qualifications,
- c. Defining Facility Representative duties, responsibilities and authorities,
- d. Establishing Facility Representative training requirements,
- e. Establishing Facility Representative training programs, and
- f. Formal examination of Facility Representatives.

6.2 Key word listing.

Facility Representative
Facility Representative coverage
Hazard classification
Line management
Occurrence reporting
Operational activity
Program manager
Qualification
Safety analysis
Self study
Stop work
Training

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CONCLUDING MATERIAL

Review Activities:

<u>DOE</u>	<u>Field Offices</u>
AD	AL
DP	CH
EH	ID
EM	NV
ER	OR
NE	RL
NS	SF
RW	FR

Preparing Activity:

DOE-NE-10

Project Number:

FACR-0007