



INTERNAL AUDIT REPORT

Of the

Collider Accelerator Department (C-AD)

And

Superconducting Magnet Division (SMD)

ENVIRONMENTAL MANAGEMENT SYSTEM (EMS)

and

OCCUPATIONAL HEALTH and SAFETY MANAGEMENT SYSTEM (OHSAS)

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Date Submitted: June 3, 2005

Audit Dates: May 24 - 26, 2005

1.0 ASSESSMENT PURPOSE

This internal assessment was conducted to determine whether the Collider-Accelerator Department (C-AD) and the Superconducting Magnet Division (SMD) Environmental Management System (EMS) and Occupational Health and Safety Management System (OH&S) Programs are documented and implemented in accordance with Environmental Management System 14001- 2004 and Occupational, Health and Safety Management System OHSAS 18001 – 1999 Standards. In addition, this assessment focused on the EMS/OH&S implementation within C-AD and SMD operations, personnel involvement in the hazard/risk analysis processes implemented to protect the safety and health of workers, and evaluated EMS/OH&S policy awareness among staff.

2.0 ASSESSMENT SCOPE

This assessment was structured to address recent revision to the 14001 - 2004 (EMS) standard and as identified last year six (6) OHSAS 18001 – 1999 elements, until all 18 OSHAS elements are assessed over a 3-year period.

The scope of the audit encompassed an evaluation of the following Collider-Accelerator Department and Superconducting Magnet Division Environmental Management System (EMS) elements:

- a. Legal and Other Requirements (4.3.2)
- b. Objectives, Targets and Programmes (4.3.3)
- c. Resources, Roles, Responsibility and Authority (4.4.1)
- d. Competence, Training and Awareness (4.4.2)
- e. Communication (4.4.3)
- f. EMS Documentation (4.4.4)
- g. Control of Documents (4.4.5)
- h. Emergency Preparedness and Response (4.4.7)
- i. Evaluation of Compliance (4.5.2)
- j. Nonconformity, Corrective Action and Preventive Action (4.5.3)
- k. Control of Records (4.5.4)
- l. Internal (EMS) Audit (4.5.5)
- m. Management Review (4.6)

In addition, the audit also encompassed an evaluation of the following Occupational Health and Safety Management System (OHSAS) elements:

- a. Legal and Other Requirements (4.3.2)
- b. Structure and Responsibility (4.4.1)
- c. Consultation and Communication (4.4.3)
- d. Documentation (4.4.4)
- e. Operational Control (4.4.6)
- f. Accidents, Incidents, Nonconformances, Corrective and Preventive Action (4.5.2)

In addition, portions of the following OHSAS elements were assessed:

- a. Planning for Hazard Identification, Risk Assessment and Risk (4.3.1)
- b. Training, Awareness and Competence (4.4.2)

3.0 SUMMARY

In January 2005, C-AD expanded its Environmental Management Program Description (OPM 1.10.2) and OH&S Management System Program Description, (OPM 1.10.4) to include the Superconducting Magnet Division requirements in accordance with SBMS Procedures Subject Area requirements. This audit of C-AD and SMD was performed to determine if the written programs addresses each of the eighteen (18) elements identified in 14001 – 2004 and OSHAS-18001-1999 standards and if these standards are being properly implemented. To achieve this task, each of the elements identified in the scope of this audit were reviewed for compliance, and effectiveness in meeting the EMS and OH&S Policy and Objectives. Based on documents reviewed, the

C-A/SMD EMS and OH&S Management System written programs are being implemented in accordance with the SBMS Procedures Subject Area. Audit observations identified strong managerial support for achieving the EMS and OH&S objectives and targets. The programs are being integrated into everyday activities through Operating Procedures and the Work Planning and Control Processes with the exception of the findings identified below.

In addition to environmental objectives, employee representatives from C-AD and SMD have been appointed (or agreed to serve on) a Worker Occupational Safety and Health (WOSH) Committee, which is charged with ensuring worker concerns, ideas and inputs related to OH&S are received, considered and responded to by the Committee. To verify this element, personnel interviews were performed at random, which indicated an awareness of the WOSH existence and function, and that staff, group supervisors and manager's committee members are communicating with their respective staff on OH&S policies, objectives and on-going OH&S related issues. Staff were also well aware of the various avenues available to address OH&S issues/concerns (supervisors/OH&S group/ WOSH committee representative/etc.).

Based on interviews performed and documentation reviewed the overall objective for the EMS and OH&S programs is continual improvement. The programs are focused on integrating ESSH into their research and daily operations. Employees are involved in the risk analysis process, conserving energy, reducing pollution while focusing on an injury-free workplace. The EMS/OH&S Management Systems have 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 Learned Program or laboratory initiatives and changes in laws or regulations are some of the avenues that provide management with recommendations to improve. 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/SMD Environmental Management System (EMS) and Occupational Health and Safety (OH&S) Management System elements were reviewed against their respective Program Descriptions and the SBMS Interim Procedure requirements. For the purpose of providing management with the EMS and OHSAS elements requiring attention each respective area is separated. The following findings represent areas that require management attention in order to fully implement the EMS program in accordance with 14001 – 2004 requirements:

Major Nonconformance 1: Element 4.4.5, Control of Documents states that the organization shall establish and maintain procedures for controlling all documents required by this International Standard to ensure that they are periodically reviewed, revised as necessary and approved for adequacy by authorized personnel. A review of C-AD and SMD operating procedures (OPMs) associated with EMS tasks revealed that numerous OPMs have not been reviewed within their scheduled 3-year cycle.

Minor Nonconformance 1: Element 4.4.3, Communication states with regard to its environmental aspects and EMS, the organization shall establish, implement and maintain

procedure(s) for internal communication between the various levels and functions of the organization. A review of C-AD and SMD environmental web pages revealed four (4) EMS documents that reflect the same title but differ in content. The documents observed are as follows:

- a. On the C-AD web page the Environmental Management Program Description for C-AD and SMD (OPM 1.10.2, rev. 07) is identified. However, on the SMD web page there is a different Environmental Management Program Description (Rev. C, dated 6/25/03).
- b. On the C-AD web page the EMS Document Flow-Down Matrix for C-AD and SMD (OPM 1.10.2.c, rev. 06) is identified. However, on the SMD web page there is a different EMS Document Flow-Down Matrix (Rev. D, dated 10/29/04).
- c. On the C-AD web page the EMS Aspects for C-AD and SMD (dated 1/7/05) is identified. However, on the SMD web page there is a different EMS Aspects listing (dated 1/9/05).
- d. On the C-AD web page the EMS Contacts and Responsibilities for C-AD and SMD (OPM 1.10.2.b, rev. 06) is identified. However, on the SMD web page there is a different EMS Contacts and Responsibilities listing (dated 5/19/05).

Minor Nonconformance 2: Element 4.4.5, Control of Documents states the organization shall establish, implement and maintain a procedure(s) to:

- a. Ensure that documents of external origin determined by the organization to necessary for the planning and operation of the EMS are identified and their distribution controlled and
- b. Prevent the unintended use of obsolete documents and apply suitable identification to them if they are retained for any purpose.

Contrary to the above requirement, C-AD and SMD are still in the process of evaluating what external documents (e.g supplier/vendor documents) are necessary for the planning and operations of their EMS.

Minor Nonconformance 3: Element 4.5.3, Nonconformity, Corrective Action and Preventive

Action states the organization shall review the effectiveness of corrective actions and preventive actions taken. Presently, C-AD and SMD does not have a process in-place that identifies how they review the effectiveness of corrective actions and preventive actions taken once a nonconformance (e.g. Nonconformance Report, Critique) is closed out. During this audit, C-AD has added nonconformance report closures to the same tickler card (TC502) for a quarterly review using the same criteria that is used for evaluating Tier I Safety Inspection findings. However, SMD still needs to address this issue.

Observation 1: Element 4.4.2, Competence, Training and Awareness states the organization shall ensure that any person(s) performing tasks on it or on its behalf that have the potential to cause a significant environmental impact(s) identified by the organization is competent on the basis of appropriate education, training or experience, and shall retain associated records. A review of the C-AD/SMD Program Description revealed that it does not address competence awareness and training requirements for their contractors and service technicians.

Observation 2: Element 4.6, Management Review states Top Management shall review assessing opportunities for improvement and the need for changes to the EMS. It was noted that the EMS Self-Assessment Plan that was completed in February 2005 has not been issued to date.

The following findings represent areas that require management attention in order to fully implement the requirements of OHSAS program in accordance with 18001 – 1999: requirements:

Minor Nonconformance 4: Element 4.4.1, Structure and Responsibility states 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. A review of the C-AD/SMD OH&S Representative Representative's R2A2 revealed that his management role was not identified as required.

Minor Nonconformance 5: Element 4.4.2, Training, Awareness and Competence 1, Structure and Responsibility states the organization shall ensure that its employees are aware of: the importance of conformance to OH&S policy and procedures, 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. To verify this element, personnel within the C-AD and SMD facilities were interviewed to determine their awareness of OH&S policy requirements. Based on interviews performed it was revealed that the majority of personnel was unaware of the OH&S Policy and could not identify the BNL OH&S Representative.

Minor Nonconformance 6: Element 4.5.3, Records and Records Management states the organization shall establish and maintain procedure(s) for the identification, maintenance and disposition of OH&S records. A review of SMD record controls revealed that SMD has not developed a procedure which identifies their OH&S records, responsible individual and record retention period. It was noted that SMD has identified their record sizes and types of records to BNL Records Management during their annual record assessment.

Observation 3: Element 4.3.1, Planning for Hazard Identification, Risk Assessment and Risk Control states "the organizations methodology for hazard identification and risk assessment shall be defined with respect to scope, nature and timing to ensure it is proactive rather than reactive". identify those operations and activities that are associated with identified risks where control measures need to be applied. It was observed that C-AD and SMD personnel have not completed all assigned JRAs for 2005. In addition, SMD has not completed FRAs (for building/facilities 899, 904, 924, 943, 944 and 948) identified in their OH&S Management System Program Description.

Opportunity/Recommendation for Improvement During the last NSF OHSAS audit it was recommended (by the NSF auditor) that C-AD develop a central records area for OH&S records. At the time, C-AD had agreed to develop this record retention area for OH&S records. However, at present this effort is semi-completed (e.g. shelves are on order, document labels need to be prepared and posted and numerous waste management records need to be filed.) It is recommended that this effort be complete prior to the next NSF OHSAS review.

During this audit the following noteworthy practices were identified.

Noteworthy Practice 1: The C-AD ESH&Q Division Head quarterly review of Tier I Safety Inspection findings (Tickler Card no. 502) for noticeable trends and to assure concerns are being properly corrected and that preventive measures taken are preventing recurrence.

Noteworthy Practice 2: C-AD Management has demonstrated an aggressive approach for implementing safe work practices within their facilities (e.g. Electrical safety initiatives such as providing personnel with applicable training and PPE in accordance with NFPE 70E guidelines).

Noteworthy Practice 3: C-AD ongoing process of cleaning up legacy issues and excess facility waste (e.g. Removing excess deuterium, and disposal/recycling of unused components, steel and an outdated cryogenic tank).

4.0 ASSESSMENT RESOLUTIONS

A summary of the assessment and associated findings was presented to the C-AD ES&H/QA management at a close out meeting held May 26, 2005. nonconformances were addressed. It was agreed that all nonconformances and observations 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 B – ISO 14001 and OHSAS 18001 Checklist

ATTACHMENT A

List of Personnel Interviewed

Responsibility

P. Ceruti	SMD Technical Support Technician
P. Cirnigliaro	C-A Safety Engineer
T. Curcio	C-A Deputy Instrumentation Supervisor
C. DeParra	C-A Vacuum Technician
S. Gill	C-A Vacuum Technical Supervisor
D. Ince	SMD Technical Support Technician
S. Jao	C-A Instrumentation Technician
G. Jochen	SMD Technical Support Technician
R. Karol	C-A ESHQ Division Manager
E. Lessard	C-A Associate Chair ES&H/QA
J. Niedziela	C-A MCR Operator
D. Oldham	SMD Electronics Technician
D. Passarello	C-A QA Manager
C. Porretto	SMD QA Manager
P. Sampson	C-A Deputy Operations Group Leader
V. Schaefer	C-A MCR Operator
A. Weston	C-A Instrumentation Technician
D. Zigrosser	C-A Vacuum Technician

Brookhaven National Laboratory OHSAS 18001 OH&S Assessment

Organization: C-AD/SMD Date: 5/25/05 Lead Auditors: M. Davis/R. Savage/M. VanEssendelft

OHS Management System Model		GENERAL REQUIREMENTS		
ELEMENT:	4.1	TITLE:	General Requirements	
OHSAS 18001 STANDARD:				
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.		NO	PARTIAL	YES
FACILITY IMPLEMENTATION OF STANDARD:				
EXISTING PROCEDURES AND DOCUMENTATION (LIST):				
COMMENTS:				
(ELEMENT NOT REVIEWED DURING 5/25/05 INTERNAL AUDIT)				
EVALUATION:				
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: C-AD/SMD Date:5/25/05 Lead Auditors: M. Davis/R. Savage/M. VanEssendelft

OH&S Management System Model		OS&H POLICY		
ELEMENT:	4.2	TITLE:	OH&S Policy	
OHSAS 18001 STANDARD:				
<p>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.</p> <p>The policy shall :</p> <ul style="list-style-type: none"> 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. 		NO	PARTIAL	YES
FACILITY IMPLEMENTATION OF STANDARD:				
EXISTING PROCEDURES AND DOCUMENTATION (LIST):				
COMMENTS: (ELEMENT NOT REVIEWED DURING 5/25/05 INTERNAL AUDIT)				
EVALUATION:				
MEETS REQUIREMENT		MINOR NONCONFORMANCE		MAJOR NONCONFORMANCE
OPTIONAL AUDITOR QUESTIONS:				
<p>What is the organization's policy?</p> <p>Is the policy defined and is it appropriate to the type, size, and OH&S impacts of the organization's activities?</p> <p>Does the policy include a commitment to continual improvement in the organization's operations?</p> <p>Does the policy reflect the organizations hazard identification, risk assessment and risk control in the organization's activities and facilities?</p> <p>Does the policy include a commitment to compliance to legal requirements?</p> <p>Is the policy documented, implemented, maintained (periodically reviewed) and communicated to all employees and are they aware of their responsibilities to the OH&S?</p> <p>Is the policy available to interested parties?</p>				

Brookhaven National Laboratory OHSAS 18001 OH&S Assessment

Organization: C-AD/SMD Date: 5/25/05 Lead Auditors: M. Davis/R. Savage/M. VanEssendelft

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	
<p>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:</p> <ul style="list-style-type: none"> <input type="checkbox"/> routine and non-routine activities; <input type="checkbox"/> activities of all personnel having access to the workplace (including subcontractors and visitors); <input type="checkbox"/> facilities at the workplace, whether provided by the organization or others. <p>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.</p> <p>The organization's methodology for hazard identification and risk assessment shall:</p> <ul style="list-style-type: none"> <input type="checkbox"/> be defined with respect to its scope, nature and timing to ensure it is proactive rather than reactive; <input type="checkbox"/> 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; <input type="checkbox"/> be consistent with operating experience and the capabilities of risk control measures employed; <input type="checkbox"/> provide input into the determination of facility requirements, identification of training needs and/or development of operational controls; <input type="checkbox"/> provide for the monitoring of required actions to ensure both the effectiveness and timeliness of their implementation. <p>NOTE For further guidance on hazard identification, risk assessment and risk control, see OHSAS 18002.</p>		<p style="font-size: 2em; margin: 0;">X</p>			
FACILITY IMPLEMENTATION OF STANDARD:					
<p>OH&S procedures are in place and reflect the processes for identifying hazards and associated risks for routine and non-routine activities. However, the following Observation was noted: C-AD and SMD personnel have not completed all assigned JRAs for 2005. In addition, SMD has not completed FRAs (for building/facilities 899, 904, 924, 943, 944 and 948) identified in their OH&S Management System Program Description.</p>					
EXISTING PROCEDURES AND DOCUMENTATION (LIST):					
C-A OPM 1.10.4	OPM 9.1.12	OPM 9.3.1			
OPM 2.28	OPM 9.1.15				
OPM 2.29	OPM 9.2.1				
COMMENTS:					
None					
EVALUATION:					
MEETS REQUIREMENT (See Observation above)		MINOR NONCONFORMANCE		MAJOR NONCONFORMANCE	

Brookhaven National Laboratory OHSAS 18001 OH&S Assessment

Organization: C-AD/SMD Date:5/25/05 Lead Auditors: M. Davis/R. Savage/M. VanEssendelft

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?

Brookhaven National Laboratory OHSAS 18001 OH&S Assessment

Organization: C-AD/SMD Date:5/25/05 Lead Auditors: M. Davis/R. Savage/M. VanEssendelft

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.			X
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.			
FACILITY IMPLEMENTATION OF STANDARD: OPM 1.10.4 OH&S Management System Program			
Description for C-AD and SMD was reviewed and verified that it does address the processes for identifying, assessing and maintaining legal information up to date. The OH&S Management Representative has the responsibility, accountability and authority for the development, implementation, periodic review and evaluation of the OH&S Management System, which ensures the OH&S system, reflects current legal and other requirements. Please see element 4.4.2 for additional details.			
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?			

Brookhaven National Laboratory OHSAS 18001 OH&S Assessment

Organization: C-AD/SMD Date:5/25/05 Lead Auditors: M. Davis/R. Savage/M. VanEssendelft

OH&S Management System Model		PLANNING		
ELEMENT:	4.3.3	TITLE:	Objectives	
OHSAS 18001 STANDARD:				
		NO	PARTIAL	YES
<p>The organization shall establish and maintain documented occupational health and safety objectives, at each relevant function and level within the organization.</p> <p>NOTE Objectives should be quantified wherever practicable.</p> <p>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.</p>				
FACILITY IMPLEMENTATION OF STANDARD:				
EXISTING PROCEDURES AND DOCUMENTATION (LIST):				
COMMENTS: (ELEMENT NOT REVIEWED DURING 5/25/05 INTERNAL AUDIT)				
EVALUATION:				
MEETS REQUIREMENT	MINOR NONCONFORMANCE		MAJOR NONCONFORMANCE	
OPTIONAL AUDITOR QUESTIONS:				
<p>Has the organization established and maintained OH&S objectives?</p> <p>Have the documented objectives considered legal and other requirements?</p> <p>Are objectives reasonable and measurable?</p> <p>Is there a documented and maintained procedure for periodically reviewing objectives?</p> <p>Are objectives communicated to the employees that are supposed to achieve them?</p> <p>Are organizational objectives consistent with Lab/higher level objectives?</p>				

Brookhaven National Laboratory OHSAS 18001 OH&S Assessment

Organization: C-AD/SMD Date: 5/25/05 Lead Auditors: M. Davis/R. Savage/M. VanEssendelft

OH&S Management System Model		PLANNING		
ELEMENT:	4.3.4	TITLE:	OH&S Management Program(s)	
OHSAS 18001 STANDARD:		NO	PARTIAL	YES
<p>The organization shall establish and maintain (an) OH&S management program(s) for achieving its objectives. This shall include documentation of :</p> <p style="margin-left: 20px;">a) the designated responsibility and authority for achievement of the objectives at relevant functions and levels of the organization; and</p> <p style="margin-left: 20px;">b) the means and time-scale by which objectives are to be achieved.</p> <p>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.</p>				
FACILITY IMPLEMENTATION OF STANDARD:				
EXISTING PROCEDURES AND DOCUMENTATION (LIST):				
COMMENTS:				
(ELEMENT NOT REVIEWED DURING 5/25/05 INTERNAL AUDIT)				
EVALUATION:				
MEETS REQUIREMENT	MINOR NONCONFORMANCE	MAJOR NONCONFORMANCE		
OPTIONAL AUDITOR QUESTIONS:				
<p>Are there programs to achieve all the identified objectives?</p> <p>Do the programs include schedules for completion and resources necessary to achieve the objectives?</p> <p>Do the programs assign responsibilities for completion of tasks in achieving objectives?</p> <p>Are all procedures that supplement the OH&S management program available to the appropriate personnel and current?</p> <p>Are the management programs reviewed at planned intervals and amended as required?</p>				

Brookhaven National Laboratory OHSAS 18001 OH&S Assessment

Organization: C-AD/SMD Date: 5/25/05 Lead Auditors: M. Davis/R. Savage/M. VanEssendelft

OH&S Management System Model		IMPLEMENTATION AND OPERATION			
ELEMENT:	4.4.1	TITLE:	Structure and Responsibility		
OHSAS 18001 STANDARD:		NO	PARTIAL	YES	
<p>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.</p> <p>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.</p> <p>Management shall provide resources essential to the implementation, control and improvement of the OH&S management system.</p> <p>NOTE Resources include human resources and specialized skills, technology and financial resources.</p> <p>The organization's management appointee shall have a defined role, responsibility and authority for:</p> <ul style="list-style-type: none"> 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. <p>All those with management responsibility shall demonstrate their commitment to the continual improvement of OH&S performance.</p>		X			
FACILITY IMPLEMENTATION OF STANDARD: OH&S 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, OH&S and Environmental Policy. However, a review of the C-AD/SMD OH&S Representative Representative's R2A2 revealed that his management role was not identified as required.					
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:					
MEETS REQUIREMENT		X	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?					

Brookhaven National Laboratory OHSAS 18001 OH&S Assessment

Organization: C-AD/SMD Date:5/25/05 Lead Auditors: M. Davis/R. Savage/M. VanEssendelft

OH&S Management System Model		IMPLEMENTATION AND OPERATION		
ELEMENT:	4.4.2	TITLE:	Training, Awareness and Competence	
OHSAS 18001 STANDARD:		NO	PARTIAL	YES
<p>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:</p> <ul style="list-style-type: none"> — 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. <p>Training procedures shall take into account differing levels of:</p> <ul style="list-style-type: none"> — responsibility, ability and literacy; and — risk. 		X		
FACILITY IMPLEMENTATION OF STANDARD: To verify this element, personnel within the C-AD and SMD facilities were interviewed to determine their awareness of OH&S policy requirements. Based on interviews performed it was revealed that the majority of personnel was unaware of the OH&S Policy and could not identify the BNL OH&S Representative.				
EXISTING PROCEDURES AND DOCUMENTATION (LIST):				
C-A OPM 1.10.4		SBMS Subject Area		
OPM 1.12				
COMMENTS: None				
EVALUATION:				
MEETS REQUIREMENT		X MINOR NONCONFORMANCE	MAJOR NONCONFORMANCE	
OPTIONAL AUDITOR QUESTIONS:				
<p>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 OH&S? 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 OH&S impact?</p>				

Brookhaven National Laboratory OHSAS 18001 OH&S Assessment

Organization: C-AD/SMD Date: 5/25/05 Lead Auditors: M. Davis/R. Savage/M. VanEssendelft

OH&S Management System Model		IMPLEMENTATION AND OPERATION		
ELEMENT:	4.4.3	TITLE:	Consultation and Communication	
OHSAS 18001 STANDARD:		NO	PARTIAL	YES
<p>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:</p> <ul style="list-style-type: none"> — 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:				
<p>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 and SMD occurs through scheduled weekly planning meetings. Technical and non-technical OH&S 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.</p>				
EXISTING PROCEDURES AND DOCUMENTATION (LIST):				
C-A OPM 1.10.3		OPM 9.8.1		
OPM 1.10.4		SBMS Subject Area		
OPM 2.12				
COMMENTS: None				
EVALUATION:				
X	MEETS REQUIREMENT	MINOR NONCONFORMANCE	MAJOR NONCONFORMANCE	
OPTIONAL AUDITOR QUESTIONS:				
<p>Are there procedures that are maintained for communications to and from interested parties regarding the organization's pertinent OH&S information?</p> <p>How are communications to and from interested parties documented?</p> <p>How are internal communications between different levels and different functions documented? How do you have feedback to management?</p> <p>How are employees involved in the development of policies and procedures to manage risks?</p> <p>How are employees consulted for changes that affect workplace health and safety?</p> <p>How employees are represented on OH&S matters?</p> <p>Do people know who their employee OH&S representative and/or management appointees are?</p> <p>How are OH&S representatives involved in communication mechanisms with management/</p> <p>What initiatives do you have to encourage OH&S consultations and improvement activities?</p> <p>What mechanisms are used to communicate OH&S concerns or information to all interested parties and employees? e.g. inspections, briefings, notice boards, OH&S newsletter, OH&S poster programs.</p>				

Brookhaven National Laboratory OHSAS 18001 OH&S Assessment

Organization: C-AD/SMD Date: 5/25/05 Lead Auditors: M. Davis/R. Savage/M. VanEssendelft

OH&S Management System Model		IMPLEMENTATION AND OPERATION		
ELEMENT:	4.4.4	TITLE:	Documentation	
OHSAS 18001 STANDARD:				
<p>The organization shall establish and maintain information, in a suitable medium such as paper or electronic form, that :</p> <ul style="list-style-type: none"> a) describes the core elements of the management system and their interaction; and b) provides direction to related documentation. <p>NOTE It is important that documentation is kept to the minimum required for effectiveness and efficiency.</p>		NO	PARTIAL	YES
				X
FACILITY IMPLEMENTATION OF STANDARD:				
<p>C-A and SMD document control is developed and implemented in accordance BNL Internal Controlled Documents, SBMS Subject Area. The OH&S 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.</p>				
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:				
<p>How has the organization documented the core elements of its OHSAS 18001 system?</p> <p>How does the organization show linkage between all upper and lower level documentation?</p> <p>Does the system document how the related documentation, both internal and external, [regulations, permits, forms, etc.] are to be used?</p>				

Brookhaven National Laboratory OHSAS 18001 OH&S Assessment

Organization: C-AD/SMD Date: 5/25/05 Lead Auditors: M. Davis/R. Savage/M. VanEssendelft

OH&S Management System Model		IMPLEMENTATION AND OPERATION		
ELEMENT:	4.4.5	TITLE:	Document and Data Control	
OHSAS 18001 STANDARD:		NO	PARTIAL	YES
<p>The organization shall establish and maintain procedures for controlling all documents and data required by this OHSAS specification to ensure that:</p> <ul style="list-style-type: none"> 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. 				
FACILITY IMPLEMENTATION OF STANDARD:				
EXISTING PROCEDURES AND DOCUMENTATION (LIST):				
COMMENTS: (ELEMENT NOT REVIEWED DURING 5/25/05 INTERNAL AUDIT)				
EVALUATION:				
MEETS REQUIREMENT	MINOR NONCONFORMANCE	MAJOR NONCONFORMANCE		
OPTIONAL AUDITOR QUESTIONS:				
<p>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?</p> <p>Are the documents/data periodically reviewed, revised and approved for adequacy by authorized personnel?</p> <p>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?</p> <p>Are obsolete documents/data removed from use and assured from unintended use? Are historical copies maintained & labeled?</p> <p>Are those obsolete documents/data that are retained for legal or knowledge reasons clearly identified?</p> <p>Are documents/data dated with the latest revision, orderly, legible and retained for a specified period?</p>				

Brookhaven National Laboratory OHSAS 18001 OH&S Assessment

Organization: C-AD/SMD Date: 5/25/05 Lead Auditors: M. Davis/R. Savage/M. VanEssendelft

OH&S Management System Model		IMPLEMENTATION AND OPERATION											
ELEMENT:	4.4.6	TITLE:	Operational Control										
OHSAS 18001 STANDARD:		NO	PARTIAL	YES									
<p>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:</p> <ul style="list-style-type: none"> 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:													
<p>C-A and SMD staff are participating in the hazard review process for their daily operations through work planning tasks 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 SMD facility risk analysis (FRA) for 2005 is approximately 75% complete and the C-AD/SMD job risk analysis for 2005 is approximately 98% complete. Please refer to element 4.3.1 for further details concerning this issue.</p>													
EXISTING PROCEDURES AND DOCUMENTATION (LIST):													
<table style="width: 100%; border: none;"> <tr> <td style="width: 33%;">C-A OPM 1.10.4</td> <td style="width: 33%;">OPM 9.1.12</td> <td style="width: 33%;">OPM 9.3.1</td> </tr> <tr> <td>OPM 2.28</td> <td>OPM 9.1.15</td> <td>OHSAS 18001 Interim Procedures Subject Area</td> </tr> <tr> <td>OPM 2.29</td> <td>OPM 9.2.1</td> <td></td> </tr> </table>					C-A OPM 1.10.4	OPM 9.1.12	OPM 9.3.1	OPM 2.28	OPM 9.1.15	OHSAS 18001 Interim Procedures Subject Area	OPM 2.29	OPM 9.2.1	
C-A OPM 1.10.4	OPM 9.1.12	OPM 9.3.1											
OPM 2.28	OPM 9.1.15	OHSAS 18001 Interim Procedures Subject Area											
OPM 2.29	OPM 9.2.1												
COMMENTS: None													
EVALUATION:													
MEETS REQUIREMENT (Refer to Element 4.3.1)		MINOR NONCONFORMANCE		MAJOR NONCONFORMANCE									
OPTIONAL AUDITOR QUESTIONS:													
<p>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?</p> <p>Have procedures been established and maintained for the above operations that, if they are not followed for these situations, could lead to deviations from the OH&S policy and the objectives?</p>													

Brookhaven National Laboratory

OHSAS 18001 OH&S Assessment

Organization: C-AD/SMD Date:5/25/05 Lead Auditors: M. Davis/R. Savage/M. VanEssendelft

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 OH&S risks in design and workplace processes (Ref. d above)?

Brookhaven National Laboratory OHSAS 18001 OH&S Assessment

Organization: C-AD/SMD Date:5/25/05 Lead Auditors: M. Davis/R. Savage/M. VanEssendelft

OH&S Management System Model		IMPLEMENTATION AND OPERATION		
ELEMENT:	4.4.7	TITLE:	Emergency Preparedness and Response	
OHSAS 18001 STANDARD:				
		NO	PARTIAL	YES
<p>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.</p> <p>The organization shall review its emergency preparedness and response plans and procedures, in particular after the occurrence of incidents or emergency situations.</p> <p>The organization shall also periodically test such procedures where practicable.</p>				
FACILITY IMPLEMENTATION OF STANDARD:				
EXISTING PROCEDURES AND DOCUMENTATION (LIST):				
COMMENTS:				
(ELEMENT NOT REVIEWED DURING 5/25/05 INTERNAL AUDIT)				
EVALUATION:				
MEETS REQUIREMENT		MINOR NONCONFORMANCE	MAJOR NONCONFORMANCE	
OPTIONAL AUDITOR QUESTIONS:				
<p>Are there maintained procedures to identify potential for accidents and emergency situations?</p> <p>Are there maintained procedures to respond to accidents and emergency situations?</p> <p>Are there maintained procedures to prevent and minimize the OH&S risks that may be associated with the identified accidents and emergency situations?</p> <p>Are there reviews and revisions of the emergency preparedness and response procedures, particularly after an incident?</p> <p>Are there periodical tests of the above procedures?</p>				

Brookhaven National Laboratory OHSAS 18001 OH&S Assessment

Organization: C-AD/SMD Date:5/25/05 Lead Auditors: M. Davis/R. Savage/M. VanEssendelft

OH&S Management System Model		CHECKING AND CORRECTIVE ACTION		
ELEMENT:	4.5.1	TITLE:	Performance Measurement and Monitoring	
OHSAS 18001 STANDARD:		NO	PARTIAL	YES
<p>The organization shall establish and maintain procedures to monitor and measure OH&S performance on a regular basis. These procedures shall provide for:</p> <ul style="list-style-type: none"> 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 management program, operational criteria and applicable legislation and regulatory requirements; 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. <p>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.</p>				
FACILITY IMPLEMENTATION OF STANDARD:				
EXISTING PROCEDURES AND DOCUMENTATION (LIST):				
COMMENTS: (ELEMENT NOT REVIEWED DURING 5/25/05 INTERNAL AUDIT)				
EVALUATION:				
X	MEETS REQUIREMENT	MINOR NONCONFORMANCE	MAJOR NONCONFORMANCE	
OPTIONAL AUDITOR QUESTIONS:				
Do the procedures address qualitative and quantitative measures?				
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?				

Brookhaven National Laboratory OHSAS 18001 OH&S Assessment

Organization: C-AD/SMD Date:5/25/05 Lead Auditors: M. Davis/R. Savage/M. VanEssendelft

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
<p>The organization shall establish and maintain procedures for defining responsibility and authority for:</p> <ul style="list-style-type: none"> a) the handling and investigation of: <ul style="list-style-type: none"> — 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. <p>These procedures shall require that all proposed corrective and preventive actions shall be reviewed through the risk assessment process prior to implementation.</p> <p>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.</p> <p>The organization shall implement and record any changes in the documented procedures resulting from corrective and preventive action.</p>				X
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?				

Brookhaven National Laboratory OHSAS 18001 OH&S Assessment

Organization: C-AD/SMD Date: 5/25/05 Lead Auditors: M. Davis/R. Savage/M. VanEssendelft

OH&S Management System Model		CHECKING AND CORRECTIVE ACTION	
ELEMENT:	4.5.4	TITLE:	Audit
OHSAS 18001 STANDARD:		NO	PARTIAL
<p>OH&S management system audits to be carried out, in order to:</p> <ul style="list-style-type: none"> a) determine whether or not the OH&S management system: <ul style="list-style-type: none"> 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. <p>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.</p> <p>Wherever possible, audits shall be conducted by personnel independent of those having direct responsibility for the activity being examined.</p> <p>NOTE The word "independent" here does not necessarily mean external to the organization.</p>			
FACILITY IMPLEMENTATION OF STANDARD:			
EXISTING PROCEDURES AND DOCUMENTATION (LIST):			
COMMENTS: (ELEMENT NOT REVIEWED DURING 5/25/05 INTERNAL AUDIT)			
EVALUATION:			
MEETS REQUIREMENT	MINOR NONCONFORMANCE	MAJOR NONCONFORMANCE	
OPTIONAL AUDITOR QUESTIONS:			
<p>Are procedures documented and maintained for periodic OH&S audits?</p> <p>Does the procedure for OH&S audits include the scope of the audit, frequency, methodologies used, responsibilities, requirements, and method of reporting results?</p> <p>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?</p> <p>Does the OH&S audit provide results of the audits to management?</p> <p>Is the audit program and schedule based on risk assessments and the results of previous audits?</p> <p>Does the procedure address the independence of auditors?</p>			

Brookhaven National Laboratory OHSAS 18001 OH&S Assessment

Organization: C-AD/SMD Date: 5/25/05 Lead Auditors: M. Davis/R. Savage/M. VanEssendelft

OH&S Management System Model		MANAGEMENT REVIEW		
ELEMENT:	4.6	TITLE:	Management Review	
OHSAS 18001 STANDARD:		NO	PARTIAL	YES
<p>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.</p> <p>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.</p>				
FACILITY IMPLEMENTATION OF STANDARD:				
EXISTING PROCEDURES AND DOCUMENTATION (LIST):				
COMMENTS: (ELEMENT NOT REVIEWED DURING 5/25/05 INTERNAL AUDIT)				
EVALUATION:				
MEETS REQUIREMENT		MINOR NONCONFORMANCE	MAJOR NONCONFORMANCE	
OPTIONAL AUDITOR QUESTIONS:				
<p>Has top management performed a review of the OH&S management system on a periodic basis? Is it documented?</p> <p>Does the review address the system's:</p> <ul style="list-style-type: none"> • continued suitability • adequacy • effectiveness <p>Does the review address possible need to change its policy, objectives and other elements of the OH&S management system?</p> <p>Has this been conducted in light of OH&S management system audit results, continual improvement and changing circumstances?</p> <p>Does the record of the review include a list of information used for the management evaluation?</p>				

Brookhaven National Laboratory
ISO 14001 EMS Assessment

Organization: C-AD/SMD

Date: 5/24/05

Lead Auditors: M. Davis/R.Savage/M.VanEssendelft

Environmental Management System Model		GENERAL REQUIREMENTS		
ELEMENT:	4.1	TITLE:	General Requirements	
ISO 14001 STANDARD:				
		NO	PARTIAL	YES
The organization shall establish, document, implement and maintain an EMS in accordance with the requirements of this International Standard and determine how it will fulfill these requirements.				
The organization shall define and document the scope of its EMS.				
FACILITY IMPLEMENTATION OF STANDARD:				
Discussion:				
Major Nonconformance:				
Minor Nonconformance:				
Observation:				
Opportunity for Improvement:				
Noteworthy Practice:				
EXISTING PROCEDURES AND DOCUMENTATION (LIST):				
COMMENTS:				
(ELEMENT NOT REVIEWED DURING 5/24/05 INTERNAL AUDIT)				
EVALUATION:				
MEETS REQUIREMENT		MINOR NONCONFORMANCE		MAJOR NONCONFORMANCE
OPTIONAL AUDITOR QUESTIONS:				
Has a program been established?				
How long has the program been established?				
Is it fully implemented?				
Does it apply to persons work for or on its behalf? (e.g. ,students, contractors, etc.)				
Is it effective?				
Is the program meeting the intent of ISO 14001?				
Is it being maintained the requirements of International Standard ISO 14001:2004?				
Have they defined and documented the scope of the EMS (noting exclusions)?				
Does the scope cover products and services (including R&D)?				

Brookhaven National Laboratory
ISO 14001 EMS Assessment

Organization: C-AD/SMD

Date: 5/24/05

Lead Auditors: M. Davis/R.Savage/M.VanEssendelft

Environmental Management System Model		ENVIRONMENTAL POLICY	
ELEMENT:	4.2	TITLE:	Environmental Policy
ISO 14001 STANDARD:			
		NO	PARTIAL
		YES	
<p>Top Management shall define the organization's environmental policy and ensure that, within the defined scope of the EMS, it:</p> <p>a) is appropriate to the nature, scale and environmental impacts of its activities, products, or services;</p> <p>b) includes a commitment to continual improvement and prevention of pollution;</p> <p>c) includes a commitment to comply with applicable legal requirements and with other requirements to which the organization subscribes which relate to its environmental aspects;</p> <p>d) provides the framework for setting and reviewing environmental objectives and targets;</p> <p>e) is documented, implemented, maintained</p> <p>f) is communicated to all persons working for or on behalf of the organization;</p> <p>g) is available to the public.</p>			
FACILITY IMPLEMENTATION OF STANDARD:			
<p>Discussion:</p> <p>Major Nonconformance:</p> <p>Minor Nonconformance:</p> <p>Observation:</p> <p>Opportunity for Improvement:</p> <p>Noteworthy Practice:</p>			
EXISTING PROCEDURES AND DOCUMENTATION (LIST):			
COMMENTS: (ELEMENT NOT REVIEWED DURING 5/24/05 INTERNAL AUDIT)			
EVALUATION:			
MEETS REQUIREMENT	MINOR NONCONFORMANCE	MAJOR NONCONFORMANCE	
OPTIONAL AUDITOR QUESTIONS:			
<p>Is the policy defined and is it appropriate to the type, size, and environmental impacts of the activities?</p> <p>Is the policy aligned with the scope of the EMS?</p> <p>Has it been endorsed by top management?</p> <p>Does the policy include a commitment to continual improvement and evidence of such in the organization's operations?</p> <p>Does the policy include a commitment to pollution prevention and evidence of such in the organization's operations?</p> <p>Does the policy include a commitment to compliance to legal requirements and is there evidence indicating intent to comply?</p> <p>Does the organization subscribe to other requirements, and are they covered also?</p> <p>Does the policy include a mechanism for setting and reviewing environmental objectives and targets?</p> <p>Is the policy documented, implemented, maintained?</p> <p>Is the policy communicated to all persons working for or on behalf of the organization?</p> <p>Do persons working for or on behalf of the organization exhibit knowledge of environmental policy (key commitments and how they relate to job)</p> <p>Is the policy available to the public?</p>			

Brookhaven National Laboratory
ISO 14001 EMS Assessment

Organization: C-AD/SMD

Date: 5/24/05

Lead Auditors: M. Davis/R.Savage/M.VanEssendelft

Environmental Management System Model		PLANNING	
ELEMENT:	4.3.1	TITLE:	Environmental Aspects
ISO 14001 STANDARD:			
		NO	PARTIAL
		YES	
<p>The organization shall establish, implement and maintain a procedure(s)</p> <p>a) to identify the environmental aspects of its activities, products, or services within the defined scope of its EMS that it can control and those it can influence taking into account planned or new developments, or new or modified activities, products or services, and</p> <p>b) to determine those aspects that have or can have significant impacts on the environment (i.e., significant environmental aspects).</p> <p>The organization shall ensure that the significant environmental aspects are taken into account in establishing, implementing and maintaining its EMS.</p> <p>The organization shall document this information and keep it up-to-date.</p>			
FACILITY IMPLEMENTATION OF STANDARD:			
<p>Discussion:</p> <p>Major Nonconformance:</p> <p>Minor Nonconformance:</p> <p>Observation:</p> <p>Opportunity for Improvement:</p> <p>Noteworthy Practice:</p>			
EXISTING PROCEDURES AND DOCUMENTATION (LIST):			
COMMENTS:			
(ELEMENT NOT REVIEWED DURING 5/24/05 INTERNAL AUDIT)			
EVALUATION:			
MEETS REQUIREMENT	MINOR NONCONFORMANCE	MAJOR NONCONFORMANCE	
OPTIONAL AUDITOR QUESTIONS:			
<p>Is there a documented and maintained procedure to review and update aspects? When was the last time they were reviewed?</p> <p>Are aspects documented?</p> <p>What mechanism is used to initiate aspect review/revision when operations, products or services change?</p> <p>How do they identify aspects for PLANNED activities?</p> <p>Is it clear that significant aspects were taken into account in developing and implementing the EMS?</p> <p>Are there records showing that an analysis to select significant aspects was done?</p> <p>Was there effort to include aspects over which there is influence?</p> <p>Are there any obvious aspects which should have been considered and were not? If not, why not?</p>			

Brookhaven National Laboratory
ISO 14001 EMS Assessment

Organization: C-AD/SMD

Date: 5/24/05

Lead Auditors: M. Davis/R.Savage/M.VanEssendelft

Environmental Management System Model		PLANNING		
ELEMENT:	4.3.2	TITLE:	Legal and Other Requirements	
ISO 14001 STANDARD:		NO	PARTIAL	YES
<p>The organization shall establish and maintain a procedure</p> <p>a) to identify and have access to applicable legal and other requirements to which the organization subscribes related to its environmental aspects, and</p> <p>b) To determine how these requirements apply to its environmental aspects,</p> <p>The organization shall ensure that these applicable legal requirements and other requirements to which the organization subscribes are taken into account in establishing, implementing and maintaining its EMS.</p>				X
FACILITY IMPLEMENTATION OF STANDARD:				
<p>Discussion: Legal requirements come from external agencies to Laboratory level personnel. These requirements are communicated through the generation of subject areas. Cognizant C-AD and SMD personnel have subscribed to the SBMS subscription Service that notifies users of new and updated subject areas. The assigned ECR for C-AD and SMD also, as part of his job function, makes sure that both C-AD and SMD facilities is made aware of new requirements and works to assure department compliance to these requirements. The C-A/SMD EMP list legal & other requirements as applicable. The ECR ensures the incorporation of new requirements as a member of the ASSRC and ESRC and through incorporation of new requirements into the process assessments.</p>				
EXISTING PROCEDURES AND DOCUMENTATION (LIST):				
<p>OPM 1.10.2 C-A/SMD Environmental Management Procedures (EMP) SBMS Subject Area Subscribe to SBMS subscription service C-A ECR and SBMS Subject Matter Experts</p>				
COMMENTS: None				
EVALUATION:				
X	MEETS REQUIREMENT	MINOR NONCONFORMANCE	MAJOR NONCONFORMANCE	
OPTIONAL AUDITOR QUESTIONS:				
<p>Is there a documented procedure for the organization to identify and have access to all applicable legal requirements? Does it include federal, state and local requirements (including those applicable to remote locations), including regulations, permits, and agreements, and ISO 14001:2004?</p> <p>Is someone (or more than one) designated to keep unit current on requirements? What are that persons resources, references, methods to keep current? How is applicability of new requirements determined? How are affected employees made aware of new requirements?</p> <p>How have they determined how these requirements apply to the environmental aspects? How can they demonstrate that they have taken legal requirements into account when setting up the EMS?</p>				

Brookhaven National Laboratory
ISO 14001 EMS Assessment

Organization: C-AD/SMD

Date: 5/24/05

Lead Auditors: M. Davis/R.Savage/M.VanEssendelft

Environmental Management System Model		PLANNING	
ELEMENT:	4.3.3	TITLE:	Objectives, Targets, and Programmes
ISO 14001 STANDARD:			
		NO	PARTIAL
			YES
<p>The organization shall establish, implement and maintain documented environmental objectives and targets, at relevant functions and levels within the organization.</p> <p>The objectives and targets shall be measurable, where practicable, and consistent with the environmental policy, including the commitments to prevention of pollution, to compliance with applicable legal and other requirements to which the organization subscribes, and to continual improvement.</p> <p>When establishing and reviewing its objectives and targets, an organization shall take into account the legal requirements and other requirements to which it subscribes, and its significant environmental aspects. It shall also consider its technological options, its financial, operational and business requirements, and the views of interested parties.</p> <p>The organization shall establish, implement and maintain (a) programme(s) for achieving its objectives and targets. Programme(s) shall include:</p> <p>a) designation of responsibility for achieving objectives and targets at relevant functions and levels of the organization;</p> <p>b) the means and time-frame by which they are to be achieved.</p>			X
FACILITY IMPLEMENTATION OF STANDARD:			
<p>Discussion: C-AD/SMD objectives and targets are built around the Laboratory's Critical Outcomes. The C-A/SMD application of the Laboratory's Critical Outcomes can be found in the C-A/SMD Self-Assessment Program, which is addressed further under element 4.6. The C-A/SMD objectives and Targets are documented on an Environmental Management Program form which is linked to a Process Evaluation and the significant aspects of that process. Additionally the EMP documents the performance indicators, a description of the program, the potential environmental impacts, legal and other requirements, budget required, the tasks, person responsible for completing the tasks and completion dates. It also points a link to the operational controls</p>			
EXISTING PROCEDURES AND DOCUMENTATION (LIST):			
<p>Environmental Management Program Forms Identification of Significant Environmental Aspects and Impacts C-A/SMD Department Environmental Management Matrix of Objectives and Targets for Significant Aspects C-A/SMD Self-Assessment 2005 BNL FY05 Critical Outcomes & Performance Measures OPM 1.10.2</p>			
COMMENTS: None			
EVALUATION:			
X	MEETS REQUIREMENT	MINOR NONCONFORMANCE	MAJOR NONCONFORMANCE
OPTIONAL AUDITOR QUESTIONS:			
<p>Has the organization established and maintained objectives and targets for at least some significant aspects? Have the documented objectives and targets taken into account legal and other requirements? Are there programs to achieve all the identified objectives and targets? Do the targets support achievement of the objectives? Are objectives and targets reasonable and measurable? Is there a documented and maintained procedure for periodically reviewing objectives and targets?</p>			

Brookhaven National Laboratory
ISO 14001 EMS Assessment

Organization: C-AD/SMD

Date: 5/24/05

Lead Auditors: M. Davis/R.Savage/M.VanEssendelft

Are objectives and targets communicated to the employees that are supposed to achieve them?
Do objectives and targets reflect a commitment to pollution prevention? **Compliance? Continual Improvement?**
Do the programs include schedules for completion and resources necessary to achieve the objectives and targets?
Do the programs assign responsibilities for completion of tasks in achieving objectives and targets?
Do the programs specify performance indicators and methods for performing monitoring and measurement?
Are all procedures that supplement the EMP's available to the appropriate personnel and current?
Are operational controls in place and working as expected?
Is there evidence that new or modified activities have resulted in necessary amendments?

Brookhaven National Laboratory
ISO 14001 EMS Assessment

Organization: C-AD/SMD

Date: 5/24/05

Lead Auditors: M. Davis/R.Savage/M.VanEssendelft

Environmental Management System Model		IMPLEMENTATION AND OPERATION	
ELEMENT:	4.4.1	TITLE:	Resources, Roles, Responsibility and Authority
ISO 14001 STANDARD:		NO	PARTIAL
<p>Management shall ensure the availability of resources essential to establish, implement, maintain and improve the EMS. Resources include human resources and specialized skills, organizational infrastructure, technology and financial resources.</p> <p>Roles, responsibility and authority shall be defined, documented and communicated in order to facilitate effective environmental management.</p> <p>The organization's top management shall appoint a specific management representative(s) who, irrespective of other responsibilities, shall have defined roles, responsibilities and authority for</p> <p>a) ensuring that an EMS is established, implemented and maintained in accordance with this International Standard;</p> <p>b) reporting to top management on the performance of the EMS for review, including recommendations for improvement.</p>			X
FACILITY IMPLEMENTATION OF STANDARD:			
<p>Discussion: Management has committed the appropriate resources and is accountable for those actions during the monthly Department Chairman's meeting and the annual Management Review in addition to the weekly meetings scheduled per OPM 2.28 that culminate in the C-A Time Meeting. General and/or specific EMS responsibilities are documented on departmental personnel's' R2A2. An EMS "core" team works within the department to assure implementation of the C-A EMS.</p>			
EXISTING PROCEDURES AND DOCUMENTATION (LIST):			
<p>R2A2's (Top Management, C-A/SMD EMS representative and EMS team) OPM 1.10 OPM 1.10.2</p>			
COMMENTS: None			
EVALUATION:			
X	MEETS REQUIREMENT	MINOR NONCONFORMANCE	MAJOR NONCONFORMANCE
OPTIONAL AUDITOR QUESTIONS:			
<p>Are roles and responsibility, and authorities defined, documented and communicated? Do employees (e.g., management rep) know their roles, authorities and responsibilities? Has management ensured the availability of necessary resources (people, technology organizational infrastructure, money) to accomplish objectives and targets? Has top management appointed an environmental management representative? Has the top management rep giving management recommendations for improvement? Do the roles and responsibilities of the EMS representative document include sufficient authority to accomplish a & b above?</p>			

Brookhaven National Laboratory
ISO 14001 EMS Assessment

Organization: C-AD/SMD

Date: 5/24/05

Lead Auditors: M. Davis/R.Savage/M.VanEssendelft

Environmental Management System Model		IMPLEMENTATION AND OPERATION		
ELEMENT:	4.4.2	TITLE:	Competence, Training and Awareness	
ISO 14001 STANDARD:				
		NO	PARTIAL	YES
<p>The organization shall ensure that any person(s) performing tasks for it or on its behalf that have the potential to cause a significant environmental impact(s) identified by the organization is (are) competent on the basis of appropriate education, training or experience, and shall retain associated records.</p> <p>The organization shall identify training needs associated with its environmental aspects and its EMS. It shall provide training or take other action to meet these needs, and shall retain associated records.</p> <p>The organization shall establish, implement and maintain a procedure(s) to persons working for it or on its behalf aware of</p> <ul style="list-style-type: none"> a) the importance of conformity with the environmental policy and procedures and with the requirements of the EMS; b) the significant environmental impacts and related actual or potential impacts associated with their work, and the environmental benefits of improved personal performance; c) their roles and responsibilities in achieving conformity with the requirements of the EMS, and d) the potential consequences of departure from specified operating procedures. 		<div style="font-size: 2em; margin: 0;">X</div>		
FACILITY IMPLEMENTATION OF STANDARD:				
<p>Observation: A review of the C-AD/SMD Program Description revealed that it does not address competence awareness and training requirements for their contractors and service technicians.</p>				
EXISTING PROCEDURES AND DOCUMENTATION (LIST):				
OPM 1.12, C-A JTA's, BTMS, C-A/SMD EMS job specific training procedures, BNL General Environmental Training Course				
COMMENTS: None				
EVALUATION:				
MEETS REQUIREMENT (See observation above)		MINOR NONCONFORMANCE	MAJOR NONCONFORMANCE	
OPTIONAL AUDITOR QUESTIONS:				
<p>Have training needs been identified for those (including those who work ON BEHALF of the organization – e.g., contractors, temporary workers, visiting scientists/students, home-based staff) whose work can have a significant impact on the environment?</p> <p>Does training need identification consider environmental aspects?</p> <p>Has the appropriate training been done and, where required, by qualified trainers?</p> <p>Are procedures established and maintained to make persons work for or on its behalf aware of a – d above?</p> <p>What portion of employees have received required awareness training?</p> <p>Are there specific, documented minimum requirements for each person performing a task that can cause significant environmental impact?</p> <p>Are persons working for or on behalf of the organization aware of:</p> <ul style="list-style-type: none"> environmental aspects of personal tasks (how job can impact environment) of how to avoid environmental degradation (what controls are in place to prevent negative environmental impact) negative consequences of not following controls, positive consequences of improved personal performance how to contribute to unit's programs (e.g., recycling), and objectives and targets if relevant to their job emergency response/actions <p>Are records retained?</p>				

Brookhaven National Laboratory
ISO 14001 EMS Assessment

Organization: C-AD/SMD

Date: 5/24/05

Lead Auditors: M. Davis/R.Savage/M.VanEssendelft

Environmental Management System Model		IMPLEMENTATION AND OPERATION	
ELEMENT:	4.4.3	TITLE:	Communication
ISO 14001 STANDARD:		NO	PARTIAL
<p>With regard to its environmental aspects and EMS, the organization shall establish, implement and maintain a procedure(s) for:</p> <p>a) internal communication between the various levels and functions of the organization;</p> <p>b) receiving, documenting and responding to relevant communication from external interested parties.</p> <p>The organization shall decide whether to externally communicate about its significant environmental aspects, and shall document its decision.</p> <p>If the decision is to communicate, the organization shall establish and implement a method(s) for this external communication.</p>		X	
FACILITY IMPLEMENTATION OF STANDARD:			
<p>Major Nonconformance: A review of C-AD and SMD environmental web pages revealed four (4) EMS documents that reflect the same title but differ in content. The documents observed are as follows:</p> <p>a. On the C-AD web page the Environmental Management Program Description for C-AD and SMD (OPM 1.10.2, rev. 07) is identified. However, on the SMD web page there is a different Environmental Management Program Description (Rev. C, dated 6/25/03).</p> <p>b. On the C-AD web page the EMS Document Flow-Down Matrix for C-AD and SMD (OPM 1.10.2.c, rev. 06) is identified. However, on the SMD web page there is a different EMS Document Flow-Down Matrix (Rev. D, dated 10/29/04).</p> <p>c. On the C-AD web page the EMS Aspects for C-AD and SMD (dated 1/7/05) is identified. However, on the SMD web page there is a different EMS Aspects listing (dated 1/9/05).</p> <p>d. On the C-AD web page the EMS Contacts and Responsibilities for C-AD and SMD (OPM 1.10.2.b, rev. 06) is identified. However, on the SMD web page there is a different EMS Contacts and Responsibilities listing (dated 5/19/05).</p>			
EXISTING PROCEDURES AND DOCUMENTATION (LIST):			
<p>OPM 2.12 C-A/SMD Web site, C-A/SMD newsletter, CAC meetings CCTS OPM 1.10.2 and 1.10.2.c</p>			
COMMENTS: None			
EVALUATION:			
Suggested lines of inquiry in future assessments:			
MEETS REQUIREMENT	MINOR NONCONFORMANCE	X NONCONFORMANCE	MAJOR NONCONFORMANCE
OPTIONAL AUDITOR QUESTIONS:			
<p>Are there procedures and records that are maintained for communications and activities regarding the company's environmental aspects and its overall EMS?</p> <p>How are internal communications between different levels and different functions documented?</p> <p>How are they handling and documenting receipt and response to relevant questions from interested parties?</p> <p>What was their decision on externally communicating significant environmental aspects, and where it is documented?</p> <p>What method have they implemented to communicate externally on significant aspects?</p>			

Brookhaven National Laboratory
ISO 14001 EMS Assessment

Organization: C-AD/SMD

Date: 5/24/05

Lead Auditors: M. Davis/R.Savage/M.VanEssendelft

Environmental Management System Model		IMPLEMENTATION AND OPERATION		
ELEMENT:	4.4.4	TITLE:	(EMS) Documentation	
ISO 14001 STANDARD:				
		NO	PARTIAL	YES
<p>The EMS documentation shall include:</p> <ul style="list-style-type: none"> a) the environmental policy, objectives and targets, b) description of the scope of the EMS, c) description of the main elements of the EMS and their interaction, and reference to related documents, d) documents, including records, required by this International Standard, and e) documents, including records, determined by the organization to be necessary to ensure the effective planning, operation and control of processes that relate to its significant environmental aspects. 				X
FACILITY IMPLEMENTATION OF STANDARD:				
<p>Discussion: The C-AD/SMD Environmental Management Program Description details how the EMS program is implemented through use of the BNL SBMS and the Operational Procedures Manual. The Contacts and Responsibilities attachment gives pertinent information regarding individuals responsible at the department as well as the laboratory level. The Document Flow-down matrix gives a detail of the various documents of the C-A/SMD EMS.</p>				
EXISTING PROCEDURES AND DOCUMENTATION (LIST):				
<p>OPM 1.10.2 – C-AD/SMD Environmental Management Program Description OPM 1.10.2.b – C-A/SMD EMS Contacts and Responsibilities OPM 1.10.2.c – C-A/SMD EMS Flow-down Document Matrix OPM 1.10.2.d – C-A/SMD Environmental Management Matrix of Objective and Targets for Significant Aspects Form BNL ISO 14001 “Plus” EMS Manual SBMS Subject Area – Self Assessment C-A/SMD Organization Chart</p>				
COMMENTS: None				
EVALUATION:				
X	MEETS REQUIREMENT	MINOR NONCONFORMANCE	MAJOR NONCONFORMANCE	
OPTIONAL AUDITOR QUESTIONS:				
<p>How is the organization’s EMS documented and maintained? Does the EMS documentation address all required content? Does the system document how the related documentation [regulations, permits, forms, etc.] is to be used? Have they determined what documents and records are needed to ensure effective planning, operation and control of processes that relate to significant aspects?</p>				

Brookhaven National Laboratory
ISO 14001 EMS Assessment

Organization: C-AD/SMD

Date: 5/24/05

Lead Auditors: M. Davis/R.Savage/M.VanEssendelft

Environmental Management System Model		IMPLEMENTATION AND OPERATION		
ELEMENT:	4.4.5	TITLE:	Control of Documents	
ISO 14001 STANDARD:		NO	PARTIAL	YES
<p>Documents required by the EMS and by this International Standard shall be controlled. Records are a special type of document and shall be controlled in accordance with the requirements given in 4.5.4.</p> <p>The organization shall establish, implement and maintain a procedure(s) to</p> <ul style="list-style-type: none"> a) approve documents for adequacy prior to issue, b) review and update as necessary and re-approve documents, c) ensure that changes and the current revision status of documents are identified, d) ensure that relevant versions of applicable documents are available at points of use, e) ensure that documents remain legible and readily identifiable, f) ensure that documents of external origin determined by the organization to be necessary for the planning and operation of the EMS are identified and their distribution controlled, and g) prevent the unintended use of obsolete documents and apply suitable identification to them if they are retained for any purpose. 		X		
FACILITY IMPLEMENTATION OF STANDARD:				
<p>Major Nonconformance: A review of C-AD and SMD operating procedures (OPMs) associated with EMS tasks revealed that numerous OPMs have not been reviewed within their scheduled 3-year cycle.</p> <p>Minor Nonconformance: Contrary to the above requirement, C-AD and SMD are still in the process of evaluating what external documents (e.g supplier/vendor documents) are necessary for the planning and operations of their EMS.</p>				
EXISTING PROCEDURES AND DOCUMENTATION (LIST):				
OPM 1.1, OPM 1.2, OPM 1.4, OPM 1.4.3, OPM 1.4.7, OPM 13.4, OPM 13.4				
COMMENTS: None				
EVALUATION:				
MEETS REQUIREMENT		X MINOR NONCONFORMANCE	X MAJOR NONCONFORMANCE	
OPTIONAL AUDITOR QUESTIONS:				
<p>Are there procedures for controlling and maintaining all documents required by ISO 14001? Are the documents accessible? Are EMS documents reviewed, updated and approved or re-approved? Where does this requirement exist? (Note: periodic reviews are no longer required.)</p> <p>Do document control procedures cover all required elements?</p> <p>Are latest versions of documents available in all areas and by all personnel that perform tasks essential to the effective functioning of the EMS?</p> <p>Are documents of external origin needed for the EMS (e.g., maintenance manuals, CFRs, etc.) identified and controlled?</p> <p>Are obsolete documents removed from use and assured from unintended use? Are any historical copies maintained & labeled?</p>				

Brookhaven National Laboratory
ISO 14001 EMS Assessment

Organization: C-AD/SMD

Date: 5/24/05

Lead Auditors: M. Davis/R.Savage/M.VanEssendelft

Environmental Management System Model		IMPLEMENTATION AND OPERATION		
ELEMENT:	4.4.6	TITLE:	Operational Control	
ISO 14001 STANDARD:		NO	PARTIAL	YES
<p>The organization shall identify and plan those operations that are associated with the identified significant environmental aspects consistent with its policy, objectives and targets, in order to ensure that they are carried out under specified conditions, by:</p> <p>a) establishing, implementing and maintaining a documented procedure(s) to control situations where their absence could lead to deviation from the environmental policy, objectives and targets;</p> <p>b) stipulating operating criteria in the procedure(s);</p> <p>c) establishing, implementing and maintaining procedures related to the identified significant environmental aspects of goods and services used by the organization and communicating applicable procedures and requirements to suppliers, including contractors.</p>				
FACILITY IMPLEMENTATION OF STANDARD:				
<p>Discussion:</p> <p>Major Nonconformance:</p> <p>Minor Nonconformance:</p> <p>Observation:</p> <p>Opportunity for Improvement:</p> <p>Noteworthy Practice:</p>				
EXISTING PROCEDURES AND DOCUMENTATION (LIST):				
COMMENTS:				
(ELEMENT NOT REVIEWED DURING 5/24/05 INTERNAL AUDIT)				
EVALUATION:				
MEETS REQUIREMENT	MINOR NONCONFORMANCE	MAJOR NONCONFORMANCE		
OPTIONAL AUDITOR QUESTIONS:				
<p>Have the operations and activities been identified that are associated with the significant environmental aspects?</p> <p>Are the identified operations and activities consistent with the company's policy, objectives and targets?</p> <p>Is there a maintenance plan for the above identified operations and activities?</p> <p>Does work planning take significant aspects into account and ensure that adequate controls are established?</p> <p>Have procedures been established and maintained for the above operations that, if they are not followed for these situations, could lead to deviations from the environmental policy and the objectives and targets?</p> <p>Are operating criteria clearly established and documented in the procedures for the operations and activities identified above?</p> <p>Have the significant environmental aspects of raw materials, supplies and services used in the above operations and activities been identified?</p> <p>Are there procedures for handling raw materials, supplies and services used in the activities associated with significant impacts?</p> <p>Are relevant procedures and requirements communicated to the appropriate suppliers and contractors?</p> <p>Are operational controls in place and working?</p>				

Brookhaven National Laboratory
ISO 14001 EMS Assessment

Organization: C-AD/SMD

Date: 5/24/05

Lead Auditors: M. Davis/R.Savage/M.VanEssendelft

Environmental Management System Model		IMPLEMENTATION AND OPERATION		
ELEMENT:	4.4.7	TITLE:	Emergency Preparedness and Response	
ISO 14001 STANDARD:		NO	PARTIAL	YES
<p>The organization shall establish, implement and maintain a procedure(s) to identify potential for and respond to accidents and emergency situations, and for preventing and mitigating the environmental impacts that may be associated with them.</p> <p>The organization shall review and revise, where necessary, its emergency preparedness and response procedures, in particular, after the occurrence of accidents or emergency situations.</p> <p>The organization shall also periodically test such procedures where practicable.</p>				X
FACILITY IMPLEMENTATION OF STANDARD:				
<p>Discussion: The emergency preparedness and response procedures for C-A/SMD are documented in the respective Operations Procedure Manual.</p>				
EXISTING PROCEDURES AND DOCUMENTATION (LIST):				
<p>OPM 3.0 SMD Self Assessment Plan</p>				
COMMENTS: A drill to test emergency preparedness is performed on an annual basis. The results are documented, and applicable procedural changes and training recommendations resulted from the drill are implemented as required.				
EVALUATION:				
X	MEETS REQUIREMENT	MINOR NONCONFORMANCE	MAJOR NONCONFORMANCE	
OPTIONAL AUDITOR QUESTIONS:				
<p>Are there maintained procedures to identify potential for accidents and emergency situations?</p> <p>Are there maintained procedures to respond to accidents and emergency situations?</p> <p>Are there maintained procedures to prevent and minimize the environmental impacts that may be associated with the identified accidents and emergency situations?</p> <p>Are there reviews and revisions of the emergency preparedness and response procedures, particularly after an incident?</p> <p>Are there periodic tests of the above procedures?</p>				

Brookhaven National Laboratory
ISO 14001 EMS Assessment

Organization: C-AD/SMD

Date: 5/24/05

Lead Auditors: M. Davis/R.Savage/M.VanEssendelft

Environmental Management System Model		CHECKING AND CORRECTIVE ACTION		
ELEMENT:	4.5.1	TITLE:	Monitoring and Measurement	
ISO 14001 STANDARD:		NO	PARTIAL	YES
<p>The organization shall establish, implement and maintain a procedure(s) to monitor and measure, on a regular basis, the key characteristics of its operations that can have a significant environmental impact. The procedure(s) shall include the documenting of information to monitor performance, applicable operational controls and conformity with the organization's environmental objectives and targets.</p> <p>The organization shall ensure that calibrated or verified monitoring and measurement equipment is used and maintained and shall retain associated records.</p>				
FACILITY IMPLEMENTATION OF STANDARD:				
<p>Discussion: Major Nonconformance: Minor Nonconformance: Observation: Opportunity for Improvement: Noteworthy Practice:</p>				
EXISTING PROCEDURES AND DOCUMENTATION (LIST):				
COMMENTS:				
(ELEMENT NOT REVIEWED DURING 5/24/05 INTERNAL AUDIT)				
EVALUATION:				
MEETS REQUIREMENT		MINOR NONCONFORMANCE		MAJOR NONCONFORMANCE
OPTIONAL AUDITOR QUESTIONS:				
<p>Are procedures documented and maintained to monitor and measure operations that can have a significant impact on the environment? Is there a calibration or verification system for monitoring equipment? Is calibration up to date? How do they know when calibration is due? If stickers are required by internal procedures, are they in place? How are they evaluating/determining EMS performance (vs. conformance)?</p>				

Brookhaven National Laboratory
ISO 14001 EMS Assessment

Organization: C-AD/SMD

Date: 5/24/05

Lead Auditors: M. Davis/R.Savage/M.VanEssendelft

Environmental Management System Model		CHECKING AND CORRECTIVE ACTION	
ELEMENT:	4.5.2	TITLE:	Evaluation of Compliance
ISO 14001 STANDARD:			
		NO	PARTIAL
		YES	
<p>4.5.2.1 Consistent with its commitment to compliance, the organization shall establish, implement and maintain a procedure(s) for periodically evaluating compliance with relevant environmental legislation and regulations.</p> <p>The organization shall keep records of the results of the periodic evaluations.</p> <p>4.5.2.2 The organization shall evaluate compliance with other requirements to which it subscribes. The organization may wish to combine this evaluation with the evaluation of legal compliance referred to in 4.5.2.1 or establish a separate procedure(s).</p> <p>The organization shall keep records of the results of the periodic evaluations.</p>			X
FACILITY IMPLEMENTATION OF STANDARD:			
<p>Discussion: EMS nonconformances are documented by three mechanisms: Occurrence Reporting and Processing System (ORPS), Critiques, and through the SBMS Nonconformance & Corrective and Preventive Action subject area. This issue is further addressed under element 4.5.3. Critiques and NCR's are tracked for closure and corrective action through the C-A ATS. ORPS reportable incidents are tracked to closure through a higher level Laboratory &DOE tracking system. Copies of Critiques and NCR's with supporting documentation were available and for review in the QA group. ORPS can be found through the C-A web site. Critiques and NCR's were noted as in the C-A ATS system. Presently no NCRs have been identified for SMD.</p>			
EXISTING PROCEDURES AND DOCUMENTATION (LIST):			
<p>OPM 1.10.2 OPM 10.0 series SBMS Critiques SA SBMS Occurrence Reporting and Processing System SA SBMS Nonconformance & Corrective and Preventive Action SA C-A/SMD ATS</p>			
COMMENTS: None			
EVALUATION:			
X	MEETS REQUIREMENT	MINOR NONCONFORMANCE	MAJOR NONCONFORMANCE
OPTIONAL AUDITOR QUESTIONS:			
<p>Does the company have a documented procedure for periodically evaluating compliance with environmental legislation and regulations? Do compliance assessments include "other requirements"? Who is responsible for ensuring that all environmental media are covered over some time period? Are results of evaluations documented and records retained?</p>			

Brookhaven National Laboratory
ISO 14001 EMS Assessment

Organization: C-AD/SMD

Date: 5/24/05

Lead Auditors: M. Davis/R.Savage/M.VanEssendelft

Environmental Management System Model		CHECKING AND CORRECTIVE ACTION		
ELEMENT:	4.5.3	TITLE:	Nonconformity, Corrective Action and Preventive Action	
ISO 14001 STANDARD:		NO	PARTIAL	YES
<p>The organization shall establish, implement and maintain a procedure(s) for dealing with actual or potential nonconformities and for taking corrective and preventive action. The procedure shall define requirements for</p> <ul style="list-style-type: none"> a) identifying and correcting nonconformities and taking actions to mitigate their environmental impacts b) investing nonconformities, determining their causes and taking actions in order to avoid their recurrence c) evaluating the needs for actions to prevent nonconformities and implementing appropriate actions designed to avoid their occurrence. d) Recording the results of corrective actions and preventive actions taken e) Reviewing the effectiveness of corrective actions and preventive actions taken. <p>Actions taken shall be appropriate to the magnitude of problems and the environmental impact encountered.</p> <p>The organization shall ensure that any necessary changes are made to EMS documentation.</p>		X		
FACILITY IMPLEMENTATION OF STANDARD:				
<p>Minor Nonconformance: C-AD and SMD does not have a process in-place that identifies how they review the effectiveness of corrective actions and preventive actions taken once a nonconformance (e.g. Nonconformance Report, Critique) is closed out. During this audit, C-AD has added nonconformance report closures to the same tickler card (TC502) for a quarterly review using the same criteria that is used for evaluating Tier I Safety Inspection findings. However, SMD still needs to address this issue.</p>				
EXISTING PROCEDURES AND DOCUMENTATION (LIST):				
<p>SBMS Records Management SA C-A-OPM 13.4.1 C-A-OPM 13.4.2</p>				
COMMENTS: None				
EVALUATION:				
MEETS REQUIREMENT		X MINOR NONCONFORMANCE	MAJOR NONCONFORMANCE	
OPTIONAL AUDITOR QUESTIONS:				
<p>Are procedures documented and maintained for defining responsibility and authority for handling, investigating and taking action to minimize impacts of nonconformities?</p> <p>Does the corrective action program address both actual and potential (e.g., near miss) nonconformities?</p> <p>Is evaluation of the need to prevent nonconformities included in procedures?</p> <p>Are procedures documented and maintained for initiating and completing corrective and preventive action?</p> <p>Are appropriate corrective and preventive actions taken?</p> <p>Are the results of the corrective and preventive actions implemented and recorded?</p> <p>Is the effectiveness of corrective and preventive actions reviewed?</p>				

Brookhaven National Laboratory
ISO 14001 EMS Assessment

Organization: C-AD/SMD

Date: 5/24/05

Lead Auditors: M. Davis/R.Savage/M.VanEssendelft

Environmental Management System Model		CHECKING AND CORRECTIVE ACTION		
ELEMENT:	4.5.4	TITLE:	Control of Records	
ISO 14001 STANDARD:		NO	PARTIAL	YES
The organizational shall establish and maintain records as necessary to demonstrate conformity to the requirements of its EMS and of this International Standard, and the results achieved .				X
The organization shall establish, implement and maintain a procedure(s) for the identification, storage, retrieval, retention and disposal of environmental records.				
Environmental records shall be and remain legible, identifiable, and traceable.				
FACILITY IMPLEMENTATION OF STANDARD:				
<p>Discussion: Records are maintained in accordance with the SBMS Records Management subject area. Departmental level procedures that supplement the SBMS are C-A-OPM 13.4.1 – Records Management, and C-A-OPM 13.4.2 – Records Index. The Records Index has a specific attachment detailing the EMS Records within C-AD. This index lists the name of the record, the record custodian, the record schedule and the retention. Presently, SMD is developing a procedure that will also supplement the SBMS Records Management subject area.</p>				
EXISTING PROCEDURES AND DOCUMENTATION (LIST):				
<p>SBMS Records Management SA C-A-OPM 13.4.1 C-A-OPM 13.4.2</p>				
COMMENTS: None				
EVALUATION:				
X	MEETS REQUIREMENT	MINOR NONCONFORMANCE	MAJOR NONCONFORMANCE	
OPTIONAL AUDITOR QUESTIONS:				
<p>Are procedures documented and maintained for the identification, maintenance and disposition of environmental records? Are the records legible, identifiable and traceable to the activity, product or service involved? Where are EMS records kept? Are the records stored and maintained such that they are readily retrievable and protected against damage, deterioration or loss? Are there documented specified retention times for all of the records identified? Are records demonstrating the results of the EMS maintained? Are records managed and retained per plans/procedures?</p>				

Brookhaven National Laboratory
ISO 14001 EMS Assessment

Organization: C-AD/SMD

Date: 5/24/05

Lead Auditors: M. Davis/R.Savage/M.VanEssendelft

Environmental Management System Model		MANAGEMENT REVIEW	
ELEMENT:	4.5.5	TITLE:	Internal (EMS) Audit
ISO 14001 STANDARD:			
		NO	PARTIAL
<p>The organization shall ensure that internal audits of the EMS are conducted at planned intervals to</p> <p>a) determine whether the EMS</p> <ol style="list-style-type: none"> 1) conforms to planned arrangements for environmental management including the requirements of this International Standard, and 2) has been properly implemented and is maintained; and <p>b) provide information on the results of audits to management.</p> <p>Audit programme(s) shall be planned, established, implemented and maintained by the organization, taking into consideration the environmental importance of the operation(s) concerned and the results of previous audits.</p> <p>Audit procedure(s) shall be established, implemented and maintained that address</p> <ul style="list-style-type: none"> - responsibilities and requirements for planning and conducting audits, reporting results, and retaining associated records, - the determination of audit criteria, scope, frequency and methods. <p>Selection of auditors and conduct of audits shall ensure objectivity and the impartiality of the audit process.</p>			<p>YES</p> <p style="font-size: 1.5em;">X</p>
FACILITY IMPLEMENTATION OF STANDARD:			
<p>Discussion: The EMS audit is scheduled and performed in accordance with the C-A Department FY2005 Self-Assessment Program. The C-A QA group maintains a database of audit schedules as well as audits and audit reports. Audits are conducted in accordance with the SBMS Environmental Assessments subject area and OPM 1.10.2. An Audit Plan was generated as well as an Audit Schedule and Audit Notification.</p>			
EXISTING PROCEDURES AND DOCUMENTATION (LIST):			
<p>OPM 1.10.2 SBMS Environmental Assessments SA C-A-QAP-1001 Independent Assessment C-A Department FY 2005 Self-Assessment Program</p>			
COMMENTS: None			
EVALUATION:			
X	MEETS REQUIREMENT	MINOR NONCONFORMANCE	MAJOR NONCONFORMANCE
OPTIONAL AUDITOR QUESTIONS:			
<p>Are procedures documented and maintained for periodic EMS audits?</p> <p>Has the environmental importance of operations and results of previous audits been incorporated into the audit program?</p> <p>Does the EMS audit determine whether their EMS has been implemented and maintained and conforms to this standard?</p> <p>Does the procedure for EMS audits include the scope of the audit, frequency, methodologies used, responsibilities, responsibilities, requirements, and method of reporting results.</p> <p>Does the EMS audit provide results of the audits to management?</p> <p>Are EMS audit records maintained?</p> <p>Can the independence of the auditor be demonstrated (e.g., freedom from responsibility for the activity being audited.)?</p>			

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ISO 14001 EMS Assessment

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Lead Auditors: M. Davis/R.Savage/M.VanEssendelft

Environmental Management System Model		MANAGEMENT REVIEW		
ELEMENT:	4.6	TITLE:	Management Review	
ISO 14001 STANDARD:		NO	PARTIAL	YES
<p>Top management, shall review the organization's EMS, at planned intervals, to ensure its continuing suitability, adequacy, and effectiveness.</p> <p>Reviews shall include assessing opportunities for improvement and the need for changes to the EMS, including the environmental policy, objectives and targets.</p> <p>Records of the management reviews shall be retained.</p> <p>Inputs to management reviews shall include</p> <ul style="list-style-type: none"> a) results of internal audits and evaluations of compliance with legal requirements and with other requirements to which the organization subscribes, b) communication(s) from external interested parties, including complaints, c) the environmental performance of the organization, d) the extent to which objectives and targets have been met, e) status of corrective and preventive actions, f) follow-up actions from previous management reviews, g) changing circumstances, including developments in legal and other requirements related to its environmental aspects, and h) recommendations for improvement. <p>The outputs from management reviews shall include any decisions and actions related to possible changes to the environmental policy, objectives, targets and other elements of the EMS, consistent with the commitment to continual improvement.</p>			X	
FACILITY IMPLEMENTATION OF STANDARD:				
<p>Observation: It was noted that the C-AD EMS Self-Assessment Plan that was completed in February 2005 and has not been issued to date. However, it was revealed that all respective action items were properly closed. This years Management Review for C-AD/SMD is scheduled for September 2005.</p>				
EXISTING PROCEDURES AND DOCUMENTATION (LIST):				
<p>OPM 1.10.2 SBMS Environmental Assessments SA, C-A Management Review Agenda (2004), C-A Management Review (2004) C-A Management Review Minutes (2004), C-A Record of Decision (2004)</p>				
COMMENTS: None				
EVALUATION:				
MEETS REQUIREMENT (See Observation Above)		MINOR NONCONFORMANCE		MAJOR NONCONFORMANCE
OPTIONAL AUDITOR QUESTIONS:				
<p>Has the top management performed a documented review of the EMS on a periodic basis? Does the review address the system's continued suitability, the system's adequacy, the system's effectiveness, the system's possible need to change its policy, the system's possible need to change its objectives and other elements of the EMS in light of the audit results, continual improvement, etc., the system audit as required in 4.5.4, and the Nonconformances and Corrective and Preventive Action?</p> <p>Is there a record of decision which outlines actions for the coming year?</p>				