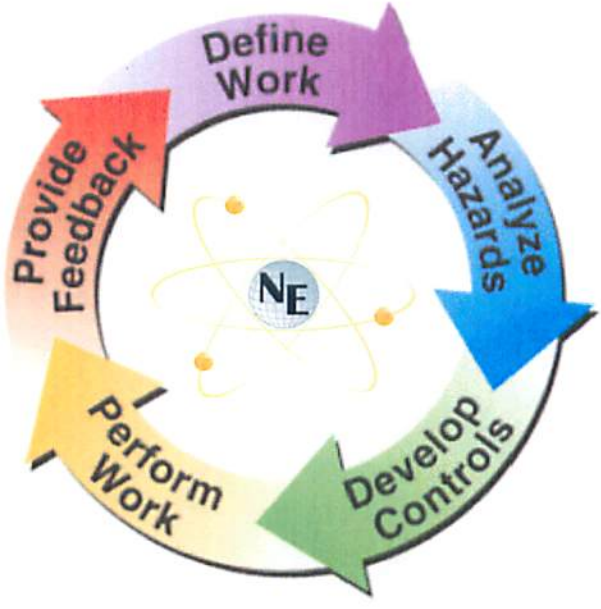
Office of Nuclear Energy

INTEGRATED SAFETY MANAGEMENT SYSTEM DESCRIPTION



May 2007

Office of Nuclear Energy	Integrated Safety Management System Description	Approved	Date
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Table of Contents

SUMMARY

The Department of Energy (DOE) Office of Nuclear Energy (NE) Integrated Safety Management System (ISMS) describes the NE approach to safety management and is an essential element to NE programs and offices getting "work done safely". The NE ISMS conforms to the safety management principles described by DOE Policy (P) 450.4, *Safety Management System Policy* and the implementing requirements and guidance contained in DOE Manual (M) 450.4-1, *Integrated Safety Management System Manual*, which serves as the source document for the NE ISMS Description.

MISSION AND VISION

The mission of NE is to support innovative applications of nuclear technology that will benefit society. NE is responsible for leading the Federal government's investment in nuclear science and technology to address critical nuclear issues, contribute to energy supply diversity, and advance United States competitiveness and security. NE also provides nuclear products and services that meet the needs of the United States and the world community in a safe, environmentally sound, and economical manner.

The NE mission supports national priorities and program initiatives as described in Section 8 of the President's Management Agenda (PMA). Specifically, "Science and technology are critically important to keeping our nation's economy competitive and for addressing challenges we face in health care, defense, energy production and use, and the environment. As a result, every federal research and development (R&D) dollar must be invested as effectively as possible." (PMA, Fiscal Year (FY) 2002, page 39).

As NE executes its mission in support of PMA objectives, it performs a major programmatic and safety oversight function as the lead Program Secretarial Office for the Idaho Operations Office (DOE-ID) and the Idaho National Laboratory (INL). In early 2005, NE and DOE-ID implemented a major realignment of the Idaho Site contracts that divided the work at INL into two major functions:

1. Establishment of INL via merger of the laboratory functions of the former Idaho National Engineering and Environmental Laboratory and the former Argonne National Laboratory-West, and;

2. Implementation of the Idaho Cleanup Project under a new and separate contract administered by DOE's Office of Environmental Management (EM).

NE's vision for INL is to enhance the nation's energy security by becoming the preeminent, internationally-recognized nuclear energy research, development, and demonstration laboratory within ten years. INL will also establish itself as a major center for national security technology development and demonstration. This requires that INL be a multi-program National Laboratory with world-class nuclear capabilities. INL will foster new academic, industry, government, and international collaborations to produce the investment, programs and expertise that assure this vision is realized. INL is a Federally Funded Research and Development Center established under Federal Acquisition Regulation Part 35.

PURPOSE

This document describes the comprehensive and integrated methodologies employed by the NE Federal workforce to implement its environment, safety, health and quality assurance (ESH&QA) management systems in accordance with DOE ISM directives as applied to NE activities and facilities. Important companion documents are the NE Safety Management Functions, Responsibilities, and Authorities (FRA) Document dated June 29, 2006, and the NE Quality Assurance Program Plan dated July 27, 2006.

It is important to note that the term "safety," when used by NE in the ISMS context and in this document, encompasses quality assurance, public and worker safety and health, emergency management, safeguards and security, and environmental management, including pollution prevention and waste minimization. NE fully incorporates environmental management considerations, including pollution prevention, into all work planning and execution.

The NE ISMS complements and is integrated with the DOE-ID ISMS and the INL ISMS (see Figure 1). Together they comprise a multi-layered system of checks and balances that ensures all work performed at the Idaho Site and overseen by DOE-ID and NE is conducted in a manner that protects worker health and safety, the public, and the environment.

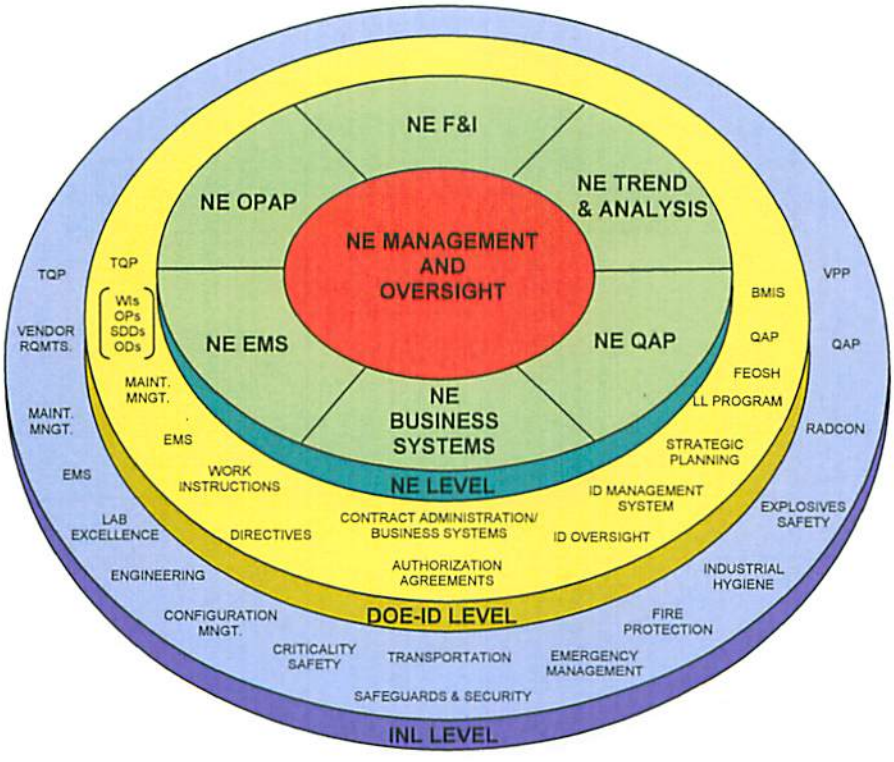

Figure 1 - NE, DOE-ID and INL Safety Management Systems Integration

NE controls and influences work planning, execution, and safety by overseeing contracts; formulating budgets; issuing policy, directives, and guidance; assigning clear roles and responsibilities to all staff; maintaining a highly-qualified and technically competent workforce; developing and administering programs and projects; maintaining communications; and conducting oversight.

The work accomplished by the NE Federal staff is primarily administrative in nature. The NE ISMS defined in this document applies to all NE Federal employees, but the initial focus is on those employees with programmatic or ESH&QA responsibilities associated with work performed in the field since that is where the majority of the NE work risk resides.

NE staff is responsible for a myriad of programmatic and budgetary activities as described in the NE FRA Document, but the most important ISMS element for NE employees is the conduct of risk-based oversight in accordance with the provisions of DOE P 226.1, *Department of Energy Oversight Policy*, the requirements of DOE Order (O) 226.1, *Implementation of Department of Energy Oversight Policy,* and the implementation processes of the *NE Safety Management Plan for Risk Based Oversight* (NE Oversight Plan). As such, establishment and maintenance of effective oversight systems is the major component of the NE ISMS.

The NE ISMS process defines the way safety is integrated into all applicable NE activities. The NE ISMS and Quality Assurance Programs provide key mechanisms that establish rigor and discipline for NE operations. Line management responsibility for safety is well manifested and NE's organizational structure provides for clear delineation of roles, responsibilities, reporting, and interfacing relationships.

Safety is a part of everything that NE employees do, beginning with project and program planning, through the budget formulation process, and ending with oversight of work being performed at the Idaho Site and other field locations with appropriate feedback and improvement. Continuous application of the ISMS guiding principles and core functions nurture the maturation of the safety culture and contribute to the attainment of the NE goal of programmatic and operational excellence.

ISM GUIDING PRINCIPLES

The DOE Safety Management System Policy, DOE P 450.4, establishes seven guiding principles to provide overall direction and guidance for instituting ISM. NE embraces these principles and also endorses the application of an eighth principle, "Worker Involvement", first advocated by DOE-ID for the Idaho Site. The guiding principles and supplemental ISM principles described in DOE M 450.4-1 are listed below, with elaboration provided for those most relevant to NE operations (i.e., Headquarters-based activities):

1. *Line Management Responsibility for Safety*. NE line management is directly responsible and accountable for the protection of employees, the public, and the environment. Everyone is responsible and accountable for the safe conduct of his or her activities. Line management is responsible for ensuring operations are conducted

in an environmentally responsible and compliant manner. NE implements this guiding principle via the NE FRA Document.

2. *Clear Roles and Responsibilities*. There are clear roles and lines of responsibility, authority, and accountability at all levels of the NE organization to ensure protection of employees, the public, and the environment. NE implements this guiding principle via the NE FRA Document.

3. *Competence Commensurate with Responsibilities*. All NE employees must have the experience, knowledge, skills, and abilities needed to perform their work safely and competently. Systems must be in place to establish and continuously maintain these capabilities. NE implements this guiding principle via its hiring practices and through the participation of appropriate staff in the NE Oversight Proficiency Assurance Program (NE OPAP) described in more detail below.

4. *Balanced Priorities*. NE allocates resources to address ESH&QA, infrastructure maintenance, and participates in and conducts oversight of the work prioritization processes. No work will be funded unless it can be performed safely and environmental considerations are addressed. NE implements this guiding principle via formal budget development and execution guidance, technical guidance letters to field element managers responsible for the day-to-day execution of NE programs and projects, and by approval of annual programmatic and ESH&QA performance goals, measures and commitments in accordance with DOE P 450.7, *Environment, Safety and Health (ESH) Goals.*

5. *Identification of ES&H Standards and Requirements*. NE implements this guiding principle by conducting systematic reviews of contract requirements prior to contract award, through its approval authority for nuclear safety rule exemption requests, and by maintaining the technical competence of its ES&H subject matter experts. For its reactors, NE implements this guiding principle by approving the safety basis (i.e., Design Safety Analyses and Technical Safety Requirements) and by approving the Evaluations of the Safety of the Situation resulting from positive Unreviewed Safety Question Determinations.

6. *Hazard Controls Tailored to Work Being Performed*. Although this guiding principle has a focus on work execution in the field, NE assists in its implementation through effective execution of its oversight program described in more detail below.

7. *Operations Authorization*. For NE non-reactor facilities, approval authority for operations authorization resides with the field element manager but NE assists in the implementation of this guiding principle through effective execution of its oversight program described in more detail below. For its reactors, NE implements this guiding principle by retaining approval authority for Authorization Agreements.

8. *Worker Involvement*. The involvement of the NE workforce is a key element in the implementation and efficacy of the NE ISMS. Their active participation helps

establish a quality culture that supports worker health, safety, and environmental protection at all levels within the organization. NE employees work in partnership with NE managers and supervisors, and with their employee representatives (unions), to ensure a workplace free from recognized hazards, and to identify and resolve worker issues in a timely and satisfactory manner. NE management recognizes and discharges its responsibilities in accordance with applicable DOE and Federal Employee Occupational Safety and Health (FEOSH) program requirements, ensures employees' rights, and supports internal mechanisms to improve working conditions, productivity, and professional growth.

In accordance with DOE procedures, NE employees have right to decline to perform a task because of reasonable belief that, under the circumstances, it poses an imminent, personal danger, as well as the authority, through their supervisors, to stop work when conditions are judged to be an imminent threat to health, safety, or the environment. Further, NE employees have the right to express/report, without fear of reprisal or discrimination, any concerns related to workplace hazards and/or protections. NE management will investigate and resolve such concerns in a timely manner, and these results communicated back to affected employees. NE employee safety is further assured through the active participation of union representatives on the Headquarters Safety, Health and Security Committee, which meets regularly with cognizant DOE facilities management to identify, discuss and resolve issues.

All NE workers have authority to stop work at the INL Site when they observe conditions that they judge to be an imminent threat to health, safety, or the environment. This authority is in clause H-13 of Contract No DE-AC07-05ID14517 for the INL contractor.

SUPPLEMENTAL ISM PRINCIPLES

1. Operational Excellence – NE supports by approving annual programmatic and ESH&QA performance goals, measures and commitments for INL.

2. Individual Attitude and Responsibility for Safety

3. Oversight for Performance Assurance – NE supports by implementing its formal oversight program as described in more detail below.

4. Organizational Learning for Performance Improvement – NE supports by its staffs' participation in formal training and qualification programs (e.g., Project Management Career Development Program and the NE OPAP described in more detail below).

ISM CORE FUNCTIONS

The five core safety management functions provide the necessary structure for work that could potentially affect the public, the worker, and the environment. Within NE, the functions are applied as a continuous cycle with the degree of rigor appropriate to address the activity and hazards involved. The five functions are:

1. *Define the Scope of Work.*
2. *Analyze the Hazards.*
3. *Develop and Implement Hazard Controls.*
4. *Perform Work within Controls.*
5. *Provide Feedback and Continuous Improvement.*

Of the five core functions, *Define the Scope of Work, Analyze the Hazards, and Provide Feedback and Continuous Improvement* represent the biggest opportunities for NE Headquarters staff and management direct involvement in ISMS. Specifically, NE approves annual programmatic and ESH&QA performance goals, measures and commitments; is the approval authority for nuclear safety rule exemption requests; approves reactor Safety Bases and Evaluations of the Safety of the Situation resulting from positive Unreviewed Safety Question Determinations; retains approval authority for reactor Authorization Agreements; applies the *Department of Energy Process for Delegating Safety Authorities (December 27, 2005)* for Category 2 and 3 nuclear facilities via provisions contained in the NE FRA Document and the *NE Process for Delegation of Safety Authorities* (NE Delegation Process) that is under development as a NE standard operating procedure; and implements the NE Oversight Plan described in more detail later in this document. *Develop and Implement Hazard Controls* and *Perform Work Within Controls* are core functions more applicable to implementation of ISM in the field since NE's hazardous work is performed at sites remote from Headquarters

NE PROGRAM OFFICE ISMS ROLES AND RESPONSIBILITIES

Line management is responsible for the safe performance of work, regardless of its location. For NE, line management responsibility starts with the Secretary of Energy, Deputy Secretary, and Under Secretary of Energy, who is the Central Technical Authority (CTA) for NE. Line management responsibility flows to the Assistant Secretary for Nuclear Energy, the Principal Deputy Assistant Secretary (DAS) for NE, and the DASs and Office Directors with program management responsibilities that are executed in the field. From NE, line management responsibility for work at INL flows to the DOE-ID Manager and the INL contractor. The primary offices within NE with line management responsibilities and hence, most involved and impacted by the implementation of ISMS are the DAS for Nuclear Power Deployment (NE-3), the Director for Laboratory Facilities Management (NE-32), and the Director for Radioisotope Power Systems (NE-34). The following summarizes the primary programmatic and ISM responsibilities for NE offices: [Note: for a comprehensive listing of NE office responsibilities and authorities, see the NE FRA Document.]

NE-3 manages the design, construction, and operation of NE test facilities and manages DOE's reactors and supporting facilities, assuring their safe, reliable, and environmentally sound operation and their cost-effective utilization in meeting DOE missions. NE-3 also provides technical support to other NE offices in the areas of nuclear and occupational safety,

environmental compliance, radioactive and hazardous materials management, radiological protection, in-service inspection, testing, and maintenance, hazardous and accident analysis, technical safety requirements, emergency prepardness, and quality assurance.

NE-32 develops, provides direction for, and manages the design, construction, and operation of DOE reactors and other facilities required for the accomplishment of assigned missions consistent with DOE policies and practices with particular emphasis on safety, environmental acceptability, and operational efficiency to meet DOE mission requirements. Also, NE-32 provides technical and program guidance for the safety and environmental analyses and processes to assure facility operations and activities in assigned areas of responsibility are in conformance with applicable laws, regulations, DOE orders, and standards. NE-32 develops recommendations to startup and/or restart assigned nuclear and non-nuclear facilities based on technical review of the readiness of a facility to operate in a safe and environmentally sound manner. Facility oversight is performed and shutdown authority exercised when circumstances indicate continued facility operation would be unsafe or entail unacceptable hazard levels.

NE-34 provides compact, safe nuclear power systems and related technologies to space, national security, and other customers. NE-50 also provides technical and safety analysis support related to radioisotope power systems and heater units that provide electrical power and heat for spacecraft, and develops advanced radioisotope power systems. Execution of this mission includes developing, providing direction for, and managing the design, construction, and operation of facilities with an emphasis on safety, environmental acceptability, and operational efficiency. NE-34 also provides oversight of facilities used to produce radioisotope power systems and prepares safety analysis reports used to evaluate risks and benefits as part of mission approval process.

The Office of Integrated Safety and Program Assurance (NE-43) also has important responsibilities for ensuring effective implementation of ISMS within NE. The NE-43 Director serves as the NE ISM Champion and represents the organization as a voting member of the ISM Champions Council that is charged with ensuring the consistent and effective implementation of ISM within DOE. Also, NE-43 is responsible for conducting independent program oversight of all NE projects and programs. In this role, NE-43 coordinates with the line program offices to develop, execute, and document the integrated NE and DOE-ID oversight program described in more detail later in this document. In addition, NE-43 facilitates the development and maintenance of the NE ISMS and related documents and the completion of related activities.

NE IMPLEMENTATION OF ISM

NE employs the processes described below to ensure effective ISM implementation and compliance with associated directives. These processes represent a logical sequence of activities linked to mission success. Although these processes by themselves do not constitute an ISMS, they do provide a uniform link between customers who have requirements and customers who need and value NE products and outputs. NE customers include the Secretary of Energy, Congress, Naval Reactors, DOE-ID, the DOE Office of Science, National Nuclear Security Administration (NNSA), and the National Aeronautics and Space Administration. Providing NE product outputs while adding value is customer satisfaction.

A. NE Environmental Management System (EMS) Description. The NE EMS provides technical guidance and oversight to DOE-ID to help INL establish and maintain an approved EMS, as mandated by DOE Order 450.1, Environmental Protection Program. DOE Order 450.1 implements Executive Order (EO) 13148, Greening the Government Through Leadership in Environmental Management, which requires all major DOE facilities to have an approved EMS in place by December 31, 2005, and in addition, requires EMSs to be part of the ISMS, pursuant to DOE P 450.4.

An EMS is a continuing cycle of planning, implementing, evaluating and improving processes and actions undertaken by the program office and at DOE sites to achieve environmental goals. In assessing a site's EMS, NE staff review numerous subject areas and documentation, such as integrated safety management, environmental protection and waste management regulatory compliance, National Environmental Policy Act (NEPA) compliance, pollution prevention & waste minimization practices, environmental monitoring and the Spill Prevention, Control, and Countermeasures (SPCC) Plan. These assessments, or "checks", of a site's EMS are done at least annually to ensure that the environmental practices being performed in the field match those written into the EMS. Since the issuance of DOE O 450.1 on January 15, 2003, NE has worked with DOE-ID staff to review and implement the EMS for the INL. During FY 2004, NE staff performed an audit of the EMS at the Materials and Fuels Complex (MFC), formerly Argonne National Laboratory-West (ANL-W), to assess its compliance with DOE O 450.1 and its readiness to be merged with the existing EMS for the laboratory facilities of the former Idaho National Engineering and Environmental Laboratory as the two entities were merged into the current INL. In November 2005, a formal and independent ISO 14001 registration audit was conducted at INL that determined all specifications of EMS were acceptable. Auditors recommended INL for registration to the NSF International Strategic Registrations, LTD, which provides the basis for the DOE-ID Manager to self-declare INL to be in compliance with the EMS requirements as specified in DOE O 450.1 and EO 13148.

B. NE Oversight Process Description. In support of Guiding Principles 5, 6, 7 and 8 and Core Functions 1, 2, 3, 4 and 5, NE is implementing the NE Oversight Plan that was approved on August 15, 2006. This plan constitutes the NE oversight process that is integrated within the various NE program offices, with DOE-ID, other field sites with NE activities, and the CTA through his agent, the Chief of Nuclear Safety.

NE has responsibilities to perform risk-based oversight of its programs, the associated operations, and its field elements. NE establishes annual oversight plans and schedules per DOE P 226.1, *Department of Energy Oversight Policy*, DOE O 226.1, and the NE Oversight Plan and Annual Schedules, which document a rolling three-year review of the key ESH&QA and mission critical operations that support NE programs. Commencing in FY 2007, NE is using a risk based oversight approach, integrated with that developed by DOE-ID, to refine NE's required oversight. NE oversight of DOE field elements and site safety programs will not rely solely on the operating contractor's assurance system as a source of data or the field elements' oversight programs.

NE line program offices, in concert with NE-43, develop an oversight schedule that is integrated with, but not duplicative of, the field element oversight schedules. NE staff makes use of all

available oversight techniques, as appropriate, to ensure the higher risk functional areas important to safety receive adequate attention (see discussion below).

Integration with Field Line Management. To ensure efficient and effective oversight, the NE Oversight Plan must be integrated with the field elements' oversight plans. The assurance that an institutional program (e.g., Industrial Hygiene, Hoisting and Rigging, Radiological Control, etc.) adequately and accurately identifies requirements and flows them into implementing procedures is not sufficient to determine the overall health of programs and functional areas. It is necessary to verify that these programs are executed as intended and required. This verification requires an integrated effort between NE and field elements.

In order to accomplish this requisite integration, NE receives a copy of the overall approved field element oversight plans and/or schedules during the fourth quarter of the previous fiscal year. This includes oversight plans/schedules from both line management (e.g., DOE-ID Office of Infrastructure Support) and supporting groups (e.g., DOE-ID Office of Operational Support). Upon review of these plans/schedules, discussions are held between NE, DOE-ID, and CNS staff to compare the various perspectives of risk and contractor performance and those areas where more focused oversight is needed.

The field elements conduct a risk-ranking of the programs and operations. This risk ranking takes into consideration, at a minimum: 1) potential consequences and frequency of failure; 2) recent performance history; and 3) corrective actions recently taken or in progress to address performance issues. Certain institutional safety programs may rank at moderate to high risk for NE, such as industrial safety, fire protection, and nuclear safety. Other areas, such as motor vehicle safety, may rank lower in overall risk. Accordingly, NE will adjust the rigor of its oversight for these lower risk programs, generally relying on the field elements to conduct oversight on them. Specific oversight activities will be identified and documented in the NE oversight schedule, as appropriate. Additional meetings (telephone conferences) will be held approximately quarterly, and modifications to the NE oversight schedule will be captured and implemented.

When conducting integrated oversight activities (i.e., direct NE and/or CNS involvement in field oversight), the NE, CNS and field element representatives determine who has the lead for the activity. Joint activities are documented with the host facility's surveillance report designator, transmitted to the contractor by the field element line manager, and administrative control of the report maintained by the field element. NE and/or CNS also may conduct independent oversight of the field elements, the operating contractor, or both. In these instances, NE or CNS develop and maintain administrative control of the oversight report. Transmittal to the contractor is via the field element line manager and contracting officer. Responsibility for the acceptance of the corrective action plan for identified issues and the closure verification of same is agreed upon by NE, CNS and the field element, as appropriate.

NE Oversight Techniques. Based on the risk ranking of targeted oversight areas, a combination of the following techniques are used to assure contractor and field element performance. These techniques are applied in a graded approach to oversight, as well as to gathering and analysis of business, operational, and ESH&QA information, dependent on the risk scores. There is no

direct correlation between a risk score and the oversight technique(s) applied for a specific area. The degree of rigor is based on past performance, recommendations, and the judgment of the teams conducting the oversight and the Federal staff responsible for the institutional safety programs. These techniques, described in detail in the NE Oversight Plan, include: Oversight of Contractor Performance of Contractor Self-assessments; Joint System Reviews, including Periodic Sampling; External Assessments/Reviews; Oversight of Corrective Actions; Oversight of Lessons Learned; Assessments - Risk Based and Management Authorized; Utilization of Performance Metrics/Trending/Benchmarks; For-Cause Reviews; and Maintaining Operational Awareness via daily, weekly, monthly and quarterly information sources.

Summary of the NE Oversight Process Steps:

1. NE Obtains Field Element oversight plans and schedules in the fourth quarter of fiscal year.

2. NE reviews Field Element oversight plans.

3. Conduct joint NE and field element meeting. Identify NE-specific and NE/field integrated activities to be performed by NE.

4. Provide updated plans/schedules to CNS for review and identification of NE-related oversight activities to be performed by CNS.

5. Finalize and Approve integrated NE/DOE-ID/CNS oversight schedule, generally by October 1st. This schedule identifies specific oversight activities and the level of NE, CNS, and DOE-ID involvement for each activity.

6. NE, CNS, and DOE-ID execute the oversight as scheduled.

    a. Perform specific oversight activity.

    b. Document oversight activity and issue oversight report.

    c. DOE-ID findings will be entered into the Idaho Corrective Action Tracking System (ICATS). Contractor findings will be entered into the INL Corrective Action Reporting Environment (ICARE). Any action required by NE Headquarters will be formally identified and tracked to completion by the Nuclear Energy Correspondence Tracking System (NECTS).

    d. Monitor corrective action performance.

7. Approximately quarterly, NE reviews oversight performance with field elements. Modify oversight schedule as appropriate. CNS is kept informed for operational awareness.

8. Summary oversight performance reports prepared and provided to NE-1 by September 30th. Summaries are issued by NE-43.

Functional and Operational Oversight Areas. There are many functional and operational areas for NE to consider in the development of the NE oversight schedule. It is not the intent of NE to perform oversight of each of these areas. However, NE staff considers these areas, coupled with the field element oversight plans, schedules, and recommendations, when scheduling specific oversight activities. The functional and operational areas, described in detail in the NE Oversight Plan in four basic groups, are: 1) ESH&QA, 2) Safeguards and Security, 3) Environmental Protection, and 4) Operational and Laboratory Mission.

The multiplicity of safety programs functioning at DOE-ID and the Idaho Site, including DOE-ID oversight, self-assessment programs, independent oversight programs, lessons learned programs, ORPS, CAIRS, and the Performance Measures & Trending Program, afford numerous opportunities to assess organizational performance and identify areas for improvement. These assessment tools enhance management decision-making. For example, in an era of declining budgets, it is important to maintain a balanced oversight program considering the potential vulnerabilities and risks of the work being performed. The use of performance indicators, trending, and analysis is intended to provide management with the information needed to make sound decisions based on risk. The universe of performance information gleaned from Federal oversight activities constitutes the primary feedback to effect continual improvement and for contractor incentive determinations. Evaluation of performance against Program Execution Guidance is one of the key tools used by the Federal workforce to define scope of work and define minimum expectations and is reported through the incentive process.

C. NE Headquarters-based Feedback and Improvement Process Description. In support of Guiding Principles 1, 4, 5, and 8, and Core Functions 2 and 5, NE has implemented the Nuclear Energy Action Tracking System (NEATS). As part of its oversight responsibilities, NE staff research and review reports from various groups outside the program, such as Government Accountability Office (GAO), Inspector General (DOE-IG), Defense Nuclear Facilities Safety Board (DNFSB), and other organizations. Through this research, NE often identifies issues affecting other DOE sites that may potentially be relevant to work or conditions at sites and/or facilities where NE has safety management and/or programmatic responsibilities, especially work at NE's landlord site, the INL. When such an issue is identified, NE staff enters it into the NEATS computer-based database that was developed to track and measure these issues. Specifically, NEATS identifies recommendations made about non-INL issues that may have potential impacts on the INL. When an item has been placed into NEATS, the appropriate NE manager and staff is informed and it is then the responsibility of the line programs to review and address any concerns/questions about how the issue may impact their particular NE work. NE continues to track progress and resolution of the issue and identify any positive feedback/lessons resulting from the review. This oversight activity serves to improve overall ESH&QA operations at INL, as well as provide data back to NE management on quality control. Major NE programs, such as Isotope Production and Enrichment, Project Management, Space and Defense Power Systems, Nuclear Power Development, Nuclear Research, University Reactor Programs, Emergency Management, and Safeguards and Security are included in this issue tracking interface.

D. *NE Quality Assurance Program Plan (NE QAP)* Description. In support of Guiding Principles 1, 2, 5, and 8 and Core Functions 4 and 5, NE has implemented the NE QAP that was

approved on July 27, 2006. The NE QAP describes the management system to maintain and improve the quality of NE Headquarters mission-related operations, products, and services. The NE QAP identifies associated program policy, objectives, requirements, roles and responsibilities, implementing procedures, and feedback and improvement processes that support a comprehensive quality management system. The NE QAP applies across all NE Headquarters functional offices with a tailoring of requirements commensurate with the risk posed by the activity being conducted as part of a specific program or project.

NE work activities are mainly administrative and programmatic. These activities include strategic planning, policy development, budget formulation, issuance of guidance, general program and project management, grants management, document management, and training. Also, NE performs oversight of its program and project activities conducted at Headquarters and DOE-ID consistent with the NE Oversight Plan and associated annual schedule. Oversight is conducted in many Federal and contractor program areas, including management systems, data quality, safety, information systems, safeguards and security, emergency management, facility operations and maintenance, transportation, procurement, and training. These activities must be performed in accordance with quality principles and requirements contained in DOE O 414.1C, *Quality Assurance*.

The NE quality objectives are fully consistent with and support the DOE quality assurance principles and ISMS functions and principles. The NE QAP details the methodologies employed to achieve excellence while conducting work safely, securely, and in accordance with established procedures. It also describes the mechanisms in place to seek continuous improvements by identifying and correcting deficiencies and preventing their recurrence.

E. *NE Oversight Proficiency Assurance Program (OPAP)Plan* Description. In support of Guiding Principle 3, 8, Supplemental ISM Principle 4, and Core Function 5, NE has implemented the NE OPAP that was approved in May 2007. Performance requirements, roles, and responsibilities contained in the NE FRA Document are appropriately reflected in employee position descriptions (PD) and annual performance plans (PP). NE supervisors review the NE FRA Document on an annual basis and determine what areas apply to specific staff members in their work unit. The supervisor reviews the current PD and PP for affected employees to determine if responsibilities are adequately addressed. If revision is needed, the supervisor makes changes in consultation with the affected employee to ensure understanding of the nature and intent of the new wording.

PDs and PPs. All NE employees have PDs and PPs available at their work site and in their official files. The PD is a more general document and covers the general duties of the position. The supervisor drafts PDs with assistance from NE personnel specialists when a skills gap is identified and it is determined that it should be addressed by posting a vacancy announcement. The PD becomes the basis for the recruitment and selection criteria to be used when advertising and rating applicants for the position. PDs are reviewed for currency by the supervisor annually, but do not need to be updated if no substantial changes occur. PDs, as official documents, are to be tied to the position, not the employee, and may remain unchanged for several years (ref. *Classification and Position Management* - 5 CFR 511, *Classification* under the General Schedule, and DOE O 325.1, *Position Classification*). PPs are signed agreements between the

supervisor and employee that are executed during specified periods of performance (typically for a FY) and contain performance expectations for individuals for the defined period. Generally, PPs are updated annually or when a significant change is made to employees' job assignments. PPs tend to be more employee than position centered (ref. Performance Management 5 CFR 430 and 5 CFR 293.

NE's process to assure that all employees have competence commensurate with their responsibilities begins when a manager or supervisor identifies the need to fill a position. The manager/supervisor defines the roles and responsibilities of the position and identifies the knowledge, skills, and abilities to do the job. This is captured in a formal PD, which is classified as to pay plan, occupational series, title, and grade based on Office of Personnel Management (OPM) Position Classification Standards. The position classification is evaluated against the OPM Qualification Standards for General Schedule Positions to determine the minimum education and technical qualification requirements. The manager/supervisor and the Human Resource Advisor (HRA) then establish the specific job-related specialized experience, selective placement factors, and physical requirements that are required for minimum competence in the position.

A new employee who possesses the required education, the general and specialized experience, and meets the physical requirements can be expected to perform satisfactorily after 90 days of site specific and on the job experience.
Among the provisions of DOE O 226.1 is the responsibility for Program Secretarial Officers to "establish and maintain appropriate qualification standards for personnel with Headquarters and field oversight responsibilities." For NE Headquarters, this responsibility is addressed and implemented through the NE OPAP. The NE OPAP is documented in the NE OPAP Standard Operating Procedure (SOP) and identifies the proficiency (i.e., competency or qualifications) criteria and standards, implementing protocols and procedures, and documentation requirements to assure that NE managers, supervisors, project directors, technical staff and support personnel possess the requisite knowledge, skills, and abilities to perform their oversight function fully and effectively. The NE OPAP utilizes established Departmental training processes, mechanisms and procedures for continued employee professional development to assure oversight function proficiency.

The NE OPAP is a structured, yet flexible, training regimen with the scope and proficiency criteria to assure that participating personnel can discharge their oversight responsibilities and functions effectively and confidently. Although the NE OPAP primary focus is to ensure those essential skills and competencies necessary for the effective discharge of staff oversight functions and responsibilities (oversight core proficiency), the program also supports the on-going professional development of critical technical personnel and subject matter experts (SME) (e.g., Nuclear Safety Specialist, Quality Assurance Coordinator, Emergency Management Coordinator, Industrial Hygienist) who provide essential technical or specialized oversight assistance to NE Headquarters and field organizational elements. These individuals, in addition to participating in the oversight core proficiency training courses identified in this SOP, may receive supplemental technical and professional development opportunities commensurate with their specialty field/discipline, situational needs, and/or support functions.

The NE OPAP consists of the following principal elements:

- inventory of required/essential and recommended training courses/opportunities for participating NE employees based on staff position and oversight function;
- process for identifying affected personnel;
- documentation that affected personnel have requisite OPM position classification, position description, and current performance plans to document and support oversight function and responsibilities;
- identification of creditable position-related professional/technical credentials, licenses, or certifications supporting oversight proficiency assurance;
- initial and periodic critical training needs assessment to assure, enhance and maintain staff oversight proficiency and the specialized knowledge/skills of SMEs;
- Individual Development Plan (IDP) documentation and approval of supervisor-employee agreed-upon training regimen;
- initial and periodic oversight/SME training per IDP;
- process for documenting training completion;
- confirmation of training efficacy (i.e., attainment of desired knowledge, skills, abilities; documentation of oversight proficiency/maintenance by supervisor); and annual review of skills, new/additional training needs to assure continued oversight proficiency.

The NE OPAP includes various types of training opportunities, formats, and mechanisms depending on topical area, appropriateness, needs of individuals, and/or technical area. Training may also be in the form of joint opportunities with other Headquarters program offices, field elements, or external organizations, and may include any or all of the following:

- formal classroom instruction, including televideo format and use of vendor-provided courses;
- informal training sessions/briefings/staff meetings/one-on-one training;
- mentoring;
- on-the-job (OTJ) training;
- required readings (e.g., DOE Directives, SOPs, Implementation Plans);
- online training (computer based courses);
- periodic refresher training; and
- certification maintenance/professional development activities.
- DOE Technical Competency/Qualifications Programs

Management/administration of the NE OPAP is the responsibility of the Office of Human Capital and Business Services (NE-41), with technical support from the Office of Integrated Safety and Program Assurance (NE-43).

F. NE Trending and Analysis Systems Description. In support of Guiding Principles 4, 6, and 7 and Core Functions 1, 4, and 5, NE has implemented a trend and analysis process to provide management with overall meaningful information on the health of ESH&QA and Project/Program Management for Headquarters Programs and at NE field activities, primarily at the Idaho Site, based on data and specific indicators. The objective is to have this information be predictive as well as lagging so management action can be taken before an incident occurs whenever possible. ISO 9001 Quality Management System Requirements include provisions for

trending and analysis. Although not ISO 9001 certified, NE performs this function by annually approving ESH&QA goals, measures, and commitments for INL, which include development of predictive measures, by integrated review of contractor ES&H performance and trending data during formal and structured monthly review meetings attended by senior NE, CNS, and DOE-ID line and support staff (including the ISM Champions for each organization), and by implementing a formal process for planning, executing, monitoring and reporting its major projects and programs in accordance with the requirements and principles of DOE O 413.3A, *Program and Project Management for the Acquisition of Capital Assets.*

MAINTENANCE OF THE NE ISMS

In accordance with the provisions of DOE M 450.4-1, annual and periodic oversight activities are conducted to assess, evaluate, update, improve, and validate the NE ISMS. These activities are intended to ensure that the effectiveness of the NE ISMS is sustained and imbedded within the NE safety culture. ISMS maintenance activities are predicated upon requirements and are formalized with the appropriate degree of rigor and specificity necessary to derive valuable results. Specific ISM maintenance processes will be developed as a part of overall ISM implementation, and specific attributes will be described in subsequent revisions to this document.