

**Brookhaven National Laboratory
2011 Annual ISMS
Effectiveness Review and Declaration**

**December 2011
Revision 0**



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Table of Contents

1.0 INTRODUCTION 5

2.0 PERFORMANCE DASHBOARD 7

3.0 ISM DECLARATION 18

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1.0 INTRODUCTION

This report documents the fulfillment of Brookhaven Science Associate's (BSA) requirements to update and submit, for DOE approval, safety performance objectives, measures, and commitments. These requirements are established by the DEAR Clause 970.5223-1 in BSA's contract, as follows:

- 970.5223-1– Integration of Environment, Safety, and Health (ES&H) into Work Planning and Execution (e): *“On an annual basis, the contractor shall review and update, for DOE approval, its safety performance objectives, performance measures, and commitments consistent with and in response to DOE’s program and budget execution guidance and direction. Resources shall be identified and allocated to meet the safety objectives and performance commitments, as well as maintain the integrity of the entire system. Accordingly, the system shall be integrated with the contractor’s business processes for work planning, budgeting, authorization, execution, and change control.”*

BSA meets the objectives to establish a DOE-approved Safety Management System to integrate Environment, Safety and Health (ES&H) into work planning and execution by implementing its Integrated Safety Management System (ISMS) Program Description. This Program Description was last updated and submitted to BHSO in May 2011.

The requirements to establish annual safety performance objectives, performance measures, and commitments for DOE approval are fulfilled by the Business Plan process to establish the fiscal year (FY) contract performance evaluation and measurement plan (PEMP) goals and objectives, the BNL Annual Laboratory Plan (ALP) goals, objectives and targets that flow into the Laboratory organization Business Plans. The Laboratory's policy for implementing performance-based management includes the following guiding principles:

- Performance objectives are established in partnership with affected organizations and are directly aligned to the BSA Strategic Plan and Annual Laboratory Plan (ALP)
- Resource decisions and budget requests are tied to institutional risks and results
- Results are used for management information, establishing accountability, and driving long-term improvements

The performance-based management process is continuous during the fiscal year and consists of a series of monthly and tri-annual reviews (e.g., tri-annual PEMP, ALP, and Management System reviews, and feedback for the Institutional Risk Management Committee), various Operational Awareness Activities (e.g., Work Planning and Control Processes, Management Work Observations), and out briefings and reports of specific investigations, reviews, appraisals, and assessments. A stream of performance measurement data beyond those associated with the PEMP is also analyzed throughout the year by support organizations. Finally, data associated with the Events and Issues Management process (Occurrence Reporting Process System [ORPS], SCBNL, Causal Analyses, and Lessons-Learned) are reviewed and trended.

On an ongoing basis, these inputs are analyzed by the appropriate line managers and management system stewards to determine if immediate corrective actions are indicated or further assessment/analysis is needed to better understand a potential problem before taking action. Follow-on actions are taken, as appropriate.

At year-end, the above inputs and actions are rolled-up as input to support organization Business Plans, and used to develop the annual ISMS effectiveness review process.

Two of the most significant end-of-year inputs are the BSA Corporate Assurance Process and the Laboratory’s Self-Evaluation of performance against targets, established in the PEMP for the FY. These inputs represent performance areas that are important to the BSA Board of Directors and the customer, the DOE Office of Science. Results are combined with the continuous performance assessment data at year-end, and a roll-up and analysis are performed. Results are prioritized and communicated to Laboratory senior management, as well as other input for the development of the support organization’s Business Plan for the FY. Follow-on actions identified in Business Plans are flowed down into the goals of direct reports and the cycle begins again for the coming FY.

Also key to this process is the annual BSA and line organizations’ Environmental Management System (EMS) and Occupational Health and Safety Assessment Series (OHSAS) Management Reviews. Each document senior management input on specific ES&H activity throughout the year and establish future FY objectives and targets.

Table 1 summarizes BSA’s relevant performance data submitted to the Brookhaven Site Office (BHSO)

Table 1 – Performance Data submitted to Brookhaven Site Office

Performance Process	Frequency
PEMP Performance Summary: Objectives, Notable Outcomes	Tri-annual
Annual Laboratory Plan Executive Summary: Science Initiatives/SFA Highlights, Emerging Risks, Continuous Improvement, ALP Targets, PEMP Notable Outcomes	Tri-annual
BSA Year-end Self Evaluation	Annual
Institutional Risk Management Committee	Monthly
Event Analysis Performance Report	Quarterly
HSS Regulatory Compliance Summary	Quarterly
Site Environmental Report	Annual
EPD Waste Activity Report	Monthly
RCD Business Plan	Bi-Monthly Reports
Facility Support Division Report	Bi-Monthly Reports
RCD FY Business Plan Summary Report	Annual

2.0 Performance Dashboard

The performance process in Section 1 generates a variety of results that are used to qualitatively judge ISM effectiveness against the core functions and guiding principles. The ISM Program Manager, together with senior operational staff, use the results to populate an ISM Dashboard to visually demonstrate where systems are working and where improvements are needed. The dashboard shows performance based on a standard green, yellow, and red color as follows.

Green –System(s) and processes are performing as intended, ensuring integration with ISM core functions and guiding principles.

Yellow – System(s) and processes are performing as intended with weaknesses in programs that deliver the ISM core functions and guiding principles.

Red - System(s) and processes are performing with significant weaknesses in programs that deliver the ISM core functions and guiding principles.

The following is the FY11 ISM Performance dashboard.

FY11 ISM Performance Dashboard

	<u>Define the Scope of Work</u> (CF1, GP4)	<u>Identify and Analyze the Hazards</u> (CF2)	<u>Develop and Implement Hazard Controls</u> (CF3, GP5&6)	<u>Perform Work Within Controls</u> (CF4, GP7)	<u>Feedback of adequacy of Controls</u> (CF5)	<u>Line Management Responsibility for Safety</u> (GP2)	<u>Competence Commensurate with Responsibility</u> (GP3)
ISM Performance							

BSA has designated ISM Core Function 4 (GP7), Performing Work within Controls, as yellow predominantly due to a Tree Felling Event, Waste Mischaracterization event, and Radiological Contamination event. These events, together with other weaknesses that contribute to this rating, are described below. A narrative on key Strengths, Weaknesses and Improvement Initiatives is provided below.

Strengths

- BNL continues to monitor the effectiveness of its Environment, Safety and Health program in an effort to prevent worker injuries and protect the environment and public. Safety performance has been strengthened over a wide range of initiatives some of which include completion and implementation of Blueprint tasks, strategic safety communications, revisions to the work planning process, promoting the application of Mindful Leadership, union safety initiatives, increase of field-deployed Health and Safety professionals, initiation of an Electrical Inspection Program, and closer analysis of “low-level events” that could have institutional impact.
- A strong focus continues on reducing union labor force injuries as this group and F&O continue to represent the highest population of BNL injuries. F&O leadership has embraced a commitment to “High Reliability Operations” which emphasizes improved work planning and supervisory involvement. This approach to injury prevention was reinforced by emphasizing the importance of supervisors performing more field work observations, questioning of procedures; and management feedback.
- F&O and ESH teamed to provide an unprecedented increase in ESH oversight through the addition of five ESH professionals to review work in each Complex.
- ESH Service level agreements were reached with all Directorates and Divisions to better organize labor distribution and improve employee accountability. ESH competencies improved with the addition of a highly qualified and certified electrical inspector to review the electrical inspection program and promote changes to enhance operability and improve safe work practices throughout the Laboratory. This Chief Electrical Inspector has begun implementation of the Electrical Inspection Program recently approved by the Laboratory Electrical Safety Committee with the help of ten (10) Local Inspectors have passed their qualification examinations and are conducting local inspections. In addition, a recently hired ESH construction engineer supporting the NSLS-II construction project has improved oversight and ensures subcontractors are held accountable for safety. This, along with other improvements, allows contractors to self-identify and correct compliance issues.
- ESH developed a cross training program to improve staff competencies across ESH disciplines. Modules were developed in Safety & Health fundamentals, Industrial Hygiene practices, Safety Engineering practices, Radiological Controls and Environmental Protection. Focused training was provided to ESH staff in fall protection, excavation and scaffolding competent person, asbestos inspector, and OSHA 30-hour general industry.
- In conjunction with the Community, Education, Government and Public Affairs (CEGPA) group, ESH has been actively implementing its Strategic Safety Communications Plan to increase employee awareness of safety through ongoing safety communications. The focus on improving safety communications continued to build sustained overall awareness and target real-time

safety priorities and leading indicators. The Safety Communications team has been responsible for numerous initiatives that have helped the “Safety Culture” grow and evolve at BNL. The goal is to create and maintain a safety culture that is not dismissible and temporary, but a basic value that integrates itself in the way we conduct work or any activity. Communication highlights include: the all-hands meetings and supervisors’ meetings, the Safety Resources website, videos of BNL employees with “safety stories,” regular articles in the Bulletin and Monday Memo, and messages to the directorate leadership on their performance. Additionally, the ALD for ESH has opened a weekly dialogue with all supervisors in the form of a “push communication” email that keeps supervisors informed of recent injuries and events and often includes tips and tools for use as discussion topics with staff.

- In conjunction with other Battelle laboratories, BNL began participation in a Community of Practice-wide safety survey to be distributed to all employees on a staggered basis beginning in FY12. The Battelle Affiliated Laboratories recognize the need to understand and prevent serious operational events and are exploring an approach that utilizes the principles of high reliability and Mindful leadership. ESH is currently working with CEGPA and senior management to inform the employee population about the survey. Results will be closely analyzed and recommendations will be made based on results.
- The second annual Safety Day saw a significant increase in attendance and more importantly, engagement on safety topics and demonstrations aimed to shape our safety culture. New this year, seminars were given by BNL SMEs on topics of high risk categories that affect BNL workers, such as Fall Protection, Lock-Out/Tag-Out, Material Handling, and Prevention of Lacerations. Demonstrations included physical therapy, health improvement, and ergonomics and vendors displays.
- Short videos that featured BNL employees discussing their ideas and how they contributed to making their workplaces safer were featured at this year’s Safety Day. The videos are persuasive examples of how BNL management has listened to workers from all directorates and made safety improvements based on worker input. Additional videos continue to be produced and are showcased on the BNL home page. This effort provides an opportunity for all workers to be directly involved with safety improvements. The workers take ownership of safety for themselves and peers and are saluted for their innovation.
- BNL achieved 90-95% completion by supervisors of their required 12 observations per year after having made significant changes to the program throughout the year. Improvements were made in the data system based on results of user interviews and recommendations from a consultant. The most common concern for observers was the lack of the ability to mine data and provide useful reports. The system has been redesigned to provide tracking and trending capabilities on all aspects of the observations along with cumulative data reports for identification of leading indicators. Performance indicators can be charted from the collected

data to identify leading indicators and proactive corrective actions to improve safety institutionally.

- The Beneficial Occupancy Readiness Evaluation (BORE) Competitive Improvement Project (CIP) was completed during this reporting period. The BNL CIP team identified opportunities for improvement, which were developed and incorporated into the Readiness Evaluations Subject Area. ESH is working closely with the Photon Science Directorate (PSD) on its BORE schedule, and pre-BORE walkthroughs are being conducted periodically. It should be noted that the number of design and construction projects at BNL has kept a demanding pace for SHSD.
- A major revision of ESH programs was completed for placarding areas and posting warning signs. Subject areas (e.g., Asbestos, Beryllium, Biosafety in Research, Bloodborne Pathogens, Chemical Safety, Confined Spaces, Lead, Static Magnetic Fields, and Noise) were reviewed and updated with information on uniform warning signs and labels. A new SBMS subject area was created to centralize the requirements for signs, labels, and entry-placards. A policy for Area-based PPE was adopted site-wide. Evaluations of PPE needs were conducted for all areas at BNL followed by the application of postings of required PPE for entry.
- Improvements to Facility Hazard Assessments are notable. A Hazard Validation Tool was developed and incorporated the elements necessary to produce Hazard Placards, using the new area-based PPE classification process and standardizing its content and appearance at the same time. This significant improvement in classifying spaces across BNL was completed this past July. The Hazard Validation Tool is being considered as a replacement to the existing Facility Risk Assessment process. A revised Facility Use Agreement process may also involve the Hazard Validation Tool. To date, hazards have been validated for 2,306 rooms in 188 buildings, with 1,004 Hazard Placards posted.
- Improvements were made in the chemical safety program including Human Performance Improvement review and upgrade of the requirements for Corrosive Etch operations. To address incidents during waste storage of Corrosive Etch solutions, venting caps and poly-coated bottles were purchased and distributed to users. New guidance was prepared on chemical storage, oil baths, and the physical hazards from compressed gases. New stronger requirements were implemented for Peroxide Forming Compounds testing and expiration dates. New policy requirements were issued for unattended experiments. New training classes were developed for Corrosive Etch hazards and general industry Asbestos activities. Existing classes were updated with new information on Hydrofluoric Acid and Chemical Storage.
- Safety & Health Field Service representatives were encouraged to improve all facets of safety within their respective line organizations. Aside from normal activities, such as Experimental Safety Reviews (ESRs) and Tier 1 walkthroughs, the group made significant progress and has a number of field service accomplishments, including over 60 ergonomic assessments and

upgrades; appointment of a Safety Health Representative (SHR) as the F&O Confined Space Point of Contact, support of MPO construction project reviews and hazard characterizations, among others.

- BNLs OHSAS 18001 was audited by our third party registrar who recommended continued certification. This program is sustained by and internal conformance audit to the OHSAS standard and rigorous safety and health audits of Industrial Hygiene (IH) and safety engineering programs. Audit findings resulted in updates to chemical hazard lists, improved PPE awareness, improved operational controls for electrical safety, walking and working surfaces, and fall protection.
- BNL is encouraged by efforts made in FY11 as most directorates have maintained an injury rate of either zero, or near zero. In coordination with the Environment, Safety and Health (ESH) Assistant Laboratory Director (ALD), Safety and Health Services Division (SHSD) maintains regular communications with ALDs and supervisors of all directorates, increasing awareness of their respective rates and injury causes and encouraging all to maintain focus on safety. As a result of integrating these and other programs and initiatives, the overall safety culture at BNL continues to evolve and strengthen; through multiple avenues, we continuously support the integration of safety as a basic BNL value into all phases of the work cycle.
- The Environmental Management System continues to be effective. BNL made great progress aligning objectives and targets with sustainability goals to support our Site Sustainability Plan established under EO 13514. We are proceeding with upgrades to the sewage treatment plant to redirect waste water discharge from the Peconic River to local recharge basins; have continued clean-out of excess materials and chemicals from laboratories and work spaces under the Blueprint housekeeping project; and as part of an ESH Service Delivery Model, implemented several Service Level Agreements with Line organizations. Environment, Safety and Health Representatives (ESHRs) continue to be actively engaged in daily work activities and projects within Facilities and Operations (F&O) Complexes to ensure that Environment, Safety and Health (ESH) is being considered during work planning.
- Environmental compliance is a key metric that measures the Laboratory's adherence to environmental requirements. A downward trend of self-reported violations continues with good State Pollutant Discharge Elimination System (SPDES) compliance, and reduced exceedances of air emission limits at the Central Steam Facility.
- There have been significant advances in the Groundwater, Soil, and Peconic River projects, including but not limited to the following:
 - Completion of the Peconic River supplemental remediation project
 - Completion of the 5-year review, including resolution to regulatory comments

- Completion of the Freon 11 investigation and start of remedial design
 - Installation and startup of Sr-90 extraction wells for the BGRR plume
 - Completion of the Bldg. 96 closeout report
 - Completion of the annual groundwater status and Peconic River monitoring reports.
- In the area of Waste Management, the following accomplishments are noted:
 - Safely completed 144 shipments of waste (Rad/Haz/Industrial)
 - Championed the preparation of a Technical Safety Basis Document for the Brookhaven Linac Isotope Producer (BLIP)
 - Supported Renovating Science Labs (RSL) renovations in Bldg. 555
 - Performed over 2 dozen lab cleanouts resulting in the disposal of over 2,200 items (7,500 lbs.) of chemical and radioactive waste in support of Housekeeping.
 - Pursued Bldg. 870 Closure
 - Continued liability risk reductions by removing D-tanks, associated wastes, pumps, and piping
 - Assisted with the cleanout of the Hot-Shop (ongoing)
 - Managed disposal of neutralization pits encountered at the Interdisciplinary Science Building (ISB)
 - Continued to support the Non-Proliferation and National Security program with the International Atomic Energy Agency (IAEA).
- For regulatory compliance issues, the following efforts are notable:
 - Completion of the Site Environmental Report (SER)
 - Completion of numerous routine regulatory reports, including National Environmental Policy Act (NEPA) reviews, Emergency Planning and Community Right-to-Know Act (EPCRA), Toxic Substances Control Act (TSCA), et. al.
 - Supported the Housekeeping initiative (Bldgs. 820, 463, 555, 510, 510, 624, 480, 901, 348, 725, 535, 526, et.al)
 - Supported the construction of the Long Island Solar Farm (LISF) and research array projects
 - Supported the Site Sustainability Plan (SSP) (Dumpster Dive, Integrated Pest Management review, greenhouse gas [GHG] reduction strategies)
 - Performed National Emission Standard for Hazardous Air Pollutants (NESHAP) assessments per 40 CFR Part 60, subpart H
 - Sponsored Earth Week.
- BNLs ISO 14001 Program was audited by our third party registrar who recommended continued certification. This program is sustained by rigorous internal environmental audits and oversight by dedicated subject matter experts and field deployed staff. Audits resulted in improvements to the hazardous materials transportation program. We are however concerned that events such as waste mischaracterization and spills (Freon 11) reveal the need for improvements in our ability to perform work according to plans and procedures. Working closely with our Quality Management group we are dedicated to investigating, correcting and checking the causes and

results of events to continually improve environmental operations.

- The Performance Analysis Group (PAG) was established within the QMO per the Blueprint project and staffed with subject matter experts to conduct independent reviews and analyses of events and issues for tracking, trending and reporting to management. The PAG developed a method to analyze and categorize all events into sub categories to aid with Pareto analysis, “common cause analysis” and lessons learned. Since February 2011, The PAG, has been providing, on alternating months, its analysis and recommendations to the Institutional Risk Management Committee on events and corrective action management.
- The Events Analysis Working Group (EAWG) was formed with members from QMO and ES&H in October 2010 and piloted for 3 months for the purpose of analyzing low-level events for trends and lessons learned in an effort to reduce the occurrence of higher-level, more significant events. Following the pilot, the group was been reconstituted to include members from Facilities and Operations, Field/Project Operations, Independent Oversight, as well as, BHSO site representation, when available. The frequency of meetings was increased from monthly to bi-weekly and the group's charter expanded. The EAWG reviews all events in the prior period to identify the need for extent of conditions evaluations, proper categorization and actions on events deemed to have institutional impact. Team members follow up on such events, and lessons learned are being generated as a result of these investigations. In addition, the team has also taken a more systemic approach through “common cause analysis” of the highest contributors to events with injuries or with potential for injuries. The Events Analysis Working Group has also issued several lessons learned to date as a result of review and analysis of these low level events.
- The EAWG has also revised the definition for SCBNL events by expanding the categorization to include non-injury, programmatic events affecting business continuity at the lab to increase visibility to BNL management and ensure action is taken to remedy the problems and reduce the likelihood of recurrence.
- Both the PAG and EWAG charters have also been institutionalized through revisions to the Events/Issues Management Subject Areas in SBMS, as well as, being posted on the QMO web-page.

Weaknesses

- On Saturday, March 5, 2011 at Brookhaven National Laboratory (BNL), a worker was injured in the right arm while cutting a section of a tree trunk from a man-lift which was operated by another employee. The man-lift operator stopped work and lowered the lift to the ground. The injured worker was treated by BNL Fire Rescue EMTs and subsequently transported to and treated at Stony Brook University Hospital. The Accident Investigation Board identified two root causes: the F&O Directorate failed to conduct thorough hazard analyzes and implement effective work controls for protecting workers performing tree felling work; and the F&O Directorate failed to ensure workers possessed needed skills to perform tree felling work, and have knowledge of industry work practices so as to recognize unsafe conditions. Three contributing causes were also identified: F&O failed to manage tree felling as greater than low ESS&H risk work; F&O inadequately communicated management expectations on the use of a work permit for safely planning tree felling; and F&O failed to ensure the Job Risk Assessment (JRA-SI-SITEMAINT-16) addressed the hazards associated with tree felling work performed while elevated by an aerial lift.
- Weaknesses were identified in the implementation of the DOE moratorium metals policy and contamination control of radiological operations at the Positron Emission Tomography (PET) Facility.
- The DART rate for FY2011 is 0.88 (27 cases) and the TRC rate is 1.41 (43 cases) however the second half of 2011 had lower injury rates than the same period in 2010, which was BNL's best year ever for injury rates.
- Winter weather-related injuries, overexertion, and lacerations accounted for a significant portion of injuries, and efforts are underway to directly address high-risk groups and activities in Facilities and Operations (F&O), Procurement, and IBEW. There is an increased emphasis on work planning to mitigate overexertion risks, and custodial workers and material handlers received targeted ergonomic evaluations and training on proper lifting techniques. Continuing with this momentum the Safety Communications Team distributed posters related to material handling to IBEW workers and a contract has been arranged with an outside vendor to provide in-field assessment of tools and provide instruction to workers on safer alternatives, such as retractable sharps.
- BNL recognizes that continual improvement is necessary in its work planning processes as identified in recent events, such as an electrical shock received during maintenance of an emergency generator, and Stack Silencer Crane event when hardware pulled loose from a concrete plug. The Work Planning and Control Management System has undergone major revisions to improve procedural gaps. Also, ESH is working closely with F&O to improve the Job

Risk Assessment (JRA) process to enhance a worker's ability to understand pre-job hazards and controls.

- Issues related to waste characterization continue to be a problem as evidenced by a second shipment of material to EnergySolutions that exceeded Class A waste limits. A Notice of Violation and fine was issued by the State of Utah, along with a temporary rescission of BNL's site access permit. An aggressive Corrective Action Plan was developed and submitted to the State of Utah in order to regain shipping authority. The rescission to the site access permit was lifted on September 21st and BNL continues to work with EnergySolutions to restart shipments.
- In April, a plume of Freon 11 was found south of Building 452. An investigation was initiated immediately and the plume was delineated by the end of August. This event was reviewed with EPA, NYSDEC, DOE, CAC and the BER.
- An event resulted in radioactive contamination on equipment, facilities, personnel, and vehicles, including a personal vehicle that was determined to have left the site. All contamination was controlled within one day and areas were decontaminated within several days of the event. There was no significant radiation exposure or environmental impact. BSA investigated the event to determine contributing and root causes and an independent subcommittee was charged by the BNL Deputy Director for Operations to review the Contractor Assurance System processes related to radioactive material operations. The Investigation Committee conducted interviews and reviewed documents relevant to the event. An event timeline was developed from the Incident Response Log and interviews, and from this, a complete description of the event was developed. The Investigation Committee outlined the areas for investigation, and proceeded to compile the facts, reviewed the applicable requirements, evaluated the compliance with those requirements, and performed a causal analysis. Judgments of Need (JONs) were then defined to address the causes and the failed barriers.

The Investigation Committee determined that there was broad misinterpretation of requirements for packaging and vehicular movement of sealed sources. Related training did not effectively clarify requirements. Radiological Control program documentation complies with all of the requirements for managing and transferring accountable radiological materials; however, work planning documents did not fully capture all requirements related to the vehicular movement of sealed radioactive sources. The configuration management of sealed radioactive sources is less than adequate. Further investigation and analysis is required to determine the cause for leaking in the event sealed source and the extent of condition. Once these have been completed, a DOE Complex Lessons Learned can be developed. Corrective and preventive actions will be developed in response to the JONs.

Improvement initiatives

As part of our business planning process the Environment, Safety and Health (ESH) Directorate develops ESH Objectives and Targets. Together with PEMP and ALP goals, these targets are the Directorate expectations for improvement and set the tone for other Directorates as they develop individual business goals. In FY 12 the ESH Directorate has set the following objectives and targets (improvement initiatives). It should be noted that these goals can change based on progress and need.

Objectives	FY11 Targets	Driver
Improve Safety, Operational Performance, and Work Planning and Control	Implement ESH Cross Training Program	ESH Directorate
	Improve Electrical Safety by implementing the electrical inspector program and Electrical Safety Strategic Plan.	10 CFR 851, NFPA 70E
	Develop and implement F&O supervisor training to improve hazard recognition, work planning and job safety analysis.	10 CFR 851, Root cause analysis
	Implement strategy to reduce material handling injuries	~25% of injuries in FY11 were related to material handling
	Implement strategy to reduce weather related injuries	~25% of injuries in FY11 were weather related
	Deliver BOREs and ARRs for construction and commissioning projects	ESH Directorate
	Improve facility hazard analysis and risk assessment (Blueprint WBS 4.8)	Blueprint WBS 4.8
Improve Environmental Operational Performance	Support implementation of the modifications to the STP and submit preliminary designs to NYSDEC.	6NYCRR Part 750 (SPDES Permit)
	Implement Freon remediation project.	CERCLA-IAG
	Improve radiological waste characterization.	Disposal site waste acceptance criteria
Improve Radiological Operational Performance	Institute improved Moratorium metals program to allow metals recycling	DOE O 458
	Manage the electronic capture / digitization of radiological exposure records in support of EEIOCPA. Incorporate electronic data into the Health Physics Reporting System (HPRS) Database.	ESH Directorate
	Conduct independent assessment of RADCON assessment process	CAP for Source Event
Create a Learning Organization	Strengthen the Corrective Action and Preventative Action Program to increase analytical capability, visibility and accountability for reducing the recurrence of events and issues.	PEMP Notable Outcome Objective 5.1
	Evaluate Low Level ESH Events and Issues, identify trends, and develop lessons learned	ESH Directorate
Third-Party verification of ESS&H program effectiveness	A rigorous and robust Environmental Management System as evidenced by a favorable outcome in the independent ISO 14001 review and registration	DOE O 436.1 Sustainability

Objectives	FY11 Targets	Driver
	A rigorous and robust Occupational Health and Safety Assessment Series as evidenced by a favorable outcome in the independent OHSAS 18001 review and registration	ESH Directorate
Manage and Reduce Impact of Legacy Activities of the Laboratory	Complete removal and shipment of Brookhaven Graphite Research Reactor Bioshield	CERCLA ROD
	Support coordination and transfer of Facilities and Materials between SC and EM	ESH Directorate
	Reduce the inventory of radioactive sealed sources.	ESH Directorate

3.0 ISM DECLARATION

A comprehensive FY11 Year-End review of BNLS PEMP, Annual Laboratory Plan, objectives and targets, and self-assessment results was conducted. The review included evaluations of management system activities, review of corrective actions from assessments and feedback, and review of continuous improvement and follow on activities. Based on this year-end review, ***BNL declares that its ISMS is effectively implemented at the institutional, facility, and activity-levels with the need for continual improvement in areas noted in Section 2 “Weaknesses”***. Weaknesses are being addressed through objectives and targets also identified in Section 2.