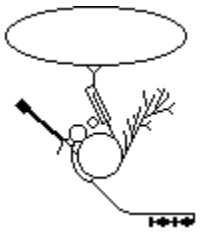
Collider Accelerator Department

BROOKHAVEN NATIONAL LABORATORY



AUDIT REPORT
Of the
Collider Accelerator Department (C-A)
OCCUPATIONAL HEALTH and SAFETY (OHS)
MANAGEMENT SYSTEM

Performed by:

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Date Submitted: May 26, 2004

Audit Dates: May 20 - 24, 2004

1.0 ASSESSMENT PURPOSE

This assessment was conducted to determine whether the Collider-Accelerator Department Occupational Health and Safety (OH&S) Management System Program is documented and implemented in accordance with OHSAS 18001 - 1999, Guidelines on Occupational Safety and Health Management and SBMS OHSAS 18001 - 1999 Interim Program Subject Area requirements. In addition, this assessment will focus on the hazard/risk analysis processes implemented to protect the safety and health of workers and systems to prevent accidents. This element is extremely important since the analysis must now take into consideration both the probability and the consequence of each risk identified.

2.0 ASSESSMENT SCOPE

The scope of the audit encompassed an evaluation of the following Collider-Accelerator Department Occupational Health and Safety (OH&S) Management System elements:

a. OH&S General Requirements
b. OH&S Policy
c. Planning for Hazard identification, Risk Assessment and Controls
d. Legal and Other Requirements
e. OH&S Objectives
f. OH&S Management Programs
g. Structure and Responsibility
h. Training Awareness and Competence
i. Consultation and Communication
j. Documentation
k. Document and Data Control
l. Operational Control
m. Emergency Preparedness and Response
n. Performance Measurement and Monitoring
o. Accidents, Incidents, Nonconformances, Corrective and Preventive Action
p. Records and Records Management
q. Audit
r. Management Review

3.0 SUMMARY

On May 11, 2004, C-AD expanded its OSH Management System Program Description, (OPM 1.10.4) to include SBMS OHSAS 18001 - 1999 Interim Procedures Subject Area requirements. This audit of the C-A OSH Management System was performed to determine if the written program properly addresses each of the eighteen (18) elements identified in OSHAS-18001-1999. To achieve this task, each of the 18 elements identified in the scope of this audit were reviewed for compliance, and effectiveness in meeting the C-A OSH Policy and Objectives. Based on documents reviewed, the C-A OSH Management System written program is being implemented in accordance with the SBMS Interim Procedures Subject Area. Audit observations identified strong managerial support for achieving OSH objectives and targets. The program is being integrated into everyday activities through Operating Procedures and via the Work Planning and Control Processes. As identified in last

year's OH&S Audit, C-A Management has implemented a Worker Occupational Safety and Health (WOSH) Committee, which is charged with ensuring worker concerns, ideas and inputs related to OSH are received, considered and responded to by the Committee. To verify this element, WOSH Committee records for the last year were reviewed, which indicated committee members are communicating with their respective staff on OH&S policies, objectives and on-going related issues. It was noted, that the WOSH Committee Policy procedure (OPM 9.8.1) is presently in-process of being revised to reflect action item responsibilities. In addition, the recently performed (3/31/04) laboratory gap analysis between OHSAS 18001 – 1999 requirements and C-A procedures was reviewed and determined that the ten (10) identified gaps were evaluated and implemented by C-A Management, with the exception of the minor nonconformance 2 below.

As identified last year, the overall OSH program outcome is an injury-free workplace. Thus, continual improvement to the OSH program is an objective. To accomplish this task, the OSH Management System has many avenues in which continual improvement is achieved. The results from Management Reviews, hazard and risk assessments, audits, self-assessments, performance monitoring, work-related injury investigations, WOSH Committee recommendations, laboratory Lessons Learn Program or laboratory initiatives and changes in laws or regulations are some of the avenues that provide management with recommendations to improve. Several of these avenues are forward-looking, that is, they are intended to provide assurance that accidents will not happen in the future (e.g., Management Review). Several avenues are backward looking, that is, they measure injury rates or OSH violations, but in themselves they do not help assure against injuries in the future. Additionally, each year an assessment of the hazards in C-A workplaces (e.g. Accelerators, Experimental Areas, Offices and Shops) is performed, which is very similar to the Environmental Management System (EMS) analysis. Based on the hazard assessment, programs are defined and personnel assigned to further reduce the potential for injuries.

The C-AD Occupational Health and Safety (OH&S) Management System elements were reviewed against the SBMS Interim Procedures, Facility Risk Analysis (FRA) and Job Risk Analysis (JRA) requirements. The following minor nonconformances represent areas that require management attention in order to fully implement the OH&S program in accordance with requirements:

> **Minor Nonconformance 1**: The C-A Department has always reviewed the hazards of its operations in an effort to identify and reduce injury and illness opportunities. This process has now been further enhanced to include OHSAS 18001 guidelines, which require taking into consideration both the probability and the consequence of each risk identified. A review of this effort was performed which revealed that the facility hazard and risk analysis is 100% complete. The area hazard and risk analysis is approximately 80% complete and the job risk analysis has not been reviewed. Based on interviews performed, the job risk analysis is scheduled for completion in August 04. Until this significant process is completed a technical baseline through which all hazards are identified is considered not fully implemented as required by OHSAS 18001 Interim Procedures Subject Area and C-A OPM 1.10.4 requirements.
>
> **Minor Nonconformance 2**: C-A Targets and Objectives identified in the Occupational Management Plans (OMP) differ from the C-A FY04 Targets and Objectives identified on the C-A web. C-A Management needs to evaluate the differences between both Targets and Objectives identified and make them agree with the approved OMPs.

In addition**,** the following four (4) observations identified in last years Occupational, Health and Safety (OH&S) Audit were reviewed and determined that appropriate corrective and preventive actions were taken, closing out these issues.

Observation 1: Currently, there is a DOE/Laboratory initiative to determine the magnitude of additional funds necessary for implementing all of the OSHA regulations that relate to facility improvements. The Department should begin to plan for these improvements and encourage BNL to develop a strategy for preparing technical justifications that demonstrate an equivalent level of safety if facilities can't be changed.
Corrective Action 1: Presently, the Laboratory is implementing OHSAS 18001-1999 interim procedures in preparation for four (4) major organizations (Plant Engineering Division, Central Shops Division, Collider-Accelerator Division and ESHQ Directorate) to become OHSAS certified in September 2004. This entire effort is presently being funded by existing operating funds which demonstrates the Laboratory Management commitment to worker safety.

Observation 2: The laboratory needs to develop a BNL OH&S SBMS Subject Area. Once the laboratory completes this effort, C-A will need to review their OH&S procedures against the subject area to ensure both agree.
Corrective Action 2: The laboratory has developed a SBMS Interim Subject Area for Occupational, Health and Safety (OH&S) procedures that govern the four organizations applying for OHSAS certification.

Observation 3: C-A OH&S Training is under development. The training process was scheduled for completion during the 4th quarter of 2003. After the facility specific training is completed, the Department should continue to conduct safety awareness events for the staff on a quarterly basis such as showing the "Remember Charlie" video or reviewing lessons learned from a recent occurrence or injury.
Corrective Action 3: Records reviewed did indicate that C-A OH&S Training has been completed. In addition, C-A is conducting OH&S Committee Meetings on a quarterly basis to discuss safety awareness issues, trends and events.

Observation 4: Based on C-A trending analysis, outside ground hazards (e.g. ice, snow, rough walkways) have been identified as the major cause for worker lost time and first aid cases in 2003. The C-A ESHQ Associate Chair should bring this issue forward to upper management.
Corrective Action 4: Upper Laboratory Management has been made aware of this condition. In addition, C-A has issued a new operating procedure addressing outside ground hazards, provided staff with snow removal equipment and is coordinating snow removal priorities with Plant Engineering Staff.

3.1 A Summary of each of the program elements follows:

A. OH&S General Requirements
C-A OPM 1.10.4 OS&H Management System Program Description describes how C-A supports the BNL Mission by formalizing its processes to comply with OHSAS 18001, Occupational,

Health and Safety Management System requirements.

C-AD has expanded its safety policy, which was based on DOE Order 450.4 Safety Management System Policy, to include requirements from ILO-OSH-2001 and OSHAS-18001.[1] This initiative was prompted by Brookhaven National Laboratory's concern over increasing injuries and worker compensation cases. The revised C-A Occupational, Health and Safety (OH&S) program not only includes management but supervisory and worker participation as well.[2] This partnership / ownership in the OH&S program ensures all personnel are knowledgeable of safety issues and committed to working safely. The new OH&S Management System program consists of OH&S Management Plans, Training requirements, Assessment Review criteria, Operational Controls and Record Keeping requirements.

In addition, the laboratory is focusing on preparing four organizations, namely Plant Engineering Division, Central Shops Division, Collider–Accelerator Division and the ESHQ Directorate for OHSAS 18001 -1999 certification, scheduled for September 2004. This entire process in preparing for this certification, (e.g. policy and procedure development, implementation of OHSAS training for personnel, manpower and funding restraints) demonstrates the Laboratories Occupational, Health and Safety commitment to their employees and the community.

B. OH&S Policy

Brookhaven National Laboratory OH&S Policy was issued by the laboratory on 4/19/04. The policy was reviewed and verified that it encompasses the laboratories mission to maintain an Occupational, Health and Safety Environment to their customers. To supplement the laboratories policy, C-A has trained their workers on all OSH aspects associated with their respective JTA and daily work activities. The work planning process covers specific OSH requirements associated with specific job tasks, including enhanced work permits requiring read and acknowledgement by the individual performing the task. In addition, C-A Management has established a WOSH Committee last year that has twenty-six (26) C-A members, all of which are workers that represent each of the C-A Sections / Groups. The WOSH Committee's main objective is to review occupational, safety and health issues, recommend methods to correct weaknesses and promote good work practices. This process provides continuous improvement to individual workers, management and the overall OSH Program. The WOSH Committee meets every quarter to discuss injury prevention initiatives, personnel concerns and related worker safety concerns. In addition, procedures for receiving, documenting and responding appropriately to worker communications related to OSH topics are developed and C-A injury statistics are being reviewed.

C. Planning for Hazard identification, Risk Assessment and Controls

OHSAS 18001 procedures are in place and reflect the processes for identifying hazards and associated risks for routine and non-routine activities. The procedures reflect subcontractor and visitor responsibilities and facilities at the workplace. This process takes into consideration both the probability and the consequence of each risk identified. A review of this effort was performed which revealed that the facility hazard and risk analysis is 100% complete. The area hazard and risk analysis is approximately 80% complete and the job risk analysis has presently not been

[1] ILO-OSH-2001, Guidelines on Occupational Safety and Health Systems, International Labour Office, Geneva, 2001. OHSAS 18001:1999, Occupational Health and Safety Management Systems – Specifications, British Standards Institution, Global Engineering Documents, 15 Inverness Way East, Englewood, Colorado 80112, Amended December 2002.

[2] OPM 1.10.4, OSH Management System Program Description.

reviewed. Based on interviews performed, the job risk analysis is scheduled for completion in August 04. Please refer to minor nonconformance 1, identified in this report.

D. Legal and Other Requirements

OPM 1.10.4 OS&H Management System Program Description was reviewed and verified that it does address the processes for identifying, assessing and maintaining legal information up to date. The OS&H Management Representative has the responsibility, accountability and authority for the development, implementation, periodic review and evaluation of the OS&H Management System, which ensures the OS&H system, reflects current legal and other requirements. To ensure C-A is aware of new/revised regulatory changes, appropriate staff of C-A Department subscribes to the SBMS Subscription Service, which identifies new/revised legal or other regulatory requirements for the laboratory. In addition, BNL Subject Matter Experts are used as C-A safety review committee members to assist in the evaluation process.

E. OH&S Objectives

C-A facility has established and documented their objectives and targets for FY04. The facility specific OS&H Management Plans are the primary mechanism in identifying the objectives and targets. The objectives and targets are a direct result of the BNL critical outcomes, objectives and performance measures and management reviews of the OS&H Program. Note: The C-A objectives can be found on their OS&H web page. However, it was noted that C-A Targets and Objectives identified in the Occupational Management Plans (OMP) differ from the C-A FY04 Targets and Objectives identified on the C-A web. C-A Management needs to evaluate the differences between both Targets and Objectives identified and make them agree with the approved OMPs. Please refer to minor nonconformance 2, identified in this report.

F. OH&S Management Programs

The OH&S Management System including responsibilities for implementing the OH&S system are addressed in OPM 1.10.4, OH&S Management System Program Description. The laboratory higher tier OH&S documents are identified in SBMS Interim Procedures Subject Area. The OH&S Document Flow Down Matrix, OPM 1.10.4.a details the OH&S documents associated with achieving tasks within the program structure.

OSH procedures are in place for receiving, documenting and responding to internal and external communications. It was noted that the OSH procedure instructions have placed an emphasis on communicating the fact that the success of the OSH program relies on all relevant levels of the C-A Department for ensuring that concerns, ideas and inputs of workers are received, reviewed and responded to as required. To ensure issues are addressed and appropriate action(s) are taken, items are tracked on the C-A family ATS system.

To further enhance the OSH program, weekly supervisor meetings are held to discuss daily planned work tasks, associated hazards and environmental issues personnel may encounter during the performance of their activities. In addition to C-A group web pages, an OSH comment box is installed in the first floor of building 911, for personnel to submit safety concerns or questions that are forwarded to the WOSH Committee for review and action as applicable.

G. Structure and Responsibility

OS&H structure and responsibility is properly addressed in C-A OPM 1.10.4, OSH Management System Program Description, sections 3.2 and 3.3. C-A Management has overall responsibility for the protection of workers' safety and health, and provides leadership for OSH activities within the organization. C-A Management allocates responsibility, accountability and authority for the development, implementation and performance of the OSH Management System and Objectives. To accomplish this task, C-A has developed and implemented procedures that define these roles and respective responsibilities (e.g. OPM 1.10, C-A Environmental, Safety and Health Policy, OPM 1.10.4.a, Collider-Accelerator OSH Document Flow Down Matrix, OPM 13.1.1, Quality, OSH and Environmental Management Systems). Specific R2A2s for OSH have been summarized and are located at the following C-A web page, http://www.rhichome.bnl.gov/AGS/Accel/SND/osh_management_system.htm. C-A Management has arranged for full participation of their workers in the fulfillment of the C-A OSH policy.

H. Training Awareness and Competence

The C-A training program addressed in C-A OPM 1.12, Conduct of Training Policy and C-A OPM 1.10.4, OSH Management System Program Description were reviewed for content. It was revealed that both documents do identify all applicable OH&S training elements. Formal Training and Qualification Programs for the operation of equipment, processes and procedures that could have a significant impact on personal safety and health are also documented as required.

All employees and users receive facility specific training in accordance with C-A OPM 1.12 requirements. In addition to facility specific training, all new employees receive Emergency Planning and Response, Environmental Protection and Stop Work Training. Additional job specific training for known hazard processes is provided to individuals based on their respective JTA requirement(s). OSH related training, as defined in Brookhaven Training Management System (BTMS) and OPM 1.10.4, is provided to all employees, guests, contractors and users working in C-A facilities.

I. Consultation and Communication

Communication practices are addressed in C-A OPM 1.10.4 and 2.12, Normal Communication Practices. The primary means for this communication within C-A occurs through scheduled weekly planning meetings. Technical and non-technical OS&H information is communicated through the C-A web page (www.rhichome.bnl.gov), Worker Occupational Safety and Health Committee (WOSH) representatives memo's and e-mails as required by C-A OPM 9.8.1, Worker Occupational Safety and Health Committee (OSH) Policy and Requirements. In addition, OPM 1.10.3, Guidance on Community Involvement addresses the process for community involvement.

The impact on OSH of internal and external changes (e.g. staffing, new processes, procedures, organizational structure, and regulatory amendments) is evaluated and applicable steps are taken prior to implementing the changes. Changes to accelerators and experiments are assessed by various safety committees for safety and health issues as well as new work methods, materials, processes and machinery in accordance with procedure requirements. The C-A Quality Assurance Department verifies these controls annually. To ensure C-A is aware of new/revised regulatory changes, appropriate staff of C-A Department subscribes to the SBMS Subscription Service, which identifies new/revised legal or other regulatory requirements for the laboratory. In addition, BNL Subject Matter Experts are used as C-A safety review committee members to assist in the evaluation process.

J. Documentation
C-A document control is developed and implemented in accordance Internal Controlled Documents, SBMS Subject Area. The OS&H core elements are addressed in C-A OPM 1.10.4 and 1.10.4.a. C-A procedures that identify generation, review, approval and maintenance processes are also identified as required.

K. Document and Data Control
The OS&H documents that identify Document/Data Control are in place, implemented and are reviewed annually to ensure they reflect current conditions. All controlled documents (OPMs) are reviewed on a 3-year schedule to ensure they reflect current conditions and are maintained on the C-A web page. Copies of these documents are considered reference only and the user must verify they are working with the latest revision as identified on the web.

C-A OSH document control system is in accordance with SBMS Internal Controlled Documents Subject Area and C-A supplemental procedures OPM 1.1, Authorization, OPM 1.2, C-A Documents, OPM 1.4, Document Control "Series" OPM's and OPM 13.4.1 Records Management Section requirements. OSH records have been identified, with the responsible record custodian and retention period in accordance with DOE record schedule requirements. A review of WOSH Committee records (e.g. minutes, action items, safety concern correspondence, worker compensation case reports, and WOSH presentation/slides) is in place as required. However, it was noted that certain enhancements are being made presently to the WOSH procedure, OPM 9.8.1 that involves action item responsibilities and WOSH form control activities.

L. Operational Control
The C-A Department has always reviewed the hazards of its operations in an effort to identify and reduce injury and illness opportunities. This process has now been further enhanced to include OHSAS 18001 guidelines, which require considering both the probability and the consequence of each risk identified. A review of this effort was performed which revealed that the facility hazard and risk analysis is 100% complete. The area hazard and risk analysis is approximately 80% complete and the job risk analysis has not been reviewed. Based on interviews performed, the job risk analysis is scheduled for completion in August 04. Until this significant process is completed a technical baseline through which all hazards are identified is considered not fully implemented as required by OHSAS 18001 Interim Procedures Subject Area and C-A OPM 1.10.4 requirements. Please refer to minor nonconformance 1, identified in this report.

M. Emergency Preparedness and Response
Emergency Preparedness and Response procedures have been fully implemented, in cooperation with the BNL Emergency Services Division. The C-A Department participates in annual required emergency drills. The Local Emergency Plan is reviewed annually for current conditions and after each drill or actual emergency.

C-A emergency preparedness and response program, addressed in C-A OPM Chapter 3 series, supplements the Laboratory Emergency Plan identified in the Emergency Preparedness Subject Area. A review of the Chapter 3 series procedures, revealed they are unique to the C-A complex. Basically, the procedures are intended to inform personnel on emergency actions to take for most potential accidents/incidents that may arise within the C-A facility. The procedures also address OSH risks associated with the emergency scenario. Each year the C-A Department participates in an annual

emergency response drill. This year the drill is scheduled for late September or early October, 2004.

N. Performance Measurement and Monitoring

C-A procedures that provide instruction for monitoring, measurement and record of OSH performance have been developed, implemented and are reviewed on a 3-year cycle. The OS&H performance monitoring process is achieved in accordance with OPM 13.10.1. Specific monitoring of OS&H hazards are performed using the facility specific OS&H operational control forms using their respective OPM instructions. These documents are identified on the C-A OPM 1.10.4.a, OSH Document Flow Down Matrix. Active monitoring is addressed in OPM 9.4.1, Safety Inspections, OPM 13.10.1, Independent Assessments, OPM 9.4.2, Self Evaluation, OPM 9.8.1 Worker Occupational Safety and Health Committee (OSH) Policy and Requirements, OPM 1.17, Hearing Conservation Program and OPM 8.24, Use of Beryllium. Reactive monitoring processes which addresses work related injuries are found in OPM 9.4.5, C-A Accident/Incident/Investigation and OPM 10.1, Occurrence Reporting and Processing of Operations Information. The laboratory procedure for calibrating OS&H instruments is IH51660, Instrument Calibration and Maintenance Program which is performed by the Safety and Health Division, Industrial Hygiene Group.

In 2004, C-A and the laboratory have focused on reducing work related injuries. This element is identified in C-A performance indicators, which are trended on a quarterly basis using different categories (e.g., recordable injury and illness cases, general safety, electrical safety, housekeeping, chemical safety, fire protection, working environment, radiation safety, personnel protection, unsafe practices, outside ground deficiencies and satellite area concerns). Based on the trending data, to date, the most significant hazard appears to be outside ground deficiencies (e.g., ice, walk ways, railings, etc.), which seem to have caused the most personnel injuries.

A list of OSH non-conformances is the output of the OSH management system performance monitoring and measurement process. Each non-conformance root cause is analyzed against OSH regulations and OSH management system procedures, to ensure adequate corrective and prevention actions are taken. Presently, the C-A Department documents its OSH non-conformances using either the C-A ATS System, Procedure for Conducting Safety Inspections (OPM 9.4.1), the Occurrence Reporting and Processing (ORPS) System (OPM 10.0) or the Critique Subject Area. Each one of these systems track the non-conformance until corrective action is properly taken to close out the item. If the ORPS system is used to identify a non-conformance, a root cause analysis is required. Non-ORPS conditions are documented using critiques, which may become part of a formal investigation of accidents or incidents. This element was also reviewed during the ISO 14001 internal site audit and found to be in compliance with procedural requirements.

O. Accidents, Incidents, Nonconformances, Corrective and Preventive Action

Investigation into the origin and underlying causes of accidents, incidents and work related injuries are addressed in C-A OPM 9.4.5 and OPM 10.1. The investigations are performed and the results of these investigations are communicated to the WOSH Committee and all applicable personnel. Corrective and preventive actions are implemented by C-A Management and are included in the Management Review process for consideration for continual improvement of activities.

P. Records and Records Management

C-A OS&H records are managed and maintained in accordance with the Laboratory Records Management Subject Area. To further enhance the OS&H subject area, C-A has identified all

significant operational, environmental safety and health, training and quality records in C-A OPM 13.4.2 Records Index. Specific OS&H records are identified in C-A OPM 13.4.2.c, List of OS&H Records.

Q. Audit

A review of the OS&H Management System revealed C-A OS&H audits are performed on a yearly basis to determine whether the overall OS&H Management Systems objectives and targets are adequate and effective in protecting the Safety and Health of its workers. Audit findings are addressed by management to correct weaknesses within the C-A OS&H Program and to facilitate improved performance and compliance.

This year due to the registration process, all eighteen (18) elements (identified in the scope of this audit) are reviewed. Thereafter, six (6) elements will be reviewed at random until all 18 OSH elements are assessed over a 3-year period. However, C-A Management may recommend that specific elements be reviewed annually. As applicable, audit results will be communicated to those personnel responsible for corrective action. Depending on audit results, additional assessments may be requested by C-A Management. Each OSH assessment will determine if the OSH Management System elements audited are effective in meeting the following criteria:

a. Effective in meeting C-AD's OSH Policy and Objectives
b. Effective in promoting worker participation
c. Able to achieve compliance with relevant laws and regulations
d. Able to fulfill goals of continual improvement and best OSH practices
e. Able to respond to the results of OSH performance evaluation and previous audits

R. Management Review

C-A Management Reviews are performed by Senior Management on an annual basis. The Management Review evaluates the existing OS&H Management System whether it's meeting the planned performance objectives. Based on these reviews corrective actions are implemented to remedy OS&H deficiencies. Policy and objectives may be enhanced to better align with the current management structure and performance measuring system.

The OSH Management Review focus is on work-related injuries, incident investigations, ill health, diseases, performance monitoring and measurement of audit activities. Internal and external input including organizational changes that could affect the OSH management system is also included in this annual review.

4.0 ASSESSMENT RESOLUTIONS

A summary of the assessment and associated nonconformances were addressed. It was agreed that the two nonconformances identified in the Summary (Section 3.0) would be entered into the ATS program and tracked until closure.

5.0 LIST OF ATTACHMENTS

Attachment A – List of Personnel Interviewed

ATTACHMENT A

List of Personnel Interviewed	Responsibility
P. Cirnigliaro	C-A Safety Engineer
R. Karol	C-A ESHQ Division Manager
J. Maraviglia	C-A Training Manager
D. Passarello	C-A QA Manager
A. Piper	C-A Work Controls Coordinator

Brookhaven National Laboratory
OHSAS 18001 OH&S Assessment

Organization: Date: Lead Auditor:

OHS Management System Model			**GENERAL REQUIREMENTS**
ELEMENT:	4.1	**TITLE:**	General Requirements

OHSAS 18001 STANDARD:	**NO**	**PARTIAL**	**YES**
The organization shall establish and maintain an OH&S management system, the requirements of which are set out in Clause 4 of OHSAS 18001-1999.			X

FACILITY IMPLEMENTATION OF STANDARD: C-A OPM 1.10.4 OS&H Management System Program Description describes how C-A supports the BNL Mission by formalizing its processes to comply with OHSAS 18001, Occupational, Health and Safety Management System requirements.

EXISTING PROCEDURES AND DOCUMENTATION (LIST):

C-A OPM 1.10.4
OPM 2.28
OPM 2.29
OPM 9.1.12
OPM 9.1.15
OPM 9.2.1
OPM 9.3.1

COMMENTS: OPM 1.10.4 revised to capture OHSAS 18001 Interim Procedure SBMS Subject Area requirements.

EVALUATION:

X MEETS REQUIREMENT	MINOR NONCONFORMANCE	MAJOR NONCONFORMANCE

OPTIONAL AUDITOR QUESTIONS:

Has a program been established?
Is the scope of the program clearly defined?
How long has the program been established?
Is it being maintained the requirements of OHSAS 18001-1999?

Brookhaven National Laboratory
OHSAS 18001 OH&S Assessment

Organization: Date: Lead Auditor:

OH&S Management System Model			**OS&H POLICY**
ELEMENT:	4.2	**TITLE:**	OH&S Policy

OHSAS 18001 STANDARD:	**NO**	**PARTIAL**	**YES**
There shall be an occupational health and safety policy authorized by the organization's top management that clearly states overall health and safety objectives and a commitment to improving health and safety performance. The policy shall : a) be appropriate to the nature and scale of the organization's OH&S risks; b) include a commitment to continual improvement; c) include a commitment to at least comply with current applicable OH&S legislation and with other requirements to which the organization subscribes; d) be documented, implemented and maintained; e) be communicated to all employees with the intent that employees are made aware of their individual OH&S obligations; f) be available to interested parties; and g) be reviewed periodically to ensure that it remains relevant and appropriate to the organization.			x

FACILITY IMPLEMENTATION OF STANDARD: Brookhaven National Laboratory OH&S Policy was issued by the laboratory on 4/19/04. The policy was reviewed and verified that it encompasses all required OH&S attributes.

EXISTING PROCEDURES AND DOCUMENTATION (LIST):
OHSAS 18001 Interim Procedure SBMS Subject Area
Integrated Safety Management Program System, SBMS Subject Area
Integrated Safeguards and Security Management System

COMMENTS: None

EVALUATION:

X MEETS REQUIREMENT	MINOR NONCONFORMANCE	MAJOR NONCONFORMANCE

OPTIONAL AUDITOR QUESTIONS:
What is the organization's policy?
Is the policy defined and is it appropriate to the type, size, and OH&S impacts of the organization's activities?
Does the policy include a commitment to continual improvement in the organization's operations?
Does the policy reflect the organizations hazard identification, risk assessment and risk control in the organization's activities and facilities?
Does the policy include a commitment to compliance to legal requirements?
Is the policy documented, implemented, maintained (periodically reviewed) and communicated to all employees and are they aware of their responsibilities to the OH&S?
Is the policy available to interested parties?

Brookhaven National Laboratory
OHSAS 18001 OH&S Assessment

Organization: Date: Lead Auditor:

OH&S Management System Model			**PLANNING**
ELEMENT:	4.3.1	**TITLE:**	Planning for hazard identification, risk assessment and risk control

OHSAS 18001 STANDARD:	**NO**	**PARTIAL**	**YES**
The organization shall establish and maintain procedures for the ongoing identification of hazards, the assessment of risks, and the implementation of necessary control measures. These shall include: - routine and non-routine activities; - activities of all personnel having access to the workplace (including subcontractors and visitors); - facilities at the workplace, whether provided by the organization or others. The organization shall ensure that the results of these assessments and the effects of these controls are considered when setting its OH&S objectives. The organization shall document and keep this information up to date. The organization's methodology for hazard identification and risk assessment shall: - be defined with respect to its scope, nature and timing to ensure it is proactive rather than reactive; - provide for the classification of risks and identification of those that are to be eliminated or controlled by measures as defined in **4.3.3** and **4.3.4**; - be consistent with operating experience and the capabilities of risk control measures employed; - provide input into the determination of facility requirements, identification of training needs and/or development of operational controls; - provide for the monitoring of required actions to ensure both the effectiveness and timeliness of their implementation. NOTE For further guidance on hazard identification, risk assessment and risk control, see OHSAS 18002.			X

FACILITY IMPLEMENTATION OF STANDARD: OHSAS 18001 procedures are in place and reflect the processes for identifying hazards and associated risks for routine and non-routine activities. The procedures reflect subcontractor and visitor responsibilities and facilities at the workplace.

EXISTING PROCEDURES AND DOCUMENTATION (LIST):

C-A OPM 1.10.4
OPM 2.28
OPM 2.29
OPM 9.1.12
OPM 9.1.15
OPM 9.2.1
OPM 9.3.1

COMMENTS: None

EVALUATION:

X MEETS REQUIREMENT	MINOR NONCONFORMANCE	MAJOR NONCONFORMANCE

Brookhaven National Laboratory
OHSAS 18001 OH&S Assessment

Organization: Date: Lead Auditor:

OPTIONAL AUDITOR QUESTIONS:

Are there documented and maintained procedures to establish and update hazards, risks and implementation of controls?
Does the procedure cover routine and non routine activities?
Does the procedure cover all personnel and facilities?
What mechanism is used to initiate hazard review/revision when operations change?
Do the criteria for the assessment of risk address both likely hood and consequence?
Are there records to provide evidence of analysis of hazards, risks and controls?
Are there any obvious hazards that should have been considered and were not? If not, why not?
Are results of assessments and effects of controls considered when setting OH&S objectives and are they documented and up to date?
Does the methodology:

- define scope, nature and timing?
- ensure proactive rather than reactive assessments?
- provide for classification of risk tolerability?
- identify those to be eliminated or controlled?
- assure consistency with operating experience? (Ref. 4.3.1C of OHSAS 18002-2000)
- assure consistency with effectiveness of risk control measures?

Does the methodology provide input into determination of facility requirements, training needs and operational controls?
Does the methodology provide for monitoring of required actions to ensure timeliness and effectiveness of implementation?

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Organization: Date: Lead Auditor:

OH&S Management System Model			**PLANNING**
ELEMENT:	4.3.2	**TITLE:**	Legal and Other Requirements

OHSAS 18001 STANDARD:	**NO**	**PARTIAL**	**YES**
The organization shall establish and maintain a procedure for identifying and accessing the legal and other OH&S requirements that are applicable to it. The organization shall keep this information up-to-date. It shall communicate relevant information on legal and other requirements to its employees and other relevant interested parties.			X

FACILITY IMPLEMENTATION OF STANDARD: OPM 1.10.4 OS&H Management System Program Description was reviewed and verified that it does address the processes for identifying, assessing and maintaining legal information up to date. The OS&H Management Representative has the responsibility, accountability and authority for the development, implementation, periodic review and evaluation of the OS&H Management System, which ensures the OS&H system, reflects current legal and other requirements.

EXISTING PROCEDURES AND DOCUMENTATION (LIST):
OHSAS 18001 Interim Procedure SBMS Subject Area
C-A OPM 1.10.4
OSHA Publications web site (www.osha.gov)
SBMS subscription service

COMMENTS: None

EVALUATION:

X MEETS REQUIREMENT	MINOR NONCONFORMANCE	MAJOR NONCONFORMANCE

OPTIONAL AUDITOR QUESTIONS:
Is there a documented procedure for the organization to identify and have access to all applicable legal requirements?
Is someone (or more than one) designated to keep current on requirements?
What are the resources, references and methods to keep current?
How is applicability of new requirements determined?
How are requirements communicated to all interested party?

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Organization: Date: Lead Auditor:

OH&S Management System Model			**PLANNING**
ELEMENT:	4.3.3	**TITLE:**	Objectives

OHSAS 18001 STANDARD:	**NO**	**PARTIAL**	**YES**
The organization shall establish and maintain documented occupational health and safety objectives, at each relevant function and level within the organization. NOTE Objectives should be quantified wherever practicable. When establishing and reviewing its objectives, an organization shall consider its legal and other requirements, its OH&S hazards and risks, its technological options, its financial, operational and business requirements, and the views of interested parties. The objectives shall be consistent with the OH&S policy, including the commitment to continual improvement.			X

FACILITY IMPLEMENTATION OF STANDARD: C-A facility has established and documented their objectives and targets for FY04. The facility specific OS&H Management Plans are the primary mechanism in identifying the objectives and targets. The objectives and targets are a direct result of the BNL critical outcomes, objectives and performance measures and management reviews of the OS&H Program. Note: The C-A objectives can be found on their OS&H web page.

EXISTING PROCEDURES AND DOCUMENTATION (LIST):
C-A OPM 1.10.4

COMMENTS: None

EVALUATION:

X MEETS REQUIREMENT	MINOR NONCONFORMANCE	MAJOR NONCONFORMANCE

OPTIONAL AUDITOR QUESTIONS:
Has the organization established and maintained OSH objectives?
Have the documented objectives considered legal and other requirements?
Are objectives reasonable and measurable?
Is there a documented and maintained procedure for periodically reviewing objectives?
Are objectives communicated to the employees that are supposed to achieve them?
Are organizational objectives consistent with Lab/higher level objectives?

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Organization: Date: Lead Auditor:

OH&S Management System Model			**PLANNING**
ELEMENT:	4.3.4	**TITLE:**	OH&S Management Program(s)

OHSAS 18001 STANDARD:	**NO**	**PARTIAL**	**YES**
The organization shall establish and maintain (an) OH&S management program(s) for achieving its objectives. This shall include documentation of : a) the designated responsibility and authority for achievement of the objectives at relevant functions and levels of the organization; and b) the means and time-scale by which objectives are to be achieved. The OH&S management program(s) shall be reviewed at regular and planned intervals. Where necessary the OH&S management program(s) shall be amended to address changes to the activities, products, services, or operating conditions of the organization.			X

FACILITY IMPLEMENTATION OF STANDARD: The OH&S Management System including responsibilities for implementing the OH&S system are addressed in OPM 1.10.4, OH&S Management System Program Description.

EXISTING PROCEDURES AND DOCUMENTATION (LIST):
C-A OPM 1.10.4

COMMENTS: None

EVALUATION:

X MEETS REQUIREMENT	MINOR NONCONFORMANCE	MAJOR NONCONFORMANCE

OPTIONAL AUDITOR QUESTIONS:
Are there programs to achieve all the identified objectives?
Do the programs include schedules for completion and resources necessary to achieve the objectives?
Do the programs assign responsibilities for completion of tasks in achieving objectives?
Are all procedures that supplement the OHS management program available to the appropriate personnel and current?
Are the management programs reviewed at planned intervals and amended as required?

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Organization: Date: Lead Auditor:

OH&S Management System Model			**IMPLEMENTATION AND OPERATION**
ELEMENT:	4.4.1	**TITLE:**	Structure and Responsibility

OHSAS 18001 STANDARD:	**NO**	**PARTIAL**	**YES**
The roles, responsibilities and authorities of personnel who manage, perform and verify activities having an effect on the OH&S risks of the organization's activities, facilities and processes, shall be defined, documented and communicated in order to facilitate OH&S management. Ultimate responsibility for occupational health and safety rests with top management. The organization shall appoint a member of top management (e.g. in a large organization, a Board or executive committee member) with particular responsibility for ensuring that the OH&S management system is properly implemented and performing to requirements in all locations and spheres of operation within the organization. Management shall provide resources essential to the implementation, control and improvement of the OH&S management system. NOTE Resources include human resources and specialized skills, technology and financial resources. The organization's management appointee shall have a defined role, responsibility and authority for: a) ensuring that OH&S management system requirements are established, implemented and maintained in accordance with this OHSAS specification; b) ensuring that reports on the performance of the OH&S management system are presented to top management for review and as a basis for improvement of the OH&S management system. All those with management responsibility shall demonstrate their commitment to the continual improvement of OH&S performance.			X

FACILITY IMPLEMENTATION OF STANDARD: OS&H structure and responsibility is properly addressed in C-A OPM 1.10.4, sections 3.2 and 3.3. General responsibilities are addressed and documented further in C-A OPMs 1.10, Environment Safety and Health Policy and OPM 13.1.1, Quality, OSH and Environmental Policy and individual R2A2s.

EXISTING PROCEDURES AND DOCUMENTATION (LIST):

C-A OPM 1.10 OPM 1.10.4.a R2A2s
OPM 1.10.4 OPM 13.1.1

COMMENTS: None

EVALUATION:

X MEETS REQUIREMENT	MINOR NONCONFORMANCE	MAJOR NONCONFORMANCE

OPTIONAL AUDITOR QUESTIONS:

Are roles and responsibility, and authorities defined, documented and communicated?
Has management provided the necessary resources (people, technology, money) to implement this OH&S program?
Has the organization appointed an OH&S management appointee from top management?
Does the R2A2 of the OH&S management appointee document sufficient authority to accomplish a & b above?
How does management demonstrate their commitment for continual improvement of OH&S performance?

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Organization: Date: Lead Auditor:

OH&S Management System Model			**IMPLEMENTATION AND OPERATION**
ELEMENT:	4.4.2	**TITLE:**	Training, Awareness and Competence

OHSAS 18001 STANDARD:	**NO**	**PARTIAL**	**YES**
Personnel shall be competent to perform tasks that may impact on OH&S in the workplace. Competence shall be defined in terms of appropriate education, training and/or experience. The organization shall establish and maintain procedures to ensure that its employees working at each relevant function and level are aware of: — the importance of conformance to the OH&S policy and procedures, and to the requirements of the OH&S management system; — the OH&S consequences, actual or potential, of their work activities and the OH&S benefits of improved personal performance; — their roles and responsibilities in achieving conformance to the OH&S policy and procedures and to the requirements of the OH&S management system, including emergency preparedness and response requirements (see 4.4.7); — the potential consequences of departure from specified operating procedures. Training procedures shall take into account differing levels of: — responsibility, ability and literacy; and — risk.			X

FACILITY IMPLEMENTATION OF STANDARD: Reviewed the C-A training program addressed in C-A OPM 1.12, Conduct of Training Policy and C-A OPM 1.10.4, OSH Management System Program Description which revealed all applicable training elements are identified as required. Formal Training and Qualification Programs for the operation of equipment, processes and procedures that could have a significant impact on personal safety and health are documented as required.

EXISTING PROCEDURES AND DOCUMENTATION (LIST):

C-A OPM 1.10.4 SBMS Subject Area
OPM 1.12

COMMENTS: None

EVALUATION:

X MEETS REQUIREMENT	MINOR NONCONFORMANCE	MAJOR NONCONFORMANCE

OPTIONAL AUDITOR QUESTIONS:

Are procedures established and maintained to make employees aware of a – d above?
How do you ensure personnel are competent to perform tasks that impact OHS?
Has the appropriate training been done and, where required, by qualified trainers?
Do the training procedures take into account the differing levels of responsibility, ability, literacy and risk?
Are there specific, documented minimum requirements for each person performing a task that can cause significant OHS impact?

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Organization: Date: Lead Auditor:

OH&S Management System Model			**IMPLEMENTATION AND OPERATION**
ELEMENT:	4.4.3	**TITLE:**	Consultation and Communication

OHSAS 18001 STANDARD:	**NO**	**PARTIAL**	**YES**
The organization shall have procedures for ensuring that pertinent OH&S information is communicated to and from employees and other interested parties. Employee involvement and consultation arrangements shall be documented and interested parties informed. Employees shall be: — involved in the development and review of policies and procedures to manage risks; — consulted where there are any changes that affect workplace health and safety; — represented on health and safety matters; and — informed as to who is their employee OH&S representative(s) and specified management appointee (see 4.4.1).			X

FACILITY IMPLEMENTATION OF STANDARD:

Communication practices are addressed in C-A OPM 1.10.4 and 2.12, Normal Communication Practices. The primary means for this communication within C-A occurs through scheduled weekly planning meetings. Technical and non-technical OS&H information is communicated through the C-A web page (www.rhichome.bnl.gov), Worker, Occupational Safety and Health Committee (WOSH) representatives memo's and e-mails as required by C-A OPM 9.8.1. In addition, OPM 1.10.3, Guidance on Community Involvement addresses the process for community involvement.

EXISTING PROCEDURES AND DOCUMENTATION (LIST):

C-A OPM 1.10.3
OPM 1.10.4
OPM 2.12
OPM 9.8.1
SBMS Subject Area

COMMENTS: None

EVALUATION:

X MEETS REQUIREMENT	MINOR NONCONFORMANCE	MAJOR NONCONFORMANCE

OPTIONAL AUDITOR QUESTIONS:

Are there procedures that are maintained for communications to and from interested parties regarding the organization's pertinent OH&S information?
How are communications to and from interested parties documented?
How are internal communications between different levels and different functions documented? How do you have feedback to management?
How are employees involved in the development of policies and procedures to manage risks?
How are employees consulted for changes that affect workplace health and safety?
How employees are represented on OHS matters?
Do people know who their employee OHS representative and/or management appointees are?
How are OHS representatives involved in communication mechanisms with management/
What initiatives do you have to encourage OHS consultations and improvement activities?
What mechanisms are used to communicate OHS concerns or information to all interested parties and employees? e.g. inspections, briefings, notice boards, OHS newsletter, OHS poster programs.

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Organization: Date: Lead Auditor:

OH&S Management System Model			**IMPLEMENTATION AND OPERATION**
ELEMENT:	4.4.4	**TITLE:**	Documentation

OHSAS 18001 STANDARD:	**NO**	**PARTIAL**	**YES**
The organization shall establish and maintain information, in a suitable medium such as paper or electronic form, that : a) describes the core elements of the management system and their interaction; and b) provides direction to related documentation. NOTE It is important that documentation is kept to the minimum required for effectiveness and efficiency.			X

FACILITY IMPLEMENTATION OF STANDARD:

C-A document control is developed and implemented in accordance BNL Internal Controlled Documents, SBMS Subject Area. The OS&H core elements are addressed in C-A OPM 1.10.4 and 1.10.4.a. C-A procedures that identify generation, review, approval and maintenance processes are also identified as required.

EXISTING PROCEDURES AND DOCUMENTATION (LIST):

C-A OPM 1.1	OPM 1.10.4	OPM 13.4.2
OPM 1.2	OPM 1.10.4.a	SBMS Subject Area
OPM 1.4	OPM 13.4.1	R2A2s

COMMENTS: None

EVALUATION:

X MEETS REQUIREMENT	MINOR NONCONFORMANCE	MAJOR NONCONFORMANCE

OPTIONAL AUDITOR QUESTIONS:

How has the organization documented the core elements of its OHSAS 18001 system?
How does the organization show linkage between all upper and lower level documentation?
Does the system document how the related documentation, both internal and external, [regulations, permits, forms, etc.] are to be used?

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Organization: Date: Lead Auditor:

OH&S Management System Model			**IMPLEMENTATION AND OPERATION**
ELEMENT:	4.4.5	**TITLE:**	Document and Data Control

OHSAS 18001 STANDARD:	**NO**	**PARTIAL**	**YES**
The organization shall establish and maintain procedures for controlling all documents and data required by this OHSAS specification to ensure that: a) they can be located; b) they are periodically reviewed, revised as necessary and approved for adequacy by authorized personnel; c) current versions of relevant documents and data are available at all locations where operations essential to the effective functioning of the OH&S system are performed; d) obsolete documents and data are promptly removed from all points of issue and points of use or otherwise assured against unintended use; and e) archival documents and data retained for legal or knowledge preservation purposes or both, are suitably identified.			X

FACILITY IMPLEMENTATION OF STANDARD:

The OH&S documents that identify Document/Data Control are shown in OH&S element 4.4.4. The OH&S documents are reviewed on an annual basis. All controlled OPM documents are reviewed on a 3-year schedule to ensure they reflect current conditions and are maintained on the C-A web page. Copies of these documents are considered reference only and the user must verify they are working with the latest revision as identified on the web.

EXISTING PROCEDURES AND DOCUMENTATION (LIST):

C-A OPM 13.4.1 SBMS Subject Area
OPM 13.4.2

COMMENTS: None

EVALUATION:

X MEETS REQUIREMENT	MINOR NONCONFORMANCE	MAJOR NONCONFORMANCE

OPTIONAL AUDITOR QUESTIONS:

Are there procedures for controlling and maintaining all documents (e.g., procedures and instructions) and/or data (e.g., engineering drawings and MSDS) required by this standard? Are the documents/data accessible (e.g., can the employee access the documents/data they need), including during an emergency?
Are the documents/data periodically reviewed, revised and approved for adequacy by authorized personnel?
Are latest versions of documents/data available in all areas and by all personnel that perform tasks essential to the effective functioning of the OH&S?
Are obsolete documents/data removed from use and assured from unintended use? Are historical copies maintained & labeled?
Are those obsolete documents/data that are retained for legal or knowledge reasons clearly identified?
Are documents/data dated with the latest revision, orderly, legible and retained for a specified period?

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Organization: Date: Lead Auditor:

OH&S Management System Model			**IMPLEMENTATION AND OPERATION**
ELEMENT:	4.4.6	**TITLE:**	Operational Control

OHSAS 18001 STANDARD:	**NO**	**PARTIAL**	**YES**
The organization shall identify those operations and activities that are associated with identified risks where control measures need to be applied. The organization shall plan these activities, including maintenance, in order to ensure that they are carried out under specified conditions by: a) establishing and maintaining documented procedures to cover situations where their absence could lead to deviations from the OH&S policy and the objectives; b) stipulating operating criteria in the procedures; c) establishing and maintaining procedures related to the identified OH&S risks of goods, equipment and services purchased and/or used by the organization and communicating relevant procedures and requirements to suppliers and contractors; d) establishing and maintaining procedures for the design of workplace, process, installations, machinery, operating procedures and work organization, including their adaptation to human capabilities, in order to eliminate or reduce OH&S risks at their source.		X	

FACILITY IMPLEMENTATION OF STANDARD:

The C-A Department has always reviewed the hazards of its operations in an effort to identify and reduce injury and illness opportunities. This process has now been further enhanced to include OHSAS 18001 guidelines, which require considering both the probability and the consequence of each risk identified. A review of this effort was performed which revealed that the facility hazard and risk analysis is 100% complete. The area hazard and risk analysis is approximately 80% complete and the job risk analysis has not been reviewed. Based on interviews performed, the job risk analysis is scheduled for completion in August 04. Until this significant process is completed a technical baseline through which all hazards are identified is considered not fully implemented as required by OHSAS 18001 Interim Procedures Subject Area and C-A OPM 1.10.4 requirements.

EXISTING PROCEDURES AND DOCUMENTATION (LIST):

C-A OPM 1.10.4
OPM 2.28
OPM 2.29
OPM 9.1.12
OPM 9.1.15
OPM 9.2.1
OPM 9.3.1
OHSAS 18001 Interim Procedures Subject Area

COMMENTS: None

EVALUATION:

MEETS REQUIREMENT	X MINOR NONCONFORMANCE	MAJOR NONCONFORMANCE

OPTIONAL AUDITOR QUESTIONS:

Have the operations and activities, including maintenance, been identified that are associated with the identified OH&S risks where control measures need to be applied?

Have procedures been established and maintained for the above operations that, if they are not followed for these situations,

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could lead to deviations from the OH&S policy and the objectives?
Are operating criteria clearly established and document/data in the procedures for the operations and activities identified above?
Have the identified OH&S risks of goods, materials, equipment and services used in the above operations and activities been identified?
Are there procedures for handling goods, materials, equipment and services used in the activities associated with identified risks where controls need to be applied?
Are relevant procedures and requirements communicated to the appropriate suppliers and contractors (are operational controls in place and working as expected)?
Are records of operational controls and performance indicators managed and retained per plans?
Are there procedures to reduce OS&H risks in design and workplace processes (Ref. d above)?

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Organization: Date: Lead Auditor:

OH&S Management System Model			**IMPLEMENTATION AND OPERATION**
ELEMENT:	4.4.7	**TITLE:**	Emergency Preparedness and Response

OHSAS 18001 STANDARD:	**NO**	**PARTIAL**	**YES**
The organization shall establish and maintain plans and procedures to identify the potential for, and responses to, incidents and emergency situations, and for preventing and mitigating the likely illness and injury that may be associated with them. The organization shall review its emergency preparedness and response plans and procedures, in particular after the occurrence of incidents or emergency situations. The organization shall also periodically test such procedures where practicable.			X

FACILITY IMPLEMENTATION OF STANDARD:

Emergency Preparedness and Response procedures have been fully implemented, in cooperation with the BNL Emergency Services Division. The C-A Department participates in annual required emergency drills. The Local Emergency Plan is reviewed annually for current conditions and after each drill or actual emergency.

EXISTING PROCEDURES AND DOCUMENTATION (LIST):

C-A OPM 3.0 Local Emergency Plan
OPM 10.1 Occurrence Reporting Processing of Operations Information
SBMS Subject Area

COMMENTS: None

EVALUATION:

X MEETS REQUIREMENT	MINOR NONCONFORMANCE	MAJOR NONCONFORMANCE

OPTIONAL AUDITOR QUESTIONS:

Are there maintained procedures to identify potential for accidents and emergency situations?
Are there maintained procedures to respond to accidents and emergency situations?
Are there maintained procedures to prevent and minimize the OH&S risks that may be associated with the identified accidents and emergency situations?
Are there reviews and revisions of the emergency preparedness and response procedures, particularly after an incident?
Are there periodical tests of the above procedures?

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Organization: Date: Lead Auditor:

OH&S Management System Model			**CHECKING AND CORRECTIVE ACTION**
ELEMENT:	4.5.1	**TITLE:**	Performance Measurement and Monitoring

OHSAS 18001 STANDARD:	**NO**	**PARTIAL**	**YES**
The organization shall establish and maintain procedures to monitor and measure OH&S performance on a regular basis. These procedures shall provide for: a) both qualitative and quantitative measures, appropriate to the needs of the organization; b) monitoring of the extent to which the organization's OH&S objectives are met; c) proactive measures of performance that monitor compliance with the OH&S d) management program, operational criteria and applicable legislation and regulatory requirements; e) reactive measures of performance to monitor accidents, ill health, incidents (including near-misses) and other historical evidence of deficient OH&S performance; f) recording of data and results of monitoring and measurement sufficient to facilitate subsequent corrective and preventive action analysis. If monitoring equipment is required for performance measurement and monitoring, the organization shall establish and maintain procedures for the calibration and maintenance of such equipment. Records of calibration and maintenance activities and results shall be retained.			X

FACILITY IMPLEMENTATION OF STANDARD:

C-A procedures that provide instruction for monitoring, measurement and record of OSH performance have been developed, implemented and are reviewed on a 3-year cycle. The OS&H performance monitoring process is achieved in accordance with OPM 13.10.1. Specific monitoring of OS&H hazards are performed using the facility specific OS&H operational control forms using their respective OPM instructions. These documents are identified on the C-A OPM 1.10.4.a, OSH Document Flow Down Matrix. Active monitoring is addressed in OPM 9.4.1, Safety Inspections, OPM 13.10.1, Independent Assessments, OPM 9.4.2, Self Evaluation, OPM 9.8.1 Worker Occupational Safety and Health Committee (OSH) Policy and Requirements, OPM 1.17, Hearing Conservation Program and OPM 8.24, Use of Beryllium. Reactive monitoring processes which addresses work related injuries are found in OPM 9.4.5, C-A Accident/Incident/Investigation and OPM 10.1, Occurrence Reporting and Processing of Operations Information. The laboratory procedure for calibrating OS&H instruments is IH51660, Instrument Calibration and Maintenance Program which is performed by the Safety and Health Division, Industrial Hygiene Group.

EXISTING PROCEDURES AND DOCUMENTATION (LIST):

C-A OPM 1.10.4 OPM 1.10.4.a OPM 8.24 OPM 9.4.2 OPM 9.81
OPM 1.17 OPM 13.10.1 OPM 9.4.1 OPM 9.4.5

COMMENTS: None

EVALUATION:

X MEETS REQUIREMENT	MINOR NONCONFORMANCE	MAJOR NONCONFORMANCE

OPTIONAL AUDITOR QUESTIONS:

Do the procedures address qualitative and quantitative measures?

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Are procedures document/data and maintained to monitor and measure OH&S performance on a regular basis?
Are monitoring of OH&S objectives performed?
Does the OH&S management program include proactive measures to address operational criteria, legal requirements and regulatory standards?
Are there reactive measures of performance to monitor accidents, ill health, incidents (including near-misses) and other historical evidence of deficient OH&S performance?
Are OH&S performance indicators evaluated for corrective and preventative action?
Are the indicators of OH&S performance communicated to management?
Is OH&S monitoring equipment required for performance measurement and monitoring calibrated? If so, is there a documented calibration and maintenance procedure(s)?
Are the records for the calibrations and maintenance results retained?

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Organization: Date: Lead Auditor:

OH&S Management System Model			**CHECKING AND CORRECTIVE ACTION**
ELEMENT:	4.5.2	**TITLE:**	Accidents, incidents, nonconformances and corrective and preventive action

OHSAS 18001 STANDARD:	**NO**	**PARTIAL**	**YES**
The organization shall establish and maintain procedures for defining responsibility and authority for: a) the handling and investigation of: — accidents; — incidents; — non-conformances; b) taking action to mitigate any consequences arising from accidents, incidents or nonconformances; c) the initiation and completion of corrective and preventive actions; d) confirmation of the effectiveness of corrective and preventive actions taken. These procedures shall require that all proposed corrective and preventive actions shall be reviewed through the risk assessment process prior to implementation. Any corrective or preventive action taken to eliminate the causes of actual and potential nonconformances shall be appropriate to the magnitude of problems and commensurate with the OH&S risk encountered. The organization shall implement and record any changes in the documented procedures resulting from corrective and preventive action.			

FACILITY IMPLEMENTATION OF STANDARD:
Investigation into the origin and underlying causes of accidents, incidents and work related injuries are addressed in C-A OPM 9.4.5 and OPM 10.1. The investigations are performed and the results of these investigations are communicated to the WOSH Committee and all applicable personnel. Corrective and preventive actions are implemented by C-A Management and are included in the Management Review process for consideration for continual improvement of activities.

EXISTING PROCEDURES AND DOCUMENTATION (LIST):
C-A OPM 9.4.5 SBMS Subject Area

COMMENTS: None

EVALUATION:

X MEETS REQUIREMENT	MINOR NONCONFORMANCE	MAJOR NONCONFORMANCE

OPTIONAL AUDITOR QUESTIONS:
Are procedures documented and maintained for defining responsibility and authority for handling and investigating of accidents, incidents and nonconformances?
Are procedures documented and maintained for initiating and completing corrective and preventive action? Is a risk assessment conducted for these actions?
Are appropriate corrective and preventive actions taken, results implemented and recorded?
How does the organization implement/record changes in their documented procedures resulting from corrective and preventative actions?

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Organization: Date: Lead Auditor:

OH&S Management System Model			**CHECKING AND CORRECTIVE ACTION**
ELEMENT:	4.5.3	**TITLE:**	Records and records management

OHSAS 18001 STANDARD:	**NO**	**PARTIAL**	**YES**
The organization shall establish and maintain procedures for the identification, maintenance and disposition of OH&S records, as well as the results of audits and reviews. OH&S records shall be legible, identifiable and traceable to the activities involved. OH&S records shall be stored and maintained in such a way that they are readily retrievable and protected against damage, deterioration or loss. Their retention times shall be established and recorded. Records shall be maintained, as appropriate to the system and to the organization, to demonstrate conformance to this OHSAS specification.			X

FACILITY IMPLEMENTATION OF STANDARD:

C-A OS&H records are managed and maintained in accordance with the Laboratory Records Management Subject Area. To further enhance the OS&H subject area, C-A has identified all significant operational, environmental safety and health, training and quality records in C-A OPM 13.4.2 Records Index. Specific OS&H records are identified in C-A OPM 13.4.2.c, List of OS&H Records.

EXISTING PROCEDURES AND DOCUMENTATION (LIST):

C-A OPM 13.4.2 SBMS Subject Area
OPM 13.4.2.c

COMMENTS: None

EVALUATION:

X MEETS REQUIREMENT	MINOR NONCONFORMANCE	MAJOR NONCONFORMANCE

OPTIONAL AUDITOR QUESTIONS:

Are procedures documented and maintained for the identification, maintenance and disposition of OH&S records?
Are the records legible, identifiable and traceable to the activities involved?
Are the records stored and maintained such that they are readily retrievable and protected against damage, deterioration or loss?
Are there specified retention times for all of the records identified?
Are the records maintained in a manner to demonstrate conformance with the standard and appropriate to the system and the organization?
Is consideration given to confidentially?

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Organization: Date: Lead Auditor:

OH&S Management System Model			**CHECKING AND CORRECTIVE ACTION**
ELEMENT:	4.5.4	**TITLE:**	Audit

OHSAS 18001 STANDARD:	**NO**	**PARTIAL**	**YES**
OH&S management system audits to be carried out, in order to: a) determine whether or not the OH&S management system: 1) conforms to planned arrangements for OH&S management including the requirements of this OHSAS specification; 2) has been properly implemented and maintained; and 3) is effective in meeting the organization's policy and objectives; b) review the results of previous audits; c) provide information on the results of audits to management. The audit program, including any schedule, shall be based on the results of risk assessments of the organization's activities, and the results of previous audits. The audit procedures shall cover the scope, frequency, methodologies and competencies, as well as the responsibilities and requirements for conducting audits and reporting results. Wherever possible, audits shall be conducted by personnel independent of those having direct responsibility for the activity being examined. NOTE The word "independent" here does not necessarily mean external to the organization.			X

FACILITY IMPLEMENTATION OF STANDARD:
A review of the OS&H Management System revealed C-A OS&H audits are being performed on a yearly basis to determine whether the overall OS&H Management Systems objectives and targets are adequate and effective in protecting the Safety and Health of its workers. Audit findings are addressed by management to correct weaknesses within the C-A OS&H Program and to facilitate improved performance and compliance.

EXISTING PROCEDURES AND DOCUMENTATION (LIST):
C-A OPM 13.10.1

COMMENTS: None

EVALUATION:

X MEETS REQUIREMENT	MINOR NONCONFORMANCE	MAJOR NONCONFORMANCE

OPTIONAL AUDITOR QUESTIONS:
Are procedures documented and maintained for periodic OH&S audits?
Does the procedure for OH&S audits include the scope of the audit, frequency, methodologies used, responsibilities, requirements, and method of reporting results?
Does the OH&S audit determine whether their OH&S has been implemented and maintained and conforms to this standard and organization's OH&S policy and objectives?
Does the OH&S audit provide results of the audits to management?
Is the audit program and schedule based on risk assessments and the results of previous audits?
Does the procedure address the independence of auditors?

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OH&S Management System Model			**MANAGEMENT REVIEW**
ELEMENT:	4.6	**TITLE:**	Management Review

OHSAS 18001 STANDARD:	**NO**	**PARTIAL**	**YES**
The organization's top management shall, at intervals that it determines, review the OH&S management system, to ensure its continuing suitability, adequacy and effectiveness. The management review process shall ensure that the necessary information is collected to allow management to carry out this evaluation. This review shall be documented. The management review shall address the possible need for changes to policy, objectives and other elements of the OH&S management system, in the light of OH&S management system audit results, changing circumstances and the commitment to continual improvement.			X

FACILITY IMPLEMENTATION OF STANDARD:

C-A Management Reviews are performed by Senior Management on an annual basis. The Management Review evaluates the existing OS&H Management System whether it's meeting the planned performance objectives. Based on these reviews corrective actions are implemented to remedy OS&H deficiencies. Policy and objectives may be enhanced to better align with the current management structure and performance measuring system.

EXISTING PROCEDURES AND DOCUMENTATION (LIST):

C-A OPM 13.10.1
SBMS Subject Area

COMMENTS: None

EVALUATION:

X MEETS REQUIREMENT	MINOR NONCONFORMANCE	MAJOR NONCONFORMANCE

OPTIONAL AUDITOR QUESTIONS:

Has top management performed a review of the OH&S management system on a periodic basis? Is it documented?
Does the review address the system's:

- continued suitability
- adequacy
- effectiveness

Does the review address possible need to change its policy, objectives and other elements of the OH&S management system?
Has this been conducted in light of OH&S management system audit results, continual improvement and changing circumstances?
Does the record of the review include a list of information used for the management evaluation?

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CRITERIA	Activity 1:	Activity 2:	Activity 3:	Activity 4:	Activity 5:
Knowledge of OH&S policy	□ CON □ MIN □ MAJ □COM □ OBS □ Footnote:	□ CON □ MIN □ MAJ □ COM □ OBS □ Footnote:	□ CON □ MIN □ MAJ □ COM □ OBS □ Footnote:	□ CON □ MIN □ MAJ □ COM □ OBS □ Footnote:	□ CON □ MIN □ MAJ □ COM □ OBS □ Footnote:
Knowledge of existence of OH&S management system	□ CON □ MIN □ MAJ □ COM □ OBS □ Footnote:	□ CON □ MIN □ MAJ □ COM □ OBS □ Footnote:	□ CON □ MIN □ MAJ □ COM □ OBS □ Footnote:	□ CON □ MIN □ MAJ □ COM □ OBS □ Footnote:	□ CON □ MIN □ MAJ □ COM □ OBS □ Footnote:
OH&S job risks	□ CON □ MIN □ MAJ □ COM □ OBS □ Footnote:	□ CON □ MIN □ MAJ □ COM □ OBS □ Footnote:	□ CON □ MIN □ MAJ □ COM □ OBS □ Footnote:	□ CON □ MIN □ MAJ □ COM □ OBS □ Footnote:	□ CON □ MIN □ MAJ □ COM □ OBS □ Footnote:
Awareness of how to avoid OH&S hazards	□ CON □ MIN □ MAJ □ COM □ OBS □ Footnote:	□ CON □ MIN □ MAJ □ COM □ OBS □ Footnote:	□ CON □ MIN □ MAJ □ COM □ OBS □ Footnote:	□ CON □ MIN □ MAJ □ COM □ OBS □ Footnote:	□ CON □ MIN □ MAJ □ COM □ OBS □ Footnote:
Awareness of how to contribute to organization's programs (e.g., feedback, involvement on committees, risk assessments, work planning)	□ CON □ MIN □ MAJ □ COM □ OBS □ Footnote:	□ CON □ MIN □ MAJ □ COM □ OBS □ Footnote:	□ CON □ MIN □ MAJ □ COM □ OBS □ Footnote:	□ CON □ MIN □ MAJ □ COM □ OBS □ Footnote:	□ CON □ MIN □ MAJ □ COM □ OBS □ Footnote:
Awareness of emergency response/actions	□ CON □ MIN □ MAJ □ COM □ OBS □ Footnote:	□ CON □ MIN □ MAJ □ COM □ OBS □ Footnote:	□ CON □ MIN □ MAJ □ COM □ OBS □ Footnote:	□ CON □ MIN □ MAJ □ COM □ OBS □ Footnote:	□ CON □ MIN □ MAJ □ COM □ OBS □ Footnote:
How have affected employee/guests been made aware of new requirements	□ CON □ MIN □ MAJ □ COM □ OBS □ Footnote:	□ CON □ MIN □ MAJ □ COM □ OBS □ Footnote:	□ CON □ MIN □ MAJ □ COM □ OBS □ Footnote:		

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Footnotes/Comments:	□ CON □ MIN □ MAJ □ COM □ OBS □ Footnote: _____	□ CON □ MIN □ MAJ □ COM □ OBS □ Footnote: _____

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How are objectives made known to the employee/guests that are supposed to achieve them	□ CON □ MIN □ MAJ □ COM □ OBS □ Footnote: _____	□ CON □ MIN □ MAJ □ COM □ OBS □ Footnote: _____	□ CON □ MIN □ MAJ □ COM □ OBS □ Footnote: _____	□ CON □ MIN □ MAJ □ COM □ OBS □ Footnote: _____	□ CON □ MIN □ MAJ □ COM □ OBS □ Footnote: _____
Do employee/guests know their OS&H roles, authorities and responsibilities	□ CON □ MIN □ MAJ □ COM □ OBS □ Footnote: _____	□ CON □ MIN □ MAJ □ COM □ OBS □ Footnote: _____	□ CON □ MIN □ MAJ □ COM □ OBS □ Footnote: _____	□ CON □ MIN □ MAJ □ COM □ OBS □ Footnote: _____	□ CON □ MIN □ MAJ □ COM □ OBS □ Footnote: _____
Are operational controls in place and working as specified	□ CON □ MIN □ MAJ □ COM □ OBS □ Footnote: _____	□ CON □ MIN □ MAJ □ COM □ OBS □ Footnote: _____	□ CON □ MIN □ MAJ □ COM □ OBS □ Footnote: _____	□ CON □ MIN □ MAJ □ COM □ OBS □ Footnote: _____	□ CON □ MIN □ MAJ □ COM □ OBS □ Footnote: _____
Do employee/guests know the consequence of deviating from established procedures	□ CON □ MIN □ MAJ □ COM □ OBS □ Footnote: _____	□ CON □ MIN □ MAJ □ COM □ OBS □ Footnote: _____	□ CON □ MIN □ MAJ □ COM □ OBS □ Footnote: _____		
Are employee/guests aware and ready to execute emergency procedures for such	□ CON □ MIN □ MAJ □ COM □ OBS □ Footnote: _____	□ CON □ MIN □ MAJ □ COM □ OBS □ Footnote: _____	□ CON □ MIN □ MAJ □ COM □ OBS □ Footnote: _____		
Have contractors/interested parties been informed on any relevant operational controls	□ CON □ MIN □ MAJ □ COM □ OBS □ Footnote: _____	□ CON □ MIN □ MAJ □ COM □ OBS □ Footnote: _____	□ CON □ MIN □ MAJ □ COM □ OBS □ Footnote: _____		
Footnotes/Comments:					

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