Safety and Occupational Health (SOH) Program Evaluation

Department of Interior

Office of Surface Mining, Reclamation, and Enforcement

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Scope and Limitations of the Department of the Interior’s Safety and Occupational Health Program Evaluation for the Office of Surface Mining, Reclamation, and Enforcement

A Department of the Interior (DOI) Safety and Occupational Health (SOH) Program evaluation was conducted for the Office of Surface Mining, Reclamation, and Enforcement (OSM). The OSM headquarters level Safety and Health Program was the focus of the SOH evaluation. Information was gathered at the headquarters, regional, and area offices to gauge the effectiveness of the OSM’s SOH Program, and all information was combined for the OSM headquarters level report.

The scope of the evaluation was limited to a small sample of OSM offices selected by the OSM bureau safety manager. These offices included the OSM headquarters in Washington, D.C.; the Pittsburgh, PA. regional office; the Lexington, KY. field office; and the associated London, KY. office. With multiple regional offices and area offices, the SOH evaluation included a limited sample of OSM field operations. The results of this report should be viewed in the perspective of the small sample evaluated. Overall results could vary if an alternate sample of OSM offices and operations were to be evaluated.

The Handbook to Guide Completion of the Safety and Occupational Health Program Evaluation Tool (referred to as “Handbook”) and the SOH evaluation protocol were used as guidance to perform this evaluation. In accordance with the Handbook, the SOH evaluation focused on programmatic issues and was not intended to represent a worksite occupational safety and health inspection. Worksite walkthroughs were conducted only for the purpose of evaluating implementation status of the SOH Program. Any findings from these worksite walkthroughs were provided verbally to site personnel or informally in written submittals when requested.
1.0 Executive Summary

The DOI’s Office of Occupational Safety and Health (OSH), with support from Federal Occupational Health (FOH), conducted a SOH evaluation for OSM in January and February of 2011. This evaluation was intended to determine the effectiveness of OSM’s SOH Program. The results of this are presented in this report. The SOH evaluation focused on six main components essential for an effective safety and health program:

1) Management and leadership
2) Employee involvement
3) Hazard recognition and prevention
4) Evaluation and analysis
5) Training and awareness
6) Program implementation and operation.

At the OSM headquarters level, senior management and leadership for the SOH Program is not clearly evident. This evaluation noted that OSM senior management relies on the bureau safety manager to drive program goals, expectations, and initiatives and senior management has not provided the necessary resources or leadership to ensure the effective implementation of the SOH Program. OSM does not have a senior management appointed as the Designated Agency Safety and Health Official (DASHO) and collateral duties assigned to the bureau safety manager have detracted him from his safety responsibilities. OSM assigned their bureau safety manager the duties of chief of administration while that position was vacant and in the process of being filled, keeping him away from his normal duties. At the regional level, management leadership and engagement is much more evident. Regional management has ensured that various aspects of the SOH Program have been implemented such as worksite walkthrough inspections, but other important requirements of the OSM Directives System, ASD-2 have not been implemented, measured, or verified. The tepid performance and lack of leadership of OSM’s senior management in implementing and providing resources to the bureau’s Program was a definitive weakness noted in this evaluation.

Employee involvement in the SOH Program includes worker participation in safety committees at some offices, worksite walkthroughs, corrections of deficiencies, and scheduled safety activities such as safety week and office clean-up days. OSM’s designated Collateral Duty Safety Officers (CDSOs) provide annual and biannual training to employees, primarily to office personnel in the regional and field offices. This evaluation discovered that safety is not being driven by the bureau’s formal safety management process but is being implemented and disseminated through the knowledge gained by personal initiative and individual experiences.

Hazard recognition and prevention in office areas is accomplished through worksite inspections. Although improvement opportunities exist, worksite inspections are actively performed in the OSM offices evaluated, and deficiencies are corrected. OSM does not have a formal system for hazard identification, evaluation, and control for the more hazardous work it conducts in the field (i.e., at mining and reclamation sites). Job hazard analysis (JHA), written safe work practices, or comparable processes are not in place, even though they are required by OSM Directives System, ASD-2. Instead, OSM relies upon the individual experience of inspectors, scientists, and other personnel who perform field work. This deficiency represents a particular “Weakness”
of the OSM SOH Program. OSM has some procedures in place, including JHAs in template form, but these procedures do not afford effective hazard analysis and control.

OSM performs only a limited amount of oversight for the evaluation and analysis of SOH Program implementation at its regional and area offices. An oversight program is important to measure performance relative to management’s safety directives, safety policy, safety value, and other performance expectations. It is also important to identify and correct inconsistencies and gaps in implementation, such as those noted in this report. The requirements of the OSM Directives System, ASD-2 are not yet fully implemented and OSM accident and injury recordkeeping and the associated investigations do not meet OSHA requirements.

OSM provides and documents safety and health training and awareness. However, the training regimen is essentially the same training every year. Training is not always based on an informed analysis of job requirements, operations, activities, and associated hazards to ensure that appropriate training is provided. OSM does not maintain documentation of training course content; therefore, OSM cannot document and verify what information is provided in the training. DOI LEARN is used to document employee training, but the system is not capable of tracking and verifying necessary training. Various OSM organizations use self-designed documentation systems to compensate for DOI LEARN limitations. Some specific OSHA-required training such as hazard communication training is not being provided. CDSOs are not being instructed correctly in the technical requirements that could make them more effective in conducting their safety duties. One observed strength in their training program is the formal mentoring/training regimen provided to newly hired inspectors who work at mines and reclamation sites. This results in formally documented authorization to conduct inspections independently.

To define safety and health program implementation and operation requirements, OSM has developed an OSM Directives System, ASD-2, along with some specific procedures. Although partially implemented, several key aspects of the Directives System are either not implemented (e.g., job safety analyses and hazard communication) or are not consistent with OSHA requirements (e.g., injury and illness reporting).

Overall, this evaluation discovered that OSM has active safety and health initiatives, but finds that safety measures are driven by personal initiative rather than a formal and required process. Gaps and inconsistencies in the SOH Program’s implementation are evident. Efforts to improve and implement directives and requirements, verify implementation, measure performance, and improve training to ensure a complete understanding of requirements are essential for improvement of OSM’s SOH Program.

2.0 Background and Purpose of the Safety and Occupational Health Evaluation Program

In order to meet the requirements of the Occupational Safety and Health Act of 1970, Executive Order 12196, and 29 CFR 1960, DOI is conducting SOH Program evaluations at its bureaus and offices. These are independent evaluations conducted by the DOI’s Office of Occupational Safety and Health. To ensure effective evaluations, DOI conducted a pilot evaluation in 2010 to evaluate the SOH Program at the Bureau of Reclamation, and applied the experience and lessons learned from the pilot to refine and perform the OSM evaluation. DOI obtained the support of FOH to conduct these evaluations.
An SOH evaluation protocol established the approach used to conduct OSM’s evaluation. This SOH evaluation protocol provided the necessary detail to conduct this evaluation along with the Department’s Handbook.

This report presents the results on the evaluation of OSM’s SOH Program. This evaluation reviewed the status of the OSM SOH Program implemented and managed at the bureau level. This evaluation included site visits to regional and area offices, but only for purposes of evaluating the bureau-wide SOH Program implementation. The primary objective of this SOH evaluation is to evaluate the status, strength and weaknesses of OSM’s Program with respect to its development, availability, completeness, implementation, and effectiveness.

The Handbook and the evaluation protocol were used as guidance to perform this evaluation.

3.0 Approach to the SOH Evaluation

The evaluation of OSM’s SOH Program commenced with an evaluation of on-site activities which occurred between January 18 and February 10, 2011. OSM offices visited during the evaluation included: OSM headquarters in Washington, D.C.; the Pittsburgh, PA. regional office; the Lexington, KY field office; and the London, KY field office (associated with Lexington). Evaluation activities at each office were preceded by an in-briefing and concluded with an out-briefing provided to office management. OSM personnel were given the opportunity for factual accuracy review and comment regarding evaluation results.

The evaluation focused on the effectiveness of the OSM Safety and Health Program implementation at the headquarters level. Regional and area offices were visited only for the purposes of evaluating implementation and application of the overall OSM Program.

The SOH evaluation was conducted using the guidance found in the evaluation protocol and Handbook. The SOH Evaluation Team conducted personnel interviews, document and records reviews, field walkthroughs, and observations to form the basis for its evaluation results. Upon completion of site activities, the SOH Evaluation Team developed conclusions, observations, and vulnerabilities that were reviewed by DOI OSH and OSM and that are presented in this report.

4.0 SOH Evaluation Results

This section presents the results of the OSM SOH evaluation. The results are organized by the six main “components” found in the Handbook. These components along with subordinate elements are shown in Table 1. The subordinate elements provide descriptions of the topics addressed in the evaluation for each component; however, the results of the evaluation are not intended to address each element individually.

For each component, one or more conclusions are presented that capture key evaluation results. Each conclusion is followed by a number of supporting observations and discoveries that form the basis for the conclusion. Conclusions, supporting observations and discoveries can indicate either an effective aspect of the SOH Program or an aspect that requires attention.
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### 4.1 Results by Component

Results for each of the six components shown in Table 1 are presented below.
4.1.1 Component 1: Leadership and Management

Conclusion 1-1: OSM senior management and the bureau’s safety manager have established various SOH directives, policy, procedures, and annual safety goals. Management at all office levels has assigned CDSOs and implemented certain SOH processes, such as identification and correction of safety issues through walkthrough inspections. However, several key deficiencies which limit the effectiveness of the SOH Program are apparent in the Program’s documentation, implementation, and verification.

Supporting Observations and Findings for Conclusion 1-1:

- Management has established Directives System ASD-2, Safety and Occupational Health Program to “set forth policy for the implementation and administration of an effective Safety and Occupational Health Program…” However, management has not ensured that the requirements of this document have been fully implemented. See Conclusions 3-2 and 6-1 for examples of implementation shortcomings.

- In section 4.0 of the Directives System, management has included a policy statement for the SOH Program. The policy statement, however, does not clearly establish, at the highest levels, that worker safety and health are key organizational values.¹

- The SOH manager has prepared annual goals for the SOH Program, but many of these goals are repeated year to year and several important goals are not adequately addressed. As described below, budget and collateral duty assignments contribute to limitations in addressing key program elements and annual goals. Annual goals are revisited by the SOH manager in light of budget and travel constraints.

- Management needs to establish a SOH budget and integrate it into its operational budget with the goal of achieving all OSM directives and the annual safety goals. Currently, the budget required to meet safety program requirements competes with the budget for mission requirements. The lack of an SOH travel and training budget (as examples) limits the amount of support, personal development, and oversight that the bureau’s safety manager can provide to regional and area offices and also limits the resources that office managers have to measure and improve safety performance.²

¹Management should establish policy consistent with OSHA requirements and guidance that include the following: “State clearly a worksite policy on safe and healthful work and working conditions, so that all personnel with responsibility at the site and personnel at other locations with responsibility for the site understand the priority of safety and health protection in relation to other organizational values.” 29 CFR 1960. “A statement of policy is the foundation of safety and health management. It communicates the value in which safety and health protection is held in the business organization. If it is absorbed by all in the organization, it becomes the basic point of reference for all decisions affecting safety and health. It also becomes the criterion by which the adequacy of protective actions is measured.” www.OSHA.gov. Also see Handbook Component 1, Leadership and Management; Element (v), Policy for information on the development and evaluation of safety policy.

²Generally an attribute of an effective safety program is the integration of safety with operations (i.e., the mission); thereby, creating a “line management safety program” or what some refer to as “integrated safety management”. When properly implemented, this approach ensures that safety is integral to the conduct of work, ensures that mission requirements are not in conflict with safety, and ensures that both are conducted in a unified manner without considering each as separate or competing functions.
Management has assigned the SOH manager certain collateral duties that detract from the time available to support, verify, and improve SOH Program implementation at headquarters, regional, and area offices.

Management needs to establish a professional development program for key personnel involved in the SOH Program such as the bureau’s safety manager and CDSOs.

Management has established CDSO assignments and now needs to ensure that sufficient training to afford the CDSOs the necessary knowledge and understanding to fulfill their responsibilities and assignments is available (also see Conclusion 5-3).

Management needs to establish a clear stop work policy in the Directives System and in practice. ³

Management has established facility walkthrough inspections, but still needs to establish adequate levels of hazard recognition training for CDSOs, safety committee members, supervisors, and others to ensure that hazards are identified and corrected. OSM has implemented the Departmental Risk Assessment codes in ASD-2 that will assist in hazard recognition and processing.

**Conclusion 1-2: Management leadership for the SOH Program has not been adequately established at the headquarters level. Management leadership is more apparent at the regional and area levels. The SOH Program is implemented in large part through individual initiative rather than senior management direction that demonstrates visible and clear leadership for the safety program.**

**Supporting Observations and Findings for Conclusion 1-2:**

- OSM currently does not have a DASHO, and senior management emphasizes that the bureau’s safety manager is responsible for the SOH Program even when a DASHO is assigned. Line management responsibilities for safety from the senior management ranks through the remaining levels of management have not been formally established.

- The bureau’s safety manager reports to a finance and administration function rather than a senior line management function.

³OSM personnel interviewed are unclear of their stop work authority or even what the term “stop work” means (e.g., permanently stopping work versus, stopping/suspending work until a hazardous condition is mitigated). Even for “imminent” danger, personnel described a lengthy process to address the situation rather than an immediate stop work process. Directives System ASD-2 describes reports that employees “may” make for imminent danger followed by “immediate” investigations by the CDSO or Safety Manager, but it does not describe stopping work immediately pending completion of such investigations. Management should clearly establish and communicate stop work policy (and suspension of work policy) that includes: the obligation, responsibility, and authority to stop work; those authorized to do so (usually any employee); the conditions that warrant stoppage of work; and the process for stopping and restarting work.
Regional and area office managers, CDSOs, line managers/supervisors, and staff are implementing safety measures based on their personal experience and initiative rather than using formal program process founded in senior management leadership, values, and expectations. See Conclusion 3-2 as an example.

Also see observations and findings under Conclusion 1-1, above for further support of Conclusion 1-2.

4.1.2 Component 2: Employee Involvement

Conclusion 2-1: OSM encourages and achieves employee involvement in the SOH Program and safety-related functions; however, improvement opportunities exist.

Supporting Observations and Findings for Conclusion 2-1:

- OSM has established safety committees with employee involvement at some but not all offices. OSM headquarters, for instance, does not have a safety committee. The OSM Directives System, ASD-2 requires an SOH committee at headquarters and regional offices.⁴
- OSM involves employees in SOH inspection walkthroughs, clean-up days, safety week, and awareness/reporting activities.
- Inspectors and scientists apply safety measures in field activities based on their personal experience and knowledge rather than participation in a job hazard analysis, safe work practice, or comparable and documented process (also see Conclusion 3-2).
- In general, OSM employees did demonstrate an interest in safety-related matters.

4.1.3 Component 3: Hazard Recognition and Prevention

Conclusion 3-1: OSM has established worksite inspections of office and related areas to identify and correct hazards associated with these work areas. Inspections are actively conducted, although improvement opportunities exist.⁵

Supporting Observations and Findings for Conclusion 3-1:

- OSM conducts annual worksite safety inspections of office spaces and related areas. Various types of hazards are identified and then corrected.

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⁴ See Directives System ASD-2, Section 5.c.

⁵ Opportunities for improving these inspections include: training in hazard recognition and OSHA standards, particularly for CDSOs, safety committee members, and supervisors; having employees not only self-inspect their own areas, but also cross-inspect other employee areas; ensuring that workers in the area are responsible for correcting deficiencies.
• CDSOs and/or safety committee members often conduct or participate in these worksite inspections. Capabilities and training of personnel to effectively conduct worksite inspections vary. The SOH evaluation team identified a variety of deficiencies that were not recognized during the annual inspections.

• Clean-up days are scheduled to address office safety issues.

Conclusion 3-2: OSM needs to develop job hazard/safety analysis (JHAs/JSAs), safe work practices, or comparable processes for the identification and control of hazards for more hazardous activities. The lack of JHA/JSA implementation is contrary to OSM Directives System ASD-2. This deficiency represents a particular “Weakness” (see Section 5.0).

Supporting Observations and Findings for Conclusion 3-2:

• OSM Directives System ASD-2, Section 6.c., requires JSAs that identify tasks, hazards, and safe work procedures. OSM has not implemented this mandatory process for jobs or work practices that have potential hazards (e.g., field inspections or technical/scientific support at mining, reclamation, and construction sites). Instead, OSM relies on the personal knowledge and initiatives of a well-experienced field staff and mid-level line management.  

• All field personnel interviewed appear to be very knowledgeable on identifying workplace hazards and taking the necessary precautions in the performance of their duties. However, the turnover rate for veteran and experienced OSM personnel is starting to become an issue for the bureau especially from retirements, and this situation is expected to accelerate in the near future. Without a formal JHA/JSA process for hazard identification, analysis, and control as required by OSM directives, OSM cannot assure that safe work practices are being integrated into field work, particularly when many experienced personnel are leaving the bureau.

4.1.4 Component 4: Evaluation and Analysis

Conclusion 4-1: OSM needs to expand their SOH Program oversight, and establish an effective oversight program to ensure implementation of the SOH Program and OSM Directives System, and to ensure a safe and healthful work environment and OSHA compliance.  

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6One of the more hazardous work activities conducted at mine sites has been the emergency program that involves construction activities at abandoned mine sites. JSAs and JHAs are also not been conducted for these activities. OSM plans to discontinue this emergency program and transfer the responsibility to the States. However, should OSM continue this type of work, JSAs/JHAs and safe work practices are important to ensure safe conduct of work. OSM personnel described past activities during this type of work that were not properly controlled and that placed employees at risk.

7Handbook Component 4, Evaluation and Analysis; Element (i) Program Evaluations and Assessments addresses the need to conduct an internal occupational safety and health oversight program to measure the effectiveness of SOH Program implementation and to ensure a safe and healthful work environment. The oversight program would serve to measure program effectiveness, identify any gaps or inconsistencies in program implementation, and ensure consistent safety performance relative to OSM safety directives and policy, as well as OSHA requirements.
Supporting Observations and Findings for Conclusion 4-1:

- OSM annual goals for 2009, 2010, and 2011 ask for conducting SOH oversight evaluations at regional and field offices (three evaluations were called for in 2009 and 2010 for instance). However, only one evaluation has been conducted during this period, and it was limited in scope and did not identify many of the deficiencies found during this evaluation.

- OSM cited budget limitations, such as a very small SOH travel budget for limiting the outreach of their safety program. Such limitations prevent the SOH Program from conducting evaluations and oversight at distant operational locations.

- OSM needs to formally establish an internal SOH oversight process/program. OSM also needs to formally evaluate the status of SOH Program implementation versus the requirements of the OSM directives system and procedures. Lacking oversight information, OSM has not fully identified and corrected deficiencies in SOH Program implementation which contributed to the deficiencies found during this evaluation.8

Conclusion 4-2: OSM accident and injury recordkeeping does not meet OSHA requirements, and the personnel responsible are not aware of the requirements.

Supporting Observations and Findings for Conclusion 4-2:

- The OSM safety manager maintains records of accidents and injuries at the OSM headquarters level; however, every OSM office, regional and field, is required to maintain such records, or have access to records centrally kept within four hours, and OSM has not consistently verified or implemented this requirement. The OSHA 300, Log of Work-Related Injuries and Illnesses is not maintained at all offices and the OSHA 300-A, Summary of Work-Related Injuries and Illnesses is not maintained or posted at all offices.

- OSM’s Accident Reporting Procedures (2002) are not current and in accordance with OSHA requirements and does not provide sufficient detail and guidance to ensure that OSM personnel are accurately performing accident and injury recordkeeping. These reporting inaccuracies lead to content deficiencies in the required reporting documentation.9 OSM personnel interviewed who are responsible for accident and illness

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8 A key management system related to oversight is a formal deficiency tracking system to ensure the tracking and closure of SOH deficiencies. OSM should apply such a program to support any oversight activities.

9 These recording criteria are commonly referenced as DART information, 29 CFR 1904, general recording criteria (death, days away from work, restricted work or transfer to another job, medical treatment beyond first aid, loss of consciousness, and significant injury or illness diagnosed by a physician or other licensed health care professional). In addition to improving OSM procedures, additional and detailed personnel training in 29 CFR 1904 requirements regarding recordkeeping, recordable events, medical treatment, etc. would improve the quality and reliability of the OSM accident recordkeeping, analysis, and prevention process.
recordkeeping are not aware of proper recording criteria. Based on these shortcomings, OSM cannot assure that illness and injury records are accurate. It should also be noted that it has been OSM’s procedure to forward all incident reports to the headquarters office for processing. This procedure has been recently changed and the Safety Management Information System (SMIS) entrees are now the responsibility of regional OSM safety officials.

4.1.5 Component 5: Training and Awareness

Conclusion 5-1: OSM actively provides and documents safety and health training for various types of safety programs and hazards. However, the training course content needs to be refreshed and course content needs to be documented.

- OSM lists safety-related training requirements and documents of what type of training is provided. However, the same training regimen is repeated annually, which results in a stale training program.

- OSM needs to document or have available the content of training courses currently provided.

- OSM needs to have a complete baseline hazard analyses by organization, office, and/or job position to determine a training regime based on hazard, risk, and job requirements. It cannot assure that training is properly selected, or fully demonstrate the basis for providing selected training.\(^{10}\)

- Training records are entered and maintained in DOI LEARN. This system is not useful for identifying and assuring that training requirements for DOI (and therefore OSM) employees are achieved. For instance, the system does not provide notifications and alerts as to when training is required or if it was provided. It is not designed to ensure training is provided as required.\(^{11}\)

- To compensate for DOI LEARN limitations, various OSM organizations use a self-designed system (e.g., a table, spread sheet, or matrix in some cases) to identify and ensure training by employee or position.

Conclusion 5-2: Several key aspects of the training program are not adequately implemented to ensure hazard awareness and implementation of control measures.

- Hazard communication training, which is fundamental to hazard awareness and control, is not adequately implemented throughout OSM.\(^{12}\)

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\(^{10}\) As examples, OSM has not determined the extent that training in hazard communication, hazardous waste operations and emergency response, and hearing conservation should be provided to various employees who may be exposed or encounter conditions that require such training.

\(^{11}\) DOI LEARN is a DOI-wide system for documenting employee training. Corrective actions or improvements for this system are DOI responsibility, rather than OSM.

\(^{12}\) For the OSM offices evaluated, chemicals are stored and used in small quantities. Nevertheless, a written hazard communication program and associated training is required by 29 CFR 1910.1200 and OSM Directives System, ASD-2. Hazard communication training can contain general
Conclusion 5-3: The CDSO Program is established throughout OSM. CDSOs receive some safety and OSHA related training, however OSM has not established a minimum training regimen for CDSOs (e.g., hazard recognition, OSHA standards, etc.) in a manner that ensures adequate information and knowledge to implement specific CDSO duties.

CDSOs interviewed have received OSHA 6000 training that provides a basic background in OSHA standards and requirements.

OSM does not ensure that all CDSOs have adequate training to be capable of properly carrying out key responsibilities assigned. For instance, CDSOs do not understand the basic requirements for reporting and recordkeeping involved with accidents and illnesses.

OSM holds an annual training conference which provides some training for all CDSOs.

OSM has not established guidance or requirements for a CDSO training regimen commensurate with CDSO responsibilities for worksite analysis and hazard identification and correction, accident and illness reporting, and others.  

Conclusion 5-4: OSM conducts a nine-month mentoring and training program for new inspectors engaged in surface mining and reclamation field inspection activities. This mentoring and training program for new inspectors is definitely one of the strengths of the OSM training and personal development processes (see Section 5.0).

Supporting Observations and Findings for Conclusion 5-4:

Newly hired inspectors for surface mining and reclamation activities are provided a formal nine-month training and mentoring process to equip the inspectors with the knowledge on how to perform their inspection duties and work safely in the process.

OSM training regimen should be based on the responsibilities, type of workplace, and nature of hazards (i.e., an office environment would likely need a different level of training than would a heavy industrial environment). OSM should establish guidance or requirements for minimum CDSO training in OSHA standards and hazard recognition based on these factors. Courses to consider are OSHA 511, OSHA Standards for General Industry and OSHA 501, Trainer Course in OSHA Standards for General Industry. Once trainer courses have been taken, CDSOs should be better able to train other employees such as supervisors and safety committee members. Comparable courses for construction are OSHA 510 and 500. OSM should also provide CDSOs with a complete list of responsibilities and the information necessary to carry out those responsibilities. A CDSO orientation and learning kit may prove useful.

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This mentoring and training regimen is fully documented and results in inspectors being formally “authorized” to perform inspections independently.

During this period, new inspectors are accompanied in the field by seasoned and experienced inspectors at all times.

4.1.6 Component 6: Program Implementation and Operation

Conclusion 6-1: OSM has established written directives and policy for the overall safety and health program, but the requirements of OSM Directives System ASD-2 have not been fully implemented.

- Requirements for JHAs, safety committees, injury and illness recordkeeping, hazard recognition/OSHA training, hazard communication and other aspects of the occupational health (industrial hygiene) program have either not been implemented or not been fully implemented.

Conclusion 6-2: OSM has not fully evaluated and determined the applicability of various specific OSHA standards and has not ensured their proper implementation in all cases.

- OSM accident reporting and recordkeeping needs to be conducted consistently with the requirements of 29 CFR 1904. See Conclusion 4-1 for specific deficiencies.

- OSM needs to fully ensure implementation of a written safety and health program for hazard communication and determine to what extent a hazardous waste program is required. Some elements of hazard communication were noted such as the availability of Material Safety Data Sheets; however, sites were lacking a written program and training. 14

- OSM needs to ensure that a written blood-borne pathogens program and its associated requirements have been implemented for employees whose job responsibilities include acting as first responders to workplace accidents and injuries.

- Although OSM makes hearing protection available for field and certain other activities, OSM has not formally evaluated by qualitative and/or quantitative means the need for a hearing conservation program for workers who may face potential exposures. 15

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14 OSHA requires that an employer implement a written hazard communication program when employees use and store chemicals in the workplace. 29 CFR 1910.1200. OSM headquarters produced a written generic program, but this program is not useful for site-specific implementation and a hazard communication program has not been implemented by regional or area offices.

15 OSHA requires that an employer implement a written hearing conservation program when employees are exposed to noise above the OSHA action level. 29 CFR 1910.95. OSM has not made determinations if personnel at mine, reclamation, and construction sites (and certain specific building areas) could be exposed to noise above this level, and therefore has not determined the applicability of a written hearing conservation program for exposed individuals that would include audiometric testing, training, and other elements.
4.2 Strengths and Weakness

During the SOH evaluation, areas or practices of particular strength or weakness were noted. By definition, a “strength” is considered to be a noteworthy practice that can serve as a model and that merits sharing, review, and possible implementation throughout OSM or at other DOI bureaus. A “weakness” is a particular issue that represents a causal factor for performance shortcomings and/or that represents an organizational vulnerability in safety and health program implementation and/or worker protection.

The evaluation has determined that OSM’s SOH Program has one identified strength, and two identified weaknesses:

**Strength:** OSM provides a nine-month mentoring and training program for new inspectors conducting field oversight at mines and reclamation sites. Experienced personnel mentor new employees during this period and accompany new employees during all field activities. Formal qualification documentation is completed for this process. This Program provides new employees with the information necessary to conduct work safely. This noteworthy mentoring process can be shared with other DOI bureaus as a means to fully develop new personnel who are engaged in hazardous operations.

**Weakness:** OSM lacks a formal risk management (hazard identification, analysis, and control) process for conducting more hazardous field work at surface mines and reclamation sites. This deficiency is contrary to the OSM Directives System ASD-2 which requires JHAs and safe work procedures. As experienced staff retires, this creates an increasing vulnerability regarding hazard identification and control and the ability to ensure that work is conducted safely.

**Weakness:** OSM senior leadership has not fully established safety as an organizational value and has not established a formal and effective approach to safety program implementation and verification, as evidenced by deficiencies in implementing and ensuring conformance with OSM directives and Federal requirements for a safety and health program.

5.0 Documents, Interviews, Walkthroughs

The SOH evaluation was conducted through a process of document reviews, interviews, and worksite walkthroughs.

Examples of types of documents reviewed included:
- SOH directives, policy, programs, and procedures;
- Accident and illness records;
- Worksite inspection reports;
- Deficiency listings and closure documents;
- Training records;
• Safety committee charters, agenda, inspections, and other documentation;
• Inspector mentoring and certification documents;
• Contractor documents related to safety requirements.

Examples of personnel/positions interviewed included:

• Senior management (e.g., OSM office directors and managers);
• Line management and supervisors for diverse operations;
• Department/group managers;
• Safety and health management;
• Safety committee chairs and members;
• Collateral Duty Safety Officers (CDSO);
• Employees at multiple levels and in many organizations;
• Mine and reclamation inspectors;
• Technical support personnel;
• Contracting representatives and inspectors.

Worksite walkthroughs were conducted in office areas and storage areas.

6.0 Maturity Model

There are five maturity levels defined along the continuum of the Capability Maturity Model (CMM) and the predictability, effectiveness, and control of OSM’s SOH processes is improved as OSM moves up these five levels. The five maturity levels are:

Level 1 - Initial (Chaotic)
Programs at this level are characteristically undocumented and in a state of dynamic change, tending to be driven in an ad hoc, uncontrolled and reactive manner by users or events. This provides a chaotic or unstable environment for the program.

Level 2 – Managed/Repeatable
It is characteristic of programs at this level that some processes are repeatable, possibly with consistent results. Program discipline is unlikely to be rigorous, but where it exists it may help to ensure that existing processes are maintained during times of stress.

Level 3 - Defined
It is characteristic of programs at this level that there are sets of defined and documented standard processes established and subject to some degree of improvement over time. These standard processes are in place and used to establish consistency of program performance across the organization.

Level 4 – Quantitatively Managed
It is characteristic of programs at this level that, using process metrics, management can effectively control the AS-IS process. In particular, management can identify ways to adjust and adapt the program without measurable losses of quality or deviations from specifications. Program Capability is established from this level.
Level 5 - *Optimizing*

It is characteristic of programs at this level that the focus is on continually improving performance through both incremental and innovative changes/improvements.

The OSM level on the Capability Maturity Model is 2.43 with a standard deviation of .374. The high is 3.17 and the low is 2.0.
<table>
<thead>
<tr>
<th>Level</th>
<th>OSM</th>
</tr>
</thead>
<tbody>
<tr>
<td>5: Optimizing</td>
<td>5.51 to 6</td>
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<tr>
<td></td>
<td>5 to 5.5</td>
</tr>
<tr>
<td>4: Quantitatively Managed</td>
<td>4.51 to 5</td>
</tr>
<tr>
<td></td>
<td>4 to 4.5</td>
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<tr>
<td>3: Defined</td>
<td>3.51 to 4</td>
</tr>
<tr>
<td></td>
<td>3 to 3.5</td>
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<tr>
<td>2: Managed</td>
<td>2.51 to 3</td>
</tr>
<tr>
<td></td>
<td>2 to 2.5</td>
</tr>
<tr>
<td>1: Initial</td>
<td>1.51 to 2</td>
</tr>
<tr>
<td></td>
<td>1 to 1.5</td>
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</tbody>
</table>

### 7.0 SOH Evaluation Team

The SOH evaluation team is composed of the DOI OSH safety and occupational health manager and three senior FOH occupational safety and health professionals, each with approximately 35 years professional experience in the field, including performing numerous multi-disciplined high level SOH Program evaluations, technical safety appraisals, audits and assessments, and OSHA-type inspections for multiple Federal agencies and other enterprises. The SOH evaluation team members are:

- Barry Noll, PE, Chief of Safety, Safety and Occupational Health Manager, Office of Occupational Safety and Health, DOI Headquarters. Overall team leader from the Secretary’s office.

- Frank Fitzpatrick, Certified Industrial Hygienist (CIH), FOH -- Overall FOH program manager and primary interface with DOI. Key responsibilities include planning and preparing for the evaluations and to develop, document, and refine the tools necessary for future evaluations, review deliverables, and coordinate overall team functions. Mr. Fitzpatrick did not participate in evaluation activities conducted on-site at OSM offices.

- Gary Gottfried, CIH (ret), FOH – SOH evaluation team leader and senior industrial hygienist and primary interface with OSM. Key responsibilities include leading the evaluation team during the on-site evaluation process, coordinating site evaluation activities, conducting aspects of the programmatic and field evaluations with a focus on management of the SOH Program, industrial hygiene and occupational health, gathering and compiling evaluation information, and preparing results.

- Jack Janda, MS, CSP, FOH – Senior Safety and Occupational Health Specialist. Key responsibilities include conducting aspects of the programmatic and field evaluations with a focus on occupational safety and OSHA compliance, recordkeeping, conducting
site walkthrough inspections, gathering and compiling field information, and preparing results.

- Maurice Banks – Acting Director, Division of Administration and OSM representative on the SOH valuation team. Key responsibilities included being the team liaison with OSM offices, arranged conferences, selected offices for the evaluation and participated as a team member for the interview and deliberation process. Also provided the team with facilities, and security support.