Department of Energy
Washington, DC 20585

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MEMORANDUM FOR DISTRIBUTION

FROM: STACY CHARBONEAU
ASSOCIATE PRINCIPAL DEPUTY ASSISTANT
SECRETARY FOR FIELD OPERATIONS

SUBJECT: Fiscal Year 2018 Integrated Safety Management System and Quality Assurance Effectiveness Review Declaration

Please submit your Integrated Safety Management System (ISMS) and Quality Assurance (QA) declaration report for fiscal year (FY) 2018, by February 15, 2019, consistent with the attached guidance. Field Managers at Small Sites should arrange for the Environmental Management (EM) Consolidated Business Center support as needed to complete the effectiveness reviews and/or preparation of the ISMS declaration.

Department of Energy (DOE) Order (O) 450.2, CHG 1, *Integrated Safety Management,* and DOE O 414.1D, *Quality Assurance,* provide general guidelines for ISMS and QA review and declaration. For EM organizations, the ISMS/QA declaration should address all five criteria identified in the FY 2018 ISMS and QA Effectiveness Review Declaration Guidance (Attachment).

This year's guidance is focused on the following areas:

- ISMS Effectiveness and ISMS Description;
- Development of meaningful safety Performance Objectives, Measures and Commitments with clear and measurable expected outcomes;
- Field element Operational Awareness, oversight and contractor assurance system(s), modified to improve the focus on Contractor Assurance Systems;
- EM Corporate QA Performance metrics table; and
- Electrical Safety Self-Assessment.

Based on the lessons learned from review of FY 2016 and previous submittals and feedback from the field, the attached FY 2018 ISMS/QA Effectiveness Review Declaration Guidance is intended to allow Field Managers to develop their meaningful, concise declaration based on current performance-based insights.

Please submit your declaration report to Mr. James Hutton, Deputy Assistant Secretary for the Office of Safety, Security, and Quality Assurance, with an electronic copy to Ms. Rochelle Zimmerman at Rochelle.Zimmerman@em.doe.gov.

If you have any questions, please contact Mr. Hutton or Ms. Zimmerman, ISMS Manager, at (240) 474-1296.

Attachment

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Office of Environmental Management
Fiscal Year 2018 Integrated Safety Management System and Quality Assurance Effectiveness Review Declaration Guidance

1.0 Objectives

The Integrated Safety Management System (ISMS) guidance and subsequent integrated ISMS declaration is an important tool in advancing the Office of Environmental Management's (EM) Journey to Excellence and our collective goal for continuous improvement in planning, managing, and executing day-to-day mission activities. The purpose of this document is to ensure a consistent and systematic approach for Department of Energy (DOE) EM field offices to perform annual ISMS and Quality Assurance (QA) effectiveness reviews and prepare a declaration of the status of ISMS and QA implementation using the results of these reviews. Furthermore, the guidance provides criteria for ISMS and QA declaration submittals from field offices.

2.0 Introduction

The ISMS and QA effectiveness reviews are essential elements of ISMS and QA implementation that promote continuous improvement. These effectiveness reviews are expected to be completed using existing programs and processes designed to meet DOE Order (O) 210.2A, *DOE Corporate Operating Experience Program*, DOE O 226.1B, *Implementation of Department of Energy Oversight Policy*, DOE O 414.1D, *Quality Assurance*, and DOE O 450.2 CHG 1, *Integrated Safety Management*. DOE Guide 450.4-1C, *Integrated Safety Management System Guide*, provides additional guideline on ISMS implementation and effectiveness reviews.

DOE effectiveness reviews are to be conducted using Contractor Assurance Systems, self-assessments, line management operational awareness and oversight mechanisms, performance measurement and analysis against established Performance Objectives, Measures, and Commitments (POMC), Operating Experience Program, and other feedback and performance mechanisms. Elements of these reviews are ongoing and should culminate in a review that supports the ISMS summary evaluation. DOE managers will supplement the use of existing mechanisms with targeted ISMS and QA reviews or full ISMS verifications when the DOE manager believes there are indications of serious performance issues related to implementation of ISMS functions or principles. The purpose of these effectiveness reviews is to:

1. Determine the effectiveness of the implementation of the ISMS description and QA Program Quality Assurance Plan (QAP) in supporting the safe conduct of quality work; and

2. Identify weaknesses to focus attention on corrective and improvement actions.

In accordance with DOE O 450.2 CHG 1, DOE field offices must plan and conduct ISMS verifications for new prime contractors and for existing contractors when determined necessary by the DOE managers to ensure continued effectiveness or evaluate corrective actions. Field managers should consider the scope and periodicity of assessment activities by external groups in determining whether a full verification is needed. Tailoring the scope of the verification to focus on areas that have not received recent attention or are known to need verification of improvement actions is a good practice.

Consistent with the EM Corporate QAP, EM-QA-001 Revision 1, June 2012, DOE field offices are required to perform independent assessments of QAP implementation effectiveness with a scope and frequency that is graded and based on the status of prior quality performance and any third-party QAP certification. Once the need, scope, and frequency are identified, ISMS verifications and QA independent assessments should be scheduled as part of the DOE and/or contractor's oversight schedule.

The declaration should address all five criteria discussed in section 3. The declaration should also include any ISMS description updates as discussed in Criterion 1. An update of the DOE ISMS description is not required if no substantial changes are deemed necessary. In such cases, a statement to this effect should be included in the Criterion 1 of the ISMS declaration report.

The EM DOE field offices are responsible for performing and using the results of ISMS and QA effectiveness reviews to prepare a declaration of the status of ISMS implementation, and submit it to EM Headquarters (HQ) by February 15, 2019. As such, the effectiveness reviews and any required ISMS and QA targeted reviews should be planned to meet this deadline. In addition, field managers should provide contractors timely direction on how to support the FY 2018 effectiveness review activities and solicit approval of the FY 2018 POMC.

3.0 Criteria for ISMS and QA Effectiveness Reviews and Declaration

The effectiveness report and declaration provides an opportunity for each field manager to objectively review, analyze, evaluate safety and quality performance, and formally document their assessment of the effectiveness of implementing ISMS at their site(s) including reporting progress against POMC established during the previous year. The declaration serves a critical role to identify opportunities for continuous improvements in execution of EM programs. Declarations must be supported by objective evidence, such as: safety and quality performance metrics and trending data; results from ISMS targeted reviews or verifications, assessments, surveillances, management walkthroughs, event and accident investigations; and documented effectiveness of corrective actions taken to improve deficiencies or adverse safety and/or quality performance.

The field offices should submit declarations to EM HQ based on the results of their effectiveness reviews. The ISMS effectiveness review is primarily meant to be a DOE activity that uses information from existing line oversight processes and the contractor's assurance system. Contractor documents supporting the effectiveness review and

declaration conclusion may be referenced in the declaration submittal, but should not be attached to the submittal. Contractor supporting documentation should be made available upon request if needed for HQ review.

The declaration submittal should address the following five criteria:

Criterion 1: ISMS Effectiveness and Changes Made to the ISMS Description of DOE and Contractor Organizations

a. Discuss the effectiveness of your site's ISMS implementation and the basis for that determination. The basis should include the objective evidence describing significant issues identified through assessment processes, events, or investigations. Also, provide an evaluation of the effectiveness of the corrective actions taken.

b. Whether the ISMS description or the primary implementing processes (e.g., assessment, issues management, work planning processes and procedures, etc.) significantly changed since the last declaration? If so, describe the changes and the effectiveness of these changes. The field office must submit a copy of the most recent update of its ISMS description approved by the DOE field office (if it has been revised since the last declaration submittal) along with the declaration report. (Note: The ISMS description for the contractors approved by the DOE field office should be available on site for ISMS assessment but should not be submitted with the declaration.)

Criterion 2: Safety POMC

DOE Policy 450.4A, *Integrated Safety Management Policy, and* DOE O 450.2 CHG 1, *Integrated Safety Management*, and Department of Energy Acquisition Regulation (DEAR) Clause 48 Code Federal Regulations (CFR) 970.5223-1, establish expectations for DOE environment, safety, and health (ES&H) goals and performance objectives, measures, and commitments to be developed annually. Site-specific ES&H and QA performance measures are established annually to drive performance improvement or maintain excellent performance. Using the guidance for developing POMC discussed in Section 4, address the following attributes:

a. Evaluate and describe the progress towards meeting current FY 2018 POMC and its influence on developing the FY 2019 POMC.

b. Provide the POMC approved by the field manager for the field element (Federal) and DOE approved contractor(s) POMC(s) for FY 2018. These FY 2018 POMC must include:

    1) POMC to improve or enhance work planning and control performance. Work planning and control consists of many processes and elements such as planning, hazards analysis and implementation of hazard

controls, and coordination with other work activities occurring in the workspace, effective supervision, conduct of operations, and oversight of these elements.

2) Occupational injury and illness rate goals (Total Recordable Case (TRC) and Days Away from Work, Restricted Work or Transfer (DART) Case Rates designed to improve upon current site/contractor injury prevention performance improvement with the EM-wide rate goals of 1.1 for TRC and 0.6 for DART Case Rates used as benchmarks.

3) Indicators to attain and sustain a strong safety culture posture.

c. Tables of the last field element POMC results and DOE field element FY 2018 POMCs.

Criterion 3: Operational Awareness, Oversight and Contractor Assurance System(s)

DOE Order 226.1B, Implementing Department of Energy Oversight Policy, contains DOE's requirements for contractor assurance systems (CAS) via the Order's Contractor Requirements Document, and also contains expectations for the timeliness and effectiveness of field office line management oversight and operational awareness of potential project specific safety and quality issues. Contractor oversight, as performed by the contractor's CAS and by DOE's field office line management, are critical to prevent and minimize risks to executing the EM mission within agreed upon cost and schedule. DOE field office line management oversight should assess the quality of the CAS work products, leverage CAS insights, and maintain awareness of actual work performance in order to evaluate effectiveness of the CAS and overall contractor performance.

Key opportunities for improving field office line management oversight and operational awareness are: 1) periodic evaluation of the quality and effectiveness of CAS' self-assessment, feedback and improvement initiatives; 2) use of technically consistent and documented Criteria Review and Approach Documents to evaluate contractor performance (including services and products provided by subcontractors, fabricators, and suppliers); 3) persistent senior management follow-up to ensure the effectiveness of the issues management process including timely completion of corrective action plan commitments; and 4) use of technically qualified staff to conduct the oversight and performance analyses.

Using DOE O 226.1B and DOE O 450.2 CHG 1 as benchmarks, describe:

How the field office validates the CAS' effectiveness and utilizes CAS output and other information to ensure effective contractor oversight? Specifically, delineate expectations of facility representatives, system safety oversight and subject matter experts' staff, and their management, in evaluating the safety of contractor work

performance. Also, include the means by which the field office evaluates the effectiveness of its own oversight.

Criterion 4: EM Corporate QA Performance Metrics Table

Complete the EM Corporate QA Performance metrics table for the Federal field office and prime contractors and submit electronically to Mr. Robert Murray, EM-3113 Office Director at "robert.murray@em.doe.gov". These tables can be found online at http://energy.gov/em/services/program-management/office-standards-quality-assurance. Scroll to the bottom of the page and select Annual QA Declaration Metrics Table. When the new page opens, select EM Corporate QA Performance Metrics. If this link fails to work, please contact Robert Murray at (202) 586-7267 or robert.murray@em.doe.gov.

Instructions for completing the QA Performance metrics table are provided in Section 5 of this guidance.

Criterion 5: Electrical Safety Self-Assessment

Electrical safety has been, and continues to be, an area of emphasis as a result of the significant potential adverse consequences associated with electrical events. EM recently performed a review of ORPS reported electrical events that have occurred at EM sites over the past two years. This review was promulgated due to electrical events continuing to generate a significant percentage of ORPS events, and due to legitimate safety concerns created by these events. Although the review identified several common causes related to a number of these, the ORPS review itself does not provide the suite of data needed to effectively monitor improvements in overall electrical safety. The data requested below will satisfy the immediate data needs and also validate ongoing and planned actions in the area of electrical safety.

1. Training: A significant percentage of electrical events identified shortcomings with Lockout/Tagout (LOTO) training as a contributing causes. Verify that initial and refresher LOTO training possesses the necessary rigor and includes all of the following topical areas:

    a. Defines energy isolation devices comprehensively.
    b. Identifies the full suite of isolation devices used at the site and has a process to ensure training is updated when new isolation devices are procured.
    c. Identifies arc flash PPE requirements for opening power panels.
    d. Describes the methods and responsibilities for locating underground services prior to excavating.
    e. Identifies the requirements and methods for conducting thorough LOTO walk down reviews.
    f. Clearly states the requirements for hanging an Authorized Worker Lock.

g. Describes the hazards of multi-branch circuits and other neutral hazards and approaches to address them.
h. Clearly states when can a LOTO lock be removed?

2. Electrical LOTO performance: While ORPS can provide detailed data on events associated with LOTO, it does not provide, nor is it intended to provide, evidence of the effectiveness of LOTO programs. In order to determine whether various aspects of electrical safety are improving it is necessary to determine the number of electrical LOTOs performed and compare that to the number of LOTO related issues or events. Tracking this data will provide statistical measures of program effectiveness and trends. The following data is requested:

   a. The total number of electrical LOTOs performed, per quarter.
   b. The number of electrical LOTOs associated with ORPS events.
   c. A list of specific actions taken to improve electrical LOTO performance since the last ISMS Declaration.

3. Electrical Safe-to Work Checks: These actions are essential to electrical safety, but in order to be effective they must be performed consistently and rigorously. In addition, when unexpected electrical sources are identified it is essential that the response to these conditions are responded to appropriately, with the necessary feedback being provided to prevent a future recurrence. Provide verification that the following actions are required and performed:

   a. When Safe-to-Work checks find unexpected energy, actions are taken to establish a safe condition prior in accordance with the LOTO program, and actions are initiated to determine the cause behind the initial failure to identify the source of energy (e.g., inadequate review of drawing, inadequate walk-down, etc.)
   b. When unexpected energy is encountered the source is identified and documented for future work; Job Planners are notified of the unexpected energy; a new LOTO is initiated and approved; plant service drawings are updated to reflect the unexpected power source, etc..

4. Subcontractors: During the EM review of ORPS events it was noted that a significant percentage of electrical events involved subcontractors. Review the ORPS events at your site involving subcontractors and electrical work, and identify frequency of occurrence and the actions that have been taken to improve performance in this area (i.e., reduce the frequency of subcontractor related electrical ORPS events). If identified actions have been completed to improve performance in this area, provide the relevant trending data.

4.0 Guidance on Development and DOE Approval of POMC

Each year, field elements managers establish their POMCs and approve contractor-developed POMC for tracking and reporting. The purpose of POMC is to:

1) Establish specific objectives/goals and commitments for key improvement initiatives and safety performance metrics.
2) Provide performance benchmarks.
3) Provide quantitative feedback and comparative analysis.

DOE Policy (P) 450.4A, Integrated Safety Management Policy, and DOE O 450.2 CHG 1, Integrated Safety Management, and DEAR Clause 48 CFR 970.5223-1, establish expectations for DOE ES&H goals and POMC to be developed annually. Site-specific ES&H and QA performance measures are established annually to drive performance improvement or maintain excellent performance. As noted in Goal 1 of the Journey to Excellence, EM's ultimate ES&H goal is zero accidents, incidents, and defects, and to improve the EM complex-wide safety culture. QA performance goals are established and maintained in the EM Corporate QAP. The ES&H and QA goals are expected to drive performance excellence, thereby reducing or precluding other work-related injuries and illnesses and adverse impacts to the public and environment.

The annual ES&H safety goals and metrics, as required by DOE O 450.2 CHG 1, must be fully integrated with the ISMS POMC. Quality goals and metrics established by both HQ and field elements must also be fully integrated with the QA POMC as established in the EM Corporate QAP.

The following process for developing FY 2019 EM Field Federal and DOE-approved contractor POMC is recommended:

1) Field offices provide EM HQ guidance, supplemented by field element guidance and direction to its contractors and solicit their site-specific POMCs.
2) Field offices develop their site-specific POMC as noted under item b of Criterion 2.
3) Field offices provide direction to their contractors on contract-specific ISMS and QA POMC. In this direction, field element managers may establish a minimum set of site-wide objectives to flow down to contractors to be supplemented by contractor-specific commitments and measures.
4) Contractors submit their contract-specific ISMS and QA POMC to the DOE field office for approval.
5) Field element managers will ensure Federal and contractor-developed POMC are clear, specific and measurable. Commitments need to have clarifying expectations for the deliverable, due date, and expected outcome from the commitment prior to approval.
6) Field elements submit their Federal and DOE-approved contractor developed POMC as part of their EM FY 2018 ISMS/QA declaration submittal.

5.0 Instructions for completing the QA Performance Metrics Table

1. Be sure to use the correct version. Always download the blank forms from the indicated webpage as they change slightly from time to time. Contact Headquarters if assistance is needed.

2. Please use a computer having compatible software with the stoplight color charts. Charts rendered in grayscale text are difficult to read or interpret. No one needs an incorrect score.
3. Submit a separate set of forms for the field office and for each prime contractor. Please do not submit a declaration combining the results for all organizations.

4. The purpose of the Basis column is to explain why the office believes it performs at the indicated level. If there is a change from the performance level of the previous declaration, include a sentence or two describing the reason for the change. This need not be lengthy.

5. If an office does not perform an activity, say so. Please do not leave the section blank with no explanation.

6. Please ensure that the declaration is consistent with what can be obtained from other sources. Information in the declaration will be compared to audit results, assist visits, personal interviews, and the like.

7. As QA professionals we should strive to minimize the use of information based on subjective input. All of this objective data should already be collected and, therefore, readily available from other sources within your organization. Please provide the following:

    a. Number of self-assessments performed versus the number of self-assessments planned;
    b. Average age of corrective actions (the interest is in whether the age is increasing or decreasing, not the actual number);
    c. Number of training or required reading delinquencies; and
    d. Lessons Learned, absolute number and whether increasing or decreasing.

6.0 ISMS Effectiveness Review and Declaration Report

Include a declarative statement such as "ISMS has or has not been implemented and effective at ensuring safety and quality performance or effective but needing improvement." Include an executive summary of the effectiveness review results along with any objective evidence that supports the field manager's declaration for the field element and each contractor. The declaration report must address all five

criteria. If a criterion is not applicable, it should be stated in the declaration with a brief explanation stating the reasons for any criterion not being applicable.

7.0 Contacts

Al Baione, Acting Director, EM Office of Safety Management (EM-3.111), (301) 903-9953, al.baione@em.doe.gov

Rochelle Zimmerman, ISMS Manager (EM-3.111), (240) 474-1296, Rochelle.zimmerman@em.doe.gov

8.0 References

DEAR Clause 970.5223-1, Integration of Environment, Safety, and Health into Work Planning and Execution

DEAR Clause 970.5204-2, Laws, Regulations, and DOE Directives

DOE O 210.2A, DOE Corporate Operating Experience Program

DOE O 226.1B, Implementation of Department of Energy Oversight Policy

DOE P 226.1B, Department of Energy Oversight Policy

DOE O 232.2A, Occurrence Reporting and Processing of Operations Information

DOE O 232.3B, CHG 2, Program and Project Management for the Acquisition of Capital Assets

DOE G 414.1-1C, Management and Independent Assessments Guide

DOE O 414.1D, Quality Assurance

DOE O 442.1A, Department of Energy Employee Concerns Program

DOE O 442.2 CHG 1, Differing Professional Opinions for Technical Issues Involving Environment, Safety, and Health

DOE O 450.2 CHG 1, Integrated Safety Management

DOE P 450.4A, Integrated Safety Management Policy

DOE G 450.4-1C, Integrated Safety Management System Guide

DOE-HDBK-3027-99, Integrated Safety Management Systems (ISMS) Verification Team Leader's Handbook

DOE-STD-1189-2008, Integration of Safety into the Design Process

EM Corporate Quality Assurance Program, EM-QA-001 Rev. 1, June 2012

EM Protocol/Field Self-Assessment of Site-Specific QAP/QIP, February 2010

Energy Facility Contractor Group Work Planning and Control Program Guideline Document, May 18, 2012 (http://www.efcog.org/guides/EFCOG_WPC_Guideline_Revision_0_2012-0001_May_18_2012.pdf)