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Brookhaven National Laboratory

Action Plan for the
Tiger Team Assessment Report



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BROOKHAVEN NATIONAL LABORATORY
ASSOCIATED UNIVERSITIES, INC.
UPTON, NEW YORK 11973

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MASTER

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PREFACE

The Department of Energy (DOE) and Brookhaven National Laboratory (BNL) are committed to excellence in the conduct of operations. Environment, safety, and health is the highest priority for DOE and BNL.

This document contains responses and planned actions that address the findings of the Tiger Team Assessment of Brookhaven National Laboratory, June 1990 (DOE/EH-0140). Previously identified concerns and findings were highlighted (with planned corrective actions) by the Department of Energy's Chicago Operations Office (CH), Brookhaven Area Office (BHO), and Brookhaven National Laboratory (BNL) during the Pre-Team Visit for the Tiger Team in February 1990 and the opening briefing on March 26, 1990. The DOE's Office of Energy Research (ER), CH, BHO, and its operating contractor, Associated Universities, Inc. (AUI) prepared this Action Plan.

In addition, the document contains descriptions of the management and organizational structure to be used in conducting planned actions, root causes for the problems identified in the findings, responses, planned actions, schedules and milestones for completing planned actions, and, where known, costs associated with planned actions.

Based on a preliminary prioritization of planned actions by ER, CH, and BHO management, all planned actions contained in this document were scheduled by fiscal year and will be conducted in accordance with the DOE prioritization system for Tiger Team Action Plan activities, provided that funding is available. Several activities will be reviewed and concurred with by EPA and NYSDEC in accord with the Interagency Agreement (IAG) being negotiated for the site. Consequently, the scope, costs, and schedules for any activities related to site characterization and remediation are subject to change. Planned actions were modified as appropriate upon receipt of the final Tiger Team Report and upon receipt of comments on the Draft Action Plan. Milestones were comprehensively reviewed to assure that they are achievable with the resources that are either currently available or which are planned for.

The responses and planned actions are contained in Sections 3.0 through 8.0. Appendix A contains two summary tables. Table 1 summarizes all planned actions, schedules and costs. Table 2 provides a "cross-walk" of pertinent planned actions with information in the June 1990 Environmental Restoration Waste Management Five-Year Plan. Costs that differ from the current FYP budget data and schedules for inclusion in FYP updates are highlighted in the last column of Table 2.

EXECUTIVE SUMMARY

This document contains the responses, planned actions, and their associated costs for correcting the problems identified in the Tiger Team Assessment of Brookhaven National Laboratory, June 1990 (DOE/EH-0140). It reflects the highest priority being given by BNL and DOE to achieve excellence in ES&H. A Draft Report was issued to the U. S. Department of Energy's (DOE) Brookhaven Area Office (BHO) on April 27, 1990, following a one-month long, on-site investigation by the Tiger Team. The investigation of Brookhaven National Laboratory (BNL) was part of a nation-wide initiative of Secretary of Energy James D. Watkins. Additional information on the background of the investigation is contained in Section 1.0 of this document.

Section 2.0 describes the management and organizational structure of the ER, CH, BHO, and DOE's operating contractor, Associated Universities, Inc. (AUI), which will be responsible for implementing the planned actions to respond to the findings in the report.

In concert with the Tiger Team, a team of DOE investigators trained by the U. S. Department of Labor's (DOL) Occupational Safety and Health Administration (OSHA) conducted an inspection of BNL. A list of OSHA findings and their status are contained in Section 8.0.

Actions to address the OSHA root causes will be incorporated in Safety and Environmental Administrative Policy and Procedures Manual (SEAPPM), under development by BNL. Future OSHA-type appraisals, assessments, and audits, to be conducted by ER, CH, BHO, will be coordinated to assure site-wide coverage of all facilities on a periodic, risk-based schedule.

The Tiger Team findings, excluding the OSHA findings, involved 66 Environmental, 69 Technical Safety, and 22 Management findings. Of the 66 environmental findings, 37 were compliance issues and 29 were Best Management Practices findings. Of the 69 Technical Safety Concerns, one was a category (CAT) II finding, and the remainder were CAT III findings. The CAT II finding regarding BNL's hazard communication program will be closed out by the end of this calendar year. Ten Management findings were compliance issues, and 12 were Best Management Practices findings. The Tiger Team noted in its report, "The assessment did not identify any problems at Brookhaven which present an undue risk to the public health or the environment." In addition, two noteworthy practices were identified.

Eighteen of the Tiger Team findings were considered key findings. Three of these findings were Environmental findings, ten were Safety and Health, and five were Management. An analysis of these findings is included in Section 3.0, and Root Causes,

including OSHA root causes, are addressed in Section 4.0. ER and CH are undertaking initiatives to improve DOE oversight of ES&H compliance by contractors. These include increasing ER, CH, and BHO staffing in Environmental, Safety, and Health (ES&H) disciplines, providing further training to current staff on specialty areas of ES&H requirements, and implementing the recently executed management agreement.

As discussed in Section 3, emphasis has been given to the development of a comprehensive ES&H plan (with priority given to groundwater characterizations and remediations), commitment to formality of operations, and enhancement of training. FY90 funds have been reallocated to accelerate corrective actions.

Overall: Of all 479 of the management, environmental, TSA, and OSHA corrective actions, 56 percent already have been or will be completed in FY90. The completed corrective actions will reach 86 percent in FY91 and 93 percent in FY92. All corrective actions that are to be completed after FY92 are included in discussions below.

Identified costs total \$68M in one-time costs and \$11M per year in additional recurring costs.

Management: As detailed in Section 5, all management corrective actions will be completed before the end of FY91, except for completing the ES&H staffing increases at ER, CH, BHO, and BNL. These staffing increases will be completed in FY92, with a major portion of these staffing increases occurring in FY91.

Environmental: As detailed in Section 6, over 20% of environmental corrective actions have already been completed or will be completed in FY90. By the end of FY91, the completed corrective actions will total 66%. The remaining environmental corrective actions are as follows:

1. The CY91 anticipated completion of actions in response to the newly proposed NEPA requirements.
2. The CY91 completion of a site-wide Emergency Plan.
3. The FY93 completion of comprehensive, site-wide, multi-media characterizations at a cost of over \$22M and which requires a negotiated agreement with EPA and NYS.
4. The completion of treatment and disposal of Land Disposal Restricted wastes, which requires various approvals.
5. The completion of \$1.1M in construction upgrades to toxic and hazardous materials storage area.

6. The completion of \$2.4M in construction upgrades to the Hazardous Waste Management Facility, which will require regulatory approvals and a multi-year construction time.
7. The completion of \$7.6M in line item projects for sewage collection and treatment upgrades which require regulatory agency approvals and multi-year construction times.
8. The completion of tritium monitoring upgrades.

TSA: As detailed in Section 7, 27 percent of the TSA corrective actions already have been or will be completed in FY90. By the end of FY91, the accumulated completed corrective actions will total 74 percent. All remaining TSA corrective actions will be completed in FY92, except for the following:

1. The completion of site-wide implementation of DOE Draft Order 4330.4 on Maintenance.
2. The completion of radiological air monitoring in accordance with DOE Order 5480.11, which is currently being revised.
3. The construction completion of over \$21M in line item fire protection projects which have been prioritized and which require substantial design efforts and multi-year construction times.
4. Completion of the upgrades to the safety limits and safety equipment testing and maintenance.
5. Completion of a construction project to upgrade the Emergency Operations Facility.
6. Completion of a health physics accreditation program.

OSHA: As detailed in Section 8, of the 244 OSHA corrective actions, 215 (88 percent) already have been or will be completed in FY90. All remaining OSHA corrective actions will be completed in FY91, except for the following two (1 percent):

1. FY92 completion of installation of Ground Fault Circuit Interrupters (GFCIs) throughout the Chemistry Department.
2. FY92 completion of installation of GFCIs throughout the Department of Applied Science.

1.0 INTRODUCTION

1.1 BACKGROUND

On June 27, 1989, Secretary of Energy James D. Watkins announced a 10-point Initiative to strengthen safety, environmental protection, and waste management activities at DOE's production, research, and testing facilities. In support of the 10-point Initiative, the Secretary established independent "Tiger Teams" to conduct environmental compliance assessments at DOE facilities. The assessments are on-site, independent reviews of DOE environment, safety, and health programs to ensure compliance with applicable federal, state, and local regulations; permit requirements; agreements, orders and consent decrees; and DOE Orders. In addition, the Tiger Teams assess DOE operations for conformance with applicable "best" and "accepted" industry practices and the adequacy of DOE and site contractor ES&H management programs.

A Tiger Team Assessment was conducted at Brookhaven National Laboratory (BNL) between March 26 and April 27, 1990. A written report, "U.S. Department of Energy Environment, Safety, and Health Tiger Team Assessment, Brookhaven National Laboratory, April 1990 (Draft) (DOE/CH-0140)" documenting the findings made by the Tiger Team, was provided at the end of the assessment. This report was finalized in June 1990.

1.2 PURPOSE AND SCOPE OF THE ACTION PLAN

The purpose of the Action Plan is to provide a formal written response to each of the findings or concerns cited in the Tiger Team Assessment Report and to set forth the actions to be taken by ER, CH, BHO, and BNL to address the findings and underlying root causes, action schedules and milestones, associated costs, and parties responsible for implementing the Action Plan. The document also identifies actions and costs that are included, or planned for inclusion, in DOE's Environmental Restoration and Waste Management Five-Year Budget Plan. Some of the costs which are not consistent with the Five Year Plan which is dated June 1990, can be reconciled through use of updated Activity Data Sheets, which were submitted in late June 1990. These ADSs are flagged in Appendix A Table 2.0.

1.3 ORGANIZATION AND CONTENT OF THE ACTION PLAN

The Action Plan includes eight (8) sections and two (2) appendices. Section 1.0 provides the background of the Tiger Team assessments and the purpose and scope of the site Action

Plan which has been prepared in response to the Tiger Team Assessment Report. Section 2.0 identifies the principal parties and their role for implementing the plan. Section 3.0 is divided into four major subsections: Key Findings in Environment, Safety and Health, OSHA, and Management and Organization. Root Causes are discussed in Section 4.0. Each subsection broadly outlines planned actions, schedules for implementing the actions, and associated costs. Sections 5.0 through 8.0 provide detailed information on actions that will be undertaken to address each individual finding or concern.

Appendix A provides tables which are:

- Summary of Planned Actions, Schedules, and Costs, and
- Five-Year Plan (FYP) Budgets for Planned Actions.

Acronyms are provided in Appendix B.

2.0 ORGANIZATION AND MANAGEMENT STRUCTURE TO IMPLEMENT THE ACTION PLAN

2.1 ORGANIZATION

BNL is a multi-program laboratory managed and operated by Associated Universities, Inc. (AUI) for the Department of Energy (DOE). Day-to-day on-site management of BNL operations is assigned to the Brookhaven Area Office (BHO). Jerry L. Bellows is the BHO Manager. BHO reports to the Chicago Operations Office (CH). DOE-Energy Research (ER), as the responsible landlord for the BNL site, provides headquarters oversight, program direction and most of BNL's funding. Other major DOE programs that fund activities at BNL are Nuclear Energy (NE) and Environmental Restoration/Waste Management (EM).

The role of BNL is to conceive, design, build, and operate large, complex research facilities for fundamental scientific studies, and to carry out both basic and applied research in energy-related physical, life, and environmental sciences. In providing the use of the Laboratory's large and complex facilities to the scientific community, BNL maintains close interaction with scientific personnel in universities and industry and aids the education of scientists and engineers through cooperative research programs. Other educational programs cover a broad spectrum reaching elementary school through university students and faculty.

To fulfill its role as a multi-program laboratory, BNL directs its scientific and technical efforts toward missions that include: (1) high energy and nuclear physics; (2) basic energy sciences emphasizing fundamental research on biological, chemical, and physical phenomena underlying energy-related transfer, conversion, and storage systems; (3) research in the life sciences and nuclear medicine and on medical applications in the life sciences and nuclear medicine and on medical applications of nuclear techniques; and (4) a broad span of applied programs for which the Laboratory has unique capabilities. All of these efforts are reviewed to ensure that all useful results and knowledge obtained are made available to the industrial and commercial sectors.

As a national resource, BNL makes available, when feasible, its unique facilities and expertise to state and federal agencies and to the private sector.

The Director of BNL is N. P. Samios. He is assisted in the management of the Laboratory by the Deputy Director, M. Blume, and seven Associate Directors who are responsible for the various departments/divisions. The Director has charged G. C. Kinne, the

Associate Director for Reactor, Safety and Security with the responsibility for ensuring the development and implementation of ES&H policy and procedures.

2.2 RESPONSIBILITY FOR IMPLEMENTATION

The responsibility for implementing ES&H policy, procedures, and corrective actions is assigned to program line management in ER, CH, BHO, and BNL as appropriate. The findings have been reviewed, and the appropriate organization(s) have been assigned to respond.

The responsibility for verification of the completed actions and for ensuring that actions are completed as scheduled rests with BHO. BHO will ensure that corrective actions are accomplished in compliance with appropriate state and federal environmental laws and regulations and DOE Orders. BHO will interface with state and federal regulators to obtain appropriate permits and to keep the state informed of progress on implementing this Action Plan.

2.3 OVERSIGHT

The CH-Environment, Safety, and Health Division (ESHD) will perform independent oversight activities of BHO and BNL to verify adequacy and effectiveness of completion of Action Plan activities. The planned actions will be randomly selected (using various sampling methods), reviewed, and documented to ensure findings and concerns are effectively corrected and root causes are addressed. In addition, CH-ESHD functional appraisals otherwise required by DOE orders will routinely be expanded to include appraisal of progress against the pertinent action plan(s). Similarly, CH's Annual Management Appraisal of BNL will assess progress.

ER will perform oversight activities of CH, BHO, and BNL to verify the adequacy and effectiveness of completion of Action Plans. ER will selectively review Action Plans to evaluate the effectiveness of the corrective actions and to verify findings and concerns are adequately resolved and that root causes are addressed. Also, on a joint basis, ER, CH, and BHO will annually review BNL and DOE-CH/ER progress in accomplishing actions contemplated by this Action Plan.

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3.0 KEY FINDINGS & PLANNED ACTIONS

The discussion in this section refers to the summary of "key findings" contained in Section 2 of the Tiger Team Assessment of Brookhaven National Laboratory, June 1990.

3.1 DOE MANAGEMENT ISSUES

There are various DOE and BNL issues that are wide ranging and can be found to be root or contributory causes to many of the Tiger Team findings. Each finding is addressed individually. In addition, broad management issues are addressed.

The first issue is the need for resources. These resource needs include staffing, in terms of numbers and expertise (ER, CH, and BHO); funding for travel and training (CH and BHO); and space and computer requirements (BHO). BHO needs the staff resources to perform its programmatic responsibilities such as NEPA determinations and line management overviews. Having BHO depend entirely on CH ESHD and PFMD for matrix support has hampered CH's ability to perform its independent oversight functions. These weaknesses have been recognized and BHO has increased its ES&H staff in its staffing plan. Recruiting is ongoing for five additional technical positions. However, it should be recognized that due to the federal salary structure, the high demand for experienced safety and environmental specialists, and the cost of living on Long Island, recruitment will be extremely difficult. Without some relief from the federal pay structure, it will be some time before these positions are filled and BHO is fully staffed. BHO will continue to use support service contractors, as needed, to address specialty areas of ES&H that cannot be covered by current staff. The increase in staffing will result in the need for additional office space and equipment, including computers.

With BHO increasing its technical staff, the need for CH ESH matrix support should decrease. This will allow CH to correct the identified deficiencies in its independent function. ESHD has requested additional resources to augment its on-site presence and increase its home office staff. These increases will allow ESHD to fully implement a comprehensive surveillance and appraisal program at BNL.

One area of oversight not identified by the Tiger Team is the CH ESHD Site Representative. The ESHD Site Representative's mission is to provide independent safety overview at BNL. This individual reports directly to the CH ESHD Director. This position was established in November 1988 and has been filled ever since. At the moment, reactor safety is the main thrust of this oversight. Plans are to provide this individual with OSHA training and to add an environmental specialist as another ESHD Site Representative.

The limited oversight provided historically by ER has also been recognized. This deficiency is due to historic lack of emphasis on line management's ESH responsibilities and accompanying lack of funding. Another factor has been the poorly defined and overlapping responsibilities at DOE-HQ. ER's staffing plan will result in 29 ES&H staff in the next three years to provide ES&H expertise to ER line program managers, as well as oversight to all ER activities and facilities. This oversight will be in the form of guidance and reviews by ER line program managers with independent ER oversight.

Accountability and responsibility are also issues. Again, this is due to the historic lack of emphasis on line management's responsibilities in the area of ESH. ER, CH, and BHO will correct this situation by including ESH requirements in its position descriptions. Individuals will be rated on responsiveness. Line management roles of ER, CH, BHO, and BNL will be better defined so that they are more easily understood and accepted and carried out.

An issue that was identified during the Tiger Team Assessment was the interaction between ER, BHO, and BNL concerning the use of the AGS. A Management Agreement between CH and ER is being developed to clearly define mutual roles and responsibilities.

Formalization of the conduct of operations at ER, CH, BHO, and BNL is needed. Procedures will be developed by CH, BHO, and BNL. BHO will increase formality and timeliness of communications to BNL, DOE, and off-site regulators. ER and CH will formalize their response to BHO and BNL issues, and respond to requests in a timely manner. BNL will increase the timeliness of its communications to BHO. Points of contact and job responsibilities will be clearly defined for all organizations. The informality of operations that was the norm will not be continued.

Training is an issue. Knowledge in specialized areas of environment and safety needs to be added at ER, CH, and BHO. Attempts to correct this situation have been defeated by lack of funding for travel. Additional funding will be sought and alternate training opportunities will be evaluated.

Lack of Quality Assurance (QA) is a pervasive theme throughout the findings for both BNL and DOE. Increased emphasis on QA for ES&H activities is imperative for all. Oversight will be increased. Staffing for QA will be increased both at CH and BHO. CH oversight of QA will be moved within CH to ESHD to assure independent appraisals of the BNL QA program. Implementation of QA policies and procedures will be routinely enforced.

Access control philosophy is an issue (although not presented as a finding by the Tiger Team) that is in need of resolution. ER, CH, BHO, and BNL will work to better safeguard hazardous

facilities at the site and to ensure the safety of the individuals who visit BNL or participate in research activities.

In order to respond in a more timely manner to the deficiencies identified in the Tiger Team Report, and to enable CH and BHO to fully implement their roles and responsibilities, CH and BHO must significantly increase staffing, travel and training funds, and support services contractor assistance. Accordingly, for FY90 and FY91, CH intends to assess a small percentage charge against all Energy Research program operating funds earmarked for BNL through the Approved Funding Program in order to support oversight needs for technical support areas. For FY92 and beyond, it is expected that ER will provide direction funds through the Approved Funding Program.

This Action Plan presents additional DOE costs for FY91 and FY92. It should be recognized, however, that many of the identified costs, including those related to staffing, travel, and training, will continue (and increase) beyond FY92. These costs will be included in the FY92 and beyond budget requests, including program direction funding requests. Additional funding will continue to be needed as a matter of routine if DOE is to maintain compliance and pursue excellence.

3.2 BNL KEY FINDINGS

3.2.1 INTRODUCTION

A common problem noted in each section of the Tiger Team Assessment related to the need for uniform promulgation and implementation of ES&H policies throughout the Laboratory.

- The report contained over 80 findings and concerns pertaining to the informality of operation at the Laboratory.
- The Laboratory lacks codified site-wide safety and environmental policies and an effective means for promulgating them. The BNL self assessment done prior to the Tiger Team review noted that "previous practices did not require a high level of formality outside of selected facilities" and that "existing Laboratory requirements were not consistently implemented".

The principal mechanism that the Laboratory is adopting to address these concerns and to improve both the degree of formality of operation and the level of compliance in environmental and safety areas is a new policy and procedures manual entitled, "Safety and Environmental Administrative Policy and Procedures Manual" (SEAPPM). This new manual will be issued to each of the Laboratory's organizational units and will provide the means for distributing, on a formal and permanent basis, the policy and procedural requirements for the Laboratory's Safety and Environmental program. The goal of this manual is to formalize and systematically codify consistent environment, safety, and health procedures, controls, and documentation at all levels throughout BNL. The SEAPPM will function at two levels, the Laboratory SEAPPM and departmental/divisional SEAPPM.

The Laboratory SEAPPM will provide clear guidance on:

- When a procedure is required.
- Who is responsible for writing the procedure.
- How to write the procedure.

The scope of the Laboratory SEAPPM includes a statement of safety policy, organizational responsibilities and activities, general safety, environmental protection, industrial hygiene, radiation safety, fire protection, training, etc. Where possible, model procedures will be written for ease and timeliness of implementation in the departments. All model procedures will be written to meet policies and standards of BNL Safety manual, DOE

requirements, and, where applicable, other federal/state ES&H procedural requirements.

Each department/division will use the Laboratory SEAPPM implementing procedures to develop their own SEAPPM specific to the operations of their organization.

As currently envisaged, the Laboratory SEAPPM will consist of three major sections: (1) an organization, responsibility, and authority section; (2) a general safety section; and (3) a program specific section.

Under the organization, responsibility, and authority section, the Laboratory manual will provide a procedure for development, review, approval, and issuance of organizational charts, a procedure requiring the formal definition of the ES&H authorities and responsibilities within the department/division, and a procedure on how to use the model procedures contained in the Laboratory manual, as well as a procedure for obtaining approval of any procedure which deviates from the model.

In the general safety section of the Laboratory SEAPPM, implementing procedures will be written for each of the 16 OS&H BNL Safety Guides, as well as additional subjects identified by the Tiger Team (e.g., Facility Design Review, Occupational Safety Limits, Shift Transfer, Formalized Facility Operation, Safety Impact Determination). Implementing procedures will be developed in the Laboratory manual to address these areas, including a procedure to identify when Safety Analysis Reviews are required, procedural checks for Occupational Readiness Reviews, as well as other periodic reviews.

The remaining sections of the Laboratory SEAPPM (e.g., Industrial Hygiene, Radiation Safety, Environmental Protection) will contain implementing procedures for these programs, as well as implementing procedures for subjects identified by review of DOE and other federal/state requirements.

The objective of all model procedures is to write them in a manner which minimizes the difficulty of interpreting the ES&H requirements of BNL.

The BNL Safety Manual will remain as a source of policies and standards. The Laboratory and department/division SEAPPMs will consist of procedures for implementing the policies and standards of the BNL Safety Manual. As necessary, policies, standards, and procedures will be issued for inclusion in the Safety Manual and the SEAPPM.

The BNL Employee Safety Handbook will continue to summarize important ES&H requirements affecting most employees. This Handbook will be revised and periodically updated to conform to

the Safety Manual and the SEAPPM. The first revision will define the function of the BNL Safety Manual and the SEAPPMs and will give specific reference to these documents and individuals with ES&H responsibilities. A table will be included in the Handbook identifying where each department/division SEAPPM is located. In addition, several chapters of the SEAPPM will be required to receive department/division-wide distribution. As new policies are developed, they will be issued as part of the SEAPPM, along with necessary implementation procedures. Each organizational unit will be required to maintain their own set of manuals containing their implementation procedures, as well as the policy requirements.

Implementation of each department/division SEAPPM requirements will be assessed by the Laboratory as part of the Tier II safety assessment program. The Laboratory initiated development of the SEAPPM in FY90 (\$125K). As sections are developed, they will be issued first for review and comment and, after revision, for implementation. This is an evolving process which is currently scheduled for completion April 1991.

A second common problem area addressed by the Tiger Team is training. The Laboratory currently provides a wide range of training programs, from general safety training for each new employee to specialized training in such areas as radiation protection. These training programs will continue and will be strengthened over the next few months to include areas such as hazard material handling and emergency response. In addition, as a result of the TTA, the Laboratory will initiate new training activities including hazards communication. However, in keeping with the need to develop a more formalized training program with appropriate documentation, the Laboratory established a Training Task Force. The Task Force chair was named in December 1989 following the Technical Safety Appraisal of BNL. The Chair conducted a survey of existing training practices and identified members for the Task Force. Following the TTA, the Task Force members were named on June 28, 1990. This Task Force will review current training practices, recommend policy for determining required training by job assignment, and the appropriate level of documentation for these programs. The Task Force will provide its recommendations to the Laboratory by February 28, 1991, and the Laboratory will initiate implementation of a formal site-wide training program by May 31, 1991. It should be emphasized that training required to assure compliance with ES&H regulations will be conducted as outlined in the Action Plan. Where appropriate, training requirements will be outlined in specific portions of the SEAPPM to assure that the formality of operations addresses training aspects as well.

A final, major area of concern for the TT was the characterization and remediation of contaminated areas on site. The Laboratory undertook a four-year initiative in 1988 to upgrade

the groundwater monitoring program and to characterize areas of soil contamination on site. In addition, plans were developed to secure funding for remedial activities. \$1700K was originally planned for use in upgrading the groundwater program. Since 1988, over 50 new wells have been installed; and prior to the TTA, the Laboratory was reviewing this program in light of the need to provide overall site monitoring, as well as respond to requirements of CERCLA and RCRA. As a result of the Laboratory's own review and that of the Tiger Team, the current funding requirements have increased by \$2200K.

In November 1989, the Laboratory was included on the EPA National Priority List, and an Interagency Agreement for characterization and remediation of the site is currently being negotiated. Under the terms of this agreement, the activities undertaken by DOE and BNL will be reviewed and concurred with by the EPA and NYSDEC.

The overall assessment of the groundwater program and a plan to integrate the program with other assessment and characterization efforts will be completed by January 31, 1991. This plan will be reviewed by EPA and the State and the future direction of these efforts determined by agreement between EPA, DOE, and NYSDEC. This plan, as well as results from soil/sediment analyses (FY91 and FY92), will be essential in estimating the funds required for future efforts.

3.2.2 MANAGEMENT KEY FINDINGS

The following addresses the Key Findings noted by the Tiger Team.

Communication of Brookhaven National Laboratory (BNL) ES&H policies and directives to the working level in the form of consistent, standardized procedures is not adequate.

The primary vehicle for codifying and promulgating the Laboratory's ES&H policies and requirements consistent with federal, state and local requirements has been and will continue to be the BNL Safety Manual. However, the implementation of the policies and requirements of the manual, specifically to the operations of individual departments and divisions, has been informal and undocumented.

To correct these deficiencies and ensure consistent application of the policies and requirements of the BNL Safety Manual, the Laboratory will develop and issue a Safety and Environmental Administrative Policy and Procedures Manual (SEAPPM). The SEAPPM will serve as a set of regulatory guides defining the minimum requirement, consistent with the BNL Safety Manual, for operations in each department and division on site. This manual will be implemented by each organizational unit at BNL and will define Environment, Safety & Health (ES&H) requirements and assign responsibilities for implementation. The implementation procedures will be a part of this Manual and should ensure improved communication and consistent application of standards throughout the Laboratory. The SEAPPM will include:

- administrative procedures;
- specific aspects of an effective ES&H program such as lock out-tag out, radiation protection, use of personnel protective equipment, envelope of safe operations, and hazardous materials and waste handling;
- definition of where the requirements apply;
- who has authority and responsibility for implementing and enforcing the policy and procedures; and
- the level of required training.

Sections of the SEAPPM will be issued as completed. The manual will be completed by April 30, 1991 and revised as new requirements are identified and updated periodically.

BNL internal oversight needed to assure that the ES&H program meets U.S. Department of Energy (DOE) and other regulatory requirements has been insufficient. BNL internal oversight has also not been sufficiently independent of line organizational responsibilities.

The Laboratory has over the last several years taken several steps to enhance the awareness of ES&H issues and to provide assistance and oversight of our programs to assure protection of personnel, the public, and the environment. The Laboratory is providing the additional resources needed to ensure full oversight of the ES&H program.

- Currently, the SEP Division has 132 members.
- The staff of this division has increased by 30 percent in the past two years.
- The Laboratory is actively recruiting to fill the 11 positions remaining open from FY89 additions to the staff.
- An additional 18 new positions have been approved for FY91 for critical positions required to assure that the Laboratory meets the commitments of this plan. To expedite the addition of this staff, \$125K has been allocated in FY90 to support the immediate hiring of these personnel.
- Increases are expected in FY91 and FY92.
- Since 1987, the Laboratory has spent in excess of \$5M of operating and construction funds to address ES&H issues. These funds were expended to clean up the site, improve the groundwater monitoring program, institute programs aimed at increasing the awareness of safety among employees and responding to the concerns and requirements of our local community.
- The Laboratory has addressed the finding concerning the existence of conflict of interests in the assessment and oversight functions at the Associate Director level and within the Safety and Environmental Protection Division. The Laboratory finds that the assignment of line responsibilities within the Directorate provides an optimum combination of technical and managerial expertise to the line organizations. In a previous review of this organizational structure conducted by a DOE consultant, it was concluded that management was totally open-minded, receptive to change and that line organizations were properly vested with responsibilities and activities. Additionally, the Associate Directors function as senior level team members concerned with overall Laboratory management. Since the direct operational responsibilities rest with the Department Chairmen/Division Managers, the Associate Directors are far enough removed from operations to assure that they do function with independence during

execution of their other responsibilities. The Laboratory, therefore, concludes that there is not a valid conflict of interest concern at this level of management.

BNL does not have an integrated safety and health plan which identifies and prioritizes ES&H deficiencies and concerns. Both staffing and the rate of funding for ES&H improvements need to increase to meet DOE expectations on an acceptable time schedule.

The Laboratory has been engaged in long-range planning activities for many years. The primary planning documents have been the Institutional Plan, the Master Site Plan, the Five Year Environmental Restoration and Waste Management Plan, and a more recent initiative to prioritize and plan ES&H construction and maintenance projects. These plans as well as the plans for staffing, need to be integrated into a long range, fully integrated environment, safety, and health plan that identifies and prioritizes ES&H deficiencies and concerns. The Laboratory will commit an additional \$50K in FY90 to initiate development of this plan and commit \$60K in FY91 to ensure completion of a preliminary plan by March 31, 1991, so that it is available to incorporate funding requests in the FY92 Operating Budgets and FY93 Construction Budgets. While the integrated plan is necessary to guide activities in the future, there are several areas identified by the Tiger Team that must be addressed now if BNL is to assure that it is moving toward excellence in ES&H areas. The three primary areas of concern are formality of operations, training and protection of the sole source aquifer. Several activities will be undertaken over the next year to address these areas.

- The Laboratory will complete its Safety and Environmental Administrative Procedures and Policy Manual by April 30, 1991.
- A training task force was appointed on June 30, 1990. The Laboratory will commit \$25K to retain consultants to assist the Task Force. This task force will determine:
 - content of training programs,
 - identify those individuals who have more extensive or specific training needs,
 - recommend who/how training should be implemented,and the Laboratory will begin implementation of the site wide training effort by May 31, 1991.
- Major upgrades of the groundwater monitoring program have been ongoing since 1987. To expedite the program and assure its quality, a geohydrologist has been added

to the SEP staff this year. Consultants have been retained to assist in the development of a long-range groundwater plan that integrates the requirements for site monitoring and CERCLA/RCRA.

- Continue to recruit staff for SEP for the 11 positions currently open. In addition, the Laboratory approved the addition of 18 new ES&H staff on July 10, 1990. Until staff have been added, consultants will be used to address high-priority issues.

3.2.3 ENVIRONMENT KEY FINDINGS

The hydrologic regime at BNL has not been adequately characterized.

The Laboratory has had a groundwater monitoring program since the 1960s, and it has expanded since that time in response to changing regulations and the need to identify and characterize areas of contamination. In 1987, the Laboratory initiated a five-year project to significantly upgrade the groundwater program. In order to assess the effectiveness of these efforts and to plan the future course of the upgrade, a comprehensive plan of action will be developed for a program that will provide an in-depth characterization of the hydrogeology of the BNL site and integrate the overall monitoring requirements with those that will result from the RI/FS process. The comprehensive groundwater plan will be issued on December 31, 1990, and it will integrate requirements of the:

- Groundwater Monitoring Program Plan (June 30, 1990),
- Groundwater Protection Management Plan (June 30, 1990),
- Groundwater Program Review and Assessment (June 30, 1990), and
- Draft Site Baseline Report (November 30, 1990).

The comprehensive groundwater plan must be reviewed in conjunction with the soil sampling and analysis plans by the EPA and NYSDEC. Implementation of the Groundwater Monitoring Program plan is required by November 9, 1991.

Consultants have been retained to assist in a critical review and audit of the program and a staff geohydrologist has been hired to assure that the program has proper oversight in the future. The Laboratory will spend \$550K in FY90 to continue this program.

The BNL management of activated materials is inadequate.

The management of activated materials by BNL will be strengthened with the following actions now on-going or planned for the near future:

- Activated-material storage areas will be surveyed to provide the Laboratory with a complete inventory of all such material now on-site.
- All necessary labeling and access control measures will be instituted in parallel with the survey.
- A training program for all personnel involved in the above began in June 1990.

- Approval for removal of activated material from the BNL site was sought from DOE Headquarters in June 1990.

BNL has not adequately identified and characterized emissions, effluents and soils.

A program is being established to:

- Gather information for the identification of existing sources by February 28, 1991.
- Develop a plan by December 31, 1991, to characterize the BNL air/liquid emissions. Subsequent characterization will be completed as required.
- Based on the Laboratory's previous recognition of the need to improve effluent characterization, funds have been received to upgrade discharge sampling stations at discharge points currently included in SPDES and at nine air monitoring stations. Monitoring station construction will be completed during June 1991.
- The 1989 BNL soil sampling plan will be revised to include additional sites as well as sediment sampling. Sampling/analysis will be conducted in FY91, FY92, and FY93.

3.2.4 SAFETY AND HEALTH KEY FINDINGS

There are disconnects in the lines of communication which are major causes of the deficiencies in the safety performance of the Laboratory.

The Laboratory recognizes the need for added formality in the distribution and implementation of ES&H procedures and policies. Previous practices did not require a high level of formality outside of selected facilities, and the existing Laboratory requirements were not consistently implemented.

To address these deficiencies, the Laboratory will prepare a SEAPPM which will include the formal procedures by which ES&H policies and directives are transmitted through the line organization.

- The line organizations will be required to develop implementation procedures and assign responsibility for specific actions.
- The procedures developed and the responsibilities assigned by the functional organization in response to the specific requirements shall be transmitted back through the chain of command.
- Laboratory-wide procedures ensuring the adequacy and timeliness of responses shall be implemented.
- Reviews and audits will be carried out to ensure long-term and continuing adherence to the policy requirements.

The SEAPPM will be completed by April 30, 1991.

High standards of safety are held by some individuals, but are not universally required nor exhibited, nor widely appreciated and practiced among all facility personnel.

The Laboratory, in 1988, developed an ES&H action plan in which special emphasis was placed on the line management responsibilities for implementation of the ES&H program within each manager's areas of responsibility. In addition, to heighten the awareness of all employees, special training programs were conducted in areas such as electrical safety, and a Team Safety program was instituted. Each year every department is audited for the performance of their ES&H program (Tier II Safety Reviews) and the Laboratory Director is directly involved in this audit program. All employees are rated on their safety performance as part of the annual salary review.

The past year has seen an increase in ES&H awareness in all areas of the Laboratory. Indeed, the assessment by the Tiger Team has served to focus fully our awareness of the importance of ES&H programs. The Laboratory will achieve a sustainable ES&H program by:

- Increasing ES&H staff to support the program efforts and to assure compliance.
- Development and implementation of an effective training program by May 31, 1991. This will ensure that employees are cognizant of their responsibilities and the specifics for safe operations in their respective departments or divisions.
- Formalizing and implementing Laboratory ES&H policies and procedures through the SEAPPM by April 30, 1991.

The Laboratory Director has stated "that scientific programs go hand-in-hand with safety and the environment. We need them both to excel. We will take the findings of the Tiger Team and implement corrective actions in a very serious manner."

Competence exists in the staff of essential safety organizations, but these resources are stretched thin, especially in fire protection, where staff and funding constraints appear to account for the majority of fire protection deficiencies identified.

For a number of years, the Laboratory has been aware of the lack of resources in the ES&H area and has attempted to address these needs within the available financial constraints.

- The SEP Division has increased by 30% in the past two years. An additional 18 positions are being added in FY91.
- A fire protection engineer was added to the staff in April 1990, and BNL has used outside consultants extensively to enhance and add to the Laboratory's ability to meet ES&H requirements when existing staff was insufficient to perform these functions and will continue to do so until appropriately staffed.
- In addition, the line organizations have increased their safety oversight by assigning additional staff to these functions.

There is little evidence of systematic development of safety policy and procedures, and a lack of formality in the management

of safety policy in the line organizations and its administration through orderly systems of procedures, controls and documentation.

The Laboratory will formalize safety policy and procedures by:

- Development and implementation of the SEAPPM (April 30, 1991).
- Development and implementation of site-wide training programs (May 31, 1991).
- Development and implementation of formality of operations guidelines by May 31, 1991. On January 2, 1990, the Laboratory issued the BNL guidelines on formality of operations which were to be fully implemented at the HFBR, AGS, and NSLS. The Laboratory appointed a Task Force for Operations on March 30, 1990. The task force is comprised of individuals responsible for the operation of major facilities, and they have been charged with recommending guidelines concerning the further application of these guidelines to laboratory facilities. In addition, a standing Steering Committee was also appointed in March 1990 to serve in an advisory capacity to the Associate Director for Management and Physical Plant, who, in addition to being responsible for the Laboratory's QA program, is charged with assuring that the operation and maintenance programs are implemented in the various affected departments/divisions.
- Development of an Incident Investigation, Tracking and Analysis group for tracking, trending, and reporting by November 30, 1990.

These and other efforts outlined in the action plan will help assure that we minimize the impact of operations on the environment.

Implementation of DOE Orders is inconsistent and sluggish, with major deficiencies noted in OSHA hazard communication requirements (a Category II Concern), OSHA compliance in general industry and construction standards, and fire protection standards and codes.

The Laboratory is committed to achieving compliance with ES&H regulatory requirements. The Laboratory believes that establishing the Safety and Environmental Administrative Policy and Procedures Manual is an important step in achieving more

consistent implementation of ES&H regulations throughout the Laboratory. Other important steps that will be taken to achieve this goal include:

- Training in hazard communication (December 31, 1990).
- Integration of OSHA training into the site-wide training program (May 31, 1991).
- Addition of a fire protection engineer to assist in identifying and correcting fire protection codes and standards (April 30, 1990).
- New staff is being added to the Safety and Environmental Protection Division to assure necessary staff support for implementation of new orders.
- The Laboratory SEAPPM will be updated periodically to address needed implementation.

The long-range goal of the Laboratory is to achieve excellence of safe operations.

Planning for safe activities is sporadic and perfunctory and suffers from the lack of adequate procedures and disciplined approach to safety problems.

The Laboratory will take the following steps to strengthen the planning for safe operation:

- An OS&H guide will be issued defining the requirements of an SAR and an SEAPPM guidance will be issued (September 30, 1990).
- A procedure for operational readiness review will be developed and implemented (October 31, 1990).
- Facilities will be required to review these operations and define boundaries or envelopes of safe operation. This will be initiated by November 30, 1990.
- Actions recommended by the task force on operations will be initiated by December 31, 1990.
- Actions recommended by the Training Task Force will be initiated by May 31, 1991.

In addition, the Laboratory will develop a Five-Year ES&H Plan (March 31, 1991) to define the goals of our ES&H program, identify deficiencies and provide a planned approach to corrective activities and upgrades.

Controls are not applied by either the Laboratory or BHO to verify compliance with safety procedures and requirements.

The Laboratory will establish controls to verify compliance with safety procedures by:

- Documenting and implementing QA programs in each department/division (September 30, 1990).
- Centralizing all tracking of ES&H audit performance and tracking of commitments in the IITA program November 30, 1990.
- Establishing a program and group (IITA) office for reporting and utilization of operations information that will include tracking, trending, root cause analysis and lessons learned as management tools (September 30, 1990).
- Conduct a triennial review of its safety program (August 31, 1991).

Technological excellence exists in the research arena but is not equaled in the safety program, where there is need for improvement in knowledge of OSHA, and site-wide staff appreciation of the relationship between housekeeping and fire hazards.

Research and ES&H programs must go hand-in-hand to achieve overall excellence. There are several initiatives that the Laboratory is undertaking to codify our ES&H program, provide training, and formalize our operations.

- Development and implementation of an SEAPPM to codify policy and procedures (April 30, 1991).
- Define Training (Task Force) and implement recommendations (May 31, 1991).
- Define formality of operation (Operations Task Force) and begin implementation (December 31, 1990).
- Continue management attention to housekeeping.

Overall performance and documentation of technical support activities at BNL are performed in a thorough manner only at the reactor areas.

The Laboratory will provide thorough performance and documentation of technical support activities by implementing the following:

- Developing and implementing an OS&H Guide on SAR. The guide will provide criteria for designating projects/ activities which require an SAR, operational safety requirements, conduct of operations and maintenance, training, QA. Proper sequence of SAR preparation within project schedule (December 31, 1990).
- Issue a section of the SEAPPM which will require procedural checks (December 31, 1990).
- Issue OS&H Guide on Operational Readiness Reviews and companion SEAPPM (April 31, 1990).
- Develop and implement a packaging and transport manual (October 31, 1990).
- Document and implement QA programs, including audits (December 31, 1991).

BNL has not adequately addressed the release of nonradioactive toxic materials and specific emergency scenarios in their respective facility SARs and emergency preparedness, nor has equipment required to respond to such events been identified, dedicated, or made easily retrievable in the event of emergency.

The Laboratory will upgrade its emergency response program by:

- Identifying areas with significant quantities of non-radioactive toxic materials (April 30, 1990).
- Reviewing facility hazards and defining of response plans (June 30, 1991).
- Update emergency response plans and SARs (December 31, 1991).

The review will assure that any equipment not currently available for response is identified, purchased and made easily retrievable for emergency response.

3.2.5 OSHA KEY FINDINGS

Electrical safety, hazardous communications, machine guarding, and construction safety are active elements of the Laboratory safety program. Continued and renewed emphasis will be placed upon these areas as part of the Laboratory's efforts to achieve compliance with OSHA requirements.

- An OSHA training course has been conducted (March 31, 1990).
- Stated policy requiring compliance with OSHA regulations will be included in the SEAPPM (April 30, 1991).

4.0 ROOT CAUSE ANALYSIS

4.1 DOE ROOT CAUSE SUMMARY

The root causes for each of the DOE findings are listed on the individual action plans.

The major root causes of the DOE ES&H oversight are summarized as follows:

- Inadequate personnel and travel/training resources and insufficient allocation of existing resources.
- Lack of, or inconsistent, DOE policy in ES&H areas.
- Lack of consistent policy implementation for ES&H areas.
- Inadequate communication of the significance of key ES&H objectives, into organizational goals and objectives.

DOE-ER, CH, and BHO have identified the planned actions to correct these root causes and prevent recurrence in the appropriate sections of each action plan.

In addition to the root cause identified above, DOE management issues are addressed in Section 3.1, DOE Management Issues.

4.2 BNL ROOT CAUSE SUMMARY

The root causes of the findings discussed in the four sections of the BNL Tiger Team, Management, Environmental, TSA and OSHA are as follows:

Informality of Operation

The Laboratory management style had previously emphasized collegiality and openness, and a lack of rigidity in order to facilitate the quick change in direction that science often takes. This informality is important in research, but resulted in a lack of definition necessary to define specific requirements in a number of programs. A number of steps are being taken in the plan of action to ensure a formal mode of operation.

Inadequate Implementation of Existing Codes, Standards and Guidelines

The Laboratory's collegial style often resulted in a lack of rigor in holding people accountable for failure to comply with

existing standards. As a result, individual standards were sometimes established by Laboratory groups, rather than strict compliance with existing Laboratory standards. The Laboratory has taken a number of steps to ensure compliance with these requirements.

Inadequate Resources

A number of findings resulted from the perception of the Tiger Team assessor that there was a slow pace of implementation or an inability to implement created by lack of sufficient resources in either staff or money. There is clearly a need for increased funding by the Laboratory and DOE if strict compliance with all requirements is to be accomplished.

Insufficient Oversight

Many Tiger Team findings could have been detected by stronger management oversight of the adequacy of program implementation. There were not sufficient audits or involvement by management to detect some of these findings at an earlier time.

Disagreement of Interpretation of Standards

In a number of Tiger Team findings, there existed an honest disagreement in the interpretation of a regulation of standard between the responsible BNL person and the Tiger Team assessor. As might be expected with regulations which at times are both vague and complex, even experienced and competent professionals will disagree as to the intent of a regulation.

Low Priority Due to Assignment of Low Risk

A number of findings dealt with issues which BNL had chosen not to implement because they were viewed by BNL staff as presenting a very low risk. In any program, professionals will make decisions about which issues are important and which are not, particularly when decisions must be made about the allocation of resources.

5.0

MANAGEMENT RESPONSES AND PLANNED ACTIONS

ES&H TRACKING REPORT

MANAGEMENT

TRACKING NO: 810	ASSIGNED TO: DO
TRACK REF: MGMT/BMPF- 1	PRIORITY: 4
DUE DATE: 04/30/91	HAZARD: BMP
STATUS: Open	CODE: N/A

FINDING:

Some elements of the BNL organization do not have clearly defined responsibilities and reporting relationships concerning ES&H implementation.

RESPONSE/STATUS:

The Laboratory has developed a description and Table of Contents for the Safety and Environmental Administrative Policy and Procedures Manual (SEAPPM). Draft sections are currently under review.

ACTION:

This issue will be addressed by issuance of the SEAPPM which will codify and document ES&H policies and procedures including: organization charts that define reporting relationships below the Principal Investigator and section manager's level, and charters of departmental safety committees. The section on responsibilities and authorities will be drafted by August 31, 1990. Following review and comment, it will be issued for implementation.

MILESTONES:

SEAPPM general format and table of contents.	07/31/90
SEAPPM on Responsibilities.	08/31/90
Issue SEAPPM for implementation.	09/30/90
Complete entire SEAPPM.	04/30/91

COSTS:

\$75K, FY90; \$125K, FY91.

ROOT CAUSE:

Insufficient communication of ES&H policies and procedures.

REFERENCES:

Technical Safety Appraisal, September 1989, Concerns OA.1-1 and OA.1-2.

ES&H TRACKING REPORT

MANAGEMENT

TRACKING NO: 811
TRACK REF: MGMT/BMPF- 2
DUE DATE: 06/30/91
STATUS: Open

ASSIGNED TO: DO
PRIORITY: 3
HAZARD: BMP
CODE: N/A

FINDING:

BNL does not have a formal lessons learned program in place to ensure deficiencies found during internal or external assessments, as well as experiences at other sites, are communicated to potential beneficiaries at BNL and to ensure that the lessons are used.

RESPONSE/STATUS:

The Laboratory has established a new group within the SEP Division, the Incident Investigation Tracking, and Analysis Group. This group will have the responsibility for implementing a lesson-learned program to ensure that deficiencies found during assessments and incident analyses are communicated to BNL operating groups. Staff will be assigned to this group beginning in FY90.

ACTION:

To establish a lessons-learned program, the Laboratory will set up an office for trending, determining root cause, tracking/verifying ES&H recommendations and commitments and communicating this information to line management.

MILESTONES:

Establish group.	07/11/90
Initiate program.	09/30/90
Add additional staff as needed.	06/30/91

COSTS:

Costs are included in MGMT/BMPF-5.

ROOT CAUSE:

Not previously part of Laboratory Safety Policy.

REFERENCES:

N/A

MANAGEMENT

TRACKING NO: 812
TRACK REF: MGMT/BMPF- 3
DUE DATE: 04/30/91
STATUS: Open

ASSIGNED TO: DO
PRIORITY: 4
HAZARD: BMP
CODE: N/A

FINDING:

Position descriptions for most key positions at BNL do not reflect responsibility for ES&H objectives. There is no formal appraisal system for employees at the Department Chairperson and Division Head level and above.

RESPONSE/STATUS:

The current position descriptions for the Department Chairpersons/Division Heads identify the responsibility of these individuals for administration and implementation of Laboratory policies and procedures within their organizations. The Laboratory believes there is a system in place for the evaluation of the performance of senior management personnel in ES&H areas. The performance of the Department Chairmen and Division Heads is reviewed on a continual basis by the Directorate. Each Associate Director meets on a regular basis with the Director to review plans and progress in their respective areas. Problems are identified and policies reviewed. ES&H performance is regularly discussed, as well as the results of ES&H audits and reviews that were conducted during the prior period. The Associate Directors hold similar meetings with the Department Chairmen and Division Heads. In addition, monthly meetings of all Department Chairmen and Associate Directors are held where ES&H audits and reviews are a primary topic. In making salary decisions for these individuals, ES&H performance is one of the factors considered. We believe that this is an effective system.

ACTION:

The Safety and Environmental Administrative Policy and Procedures Manual (SEAPPM) will contain the definition of ES&H responsibilities and authority for key line (including department chair and division heads) and SEP positions within the Laboratory organization.

MILESTONES:

SEAPPM on Responsibilities.	08/31/90
Implement SEAPPM on Responsibilities.	09/30/90
Completion of SEAPPM.	04/30/91

COSTS:

See MGMT/BMPF-1.

ROOT CAUSE:

Inadequate definition of ES&H policy.

REFERENCES:

Technical Safety Appraisal, October 1989, DOE/EH-0104, Findings OA.1-1 and OA.1-2.

MANAGEMENT

TRACKING NO: 814
TRACK REF: MGMT/BMPF- 5
DUE DATE: 09/30/92
STATUS: Open

ASSIGNED TO: DO
PRIORITY: 3
HAZARD: BMP
CODE: N/A

FINDING:

BNL does not have sufficient staff to meet existing ES&H requirements.

RESPONSE/STATUS:

Prior to the Tiger Team Assessment, BNL management approved eight positions for SEP. In July 1990, management approved the addition of 23 additional ES&H slots in SEP and in PE for immediate hire. These slots include an analytical chemist, engineers, lessons-learned staff, quality assurance personnel, environmental monitoring staff, training, industrial hygiene, and health physics staff. We anticipate approval of additional positions in FY91 and FY92. There has been difficulty in filling approved positions. The difficulties in recruiting qualified staff are caused by two factors. First, there is a nationwide shortage of skilled people in the ES&H area. Second, once a candidate is identified, the cost of living on Long Island has been a major impediment to hiring. The Laboratory has significantly increased its efforts in the recruiting area. There has been an increase in the recruiting budget to allow for greater advertising, agency fees, and attendance for recruitment purposes at national meetings of ES&H personnel. The Laboratory has made a number of formal proposals to DOE to reduce the impact of the high cost of living in the New York area. These include a hiring adjustment based on cost of housing differential between the prospective employee's current location and the New York area, a special relocation adjustment for employees who were not previous homeowners, and an increase in the number and type of employees who would be eligible for our current relocation package. We have received approval on increasing the number of employees eligible for our current relocation package. The Laboratory will work with DOE with respect to the other two proposals. It is these two proposals that we believe would be most effective in aiding our recruitment effort.

ACTION:

BNL will continue to identify problems to be solved and with them the number and expertise of additional staff required. We will continue to recruit until critical positions are filled and will continue to use consultants as a short term solution.

MILESTONES:

Mgmt. action on ES&H positions currently requested.	07/31/90
Additional positions identified in ES&H Plan.	03/31/91
Management action on additional positions.	09/30/92

COSTS:

FY90: \$125K. FY91: \$2,100K/yr. FY92: An additional \$1,000K/yr.

ROOT CAUSE:

Insufficient resources for increased ES&H requirements.

REFERENCES:

N/A

ES&H TRACKING REPORT

MANAGEMENT

TRACKING NO: 815
TRACK REF: MGMT/BMPF- 6
DUE DATE: 03/31/91
STATUS: Open

ASSIGNED TO: DO
PRIORITY: 3
HAZARD: BMP
CODE: N/A

FINDING:

Funding required to achieve full compliance with laws and regulations in the safety and health area has not been fully identified nor communicated to DOE.

RESPONSE/STATUS:

An initial review of funding needs in both construction and operations was completed in July 1990. An overview was presented to DOE on July 12, 1990.

ACTION:

The ES&H Plan will be the primary vehicle for assuring that Safety and Health funding needs are identified and communicated to DOE, as has been done for the environmental area. Updates of the Plan will be used to support future budget requests.

MILESTONES:

Present needs to ER-1.	07/12/90
Identify preliminary budget issues.	12/31/90
Completion of comprehensive ES&H Plan.	03/31/91

COSTS:

See MGMT/BMPF-4 for cost of plan.

ROOT CAUSE:

Lack of efficient communication of budget requirements.

REFERENCES:

N/A

MANAGEMENT

TRACKING NO: 816
TRACK REF: MGMT/BMPF- 7
DUE DATE: 05/31/91
STATUS: Open

ASSIGNED TO: DO
PRIORITY: 4
HAZARD: BMP
CODE: N/A

FINDING:

The current BNL training program is inadequate. BNL does not have a documented Laboratory-wide performance based training program in the ES&H area. Training required of workers and managers to meet all compliance and good management practices has not been fully identified. Concerns about the lack of training, lack of documented training, and failure to meet various compliance requirements relating to training have previously been brought to the attention of BNL management, recently by the 1989 TSA (see Appendix B).

RESPONSE/STATUS:

The Task Force Chair was named in December 1989 following the Technical Safety Appraisal of BNL. The Chair conducted a survey of existing training practices and identified those employees who would serve as members. The Task Force convened on June 28, 1990, in accordance with the Action Plan. A draft methodology for the determination of required training by job assignment has been completed, and the Task Force is working on recommended policy and standards for Lab-wide application. Currently under consideration are requirements for the documentation of the content of training programs. The Task Force Chair is contacting other DOE Laboratories regarding systems for training recordkeeping. TSA findings on compliance training issues (Hazard Communication, Construction Safety, Radiation Safety, etc.) are addressed elsewhere in the Action Plan by the Divisions who have specific responsibility for training in those areas. The schedule has been revised to allow sufficient time for the formulation of Task Force recommendations, obtaining Directorate approvals, and the notification and education of Departments and Divisions on new requirements, prior to implementation. Revised milestones are indicated below.

ACTION:

The Laboratory will establish a broad range Laboratory-wide performance-based ES&H training program. A task force reporting to the Deputy Director is charged with determining requirements for performance-based training. The DOE 5480.18, Training Accreditation for Nuclear Reactors, will be used as a guide. The Task Force will continue working on its recommendations of Laboratory-wide training policy and standards for the determination of required training by job assignment, documentation of training content, attendance recordkeeping, and assurance and the evaluation of the effectiveness of training.

MILESTONES:

Appoint training task force.	06/30/90
Complete task force report.	02/28/91
Develop plan of action/initiate action.	05/31/91

COSTS:

FY91: \$125K, consultant. FY92: \$500K/yr overhead, \$1500K/yr programmatic for dedicated training staff in department/division.

ROOT CAUSE:

Informality of operations.

REFERENCES:

N/A

ES&H TRACKING REPORT

MANAGEMENT

TRACKING NO: 817
TRACK REF: MGMT/BMPF- 8
DUE DATE: 02/28/91
STATUS: Open

ASSIGNED TO: DO
PRIORITY: 4
HAZARD: BMP
CODE: N/A

FINDING:

BNL has not promptly and effectively corrected deficiencies identified in appraisals, audits, surveys, and reviews.

RESPONSE/STATUS:

The status of all actions planned to correct noted deficiencies are tracked to completion by the Associate Director for Safety or by SEP. The status reports for DOE-noted deficiencies are forwarded quarterly to DOE by the Associate Director for Safety. Others are reported internally. In addition, the Tier II annual appraisals of each department by SEP also review the status of deficiencies identified previously.

ACTION:

The Laboratory will consolidate the responsibility for tracking and verification of commitments resulting from appraisals and audits, DOE appraisals and audits, UORs, etc., into the Incident Investigations, Tracking and Analysis Group that has been established within the SEP Division. Until this program becomes effective, the current tracking system will remain in place. A system to verify closure of commitments will be developed by the Laboratory and in conjunction with the DOE Area Office.

MILESTONES:

Consolidate tracking into IITA Group.
Verification system in place.

11/30/90
02/28/91

COSTS:

Included in MGMT/BMPF-5.

ROOT CAUSE:

Insufficient oversight of ES&H commitment.

REFERENCES:

N/A

ES&H TRACKING REPORT

MANAGEMENT

TRACKING NO: 818
TRACK REF: MGMT/BMPF- 9
DUE DATE: 09/30/90
STATUS: Open

ASSIGNED TO: DO
PRIORITY: 4
HAZARD: BMP
CODE: N/A

FINDING:

BNL has not instituted a Laboratory-wide program for utilizing tracking, trending, or root cause analysis as management tools.

RESPONSE/STATUS:

The IITA Group has been established. Efforts are underway to recruit staff.

ACTION:

Same response as MGMT/BMPF-2.

MILESTONES:

Initiate lesson-learned program in IITA Group.

09/30/90

COSTS:

Included in MGMT/BMPF-5.

ROOT CAUSE:

Not previously part of Laboratory ES&H Policy/Program.

REFERENCES:

Technical Safety Appraisal, October 1989, DOE/EH-0104, Finding OA.5-1.

ES&H TRACKING REPORT

MANAGEMENT

TRACKING NO: 819
TRACK REF: MGMT/BMPF-10
DUE DATE: 04/30/91
STATUS: Open

ASSIGNED TO: DO
PRIORITY: 4
HAZARD: BMP
CODE: N/A

FINDING:

Management and administration of ES&H policy are not standardized or formalized and does not use thorough, orderly systems of procedures, controls, and documentation.

RESPONSE/STATUS:

The Laboratory has developed a description and Table of Contents for the Safety and Environmental Administrative Policy and Procedures Manual (SEAPPM).

ACTION:

The Laboratory is in the process of developing a SEAPPM to standardize and formalize procedures, controls, and documentation. The Laboratory SEAPPM will contain model implementing procedures for each Department/Division, define who is responsible for writing a section, how to write it, and requirements for review and approval.

MILESTONES:

See MGMT/BMPF-1.

04/30/91

COSTS:

See MGMT/BMPF-1.

ROOT CAUSE:

Lack of formality of operations.

REFERENCES:

N/A

ES&H TRACKING REPORT

MANAGEMENT

TRACKING NO: 820
TRACK REF: MGMT/BMPF-11
DUE DATE: 12/31/90
STATUS: Open

ASSIGNED TO: DOE
PRIORITY: 4
HAZARD: BMP
CODE: DOE 3430.3A, DOE 3430.4A, DOE 3511.1A

FINDING:

Position descriptions for some key positions do not reflect the importance of ES&H objectives, and performance appraisal plans for some key positions do not require excellence.

RESPONSE/STATUS:

It has been recognized that some key performance appraisal plans and position descriptions are in need of upgrade to reflect a positive influence on accountability and responsibility. They are essential tools for communicating organizational goals and objectives. A standard has been in place for CH and BHO SES positions.

ACTION:

CH and BHO (non-SES) positions whose functions directly impact environment, safety and health objectives have been identified. These key positions include GM-13 through GM-15 individuals. The individual position descriptions and performance appraisals will be modified to reflect responsibility and accountability for ES&H matters. The performance appraisals will require a standard of excellence and, to receive an outstanding rating, an individual must perform in an outstanding and superior manner. Performance appraisal evaluations will then be completed during the scheduled normal rating period. ER will go through this same determination and modification process.

MILESTONES:

Identify appropriate ER individuals.	09/30/90
Modify CH and BHO position descriptions perf. plans.	09/30/90
Modify ER position descriptions and performance plans.	12/31/90

COSTS:

N/A.

ROOT CAUSE:

Lack of understanding the significance of reflecting key objectives throughout the various Personnel Program areas, e.g., position descriptions, performance appraisal plan.

REFERENCES:

N/A

ES&H TRACKING REPORT

MANAGEMENT

TRACKING NO: 821	ASSIGNED TO: DOE
TRACK REF: MGMT/BMPF-12	PRIORITY: 2
DUE DATE: 07/31/91	HAZARD: BMP
STATUS: Open	CODE: N/A

FINDING:

ER, CH, and BHO do not have sufficient ES&H resources to meet their ES&H responsibilities consistent with current expectations.

RESPONSE/STATUS:

To date, ER, CH, and BHO have taken action to increase ES&H resources as follows: 1.) ER is taking action to increase its resources. (See Planned Action for FY90 through FY92; ER staffing plan for ES&H oversight.) 2.) CH is transferring QA independent oversight responsibilities to ESHD to better assure application of QA resources to priority independent oversight needs. This includes reassignment of four QA personnel. ESHD is requesting an increase to its authorized FTEs in FY91 from 35 to 51. Assuming this increase is approved and sufficient travel and training funds are provided, ESHD will increase its on-site presence to 2 FTEs and an additional 3 FTEs in the ESHD corporate staff in Chicago to provide independent oversight of BNL activities. This increase will accommodate a doubling of the number of independent appraisals performed at BNL by ESHD. 3.) BHO increased its ES&H staff by three during FY89 and FY90 and has obtained two support service contractor FTE to provide data entry and work processing services. A plan to add a Nuclear Programs Branch has also been approved by CH management, and BHO is now recruiting for the Nuclear Programs Branch Chief, a nuclear engineer for technical compliance, a health physicist, and a nuclear engineer for quality assurance. A nuclear engineer for operations was hired in April 1990. In addition to the new Nuclear Programs Branch positions, an additional environmental engineering position is being added to BHO's Engineering and Technical Management Branch. Recruitment for the new positions is expected to be difficult due to the Federal salary structure and the high cost of living on Long Island. While every effort is being made, without relief from the salary issue, the positions may take an extended period of time to fill. Other resource issues for BHO have been lack of funding for travel and training. A resource issue for BHO which has not been a factor to date, but will need to be addressed in the near future, is office space/equipment.

ACTION:

For appropriate oversight, Office of Energy Research (ER-8, 10, 20, 40, 50, 70 and 90) will request the addition of 12 FTE in FY90, 22 FTE in FY91 and 29 FTE in FY92. The FY92 request does not include a supplemental request for 8 additional staff in ER-8. The Chicago Operations Office requires the addition of 35 FTEs in FY91 and 51 FTEs in FY92. In FY91, the additional staff includes 4 transfers from QA and the FY92 requests include 2 additional QA staff. BHO is requesting 10 FTEs in FY91, 12 FTEs in FY92 and 14 FTEs in FY93. BHO will use support service contractor staff for specialized ES&H expertise.

MILESTONES:

BHO request travel funds from ADM.	05/01/90
CH request FY91 Travel.	06/12/90
ER/CH req. oversight staff as defined in staffing plan.	06/30/90
BHO assess space/materials needs.	12/01/90

COSTS:

FY90: \$100K(BHO) FY92: \$1000K (BHO).

ROOT CAUSE:

Insufficient resources and allocation.

REFERENCES:

MGMT/CF-7, MGMT/CF-8, MGMT/CF-9.

ES&H TRACKING REPORT

MANAGEMENT

TRACKING NO: 800
TRACK REF: MGMT/CF- 1
DUE DATE: 09/30/90
STATUS: Open

ASSIGNED TO: DOE/AUI
PRIORITY: 3
HAZARD: CF
CODE: PL 100-408, 42 USC 2273(c), 42
USC 2282(a)

FINDING:

The contract between DOE and AUI does not include an indemnification agreement under the Price-Anderson Act.

RESPONSE/STATUS:

The statute applies to the prime contract whether or not there is a specific provision in the contract. BHO has developed a proposed provision for negotiation with AUI.

ACTION:

BHO will negotiate a provision acceptable to both AUI and DOE, providing for Price-Anderson Act coverage as the exclusive means of indemnification for public liability. The Public Law 85-804 indemnity article presently in the prime contract will be deleted in its entirety. BHO will negotiate the definitive HQ clause whenever it is promulgated.

MILESTONES:

Provisions forwarded to AUI.	05/31/90
Resolution and inclusion into contract.	09/30/90

COSTS:

N/A

ROOT CAUSE:

Lack of definitive HQ policy.

REFERENCES:

N/A

MANAGEMENT

TRACKING NO: 801
TRACK REF: MGMT/CF- 2
DUE DATE: 09/30/91
STATUS: Open

ASSIGNED TO: DOE/AUI
PRIORITY: 3
HAZARD: CF
CODE: DOE 5480.1B, 5400 series of
DOE Orders.

FINDING:

The contract between DOE and AUI does not require AUI to comply with DOE Orders and directives on the environment.

RESPONSE/STATUS:

The Headquarters Procurement Policy Division (PR-12) has prepared a proposed rule to be included in the DOE Acquisition Regulation which is intended to correct this problem. The proposed rule was coordinated with the Office of Environment, Safety, and Health, but not with the Office of Energy Research (ER) or the other Headquarters program offices. It has been in preparation for six months and is presently in final concurrence prior to publication for comments in the Federal Register.

ACTION:

ER has reviewed a copy of the proposed Rule and believes the Rule will correct the identified finding. Other changes being proposed in the Rule, dealing with safety and health, introduce other issues which could delay final issuance. The contractor has a continuing effort to comply with all environmental regulations and DOE requirements. AUI has historically interpreted the Safety and Health Clause (ART. 40) to include compliance with applicable environmental "regulations and requirements." In the event the Rule is not finalized, BHO will negotiate an interim clause in FY91.

MILESTONES:

Negotiate clause and include in contract.

09/30/91

COSTS:

N/A

ROOT CAUSE:

Lack of definitive HQ policy.

REFERENCES: N/A

MANAGEMENT

TRACKING NO: 802
TRACK REF: MGMT/CF- 3
DUE DATE: 12/31/90
STATUS: Open

ASSIGNED TO: DO
PRIORITY: 3
HAZARD: CF
CODE: DOE 5482.1B

FINDING:

Not all ES&H assessments required by DOE Orders and other regulatory requirements are being performed adequately.

RESPONSE/STATUS:

The Associate Director for Administration is responsible for tracking the scheduling and subsequent performance of audits performed on site. The Associate Directors responsible for the areas being audited are responsible for assuring that activities required to respond to any audit are carried out. Therefore, the Associate Director for Reactor, Safety and Security is responsible for tracking the activities required to respond to ES&H audit findings. The finding addresses the tracking of the scheduling and performance of an audit. Therefore, this is assigned to the Associate Director for Administration. The tracking of activities to respond to the findings of ES&H audits lies with the Associate Director for Reactor, Safety and Security.

ACTION:

The following steps will be taken to strengthen the Laboratory's Self-Assessment Program in the ES&H Area. Develop requirements for audits/assessments both internal and external. Assign responsibilities for tracking the performance of those audits to the Associate Director for Administration. Enhance the tracking and verification of the activities taken to respond to finding by assigning the tracking/verification to the IITA Program.

MILESTONES:

Assign responsibility for tracking audit performance.	07/31/90
Initiate tracking of commitments in IITA group.	11/30/90
Develop schedule for audits/assessments and implement.	12/31/90

COSTS:

\$150K/yr for staff and consultants.

ROOT CAUSE:

Lack of oversight of ES&H requirements.

REFERENCES: N/A

MANAGEMENT

TRACKING NO: 803
TRACK REF: MGMT/CF- 4
DUE DATE: 12/31/90
STATUS: Open

ASSIGNED TO: DO
PRIORITY: 4
HAZARD: CF
CODE: DOE 5482.13

FINDING:

The Laboratory Director does not have access to an independent internal appraisal process because conflicts of interest exist at the associate director level for reactor safety and QA oversight, and at the division head level for ES&H oversight.

RESPONSE/STATUS:

The Laboratory believes that there is an independent internal appraisal process. The same management structure exists for Reactor operations which exists for both SEP Division and Quality Assurance Office, i.e., the office reports to an Associate Director who is responsible for other functions on site. In February 1990, DOE contracted for a review of the High Flux Beam Reactor. The conclusions of the review were: (1) management was totally open-minded, receptive to change of improvement results; (2) line organization was appropriately vested with responsibilities and activities; and (3) no organizational problems existed to prevent or delay startup of the facility. The assignment of line responsibility is designed to provide the optimum combination of technical and managerial expertise to the line organization. As members of the Directorate, all of the Associate Directors function as senior-level team members and are concerned with the overall management of the Laboratory and its programs. The Associate Director level is the appropriate level for integrating line responsibilities. This function is in addition to, and supercedes, their line-management organizational responsibilities. The primary responsibilities for operations at BNL rests with the department head/division managers. The Associate Directors are far enough removed from operations that they do function with independence, and the Director does have an independent internal approval process. The Quality Assurance Office is an independent oversight office, with oversight and direction provided by a Steering Committee.

ACTION:

The Laboratory believes that Hazardous Waste Operations are best managed by SEP. BNL will assure that an audit of the HWM area is conducted yearly by an independent party for the Associate Director. To assure that the SEP ES&H safety audits of the operating departments are independent, procedures will be revised to assure that audit team members are independent of area being audited.

MILESTONES:

Independent Audit of HWM.

06/30/91

COSTS:

Included in MGMT/CF-3.

ROOT CAUSE:

N/A.

REFERENCES:

Operational and Organizational Assessment of HFBR, Brookhaven National Laboratory, February 26, 1990.

ES&H TRACKING REPORT

MANAGEMENT

TRACKING NO: 805
TRACK REF: MGMT/CF- 6
DUE DATE: 01/31/91
STATUS: Open

ASSIGNED TO: DO
PRIORITY: 3
HAZARD: CF
CODE: 5481.1B

FINDING:

DOE requirements for risk assessment and risk management are not uniformly implemented.

RESPONSE/STATUS:

N/A

ACTION:

The Laboratory will develop an expanded risk assessment program in the following manner. An SAR Guide for the Safety Manual is being prepared. In addition, the Laboratory will develop a Safety and Environmental Administrative Policy and Procedures Manual (SEAPPM) to formalize operations, codify the need for safety analysis and assessments. Resources have been added to critical areas, such as the fire protection staff, to assure that risk assessments are done. Risk assessments are addressed in the TSA section.

MILESTONES:

SAR Guide issued.	10/31/90
SEAPPM Guide issued.	12/31/90
Risk assessment initiated.	01/31/91

COSTS:

N/A

ROOT CAUSE:

Inadequate implementation of ES&H requirements.

REFERENCES:

Technical Safety Appraisal, September 1989, Finding OA.7-2.

ES&H TRACKING REPORT

MANAGEMENT

TRACKING NO: 806
TRACK REF: MGMT/CF- 7
DUE DATE: 09/30/92
STATUS: Open

ASSIGNED TO: DOE
PRIORITY: 2
HAZARD: CF
CODE: SEN-11-89, SEN-6/6A-89

FINDING:

The ER oversight of ES&H activities at BNL has not been sufficient.

RESPONSE/STATUS:

ER has line responsibility for ES&H at BNL through their program offices and as landlord for the facility. SEN-6/6A and SEN-11 placed much greater emphasis on ES&H oversight by ER than that applied in previous years.

ACTION:

As discussed in MGMT/BMPF-12, ER has developed a staffing plan to provide for ES&H oversight of BNL, as well as its other facilities. This will allow for participation in CH appraisals, performing TSAs, and other independent oversight, tracking BNL corrective actions, and reviewing BNL safety analysis reports and NEPA determinations. Additionally, ER and CH have begun developing a Management Agreement to further delineate ER and CH ES&H responsibilities. ER and CH will jointly review progress of completion of action plan commitments.

MILESTONES:

Hire additional ERES&H oversight staff for FY90.	09/30/90
Finalize Management Agreement between CH and ER.	09/30/90
Develop/implement strategy for inc. oversight activity.	12/31/90
ER to begin performing TSAs/oversight.	01/31/91
Additional ES&H oversight staff for FY91.	09/30/91
Additional ES&H oversight staff for FY92.	09/30/92

COSTS:

FY90: \$140K FY91: \$387K/yr. FY92: \$339K/yr.

ROOT CAUSE:

Insufficient resources and insufficient implementation of DOE policy.

REFERENCES:

MGMT/BMPF-12, MGMT/CF-8

MANAGEMENT

TRACKING NO: 807
TRACK REF: MGMT/CF- 8
DUE DATE: 07/31/91
STATUS: Open

ASSIGNED TO: DOE
PRIORITY: 2
HAZARD: CF
CODE: DOE 5482.1B, DOE 5700.6B

FINDING:

The CH oversight of ES&H activities at the BNL has not been sufficient.

RESPONSE/STATUS:

Independent oversight by CH is provided through a variety of methods. These include ESHD Site representation, appraisals, and walkthroughs. One method of oversight not explored by the Tiger Team is the CH ESHD Site Representative. The ESHD Site Representative's mission is to provide independent safety oversight at BNL. This individual reports directly to the CH ESHD Director. A weekly activity report is provided to the Manager/BHO, Manager/CH, and the Director/ESH. This position was established in November 1988 and has been filled ever since. The project QA audit function previously assigned to PFMD is being transferred to ESHD to provide independent oversight for ES&H. Independent ES&H appraisals are performed at frequencies established by applicable DOE orders and based on available personnel and funding. The ability of ESHD to perform independent oversight appraisals has been limited by insufficient staff, travel funding, and the need to provide matrix support to BHO. Expanding the technical staff at BHO will enable BHO to assume all line management responsibilities and allow ES&H to perform its independent oversight function.

ACTION:

The current CH ESHD Site Representative will continue his duties. Additional training will be provided in the area of OSHA compliance. ESHD will request 1 FTE for another Site Representative who will conduct environmental oversight. Three FTEs in FY91 will be requested by ESHD for the CH office in order to allow ESHD to enhance its independent oversight program. The CH QA program will be revised to ensure that all aspects of a viable BNL QA program are developed and reviewed. The independent oversight audits at BNL will be increased to satisfy the DOE expectations. The Annual Summary Appraisal of BNL will place increased emphasis on ESH performance. The CH ES&H and QA appraisal system will be reviewed to ensure that in-depth and comprehensive appraisals are conducted in accordance with DOE policy. Special emphasis will be placed on environmental appraisals.

MILESTONES:

4 additional oversight staff.	06/30/90
OSHA training.	09/30/90
Final Management Agreement.	09/30/90
Revise audit guidance.	12/01/90
Begin upgrade QA and ES&H appraisal.	02/01/91
3 additional oversight staff.	07/31/91

COSTS:

FY90: 2K/yr. FY91 \$277K + \$340K/yr.

ROOT CAUSE:

Inadequate personnel and travel/training resources.

REFERENCES:

This action addresses Safety and Health Concerns QV.1-5 and FP.1-3. Also see MGMT/CF-7, MGMT/CF-9, and MGMT/BMPF-12.

MANAGEMENT

TRACKING NO: 808
TRACK REF: MGMT/CF- 9
DUE DATE: 06/30/91
STATUS: Open

ASSIGNED TO: DOE
PRIORITY: 2
HAZARD: CF
CODE: DOE 5400.4, 40 CFR 120, 40 CFR
300.430, 6 NYCRR 700-705, 6
NYCRR 360

FINDING:

The BHO has not met a number of its ES&H program management responsibilities.

RESPONSE/STATUS:

BHO's responsibilities include programmatic and line management oversight. In order to address programmatic responsibilities, BHO has been filling new responsibilities to assist with the workload. In the face of changing environmental regulations, it is extremely difficult to keep up, given the negotiations with the IAG, reporting to federal, state, and local regulators. Additionally, QA line-management is to be provided by AMLM and BHO. The concept and methodologies used by AMLM and BHO to establish institutional QA programs at its laboratories is described in the document, "Institutional Quality Assurance at DOE-CH Laboratories - A Partnership", DOE/CH-8801. The QA appraisal process, administered at BNL by AMLM and BHO, includes a review of the institutional QA program document and an examination of the Laboratory's implementation of the program. This latter task is facilitated using QA evaluation criteria derived from a CH-generated document, "Appraisal Guidelines for Management of Quality Assurance Programs", that is based on the MORT methodology. This QA process will be carried out at BHO. Line-management oversight by BHO is provided in many ways. One is the Reactor Surveillance program at HFBR/BMRR. This program utilizes BHO expertise to perform surveillance reviews of the reactors at BNL. The program is based on INPO guidelines and utilizes the TSA Criteria and Objectives. This program was managed by CH-TMD until a recent reorganization. At that time, responsibility for the program was transferred to CH-AMLM and BHO. Another method of oversight is the OSHA inspection program conducted by BHO. Although not proceduralized, findings are documented, provided to BNL, and tracked by BHO. This process will be formalized. One concern identified by the Tiger Team was the management interaction between BHO, BNL, and ER during an incident at the AGS. This situation will be rectified by finalizing the CH/ER Management Agreement.

ACTION:

The deficiencies in BHO programmatic and line-management oversight had been recognized. Prior to Tiger Team, BHO created a Nuclear Programs Branch to more comprehensively address NE responsibilities. This branch includes a branch chief, nuclear engineering for operations, health physicist, and a nuclear engineer for quality assurance. Of the three FTEs requested for FY92, two will be devoted to ESH. These 3 FTEs are for TSAs, training, and maintenance reviews. Two additional FTEs will be requested for FY93 to provide non-nuclear and environmental QA support. Of current BHO ESH staff, one FTE will be dedicated to provide EM program

management. An additional environmental engineer is being recruited. BHO will utilize a support services contractor to assist with review and preparation of paperwork and transmittals. OSHA training will be provided to appropriate BHO staff. BHO will formalize and continue both Reactor Surveillance Program and its OSHA inspection program. Environmental procedures will be developed to ensure documentation when dealing with regulatory agencies. Field walkdowns, appraisals, and audits will be conducted at an increased frequency. BHO will verify that all corrective actions described in this Action Plan are completed as scheduled.

MILESTONES:

Draft CH/ER Management Agreement.	06/30/90
Request additional 5 FTE's FY92-93.	06/30/90
Formalize OSHA/Reactor surveillance programs.	09/01/90
Finalize CH/ER Management Agreement.	09/30/90
Initiate review with support service contractor.	10/01/90
Provide OSHA training.	06/30/91

COSTS:

N/A

ROOT CAUSE:

Insufficient resources, changing environmental arena, lack of training, insufficient implementation of DOE policy.

REFERENCES:

MGMT/CF-7, MGMT/CF-8, MGMT/BMPF-12

ES&H TRACKING REPORT

MANAGEMENT

TRACKING NO: 809
TRACK REF: MGMT/CF-10
DUE DATE: 09/30/90
STATUS: Open

ASSIGNED TO: DOE
PRIORITY: 3
HAZARD: CF
CODE: DOE 3792.3

FINDING:

"Sensitive" line-management positions at BHO have not been designated for participation in the random drug testing program.

RESPONSE/STATUS:

CH originally nominated the BHO manager position to be included in the drug testing pool. The HQ Position Designation Board, per their charter in DOE 3792.3, determined that the BHO Manager was exempt from the drug testing pool.

ACTION:

CH will prepare an appropriate appeal of the Board's decision.

MILESTONES:

Prepare appeal.

09/30/90

COSTS:

N/A

ROOT CAUSE:

N/A

REFERENCES:

N/A

6.0

ENVIRONMENT RESPONSES AND PLANNED ACTIONS

ES&H TRACKING REPORT

ENVIRONMENTAL

TRACKING NO: 730
TRACK REF: A/BMPF- 1
DUE DATE: 11/30/91
STATUS: Open

ASSIGNED TO: PE/SEP
PRIORITY: 3
HAZARD: BMP
CODE: DOE 5400.XY

FINDING:

The siting and design of the radionuclide air sampling stations at BNL do not provide measurements that are representative of human exposure in the vicinity of the Laboratory in accordance with current BMPs as indicated in Draft DOE Order 5400.XY.

RESPONSE/STATUS:

BNL was cognizant of many deficiencies noted by the TTA as a result of its own review. BNL planned upgrades in FY86 and FY87, and DOE approved funding for FY90. There is line-item funding for FY90 to correct and upgrade ambient air monitoring at all stations and surface water monitoring at SPDES discharge points (SW/BMPF-1). This project should address most of the TTA concerns regarding particulate sample placement, flow rate, interference from buildings and trees, and sensitivity. The planned upgrades are included in CH-2016. The overall priority for CH-2016 is driven by closure of the landfill, not construction of the monitoring stations.

ACTION:

Tritium samplers will be raised approximately one meter higher than present position. New sampling stations and sampling equipment will be provided. Existing stations will be relocated or the terrain modified. The background station will be co-located with the EPA-Yaphank air monitoring station. The downwind station will be located based on typical meteorological patterns. The documentation of the selection criteria based on meteorological patterns will be incorporated into the site selection process.

MILESTONES:

Raise tritium samplers.	09/30/90
Design structures for ambient air monitoring.	01/31/91
Relocate stations or modify terrain.	01/31/91
Begin construction on new sampling stations.	04/30/91
Procure new sampling equipment.	06/30/91
Assemble, calibrate all components.	11/30/91

COSTS:

FY91: \$230K.

ROOT CAUSE:

Inadequate implementation of industry standards.

REFERENCES:

Conceptual Design Report - FY89; Env. Upgrades - Jan. 1987; Project No. 92CH119.

ES&H TRACKING REPORT

ENVIRONMENTAL

TRACKING NO: 759	ASSIGNED TO: SEP
TRACK REF: A/BMPF- 2	PRIORITY: 4
DUE DATE: 09/30/92	HAZARD: BMP
STATUS: Open	CODE: N/A

FINDING:

BNL SOPs for the HEPA filter testing and maintenance program do not contain certain elements that are in accordance with BMPs.

RESPONSE/STATUS:

SEP's SOP for conducting annual testing of HEPA filter efficiency has been modified to include differential-pressure measurement and documentation.

ACTION:

An evaluation of the useful life of aged filters will be performed, following a review of the research conducted on aged filters at Lawrence Livermore National Laboratory (See response for AX.5-1).

MILESTONES:

Develop SOP for testing.	04/30/90
Identify HEPA filter hoods on site.	06/30/90
Identify funding mechanisms.	09/30/90
Schedule upgrades.	10/31/90
Complete upgrades.	09/30/92

COSTS:

See AX.5-1.

ROOT CAUSE:

Assigned low priority due to assigned low risk.

REFERENCES:

N/A

ES&H TRACKING REPORT

ENVIRONMENTAL

TRACKING NO: 735
TRACK REF: A/BMPF- 3
DUE DATE: 12/31/91
STATUS: Open

ASSIGNED TO: SEP
PRIORITY: 4
HAZARD: BMP
CODE: N/A

FINDING:

BNL has not developed a detailed annual inventory of air emissions as an aid to controlling air emissions in accordance with current industry practice.

RESPONSE/STATUS:

N/A

ACTION:

BNL will use the results of the air inventory (A/CF-1) and significant sources currently exempt from permitting, to develop an annual inventory of air emissions. The inventory will be reviewed and assessed annually to determine if adequate controls are in place for minimizing air releases.

MILESTONES:

Inventory from department/division (A/CF-1)	10/31/90
Develop overall emission inventory.	03/31/91
Evaluate inventory.	12/31/91

COSTS:

To be determined.

ROOT CAUSE:

Inadequate implementation of suggested guidelines.

REFERENCES:

N/A

ES&H TRACKING REPORT

ENVIRONMENTAL

TRACKING NO: 731
TRACK REF: A/BMPF- 5
DUE DATE: 12/31/91
STATUS: Open

ASSIGNED TO: SEP/DAS
PRIORITY: 4
HAZARD: BMP
CODE: N/A

FINDING:

Although tritium emissions from BNL are low, discrepancies of a factor of between two to five times the monitored BNL-perimeter tritium concentrations and those concentrations predicted by atmospheric dispersion modeling of the stack releases are resulting in data reliability concerns beyond those accepted by current industry practices.

RESPONSE/STATUS:

The site has reviewed this discrepancy in the past. The original estimate of resources needed to conduct a tracer emission test was \$0.5 to \$1M. A source inventory review was also conducted which found no additional emission points or sources. Comparison dose calculations have been completed.

ACTION:

To address this issue, the elevation of the Bldg. 705 stack will be reduced to ground level for modeling purposes: this will factor in downdraft near the stack. Then, a source inventory will be redone. Based on the results of these actions, BNL will decide if further actions are required (i.e., a site-wide tracer study emission test or reevaluation of dispersion model conversion methods).

MILESTONES:

Run 1989 comparison dispersion dose calculations.	07/31/90
Review trit.radionuclide inventory/survey generators.	09/30/90
Reevaluate BNL gustiness classification.	11/30/90
Decide future course of action.	12/31/91

COSTS:

TEC: To be determined.

ROOT CAUSE:

Low priority due to assessment of low risk.

REFERENCES:

N/A

ENVIRONMENTAL

TRACKING NO: 728
TRACK REF: A/BMPF- 6
DUE DATE: 12/31/92
STATUS: Open

ASSIGNED TO: PE/SEP
PRIORITY: 3
HAZARD: BMP
CODE: N/A

FINDING:

Ambient tritium air sampling equipment is being prepared and staged, and low-concentration tritium analyses are being conducted, in the same laboratory as high-concentration tritium effluent analyses. These practices may be resulting in contamination of the ambient air samples and are not in accordance with current industry practice.

RESPONSE/STATUS:

N/A

ACTION:

Evaluate need for modification and determine locations where expansions or modifications are possible. Determine cost to implement modifications/expansions. Based on the location of the facility and workload, determine personnel requirements. Determine if new construction provides a viable alternative solution. Obtain allocation for resources (facility, personnel, and instruments). Perform expansions, modifications, and construction.

MILESTONES:

Evaluate need for modification.	12/31/90
Identify funding needs and schedule	03/31/91
Complete construction (if required).	12/31/92

COSTS:

TEC: To be determined.

ROOT CAUSE:

Low priority due to assessment of low risk.

REFERENCES:

N/A

ENVIRONMENTAL

TRACKING NO: 716
TRACK REF: A/CF- 1
DUE DATE: 02/28/91
STATUS: Open

ASSIGNED TO: SEP/PE
PRIORITY: 2
HAZARD: CF
CODE: 6 NYCRR 201

FINDING:

BNL has not identified all operating air emission sources that may require certificates to operate (COs) in accordance with 6 NYCRR 201, and BNL does not have a rigorous process to systematically identify existing sources in accordance with BMPS.

RESPONSE/STATUS:

A systematic process exists for new sources. Inventory form has been drafted and is being reviewed. Initial activities necessary to develop the database have commenced. However, additional training on the database system will be required.

ACTION:

The existing system will be expanded to identify all emission sources that require certificates to operate from NYSDEC. An inventory form will be developed and submitted to all departments/divisions, to gather information on existing air emission points that under NY State regulations require permits to operate. A schedule for submittal of applications for certificates to operate will be developed. A data base will be developed to store this information, as well as information pertaining to currently permitted operations.

MILESTONES:

Revise inventory form and issue.	09/30/90
Inventory forms completed.	10/31/90
Evaluation of forms, begin data entry.	12/31/90
Data entry completed.	01/31/91
Schedule for submittal of applications.	02/28/91

COSTS:

To be determined.

ROOT CAUSE:

Insufficient oversight; insufficient resources.

REFERENCES:

N/A.

ES&H TRACKING REPORT

ENVIRONMENTAL

TRACKING NO: 717
TRACK REF: A/CF- 2
DUE DATE: 11/30/90
STATUS: Open

ASSIGNED TO: PE
PRIORITY: 3
HAZARD: CF
CODE: 6 NYCRR, Chapter III, Part 200.7

FINDING:

The flare installed at the STP sludge digester is out of operation frequently because of a lack of necessary maintenance which is required by 6 NYCRR, Chapter III, Part 200.7.

RESPONSE/STATUS:

The pilot light that ignites the flare on the STP sludge digester is often blown out by light winds. The pilot light must be relit manually. An electronic ignition system is recommended to ignite the flare and is not subject to being blown out.

ACTION:

Install continuous electronic ignition in lieu of pilot ignition system. (See MA.2-2.) Develop necessary maintenance procedures for new electronic ignition system.

MILESTONES:

Complete installation. 11/30/90
Implement maintenance procedures. 11/30/90

COSTS:

FY91: \$5K.

ROOT CAUSE:

Inadequate implementation of New York State regulation.

REFERENCES:

N/A

ENVIRONMENTAL

TRACKING NO: 729
TRACK REF: A/CF- 3
DUE DATE: 12/31/91
STATUS: Open

ASSIGNED TO: SEP/DAS
PRIORITY: 3
HAZARD: CF
CODE: 40 CFR 60, DOE 5400.XY

FINDING:

The BNL tritium sampler at the Bldg. 901A effluent stack is located such that a representative sample, as required by DOE Orders and 40 CFR 60, is not obtained.

RESPONSE/STATUS:

The sampling probe has been relocated at least 8 stack diameters downstream of disturbance points and 2 stack diameters above any disturbances to the air flow.

ACTION:

Stack exit velocity will be measured according to EPA methods, as specified in 40 CFR 60 and DOE Draft 5400.XY. Finally, the sampling train must be reviewed for compliance with these regulations.

MILESTONES:

Moving stack sampling point.	05/31/90
Conduct stack exit velocity measurements.	10/31/90
Determine if existing probe permits isokinetic sampling	10/31/90
Modify probe and sample train to meet DOE Draft 5400.XY and 40 CFR 60.	12/31/91

COSTS:

FY91: \$75K.

ROOT CAUSE:

Inadequate oversight.

REFERENCES:

N/A

ES&H TRACKING REPORT

ENVIRONMENTAL

TRACKING NO: 718
TRACK REF: A/CF- 4
DUE DATE: 07/31/90
STATUS: Completed

ASSIGNED TO: PE/AGS
PRIORITY: 3
HAZARD: CF
CODE: 40 CFR 61

FINDING:

Asbestos has been placed in an area at the AGS scrapyard that is not an approved asbestos disposal area in accordance with 40 CFR 61. In addition, placards designating the asbestos containing areas in the current landfill did not contain appropriate language in accordance with BMPs.

RESPONSE/STATUS:

The Landfill asbestos area was marked in accord with the NYS permit condition. Suspect asbestos materials which were found in the AGS steel-storage yard were sampled and found not to be asbestos. In order to clarify the finding, we note that the AGS steel-storage yard is not a disposal area. Signs have been installed at the Landfill to respond to the Tiger Team concern.

ACTION:

Characterize material at AGS. Install properly worded signs.

MILESTONES:

AGS determine character of materials.
Sign installed.

06/30/90
07/31/90

COSTS:

\$1K.

ROOT CAUSE:

Disagreement with the Tiger Team in the interpretation of guides and regulations.

REFERENCES:

N/A

ES&H TRACKING REPORT

ENVIRONMENTAL

TRACKING NO: 753
TRACK REF: A/CF- 5
DUE DATE: 04/30/90
STATUS: Completed

ASSIGNED TO: SEP
PRIORITY: 3
HAZARD: CF
CODE: 40 CFR 80.22

FINDING:

The BNL Gasoline Station (Bldg. 423) did not have the appropriate "Unleaded Gasoline" labels on the pumps and did not have signs in the vicinity restricting the use of leaded gasoline as required by 40 CFR 80.22.

RESPONSE/STATUS:

The appropriate signs have been installed.

ACTION:

Install appropriate signs.

MILESTONES:

Install signs.

04/30/90

COSTS:

N/A

ROOT CAUSE:

Inadequate implementation of administrative requirements.

REFERENCES:

N/A

ES&H TRACKING REPORT

ENVIRONMENTAL

TRACKING NO: 706
TRACK REF: GW/BMPF- 2
DUE DATE: 11/30/90
STATUS: Open

ASSIGNED TO: SEP/PE
PRIORITY: 3
HAZARD: BMP
CODE: CERCLA/RCRA

FINDING:

Many of the monitoring wells at BNL are not properly identified, screened, constructed with appropriate materials, or adequately maintained and, therefore, are not in accordance with current industry practices or site requirements.

RESPONSE/STATUS:

All wells have been mapped. A protocol for well maintenance will be completed and implemented by 08/31/90.

ACTION:

For all monitoring wells to be in accordance with current industry practices and/or site requirements, the following activities have been or are being completed: (a) field survey of all wells (lat/long); (b) location of wells on a site map (visual/lat/long coordinates); (c) marking of wells using grid system numbering identified on site map; (d) location of screen, material construction and usefulness for specific location; and (e) protocol for routine maintenance of wells. NOTE: All the above are necessary for the Site Wide Groundwater Monitoring Program Plan which will be reviewed by BNL Staff Geohydrologist and submitted to NYSDEC for regulatory comment. (See GW/CF-1 for details.)

MILESTONES:

Location on site map, visual.	06/30/90
Protocol for routine maintenance.	09/30/90
Location of screen material.	11/30/90
Field survey all wells.	11/30/90
Mark all wells.	11/30/90

COSTS:

Included in GW/CF-1.

ROOT CAUSE:

Inadequate implementation of guidelines.

REFERENCES:

N/A

ES&H TRACKING REPORT

ENVIRONMENTAL

TRACKING NO: 732
TRACK REF: GW/BMPF- 3
DUE DATE: 09/30/91
STATUS: Open

ASSIGNED TO: SEP
PRIORITY: 4
HAZARD: BMP
CODE: N/A

FINDING:

Groundwater sampling techniques employed by BNL jeopardize the integrity and representativeness of the sample in that the sampling techniques do not conform to standard industry practices and technical guidance documents.

RESPONSE/STATUS:

Well caps are being installed.

ACTION:

New well caps will be purchased from the vendor which fit completely over the well casing. These caps will be installed as the field sample team samples each well. The existing procedures will be modified to address the measurement of pump rate, stabilization of pH and conductivity, gas-generator exhaust fumes, handling filter paper, the use of gloves, and decontamination of equipment. Chain of custody is covered in QA-BMPF-1. BNL-SEP will hire a hydrogeologist who will review all sampling protocols. Sampling protocols will be modified to meet any requirements of the IAG.

MILESTONES:

Procure and begin installing new caps.	08/31/90
Modify existing protocols.	11/30/90
Initiate review of all protocols by BNL hydrogeologist.	11/30/90
Modify protocols to meet IAG.	03/30/91
Complete activities.	09/30/91

COSTS:

Well caps, FY90: \$4K.

ROOT CAUSE:

Inadequate implementation of guidelines.

REFERENCES:

N/A

ES&H TRACKING REPORT

ENVIRONMENTAL

TRACKING NO: 708	ASSIGNED TO: SEP
TRACK REF: GW/CF- 1	PRIORITY: 2
DUE DATE: 11/09/91	HAZARD: CF
STATUS: Open	CODE: DOE 5400.4; DOE 5400.1; 40 CFR 300.430

FINDING:

The hydrogeologic regime at BNL has not been adequately characterized to define aquifer relationships, subsurface stratigraphy, extent of contamination, background conditions, and local flow pathways in accordance with DOE 5400.4 and 40 CFR 300.430.

RESPONSE/STATUS:

Geraghty & Miller have been retained to conduct geohydrological investigations on site. GPWP/GWMP have been completed and submitted to DOE for review. Geraghty & Miller are conducting groundwater contamination investigations on site.

ACTION:

BNL is preparing four reports pertaining to the overall understanding of the hydrogeologic regime. These are Groundwater Protection Management Plan (GPMP), Groundwater Monitoring Plan (GWMP), Groundwater Review and Assessment, and Site Baseline Report. Each report will address aspects of the issues raised by the TTA. It is expected that the summation of the reports will present the plan of action that, when implemented, will provide an understanding of the hydrogeologic regime and the impact of BNL operations. The plan of action will be an integration of the above reports. In addition, BNL is actively seeking a full-time staff geohydrologist to supervise the final Plan of Action. Currently, \$1700K has been planned for FY88-92 to upgrade the GW program (ADS-CH-2001). The assessment report will be used to estimate any further funding requirements. This effort will be reviewed by EPA/NYSDEC.

MILESTONES:

Retain Geraghty & Miller and SAIC.	05/15/90
GPMP/GWMP complete.	07/31/90
Groundwater Review Assessment.	09/30/90
Draft Site Baseline Report to DOE.	11/30/90
Site Groundwater Plan of Action.	01/31/91
Implement groundwater monitoring plan.	11/09/91

COSTS:

TEC: FY90: \$493K. FY91: \$200K. FY92: \$800K. FY93-96: \$400K/yr.

ROOT CAUSE:

Inadequate implementation of regulations.

REFERENCES:

N/A

ES&H TRACKING REPORT

ENVIRONMENTAL

TRACKING NO: 705
TRACK REF: GW/CF- 2
DUE DATE: 09/30/93
STATUS: Open

ASSIGNED TO: SEP
PRIORITY: 1
HAZARD: CF
CODE: NYCRR Water Quality Standards

FINDING:

Groundwater beneath certain areas of BNL, including the southern boundary, exceeds applicable standards and guidelines for certain chemical constituents as established by the State of New York.

RESPONSE/STATUS:

BNL, in conjunction with Suffolk County, has determined that the contamination detected in the southwest corner of the site is not correlated with the contamination present in the community wells south of the Laboratory.

ACTION:

These areas will be characterized and remediated, as appropriate, in accord with the requirements of the IAG currently being negotiated. The plan of action to be prepared under GW/CF-1 will address this issue identified in this finding (GW/CF-2). Efforts described in SSB/BMPF-1 will help determine extent of soil/sediment contamination. Funds have been planned and requested through the Five-Year Environmental Restoration and Waste Management Plan: Landfill Closure (TEC: \$7,400K); GW Remediation I (TEC: \$4,500K); D Tank Removal (TEC: \$2,200K). Funds have also been requested for operating expenses such as RI/FS support, shipment of activated materials, and soil/sampling analysis, in addition to funds to upgrade groundwater program. (GW/CF-1)

MILESTONES:

Plan of action.	12/31/90
Complete characterization.	09/30/93

COSTS:

See GW/CF-1 & FY90: \$3216K; FY91: \$2600K; FY92: \$2788K; FY93: \$1650K;
FY94: \$3000K

ROOT CAUSE:

Inadequate implementation of standards.

REFERENCES:

N/A

ES&H TRACKING REPORT

ENVIRONMENTAL

TRACKING NO: 704
TRACK REF: GW/CF- 3
DUE DATE: 09/30/91
STATUS: Open

ASSIGNED TO: SEP
PRIORITY: 3
HAZARD: CF
CODE: CERCLA/RCRA; 6 NYCRR, Part 360

FINDING:

All five of the wells that monitor the current landfill are not screened at depths that ensure accurate detection of landfill-derived groundwater contamination as required in 6 NYCRR 360-2.11(c)(1)(i).

RESPONSE/STATUS:

A letter has been drafted to NYSDEC requesting guidance on how to achieve compliance. This has been assigned priority 3 since the substantive actions that can be taken by BNL have been done. Further action cannot proceed without NYSDEC guidance.

ACTION:

As indicated in findings dealing with this issue (GW/CF-4; WM/CF-4), the following is the plan of action: (1) request guidance from NY State on how to achieve compliance in light of the pending IAG, and (2) continue monitoring these wells until a determination is received or the IAG agreement and the consent order for the landfill are finalized.

MILESTONES:

Request determination from the State.
Replace/upgrade wells as necessary. Review by
NYSDEC/EPA.

07/31/90
09/30/91

COSTS:

Included in GW/CF-1.

ROOT CAUSE:

Inadequate implementation of standards.

REFERENCES:

N/A

ES&H TRACKING REPORT

ENVIRONMENTAL

TRACKING NO: 703
TRACK REF: GW/CF- 4
DUE DATE: 09/30/91
STATUS: Open

ASSIGNED TO: SEP
PRIORITY: 3
HAZARD: CF
CODE: 6 NYCRR Part 360

FINDING:

Regulatory compliance monitoring Wells WR and WS at the current landfill were not abandoned in accordance with 6 NYCRR 360-2.11(a)(8)(vi).

RESPONSE/STATUS:

See GW/BMPF-1.

ACTION:

See GW/BMPF-1.

MILESTONES:

See GW/BMPF-1.

09/30/91

COSTS:

N/A

ROOT CAUSE:

Inadequate implementation quality assurance standards.

REFERENCES:

N/A

ENVIRONMENTAL

TRACKING NO: 757
TRACK REF: IWS/BMPF- 1
DUE DATE: 12/31/91
STATUS: Open

ASSIGNED TO: SEP
PRIORITY: 4
HAZARD: BMP
CODE: 40 CFR 355

FINDING:

Spill reporting procedures, which are documented in BNL SOP No. RP-5, do not fully describe all the necessary contacts in the event of an EPCRA-reportable spill, as described in 40 CFR 355.

RESPONSE/STATUS:

As previously stated, the BNL SOP RP-5 was developed for the SEP Environmental Protection section personnel who respond to spills which occur within the BNL site boundaries and is not intended to be used in place of site-wide Laboratory Emergency Response and Notification Plans. The telephone numbers for the State Emergency Planning Coordinator and the Local Emergency Planning Coordinator have been incorporated into the BNL Emergency Notifications book, which is maintained at BNL Police Headquarters. This book is reviewed quarterly and updated as necessary. The BNL Police Headquarters is staffed 24 hours per day, 7 days per week, which assures accessibility to these telephone numbers.

ACTION:

The telephone number for the Local Emergency Planning Coordinator has been provided to the individuals within the SEP Environmental Protection Section who are responsible for responding to oil/chemical spills on-site.

MILESTONES:

Provide memo to SEP EP Section Oil/Chem. Spill Respndrs	05/23/90
Modify BNL Emergency Notification Book	08/01/90
Modify, where appropriate, local/site Emergency Plans.	12/31/91

COSTS:

N/A

ROOT CAUSE:

Inadequate implementation of guidelines.

REFERENCES:

Refer to TSA Finding EP.2-1.

ES&H TRACKING REPORT

ENVIRONMENTAL

TRACKING NO: 741
TRACK REF: IWS/CF- 1
DUE DATE: 07/01/91
STATUS: Open

ASSIGNED TO: DOE
PRIORITY: 2
HAZARD: CF
CODE: DOE 5400.4, 40 CFR 300

FINDING:

BNL has not conducted removals and remedial activities for inactive waste sites in accordance with the requirements of DOE 5400.4, its predecessor, and the NCP (40 CFR 300). BNL, BHO, CH, and HQ-DOE have also not implemented changes or provided guidance resulting from revisions in the NCP and DOE 5400.4 in a timely manner.

RESPONSE/STATUS:

DOE initiated discussions with EPA and NYSDEC in February 1989 in anticipation of listing on the NPL. The BNL site was proposed for listing on July 14, 1989, and was officially listed on November 21, 1989. In addition to funding requested as part of the Five-Year Plan, BNL and CH have made line-item funding requests for removal and remedial activities. The sites and concerns addressed by the finding are actively being addressed by the IAG and RI/FS process (see ADS-CH-2033).

ACTION:

The planned actions that respond to findings MGMT/CF-7, MGMT/CF-8, and MGMT/CF-9 address the DOE portion of this finding. DOE is negotiating an IAG with EPA and NYSDEC that will specify how and when removals and remedial actions for inactive waste sites will be done. The following documents that will be submitted under the IAG are currently being prepared by BNL: (1) Solid Waste Management Unit (SWMU) classification report, (2) Site Baseline Report (SBR), (3) Community Relations Plan (CRP), and (4) Response Strategy Document (RSD). The milestones indicate final submittal to EPA/NYSDEC as outlined in the IAG.

MILESTONES:

Draft SWMU classification report to EPA & NYSDEC.	06/01/90
Negotiate IAG.	06/30/90
Draft SBR to EPA & NYSDEC.	02/01/91
Draft CRP to EPA and NYSDEC.	04/01/91
Draft RSD to EPA and NYSDEC.	07/01/91

COSTS:

FY90: \$295K, FY91: \$585K, FY92-96: \$1000K/year.

ROOT CAUSE:

Lack of policy implementation and insufficient resources.

REFERENCES:

See MGMT/CF-7, MGMT/CF-8, and MGMT/CF-9. Also: Interagency Agreement and Five-Year Plan, ADS-2033 (cross-references to ADS-2001, 2002, 2003, 2004, 2007, 2011, 2015, 2016, and 2082.

ENVIRONMENTAL

TRACKING NO: 743	ASSIGNED TO: DOE/SEP
TRACK REF: IWS/CF- 4	PRIORITY: 2
DUE DATE: 04/30/91	HAZARD: CF
STATUS: Open	CODE: DOE 5400.4, 40 CFR 300

FINDING:

BHO does not have an administrative record for inactive waste site response actions which have been and are being conducted on-site and has, therefore, not met the requirements of DOE 5400.4 and 40 CFR 300.800(b) of the NCP.

RESPONSE/STATUS:

Appropriate documentation is in existence, but no formal administrative record file has been established. BNL is in the process of providing proper documentation for all actions conducted at all Areas of Concern (AOC), whether remedial or removal, in order to support the development of records of decision and completion of cleanup activities at BNL. While the formal plan is being developed, an interim administrative record will be kept at BNL.

ACTION:

An administrative record will be established by BNL, and the record will be made available to the public in accordance with the requirements.

MILESTONES:

Draft administrative record to DOE.	11/30/90
Establish final administrative record.	04/30/91

COSTS:

FY92: \$80K/year

ROOT CAUSE:

Inadequate implementation of standards and inadequate resources.

REFERENCES:

MGMT/BMPF-12, IWS/CF-1, IWS/CF-3.

ES&H TRACKING REPORT

ENVIRONMENTAL

TRACKING NO: 707
TRACK REF: IWS/CF-2
DUE DATE: 07/31/91
STATUS: Open

ASSIGNED TO: DOE
PRIORITY: 2
HAZARD: CF
CODE: 40 CFR 370

FINDING:

BHO has either not provided or has inaccurately provided EPCRA lists, forms, and notifications, and is therefore improperly implementing 40 CFR 370 and EPCRA Section 303(D). BHO and BNL personnel assigned to oversee and implement the EPCRA program have not been trained with regard to their responsibilities or the requirements of EPCRA. In addition, the submittals or the need for submittals apparently was not reviewed for adequacy and the personnel developing EPCRA submittal were not adequately supervised.

RESPONSE/STATUS:

CH and BHO have not had adequate resources to perform this function.

ACTION:

The planned actions that respond to findings MGMT/CF-8 and MGMT/CF-9 address the DOE portion of this finding. The BNL portion of the finding is addressed by the following. Training has been obtained for staff responsible for compliance with the EPCRA lists, forms and notifications. Tier I report for 1989 has been compiled and provided to appropriate authorities. The list of hazardous chemicals required by 40 CFR 370.12(b) has been prepared and submitted. The Tier II report is not required by federal or state regulation, it is requested by New York State and will be provided to the State Emergency Planning Committee (SEPC), the Local Emergency Planning Committee (LEPC) and the BNL Fire Group. The Tier II report will require a survey of all buildings to determine the inventory of chemicals contained. This will be done for the 1990 report.

MILESTONES:

Submit list of hazardous chemicals.	05/31/90
Submit Tier I report to SEPC, LEPC and Fire Group.	06/30/90
Identify new Facility EMP Coordinator.	06/30/90
Submit Tier II report to SEPC, LEPC and Fire Group.	07/31/91

COSTS:

N/A

ROOT CAUSE:

Inadequate resources.

REFERENCES:

See MGMT/CF-8, MGMT/CF-9, MGMT/BMPF-7.

ES&H TRACKING REPORT

ENVIRONMENTAL

TRACKING NO: 742
TRACK REF: IWS/CF-3
DUE DATE: 04/01/91
STATUS: Open

ASSIGNED TO:
PRIORITY: 2
HAZARD: CF
CODE: DOE 5400.4, 40 CFR 300.430(c)

FINDING:

BHO and BNL have not prepared and implemented a community relations plan for current environmental restoration activities and, therefore, have not met the requirements of DOE 5400.4 and 40 CFR 300.430(c).

RESPONSE/STATUS:

BHO is negotiating an IAG with EPA and NYSDEC that will address CERCLA actions. BNL has contracted with a consultant to prepare the Community Relations Plan. This is currently in progress.

ACTION:

Develop and implement a Community Relations Plan in cooperation with EPA and NYSDEC in line with 40 CFR 300.430(c).

MILESTONES:

Draft Community Relations Plan to DOE.	11/30/90
Complete Site Community Relations Plan.	04/01/91

COSTS:

Cost for plan development supported by Laboratory and included in IWS/CF-1. Implementation cost to be determined.

ROOT CAUSE:

Inadequate implementation of standards and inadequate resources.

REFERENCES:

See MGMT/BMPF-12.

ES&H TRACKING REPORT

ENVIRONMENTAL

TRACKING NO: 710
TRACK REF: NEPA/BMPF-1
DUE DATE: 12/31/91
STATUS: Open

ASSIGNED TO: DOE
PRIORITY: 3
HAZARD: BMP
CODE: 40 CFR 1502.9, 40 CFR 1502.20,
40 CFR 1508.28, and CEQ NEPA
guidance (46 FR 18036)

FINDING:

The 1977 sitewide EIS and the 1978 ISABELLE EIS are outdated according to NEPA requirements and are being used inappropriately for tiering.

RESPONSE/STATUS:

HQDOE has drafted new NEPA policy that has been sent to field offices for review. This document will be published as a proposed Rule in the Federal Register and will provide agency-wide policy on development and updating of sitewide EISs.

ACTION:

The BNL sitewide EIS is scheduled to be reviewed in accordance with the DOE policy that is being established by Rule and DOE Order. CH NEPA guidelines which provide for periodic review of sitewide NEPA documentation will be prepared and issued after issuance of the HQDOE NEPA policy on this subject. Where the current EIA is adequate, it will be used for tiering in appropriate situations. BNL will then review and revise NEPA documentation as appropriate.

MILESTONES:

CH issue implementing guidelines on use of tiering, within 90 days of EH policy.	09/30/91
BNL review/revise NEPA documentation.	12/31/91

COSTS:

Cost to be estimated after DOE NEPA policy is issued.

ROOT CAUSE:

Inadequate DOE policy on sitewide NEPA/EIS.

REFERENCES:

N/A.

ES&H TRACKING REPORT

ENVIRONMENTAL

TRACKING NO: 754
TRACK REF: NEPA/BMPF-2
DUE DATE: 12/31/91
STATUS: Open

ASSIGNED TO: DOE
PRIORITY: 3
HAZARD: BMP
CODE: 40 CFR 1502.9, 40 CFR 1502.20,
40 CFR 1508.28, and CEQ NEPA
guidance (46 FR 18036)

FINDING:

The BHO, CH and HQ NEPA approval process and Section D determinations are not completed in a timely fashion with the result that funded FY 90 BNL projects are lagging.

RESPONSE/STATUS:

See NEPA/BMPF-1.

ACTION:

See NEPA/BMPF-1.

MILESTONES:

See NEPA/BMPF-1.

COSTS:

See NEPA/BMPF-1.

ROOT CAUSE:

See NEPA/BMPF-1.

REFERENCES:

N/A

ES&H TRACKING REPORT

ENVIRONMENTAL

TRACKING NO: 709
TRACK REF: NEPA/CF- 1
DUE DATE: 02/09/88
STATUS: Completed

ASSIGNED TO: DOE
PRIORITY: 3
HAZARD: CF
CODE: DOE 5440.1C

FINDING:

A NEPA determination was made by CH for the AGS Booster Facility that may not be in accordance with DOE NEPA Guidelines and DOE 5440.1C.

RESPONSE/STATUS:

CH and ER has reexamined the MTF and supporting BNL documentation used in its preparation. CH and ER concluded that the MTF and supporting documentation did address the full range of issues for the AGS Booster operation. BNL supportive documentation highlighted the site-wide issue of groundwater contamination and off-site dose due to multiple sources. The potential increase in groundwater contamination due to activation by AGS Booster operation was clearly insignificant and negligible with regard to the existing groundwater contamination on site. However, operations of the AGS Booster will be considered integral with the rest of BNL's facilities such as AGS, HFBR, etc., and will be examined on a site-wide basis under the revised site-wide EIS policy.

ACTION:

MTFs will no longer be used as documents to support construction (per SEN-15) after approval of the proposed categorical exclusions. Future projects will be more carefully analyzed by BHO, CH, ER, and EH for NEPA compliance. Integral operation of the AGS Booster will be examined within the site-wide EIS after formulation of the site-wide NEPA EIS policy.

MILESTONES:

No further action required.

COSTS:

N/A.

ROOT CAUSE:

Inadequate DOEHQ policy on NEPA/MTF.

REFERENCES:

N/A.

ES&H TRACKING REPORT

ENVIRONMENTAL

TRACKING NO: 712
TRACK REF: QA/BMPF- 1
DUE DATE: 09/30/91
STATUS: Open

ASSIGNED TO: SEP
PRIORITY: 3
HAZARD: BMP
CODE: DOE 5400.1

FINDING:

The site has not developed adequate chain-of-custody procedures to assure constant sample tracking in keeping with standard industry practices.

RESPONSE/STATUS:

Procedures are being drafted, and an interim sample custodian has been appointed.

ACTION:

Detailed procedures will be written for proper chain-of-custody. Forms will be developed to track facility-generated samples during sampling, delivery, and analysis. A bound and serially-numbered log book is already in place to log in facility-generated samples and to track any samples sent off-site. A designated sample custodian will be hired in FY 91; however, a sample custodian will be identified in the interim period and adequately trained. BNL will assign one of the existing Laboratory technicians with the responsibility of sample custodian. Once procedures are developed, this individual will be trained. This individual will then serve as backup after the new custodian is hired.

MILESTONES:

Appoint designated interim custodian.	08/31/90
Train interim custodian on procedures.	12/31/90
Chain of custody forms.	12/31/90
Develop SOP/implement.	12/31/90
Hire sample custodian.	09/30/91

COSTS:

Costs included in MGMT/BMPF-5.

ROOT CAUSE:

Inadequate implementation of guidelines.

REFERENCES:

N/A

ES&H TRACKING REPORT

ENVIRONMENTAL

TRACKING NO: 713
TRACK REF: QA/BMPF- 2
DUE DATE: 12/31/90
STATUS: Open

ASSIGNED TO: SEP
PRIORITY: 4
HAZARD: BMP
CODE:

FINDING:

There are no formally approved, written procedures for some S&EP Analytical Laboratory operations as recommended by standard industry practice.

RESPONSE/STATUS:

Glassware protocols have been drafted and protocols for control data documentation on tritium.

ACTION:

Detailed SOPs will be written for the following: a) cleaning glassware, b) tracing analytical standards, c) control of data documentation, d) data handling, storage and retrieval, e) generation and maintenance of control charts.

MILESTONES:

Initiate development of SOPs.	05/31/90
Complete development of above SOPs/implement.	12/31/90

COSTS:

N/A

ROOT CAUSE:

Inadequate implementation of guidelines.

REFERENCES:

N/A

ENVIRONMENTAL

TRACKING NO: 714
TRACK REF: QA/CF- 1
DUE DATE: 08/31/90
STATUS: Completed

ASSIGNED TO: SEP/DCP
PRIORITY: 3
HAZARD: CF
CODE: BNL QA Manual, QA-1

FINDING:

The procurement requirements of purchase requests written for environmental analytical support (Appendix B, QA-2, QA-3, QA-4) are not sufficiently clear and complete to ensure the receipt of quality data, which is the objective of the BNL QA Manual (Appendix B, QA-1).

RESPONSE/STATUS:

BNL has completed auditing two off-site contractor labs for QA/QC compliance and contractual requirements since the Tiger Team Assessment. A checklist was developed based on the one used by EPA in their Contract Laboratory Program (CLP).

ACTION:

Effectively immediately, for all the requests for analytical support from off-site laboratories, the following will be included: (a) appropriate methods with specific detection limits; (b) QA/QC protocols and deliverables; and (c) any specific requirements imposed when using a sub-contractor. The audit process used to audit the two off-site Labs will be included as a part of the procurement process for analytical services in the future, along with the items noted in the Draft Action Plan.

MILESTONES:

Change procurement requirements.
Audit of off-site vendor lab used for SPDES and
Special Analysis.

05/31/90
08/31/90

COSTS:

Annual travel costs to audit 4 labs: \$10K.

ROOT CAUSE:

Inadequate implementation of standards.

REFERENCES:

BNL QA Manual, QA-1.

ES&H TRACKING REPORT

ENVIRONMENTAL

TRACKING NO: 715
TRACK REF: QA/CF- 2
DUE DATE: 11/30/90
STATUS: Open

ASSIGNED TO: SEP/QA
PRIORITY: 3
HAZARD: CF
CODE: BNL QA Manual, QA-405

FINDING:

SEP Division does not have verification procedures for the control of revisions to quality-related documents as required by the BNL QA Program.

RESPONSE/STATUS:

SEP conducted an audit of SEP QA Manuals to verify the revision levels of QA procedures in the Manuals. The QA Office is in the process of issuing a revision to the BNL QA Manual. The revision is accompanied by a transmission memo which contains a receipt that verifies that the revisions have been incorporated. The receipt must be signed and returned to the QA Office. SEP is actively recruiting a QA officer for the environmental programs.

ACTION:

In conjunction with BNL's QA office, SEP will institute the same verification procedures used by DOE for quality related documents.

MILESTONES:

Develop and issue verification/control for QA procedures.	08/31/90
Hire Environmental QA officer.	11/30/90

COSTS:

MGMT/BMPF-5.

ROOT CAUSE:

Inadequate implementation of standards.

REFERENCES:

BNL QA Manual, QA-405.

ES&H TRACKING REPORT

ENVIRONMENTAL

TRACKING NO: 760
TRACK REF: RAD/CF- 1
DUE DATE: 09/30/91
STATUS: Open

ASSIGNED TO: AGS/SEP
PRIORITY: 2
HAZARD: CF
CODE: DOE 5480.11, DOE 5400.5, OSHA
Guide 3.5.0

FINDING:

The BNL management of activated material is inadequate to ensure that a member of the public does not receive an effective dose equivalent that exceeds the DOE 5400.5 dose limit as a result of the release of material for unrestricted use.

RESPONSE/STATUS:

A number of steps have been taken to ensure better control of all radioactive material, particularly including activated material. Two letters from G. C. Kinne to J. Bellows (07/02/90 and 07/09/90) have addressed the issue of prohibiting release of material for unrestricted use. Surveys have been initiated throughout the Lab. Training is being provided and equipment has been purchased.

ACTION:

The AGS areas, including T-86 and T-90, are being surveyed. Unlabeled activated items found in uncontrolled areas will be labeled and relocated as appropriate. A training program for monitoring and labeling activated materials has been developed by SEP and has been given to the SEP HP technicians. Monitoring equipment has been bought at AGS and training in its use has started. A fence may be used to establish controlled areas. SEP will develop a procedure for surveying thick targets that have been in the high energy particle beam. BNL will request that BHO obtain EH-1 approval for release of activated materials.

MILESTONES:

Request EH-1 approval for release of activated material	06/30/90
AGS training complete for activated material survey.	09/30/90
Complete survey of AGS areas.	10/31/90
SEP procedure for thick targets.	10/31/90
Complete training.	11/30/90
Complete fence where necessary.	09/30/91

COSTS:

FY91: \$625K.

ROOT CAUSE:

Inadequate implementation of standards.

REFERENCES: N/A

ES&H TRACKING REPORT

ENVIRONMENTAL

TRACKING NO: 733 ASSIGNED TO: SEP
TRACK REF: RAD/CF- 2 PRIORITY: 3
DUE DATE: 11/30/91 HAZARD: CF
STATUS: Open CODE: DOE 5400.1

FINDING:

Documentation of the radiological environmental monitoring program is inadequate with respect to the requirements of DOE 5400.1, the requirements of the SEP QA Manual, and BMPs.

RESPONSE/STATUS:

DOE 5400.1 specifies that this process, once completed, will be reviewed annually and formally documented at three year intervals. The intent of the response plan was to comply with the time requirements specified in the order.

ACTION:

BNL has expended considerable effort to document all normal operational procedures. Documentation of protocols for new equipment and QC limits will be completed to comply with the requirements of the SEP QA Manual. Rationale for sampling locations, data quality objectives, and a plan for periodic review will be formalized. To address this concern, staff will be added, and an in-house audit and review program instituted. Finally, the documentation of normal operational protocols will be completed.

MILESTONES:

Hire 5400.1 compliance person.	09/30/90
Formalize draft protocols and prepare SOPs on QA items.	12/31/90
Formalize EM program documentation.	11/30/91

COSTS:

Costs included in MGMT/BMPF-5.

ROOT CAUSE:

Inadequate implementation of DOE guidelines.

REFERENCES:

SEP QA Manual.

ES&H TRACKING REPORT

ENVIRONMENTAL

TRACKING NO: 762
TRACK REF: SSB/BMPF- 1
DUE DATE: 09/30/92
STATUS: Open

ASSIGNED TO: SEP
PRIORITY: 2
HAZARD: BMP
CODE: DOE 5400.1; CERCLA/RCRA

FINDING:

On-site soils and sediments have not been sufficiently characterized in accordance with the policy stated in DOE 5400.1 to determine the presence of contamination and, if present, the extent of the contamination and the controls necessary to prevent the spread of this contamination.

RESPONSE/STATUS:

The Draft Site Waste Management Unit Classification Report has been prepared and submitted to EPA and NYSDEC. This report identifies areas on site which will become areas of concern requiring characterization and assessment or areas where no further action is required. Areas requiring assessment will be subject to soil sampling/analysis and/or groundwater monitoring.

ACTION:

The soil sampling plan completed in May 1989 will be modified to include additional sites identified in the report "Programmatic Review of the Environmental Monitoring Program" (GW/CF-1). This will include sediment sampling of the recharge basins and the Peconic River. This revised plan will reflect the policy stated in DOE 5400.1. Soil and sediment sampling is planned for FY91 through FY93 using funds provided by the EM Office (ADS-CH-2002). The results from this activity as well as the groundwater program assessment will be used as a basis for estimating future fundings needs. These activities will be reviewed periodically by EPA/NYSDEC in accordance with the IAG.

MILESTONES:

Revised plan.	01/31/91
Implementation/Sampling.	04/30/91
Complete Sampling/Analysis.	09/30/92

COSTS:

FY91: \$3,370K. FY92: \$2,500K. FY93: \$1000K.

ROOT CAUSE:

Inadequate resources.

REFERENCES: N/A

ES&H TRACKING REPORT

ENVIRONMENTAL

TRACKING NO: 721
TRACK REF: SW/BMPF- 1
DUE DATE: 09/30/92
STATUS: Open

ASSIGNED TO: SEP
PRIORITY: 4
HAZARD: BMP
CODE: DOE 5400.1

FINDING:

BNL has not adequately characterized the SPDES outfalls or other point source discharges and has not completely inventoried all process flows which discharge to them in accordance with sound environmental management practice.

RESPONSE/STATUS:

The need to improve effluent characterization at the SPDES discharge points was identified several years ago. Line item funds have been provided to upgrade the sampling methods used at the discharge locations. Flow proportional sampling upgrades are scheduled at SPDES discharge points in FY90-91. The use of time proportional sampling was intended for use at the building where the effluent stream enters the sanitary recharge basin pipe system. This approach permits sampling during peak periods of discharge.

ACTION:

Each department/division will be required to identify process discharges (SW/CF-1). An assessment will be made of the character and import of the discharges. A plan for characterization as needed will be developed and points sampled. Time-proportional samples may need to be collected at the discharge point and analyzed for potential contaminants.

MILESTONES:

Identify process waste discharges.	03/31/90
Complete inventory.	02/28/91
Construct monitoring stations.	06/30/91
Assess impacts/develop liq. process effluent char plan.	10/31/91
Complete chara. of liquid process effluents.	09/30/92

COSTS:

FY91: \$170K; additional stations: \$26K station and (\$0.2-1K)/sample.

ROOT CAUSE:

Inadequate implementation of suggested guidelines.

REFERENCES:

N/A

ES&H TRACKING REPORT

ENVIRONMENTAL

TRACKING NO: 701
TRACK REF: SW/BMPF- 2
DUE DATE: 07/31/90
STATUS: Completed

ASSIGNED TO: SEP
PRIORITY: 3
HAZARD: BMP
CODE: N/A

FINDING:

Antisiphon devices are not installed, as would be required by BMP, on a few faucets observed with hoses attached and lying in sinks.

RESPONSE/STATUS:

The Tiger Team noted that throughout the site there was good compliance with requirements for antisiphon devices, but that a policy/directive was missing. A memo to Department Chairmen/Division Heads has been issued and internal memos have also been issued requiring each department to review and comply with use of siphon breaks.

ACTION:

A directive will be issued to departments/divisions which prohibits the use of hoses in sinks not equipped with antisiphon devices. Routine audits/inspections will be conducted to assure that this requirement is met.

MILESTONES:

Issue directive.	05/31/90
Departments/divisions comply with requirements.	07/31/90

COSTS:

To be determined.

ROOT CAUSE:

Inadequate implementation of standards.

REFERENCES:

N/A

ES&H TRACKING REPORT

 ENVIRONMENTAL

TRACKING NO: 722
 TRACK REF: SW/BMPF- 3
 DUE DATE: 09/30/96
 STATUS: Open

ASSIGNED TO: PE
 PRIORITY: 4
 HAZARD: BMP
 CODE: N/A

FINDING:

Sewer lines at BNL are not being maintained in accordance with sound environmental management practices.

RESPONSE/STATUS:

The Laboratory is aware of this problem, which was identified in BNL's Sanitary Utility Master Plan, 1989-2000, completed in 10/89. A FY93 MEL-FS line-item project to commence phased repair and replacement of BNL sewer mains was identified in the BNL Master Plan. The project was also identified for FY93 funding, as ADS 2035-00 in the BNL Site Specific Plan for Environmental Restoration and Waste Management, dated 02/06/90. As part of the Non-Defense Facility Modernization Program planning effort, BNL tried to accelerate the start of the project, requesting \$4M to start Phase I in FY92. This project would address repair and replacement of the most critical sections of forced- and gravity-sewer mains in the underground sewer system, as well as Sewage Treatment Plant upgrades. In addition, the soil beneath deteriorated sewer lines will be sampled for potential contamination and, where applicable, remediated in accordance with the items of the IAG.

ACTION:

Repair and replace critical sections of deteriorated sewer mains. Conduct soil investigation and, where necessary, remediation in accord with the terms of the IAG. Upgrade sewer treatment plant. Based on current expectations for funding for the MEL/FS program, the Sanitary I and II projects will be initiated in FY94 and FY96.

MILESTONES:

Receipt funds Phase I.	10/31/93
Survey remaining lines.	03/31/94
Start construction Phase I.	03/31/95
Receipt funds Phase II.	10/31/95
Complete Phase I.	09/30/96
Complete Phase II.	09/30/96

COSTS:

FY94: \$3000K. FY95: \$1000K. FY96: \$3600K.

ROOT CAUSE:

Inadequate resources.

REFERENCES:

Conceptual Design Report; Sanitary System Modification, Phase I, dated 5/90; Project No. 92CH122.

ES&H TRACKING REPORT

ENVIRONMENTAL

TRACKING NO: 723 ASSIGNED TO: PE
TRACK REF: SW/BMPF- 4 PRIORITY: 4
DUE DATE: 02/28/91 HAZARD: BMP
STATUS: Open CODE: N/A

FINDING:

BNL has no formalized written procedures, as would be required by best industry practices, for the collection of potable water samples and STP wastewater samples, and for the handling of wastewaters that are diverted to the BNL STP emergency holding lagoons.

RESPONSE/STATUS:

Since each diversion must be handled on a case-by-case basis, protocols must be established by coordination between PE and SEP for sampling, analysis, and handling of waste waters. Specific procedures were prepared in advance for disposal of diverted waste water. Procedures have been developed to collect potable water samples and waste water samples. Training of personnel will be implemented.

ACTION:

Develop procedures for collection and sampling potable and waste water. Develop protocol procedure for interaction between SEP and PE for diversion and handling of diverted waste water. Provide necessary training.

MILESTONES:

Develop sampling procedures. 07/31/90
Prov. proc./pol. for handling diversions of waste water 12/31/90
Provide proc./pol. for potable and waste water samples. 12/31/90
Institute training. 02/28/91

COSTS:

N/A

ROOT CAUSE:

Inadequate implementation of standards and guidelines.

REFERENCES:

N/A

ENVIRONMENTAL

TRACKING NO: 724
TRACK REF: SW/BMPF- 5
DUE DATE: 09/30/96
STATUS: Open

ASSIGNED TO: PE
PRIORITY: 4
HAZARD: BMP
CODE: N/A

FINDING:

The BNL STP lacks a backup clarifier as required by NYSDEC's recommended design criteria for STPs.

RESPONSE/STATUS:

The Laboratory is aware of this problem, which was identified in BNL's Sanitary Utility Master Plan, 1989-2000, completed in 10/89. The cost of a new clarifier is estimated at \$600K, including engineering and contingency. A FY93 line-item project, Sanitary System Upgrades, Phase I, included the new clarifier. This project was included (ADS 2035-00) in the BNL Site Specific Plan for Environmental Restoration and Waste Management, dated 02/06/90. As part of the Non-Defense Facility Modernization Program planning effort, BNL attempted to accelerate the start of the project, requesting \$4M to construct Phase I, starting in FY92. If funding is not available through the modernization program, FY93 funding will be aggressively sought. However, based on current projections for the MEL/FS program, the current planning year for Sanitary I upgrades is FY94.

ACTION:

Install backup clarifier at the STP.

MILESTONES:

Receipt of funds for Phase I.	10/31/93
Start construction.	10/31/95
Complete construction.	09/30/96

COSTS:

Included in SW/BMPF-3.

ROOT CAUSE:

Inadequate implementation of guidelines.

REFERENCES:

Conceptual Design Report; Sanitary System Modification, Phase I, dated 5/90; Project No. 92CH122.

ES&H TRACKING REPORT

ENVIRONMENTAL

TRACKING NO: 736
TRACK REF: SW/CF- 1
DUE DATE: 03/31/91
STATUS: Open

ASSIGNED TO: SEP
PRIORITY: 3
HAZARD: CF
CODE: 6 NYCRR 752.1(b)(i)

FINDING:

Many liquid waste discharges at BNL are not listed in the existing Laboratory SPDES Permit, in accordance with 6 NYCRR 752.1(b)(i).

RESPONSE/STATUS:

Officials from NYSDEC met with representatives from BNL and BHO on 05/18/90 to discuss liquid waste discharges cited by the Tiger Team which were not included in the existing Laboratory SPDES permit. NYSDEC officials agreed to incorporate some of the liquid waste discharges to recharge basins cited by the Tiger Team into the draft SPDES permit. However, they also felt that they needed to review NYSDEC technical guidance documents in order to determine whether other discharges needed to be incorporated into the permit.

ACTION:

The additional data for discharges areas determined to require permits will be provided to NYSDEC as appropriate. A systematic approach to identifying any other process liquid discharges at BNL, which may need to be included in the SPDES permit, will be implemented. This approach includes an inventory of existing process discharges.

MILESTONES:

Schedule meeting.	05/18/90
Develop/issue questionnaire.	11/30/90
Department/division complete questionnaire.	12/31/90
Evaluate forms, initiate data entry.	02/28/91
Inform/officially notify state of potential discharges.	03/31/91
Other milestones to be determined.	

COSTS:

To be determined.

ROOT CAUSE:

Disagreement on interpretation of regulations.

REFERENCES:

N/A

ES&H TRACKING REPORT

ENVIRONMENTAL

TRACKING NO: 719
TRACK REF: SW/CF- 2
DUE DATE: 07/31/91
STATUS: Open

ASSIGNED TO: PE
PRIORITY: 3
HAZARD: CF
CODE: 6 NYCRR 751

FINDING:

The BNL STP periodically exceeds pH discharge limits established in the SPDES Permit.

RESPONSE/STATUS:

BNL is developing a policy to control the amount of lime added to maintain pH levels within limitations, while maintaining TDS limit. BNL will investigate probable sources contributing to low pH and determine if they can be reduced or eliminated, and if pH levels can be automatically adjusted to meet established limits of SPDES permit.

ACTION:

Investigate sources of low pH to waste stream. Prepare procedures and policies governing testing and maintaining pH levels.

MILESTONES:

Prepare protocol and resume testing immediately.	05/31/90
Investigate sources and possible eliminations of low pH	10/31/90
Establish procedure for addition of lime.	10/31/90
Establish policy and install equipment to maintain pH within limits.	07/31/91

COSTS:

N/A.

ROOT CAUSE:

Inadequate implementation of regulations.

REFERENCES:

N/A

ES&H TRACKING REPORT

ENVIRONMENTAL

TRACKING NO: 720
TRACK REF: SW/CF- 3
DUE DATE: 07/31/90
STATUS: Completed

ASSIGNED TO: PE
PRIORITY: 3
HAZARD: CF
CODE: 40 CFR 122.41(j)(4) and 40 CFR
136

FINDING:

The STP wastewater sample temperatures may not be maintained in accordance with the SPDES Permit requirements prior to analysis.

RESPONSE/STATUS:

Written SOPs were written to identify proper procedures for collection of waste water samples. Additional equipment required to perform sampling was identified and installed.

ACTION:

Develop written procedure for maintaining temperature, including logging temperature. Procure additional equipment necessary to monitor and maintain temperature.

MILESTONES:

Develop procedures.
Procure equipment.

07/31/90
07/31/90

COSTS:

FY90: \$1K.

ROOT CAUSE:

Inadequate implementation of standards.

REFERENCES:

N/A

DATE: 08/29/90

ES&H TRACKING REPORT

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ENVIRONMENTAL

TRACKING NO: 737
TRACK REF: SW/CF- 4
DUE DATE: 06/30/91
STATUS: Open

ASSIGNED TO: SEP/DOE
PRIORITY: 3
HAZARD: CF
CODE: SPDES Permit No. NY0005835

FINDING:

DMRs are not always submitted by BHO to the regulatory agencies within the 28-day period specified in SPDES Permit No. NY0005835.

RESPONSE/STATUS:

The data required to complete the monthly DMR is obtained from four different sources: two on-site and two off-site. The individuals responsible for these data have been mandated to provide the SEP Environmental Compliance Group with all data by the 18th of each month to ensure that the DMR is submitted to BHO by the 25th of each month. The priority is 3 since this is administrative non-compliance and the activities needed to correct it are completed. An audit of the performance will be done to review the effectiveness of these activities.

ACTION:

SEP will review the timeliness of submittals of DMRs to BHO to determine the effectiveness of the 05/31/90 memo.

MILESTONES:

Submit memo to responsible individuals.
SEP will review performance.

05/31/90
06/30/91

COSTS:

N/A.

ROOT CAUSE:

Inadequate implementation of administrative requirements.

REFERENCES:

N/A.

ES&H TRACKING REPORT

ENVIRONMENTAL

TRACKING NO: 711
TRACK REF: TS/BMPF- 1
DUE DATE: 05/31/91
STATUS: Open

ASSIGNED TO: SEP
PRIORITY: 3
HAZARD: BMP
CODE: N/A

FINDING:

BNL has no formally approved, written procedures for the use, handling, and storage of toxic and hazardous materials by site personnel as required by standard industry practice in NQA-1.

RESPONSE/STATUS:

Draft sections of the SEAPPM are under review. A schedule has been developed for the remaining sections.

ACTION:

BNL will expand the Safety and Environmental Administrative Policy and Procedures Manual (SEAPPM) Program to include the requirements to develop department and division specific operating procedures for the use, handling and storage of toxic and hazardous material. The SEAPPM Program will ensure the quality required by NQA-1 for controlling the specific documents involved and the qualification of the operating procedures and the personnel.

MILESTONES:

Draft generic SEAPPM Guide for toxic and haz. material.	10/31/90
Issue generic guide to departments and divisions.	12/31/90
Complete the development and implementation of facility specific policy and operating procedures.	05/31/91

COSTS:

N/A.

ROOT CAUSE:

Inadequate implementation of guidelines.

REFERENCES:

N/A

DATE: 08/29/90

ES&H TRACKING REPORT

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ENVIRONMENTAL

TRACKING NO: 758
TRACK REF: TS/BMPF- 2
DUE DATE: 04/30/90
STATUS: Completed

ASSIGNED TO: BIO
PRIORITY: 3
HAZARD: BMP
CODE: 40 CFR 165.10

FINDING:

There is improper storage of dry pesticides, and no sign on the entrance leading from the coffee break area to the Hothouse pesticide storage area in the Biology Bldg. 463, pursuant to the recommendations of 40 CFR 165.10.

RESPONSE/STATUS:

See OS.3-1.

ACTION:

See OS.3-1.

MILESTONES:

See OS.3-1. Improve storage.

04/30/90

COSTS:

N/A

ROOT CAUSE:

Inadequate implementation of suggested guidelines.

REFERENCES:

N/A

ES&H TRACKING REPORT

ENVIRONMENTAL

TRACKING NO: 739
TRACK REF: TS/BMPF- 3
DUE DATE: 07/31/90
STATUS: Completed

ASSIGNED TO: SEP
PRIORITY: 3
HAZARD: BMP
CODE: 40 CFR 761

FINDING:

The BNL Fire/Rescue Group has not been notified by the SEP Division of the location of PCB equipment and the Fire/Rescue Group does not have a current inventory of PCB equipment in Run Books in accordance with the objectives set forth in 40 CFR 761.30(a)(1)(vi).

RESPONSE/STATUS:

The BNL Fire Group has been notified of the location of PCB transformers, oil switches, and regulators, in accordance with TSCA and BNL PCB program requirements that departments/divisions register their transformers with the Fire Group. However, the Fire Group has not received information on the storage and use of capacitors, particularly in large use areas. The AGS Department is currently updating its inventory of PCB equipment.

ACTION:

The updated inventory from the AGS will be incorporated into the BNL PCB Inventory, and it will be provided to the Fire Group for inclusion in their run books. The BNL Fire Group will also receive annual updates to this inventory. The BNL Fire Group has incorporated the information now contained in memoranda on disposition of former PCB equipment in the building diagrams in their run books.

MILESTONES:

AGS Department submits preliminary inventory report.
Submit BNL PCB Inventory to Fire Group.

05/18/90
07/31/90

COSTS:

N/A

ROOT CAUSE:

Disagreement on the interpretation of regulations.

REFERENCES:

N/A.

ES&H TRACKING REPORT

ENVIRONMENTAL

TRACKING NO: 752
TRACK REF: TS/CF- 1
DUE DATE: 10/31/90
STATUS: Open

ASSIGNED TO: SEP
PRIORITY: 3
HAZARD: CF
CODE: 40 CFR 761

FINDING:

The total weight of PCB Items in service and the total weight of PCBs or PCB Items removed from service have not been included in the past Annual PCB Reports as required by 40 CFR 761, and the location of the owner/operator of the initial disposal or storage facility was not included in the 1985 and 1986 Annual PCB Reports. Additionally, the total number of PCB Large Capacitors has been inaccurately reported in past PCB Annual Reports, such that the requirements of 40 CFR 761 have not been followed.

RESPONSE/STATUS:

All BNL departments/divisions have been informed of the BNL PCB Program Requirements. Under this program, the departments/divisions are mandated to inventory their own PCB equipment and to provide SEP with annual updates. All departments/divisions have completed their current inventory. A meeting was held with staff from SEP Environmental Compliance Group and the HWM Group to discuss the recording of weights for PCB items as required by 40 CFR 70.61.

ACTION:

Operators at the Hazardous Waste Management Facility will be requested to record the total weight of PCB items sent off-site for disposal and the total weight of PCB items stored for disposal as required by 40 CFR 761. Departmental inventories will be incorporated into the BNL PCB Inventory and will be used in the future to prepare one section of the annual PCB Report. HWM staff will incorporate the PCB recordkeeping requirements into their SOP for the storage, handling and recordkeeping for PCBs.

MILESTONES:

AGS submits preliminary inventory report.	05/18/90
Provide guidance to HWMF Operators.	06/30/90
Incorporate into SOP for PCB handling, storage recordkeeping	10/31/90

COSTS:

N/A

ROOT CAUSE:

Inadequate implementation of administrative requirements.

REFERENCES:

See TS/CF-2.



DATE: 08/29/90

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ES&H TRACKING REPORT

ENVIRONMENTAL

TRACKING NO: 750
TRACK REF: TS/CF- 2
DUE DATE: 10/31/90
STATUS: Open

ASSIGNED TO: SEP
PRIORITY: 3
HAZARD: CF
CODE: 40 CFR 761.65

FINDING:

The volume and material used to contain PCB Articles and PCB Article Containers stored for disposal at Bldg. 448 of the HWMF do not meet the requirements of 40 CFR 761.65(b) or the SCSC, Article 12, Section 760-1215, and 13 out of 20 PCB Containers were found not to be stored in contained areas pursuant to 40 CFR 761.65(b).

RESPONSE/STATUS:

With reference to 40 CFR 761.65(b)(c) from conversations with "RCRA Hotline" personnel, PCBs of this nature (13 out of 20 drums) have 30 days before they must be placed in storage. BNL was inside that time limit. The HWMF replaced the rusted trays with new polypropylene trays that fulfill the requirements of 40 CFR 761.65. The 20 drums of PCB articles have been disposed of.

ACTION:

The procedure for handling PCBs at the HWMF will be updated in accordance with the requirements of 40CFR 761.65.

MILESTONES:

20 drums of PCBs disposed of.
Provide new trays.
Revise the PCB-handling SOP.

04/30/90
05/31/90
10/31/90

COSTS:

FY90: \$6K.

ROOT CAUSE:

Inadequate implementation of regulations, inadequate oversight.

REFERENCES:

N/A

ES&H TRACKING REPORT

ENVIRONMENTAL

TRACKING NO: 738
TRACK REF: TS/CF- 3
DUE DATE: 06/30/91
STATUS: Open

ASSIGNED TO: SEP
PRIORITY: 3
HAZARD: CF
CODE: 40 CFR 761

FINDING:

There are several instances at BNL where PCB labeling, as required by 40 CFR 761, is either missing or improperly marked.

RESPONSE/STATUS:

The Supply and Materiel Division has obtained EPA-approved PCB labels as a stock item. An initial draft of the OS&H Guide has been prepared for review by SEP.

ACTION:

A guide detailing the proper handling, storage, use, transport, and disposal of items containing PCBs is being prepared by a private engineering firm. This guide will be included in the BNL Occupational Health and Safety Manual following an indepth review by the Laboratory Safety Committee. In addition, EPA-approved PCB labels will be made a stock item to ensure their availability.

MILESTONES:

Obtain labels as stock item.	08/30/90
Complete draft guide.	11/30/90
Laboratory Safety Committee review/approval of guide.	03/31/91
Implement.	06/30/91

COSTS:

TEC: FY90, \$20K.

ROOT CAUSE:

Inadequate implementation of regulations.

REFERENCES:

N/A

ENVIRONMENTAL

TRACKING NO: 727
TRACK REF: TS/CF- 4
DUE DATE: 09/30/94
STATUS: Open

ASSIGNED TO: SEP/PE
PRIORITY: 2
HAZARD: CF
CODE: SCDHS Article 12

FINDING:

BNL does not store and handle all toxic and hazardous materials commensurate with SCSC, Article 12.

RESPONSE/STATUS:

As stated in the TTA, BNL has developed a planned facilities upgrade schedule that will continue through CY91. The plan addresses tasks for completing inventories, facility registrations, and the upgrading of USTs, ASTs, transfer facilities, bulk-storage areas, and drum-storage facilities. BNL is entering the third phase of a three-year program to upgrade/remove underground and aboveground tanks in compliance with Suffolk County codes. FY90 funds have been provided by DOE (CH-2004). As stated by a SCDHS representative, BNL has been working with the SCDHS to inventory, register, and upgrade its facilities. SEAPPM sections are being reviewed; schedules for other sections have been developed.

ACTION:

BNL will expand the Safety and Environmental Administrative Policy and Procedures Manual (SEAPPM) to include the requirements to develop Department- and Division-specific operating procedures in the use, handling, and storage of toxic and hazardous material. The SEAPPM Program will ensure the quality required by NQA-1 for controlling the specific documents involved and the qualification of the operating procedures and the personnel.

MILESTONES:

Draft generic SEAPPM.	10/31/90
Issue SEAPPM to departments/divisions.	12/31/90
Complete dev./implem. of facility specific procedures.	05/31/91
Complete tank upgrades by FY93.	09/30/94

COSTS:

TEC: \$1100K, Tanks (FY90: \$300K, Tanks).

ROOT CAUSE:

Inadequate implementation of regulations.

REFERENCES: N/A

ES&H TRACKING REPORT

ENVIRONMENTAL

TRACKING NO: 749 ASSIGNED TO: BNL/DOE-HQ
TRACK REF: WM/BMPF- 1 PRIORITY: 3
DUE DATE: 10/31/90 HAZARD: BMP
STATUS: Open CODE: 40 CFR 268.50

FINDING:

BNL is currently accumulating and storing LDR mixed waste for purposes other than accumulating such quantities as necessary to facilitate proper recovery, treatment, or disposal, which will not be in accordance with 40 CFR 268.50 once mixed waste authorization in New York becomes effective.

RESPONSE/STATUS:

SEP, specifically HWM, is soliciting technical and pricing information from the sole treatment facility in the United States that has potential for the legal disposition of this material. SEP is currently developing a waste minimization plan that also will address mixed waste. After discussion with NSSI, it is clear that this is not an option for disposal of these wastes.

ACTION:

BNL will continue to store LDR mixed wastes. DOE-BHO will request HQ formal guidance to provide to the Laboratory on storage, disposal, and FFCA strategy (in the event this option is pursued). Discussions will proceed with New York State Department of Environmental Conservation to resolve site-specific LDR issues at BNL.

MILESTONES:

SEP begins implementation of waste minimization plan. 10/31/90
DOE provides interim guidance on storage/disposal. 10/31/90
Initiate site-specific discussions with NYSDEC. 10/31/90

COSTS:

Part of HWM Operations.

ROOT CAUSE:

Inadequate implementation of changing regulations.

REFERENCES:

N/A

ES&H TRACKING REPORT

ENVIRONMENTAL

TRACKING NO: 740
TRACK REF: WM/BMPF- 2
DUE DATE: 12/31/90
STATUS: Open

ASSIGNED TO: SEP
PRIORITY: 4
HAZARD: BMP
CODE: N/A

FINDING:

Approved procedures and trained, experienced personnel are not available for use of the HWMF Detonation Area in accordance with current industry standards.

RESPONSE/STATUS:

N/A

ACTION:

Standard Operating Procedures will be rewritten to address emergency operations at the detonation area. The Hazardous Waste Management and Environmental Restoration Section Head will determine "key" personnel for training in hazardous and explosive waste detonation.

MILESTONES:

Initiate training in hazardous and explosive waste detonation.	10/31/90
Rewrite/finalize SOP.	12/31/90

COSTS:

TEC: FY91, \$5K.

ROOT CAUSE:

Inadequate implementation of guidelines.

REFERENCES:

N/A

ENVIRONMENTAL

TRACKING NO: 726
TRACK REF: WM/BMPF- 3
DUE DATE: 11/30/90
STATUS: Open

ASSIGNED TO: PE
PRIORITY: 4
HAZARD: BMP
CODE: N/A

FINDING:

The inactive solvent degreaser in the Bldg. 452 electronics shop has not been emptied in accordance with current industry standards.

RESPONSE/STATUS:

BNL is actively investigating various solvents that meet environmental standards, are safe to use, and are appropriate for cleaning electronic and electrical equipment. The existing degreaser has been emptied, cleaned, and mothballed.

ACTION:

The container will be emptied and cleaned. The hazardous solvent degreaser will be treated. Procedures will be developed for maintenance of out of service degreasers.

MILESTONES:

Empty/clean degreaser and mothball.	06/30/90
Identify other degreasers.	10/31/90
Develop procedures for maintenance of out of service degreasers.	11/30/90

COSTS:

N/A

ROOT CAUSE:

Inadequate implementation of guidelines.

REFERENCES:

N/A.

ES&H TRACKING REPORT

ENVIRONMENTAL

TRACKING NO: 745
TRACK REF: WM/CF- 1
DUE DATE: 09/30/90
STATUS: Open

ASSIGNED TO: SEP
PRIORITY: 2
HAZARD: CF
CODE: 40 CFR 148, 40 CFR 262, 40 CFR
265, 6 NYCRR 372 and 373

FINDING:

Groundwater pumped from the BNL Aquifer Restoration Project is discharged to a seepage basin and is not being managed in accordance with RCRA underground injection requirements in 40 CFR 148 or RCRA waste accumulation and facility requirements in 40 CFR 262 and 265 and 6 NYCRR 372 and 373.

RESPONSE/STATUS:

The winter mode operation (i.e., pumping the groundwater and discharge without treatment) of the aquifer restoration project was shut down in March 1990. BNL has retained Geraghty and Miller to determine whether the pumping system installed (i.e., either summer mode [pump and treat] or winter mode) provides hydraulic containment of the contaminated groundwater plume.

ACTION:

The Aquifer Restoration is an Area of Concern within the soon to be signed IAG. Since this agreement integrates both RCRA corrective actions and CERCLA requirements, there will be a mechanism to insure that RCRA corrective actions and NYS Part 373 requirements are applicable to activities at the BNL site. Furthermore, any RCRA/CERCLA activities conducted under the IAG will require EPA and NYSDEC approval. EPA and NYSDEC will be asked to review BNLs determination. The aquifer restoration project is also an "area of concern" and will be further addressed under the IAG.

MILESTONES:

Retain consultants: Geraghty & Miller.	05/15/90
BNL review of aquifer restoration project.	06/30/90
Submit for review by EPA/NYSDEC.	09/30/90

COSTS:

To be determined. Modification would be included as part of ADS CH-2082.

ROOT CAUSE:

Lack of implementation of regulations.

REFERENCES: N/A

ES&H TRACKING REPORT

ENVIRONMENTAL

TRACKING NO: 725
TRACK REF: WM/CF- 2
DUE DATE: 04/30/93
STATUS: Open

ASSIGNED TO: PE
PRIORITY: 1
HAZARD: CF
CODE: 6 NYCRR 373-3.3

FINDING:

The facilities at the HWMF used to manage flammable hazardous and mixed wastes, including Bldgs. 444, 448, and 483, are not equipped with fire suppression systems as required by 6 NYCRR 373-3.3.

RESPONSE/STATUS:

The Laboratory has been aware of the lack of fire protection at the HWMF and has obtained funding in FY90 for a line-item project to upgrade the HWMF, including its fire suppression capabilities. BNL will conduct a detailed fire protection review to ensure that HWMF buildings meet all RCRA, NY State, NFPA fire protection requirements and Factory Mutual guidance, as well as investigate the need for interim fire protection requirements in the existing facilities during the proposed upgrade and modification. In addition, BNL will review the facility with New York State to determine if we are in non-compliance with state regulations and requirements and/or modifications to existing facilities to permit continued storage until fire suppression systems are installed.

ACTION:

Review existing facility to determine interim modifications that are required to continue storage in accordance with NY State regulations. Review proposed fire protection design with appropriate agencies. Design and construct HWMF upgrade.

MILESTONES:

Receipt of authorization to proceed with engineering.	12/31/89
Review existing facility with NY State.	10/31/90
Temporary fire protection (if required).	12/31/90
Design of HWMF upgrade complete.	08/31/91
HWMF upgrade util. (incl. Fire Protection) complete.	02/28/93
Construction complete.	04/30/93

COSTS:

FY90: \$158K; FY91: \$2242K. Other upgrades of facilities are planned and included in ADS CH-2008 and CH-2009.

ROOT CAUSE:

Inadequate implementation standards.

REFERENCES: N/A

ES&H TRACKING REPORT

ENVIRONMENTAL

TRACKING NO: 746
 TRACK REF: WM/CF- 3
 DUE DATE: 12/31/90
 STATUS: Open

ASSIGNED TO: SEP
 PRIORITY: 2
 HAZARD: CF
 CODE: 40 CFR 262.34; 40 CFR 268.50; 6
 NYCRR 372.2; DOE 5400.3

FINDING:

The interim RCRA Storage Facility (HWMF) contains hazardous wastes, potentially hazardous wastes, and mixed wastes that are stored in inadequately marked, undated, open, and corroded containers. Some wastes at the facility have not been adequately characterized in accordance with the requirements of 6 NYCRR 373-3.9, 6 NYCRR 372.2, 40 CFR 262.34, 40 CFR 268.50, and DOE 5400.3.

RESPONSE/STATUS:

The HWMF will no longer accept multiple chemical pick-up requests. Each chemical must be represented by its own Hazardous Material Control Form (BNL F2568). Additional data management options will continue to be examined for the purpose of improvement and regulatory oversight. In an effort to keep the HWMF in full compliance with RCRA and state regulations, HWM staff will broaden the weekly safety inspections program. It is estimated that it will require one man-day per week to complete this inspection. All containers that were in storage were inspected to ensure that each had the proper label and date.

ACTION:

The open containers have been properly sealed or placed into a salvage drum (overpack). The 30-gallon drum has been placed into a 55-gallon overpack drum. A contract is currently being solicited to characterize and dispose of the corroded cylinders. The 100 drums of soil/macadam are under investigation to determine hazardous constituent and radionuclide content.

MILESTONES:

Close open containers/overpack corroded ones.	04/30/90
Label and date unmarked waste.	06/30/90
SEP will inform Lab-wide personnel about new label reqs	08/31/90
New safety inspection requirement and procedure.	08/31/90
Waste determination and disposal of cylinders.	12/31/90
Waste determination of soil/macadam.	12/31/90

COSTS:

Part of HWM Operations.

ROOT CAUSE:

Inadequate implementation of standards and inadequate oversight.

REFERENCES:

N/A



ES&H TRACKING REPORT

ENVIRONMENTAL

TRACKING NO: 700
TRACK REF: WM/CF- 4
DUE DATE: 09/30/91
STATUS: Open

ASSIGNED TO: SEP
PRIORITY: 3
HAZARD: CF
CODE: 6 NYCRR 360-2

FINDING:

Two of the seven monitoring wells listed on the active solid waste landfill operating permit issued under 6 NYCRR 360-2 have been inadvertently abandoned such that they can no longer be used for required quarterly monitoring.

RESPONSE/STATUS:

NYSDEC Region I was informed that two wells, which were part of the landfill operating permit, were inadvertently abandoned. NYSDEC stated that the loss of two wells does not affect their compliance requirements as the subject area is now an AOC and subject to requirements of the IAG. BNL has written a letter summarizing the discussion pertaining to these two wells and has suggested that the DOE wells located in close proximity to these wells be used for the required quarterly monitoring. In addition, NYSDEC and BNL agree that the RI/FS program and the closure of the landfill in December 1990, will impose new requirements that BNL cannot anticipate, and therefore, plan. (See GW/CF-1 and 3.)

ACTION:

Install new wells if required.

MILESTONES:

Notify NYSDEC. Propose alternate monitoring wells.
Installation of new wells, if required, FY91, in
accordance with NYSDEC oversight.

05/31/90
09/30/91

COSTS:

Included in GW/CF-1.

ROOT CAUSE:

Inadequate implementation of standards.

REFERENCES:

N/A

ENVIRONMENTAL

TRACKING NO: 755
TRACK REF: WM/CF- 5
DUE DATE: 06/30/90
STATUS: Completed

ASSIGNED TO: PE
PRIORITY: 3
HAZARD: CF
CODE: 6 NYCRR 360-2

FINDING:

At the active solid waste landfill, BNL does not perform inspections, has no written procedures to conduct inspections, and has not submitted an annual operations report in accordance with 6 NYCRR 360-2 and current industry practices.

RESPONSE/STATUS:

Procedures were developed and implemented for the conduct and documentation of inspections of facilities and equipment and a weekly inspection of incoming waste. A system of recordkeeping was established to ensure data collection is compatible with NYSDEC Annual Report requirements.

ACTION:

Prepare and implement inspection procedures and record documentation system.

MILESTONES:

1989 Annual Report submitted and
inspection procedures implemented.
Record keeping system implemented.

06/30/90
06/30/90

COSTS:

FY90: \$2K.

ROOT CAUSE:

Inadequate implementation of standards.

REFERENCES:

N/A

ES&H TRACKING REPORT

ENVIRONMENTAL

TRACKING NO: 765
TRACK REF: WM/CF- 6
DUE DATE: 01/31/91
STATUS: Open

ASSIGNED TO: DEPT/DO
PRIORITY: 3
HAZARD: CF
CODE: 6 NYCRR 372.2; 40 CFR 262; 40
CFR 265

FINDING:

Approximately 25 percent of the hazardous waste 90-day and satellite accumulation areas that were inspected do not meet all applicable requirements in 6 NYCRR 372.2, 40 CFR 262 and 265, and BMPs for marking, dating, segregation, inspections, closed containers, aisle space, and limited access.

RESPONSE/STATUS:

Requirements for hazardous waste and positive accumulation areas were reissued. These areas will continue to be the subject of the Laboratory's Tier II Audits.

ACTION:

A SEAPPM will be developed specifically addressing waste accumulation areas. Each department/division has been instructed to write and implement a procedure for each of their 90-day accumulation area. The procedure must address the requirements for that type of area and be specific to just one accumulation area.

MILESTONES:

Reissue requirements for accumulation areas.	06/30/90
Procedure for each accumulation in place.	09/30/90
Develop specific SEAPPM to address accumulation areas.	10/31/90
Complete implementation.	01/31/91

COSTS:

N/A

ROOT CAUSE:

Inadequate implementation of standards.

REFERENCES:

N/A

ES&H TRACKING REPORT

ENVIRONMENTAL

TRACKING NO: 751	ASSIGNED TO: SEP
TRACK REF: WM/CF- 8	PRIORITY: 3
DUE DATE: 06/30/90	HAZARD: CF
STATUS: Completed	CODE: 6 NYCRR 373-3.3; 6 NYCRR 373-3.4

FINDING:

The BNL RCRA contingency plan was not been distributed to off-site local authorities that may be called on to respond in the event of a hazardous waste emergency at the HWMF, and the standing agreements with these off-site authorities have not been amended to address hazardous waste emergency concerns in accordance with 6 NYCRR 373-3.3 and 373-3.4.

RESPONSE/STATUS:

Previously, BNL has assumed that only on-site distribution of this type of contingency plan was required in that the Laboratory is, in essence, its own local authority. The RCRA contingency plan was distributed to the Suffolk County Police Department and Suffolk County Department of Fire, Rescue and Emergency Services, as well as to University Hospital in Stony Brook, NY. Standing agreements with these organizations will be amended in the future, as appropriate.

ACTION:

Provide copies of the contingency plan, through BHO, to Suffolk County Police Department, Suffolk County Department of Fire, Rescue and Emergency Services, and University Hospital.

MILESTONES:

Distribution of contingency plan to proper authorities. 06/30/90

COSTS:

N/A

ROOT CAUSE:

Inadequate implementation of guidelines.

REFERENCES:

Letter, Kinne to Bellows, 06/29/90, "Distribution of HWMF Contingency Plan".

DATE: 08/29/90

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ES&H TRACKING REPORT

ENVIRONMENTAL

TRACKING NO: 748
TRACK REF: WM/CF- 9
DUE DATE: 05/31/90
STATUS: Completed

ASSIGNED TO: SEP/MD
PRIORITY: 3
HAZARD: CF
CODE: 40 CFR 259, Sub. G

FINDING:

BNL has not maintained adequate records on the medical waste incinerator operated by the Medical Research Department, and BHO has not submitted their report on medical waste incinerator operation to EPA in accordance with 40 CFR 259, Subpart G.

RESPONSE/STATUS:

On April 6, 1990, the "Medical Waste Incinerator Report" was submitted to the EPA and NYSDEC. As a result of more stringent regulations with regard to infectious waste incineration, the medical waste incinerator at the Medical Department has been shut down. All medical waste is being disposed of at the HWMF.

ACTION:

Submit report.

MILESTONES:

Assure appropriate records are kept/reports filed.
Medical Department incinerator shut down.

04/30/90
05/31/90

COSTS:

N/A

ROOT CAUSE:

Inadequate implementation of administrative standards.

REFERENCES:

N/A

DATE: 08/29/90

ES&H TRACKING REPORT

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ENVIRONMENTAL

TRACKING NO: 756
TRACK REF: WM/CF-10
DUE DATE: 12/18/90
STATUS: Open

ASSIGNED TO: DOE
PRIORITY: 2
HAZARD: CF
CODE: 6 NYCRR 360-2

FINDING:

The BNL active solid waste landfill is currently operating under an expired permit and has not been able to receive a permit renewal in accordance with 6 NYCRR 360-2 or a consent order for continued operation from the NYSDEC.

RESPONSE/STATUS:

Dialogue with NYSDEC is continuing to settle the consent order. Plans are being formulated to shut down operations at the landfill by December 18, 1990.

ACTION:

Acquire permit/plan to close operations at the landfill.

MILESTONES:

Close landfill. 12/18/90

COSTS:

Costs for off-site disposal are being developed.

ROOT CAUSE:

N/A

REFERENCES:

N/A

7.0

SAFETY AND HEALTH RESPONSES AND PLANNED ACTIONS

ES&H TRACKING REPORT

TSA

TRACKING NO: 427	ASSIGNED TO: SEP/PE
TRACK REF: AX. 5- 1	PRIORITY: 4
DUE DATE: 09/30/92	HAZARD: H2/C2
STATUS: Open	CODE: N/A

FINDING:

High-efficiency particulate air filters without pressure drop instrumentation cannot be monitored for clogging or penetration on a continuous basis.

RESPONSE/STATUS:

Filters installed in areas of continuous use (such as reactor buildings) will be prioritized and completed first. Intermittent or seldom used systems will be evaluated and upgraded as required.

ACTION:

All hoods with HEPA Filters will have pressure drop monitoring instrumentation installed and readable at the hood face.

MILESTONES:

Identify all HEPA filtered hoods on site.	06/30/90
Identify monitoring system.	08/31/90
Identify funding mechanism.	09/30/90
Schedule upgrades.	10/31/90
Complete upgrades.	09/30/92

COSTS:

FY91: \$40K.

ROOT CAUSE:

Inadequate implementation of guidelines.

REFERENCES:

N/A

TSA

TRACKING NO: 434
TRACK REF: CS. 1- 1
DUE DATE: 04/30/90
STATUS: Completed

ASSIGNED TO: DO
PRIORITY: 4
HAZARD: H2/C1
CODE: N/A

FINDING:

The criticality safety program is not independent of operations in compliance with ANS 8.1-1983 as required by DOE Orders. (Also see Concern OA.2-3.)

RESPONSE/STATUS:

The Laboratory disagrees with this finding. There are several elements of independence in the conduct of criticality safety review. The Criticality Safety Office is from a different department, independent of the Reactor Division and the Directorate. Seven of eight RSC members are independent of the Director's Office. The RSC activities are reviewed by the Director's Office as part of the Triennial Review. The criticality review is considered sufficiently independent of reactor operations. (See also MGMT/CF-4).

ACTION:

No action.

MILESTONES:

None.

04/30/90

COSTS:

See MGMT/CF-4.

ROOT CAUSE:

N/A

REFERENCES:

N/A

TSA

TRACKING NO: 435	ASSIGNED TO: RD
TRACK REF: CS. 5- 1	PRIORITY: 3
DUE DATE: 01/31/91	HAZARD: H2/C1
STATUS: Open	CODE: DOE 5480.5

FINDING:

A criticality alarm system, nuclear accident dosimeters, and emergency procedures and drills have not been implemented to cover the fissile fuel storage areas at the High Flux Beam Reactor in compliance with DOE 5480.5.

RESPONSE/STATUS:

System equipment is out for bid.

ACTION:

A criticality accident alarm system will be installed on the equipment level and north area of the operations level. Nuclear accident dosimeters will be installed and exercises and drills conducted once the monitoring equipment is in place.

MILESTONES:

Prepare/approve system specifications.	06/30/90
Issue modification package.	07/31/90
DOE/BNL approval.	09/30/90
Install, test, and train.	01/31/91

COSTS:

FY91: \$170K.

ROOT CAUSE:

Inadequate implementation of DOE standards.

REFERENCES:

N/A

DATE: 08/29/90

ES&H TRACKING REPORT

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TSA

TRACKING NO: 436
TRACK REF: EA. 2- 1
DUE DATE: 08/31/90
STATUS: Open

ASSIGNED TO: DO
PRIORITY: 4
HAZARD: H3/C2
CODE: N/A

FINDING:

The charters for the department and division experiment safety review committees did not fully define the body, scope, and authority of the committee.

RESPONSE/STATUS:

A draft SEAPPM of the requirements for departmental safety review has been prepared and is currently being reviewed.

ACTION:

The Laboratory will develop a SEAPPM which outlines requirements for department/division safety review committees.

MILESTONES:

Develop specific SPPM section.

08/31/90

COSTS:

See MGMT/BMPF-1.

ROOT CAUSE:

Informality of operations.

REFERENCES:

N/A

TSA

TRACKING NO: 437	ASSIGNED TO: SEP
TRACK REF: EA. 4- 1	PRIORITY: 3
DUE DATE: 12/31/92	HAZARD: H2/C1
STATUS: Open	CODE: 5481.1B

FINDING:

The boundaries of safe operation were not developed for each experiment or class of experiments at the various departments and divisions at the Brookhaven National Laboratory, as required by DOE 5481.1B. (Also see Concern TS.2-3.)

RESPONSE/STATUS:

Safety Manual Guide 1.3.4 "Operational Safety Limits" has been drafted. This guide will provide guidelines for establishing boundaries or limits for each experiment or class of experiments.

ACTION:

Operating boundaries will be documented in the SARs if an SAR is required. If an SAR is not required, the limits will be documented in the operating procedures. Requirements for envelope or boundaries of operations will be included in the SEAPPM.

MILESTONES:

Draft Safety Manual Guide for review.	06/30/90
Submit to LSC for review.	10/30/90
Submit to Associate Director for approval.	11/30/90
Distribute guide.	12/31/90
Schedule review/upgrade.	01/31/91
Complete review/upgrade.	12/31/92

COSTS:

See TS.2-3.

ROOT CAUSE:

Inadequate implementation of DOE guidelines.

REFERENCES:

TS.2-3, TS.3-2.

TSA

TRACKING NO: 469
TRACK REF: EP. 1- 1
DUE DATE: 09/30/91
STATUS: Open

ASSIGNED TO: SEP
PRIORITY: 3
HAZARD: H2/C2
CODE: DOE 5500.3A

FINDING:

The magnitude and consequences of emergencies involving nonradioactive hazardous materials have not been identified, nor have BNL emergency plans or emergency organization structures been well defined to respond to this type of emergency. (See also Concerns PT.5-4, PT.6-2, and FP.3-1.)

RESPONSE/STATUS:

A Task Group has been established to review facilities and identify those which utilize amounts of nonradioactive materials in sufficient quantities to appear to warrant their inclusion in emergency plans.

ACTION:

On completion of the Task Force review, local emergency plans and the Site Emergency Plan will be revised to provide planning, preparedness, and relevant training, as needed.

MILESTONES:

Identify areas with significant quantities.	04/30/90
Review facilities and assess hazards.	03/31/91
Define BNL Emergency Response needs.	06/30/91
Complete review.	07/31/91
Revise local and site emergency plans.	09/30/91

COSTS:

Base Program.

ROOT CAUSE:

Inadequate resources; inadequate implementation of DOE guidelines.

REFERENCES:

N/A

TSA

TRACKING NO: 470
TRACK REF: EP. 2- 1
DUE DATE: 06/30/90
STATUS: Completed

ASSIGNED TO: SEP
PRIORITY: 3
HAZARD: H2/C1
CODE: BNL Emergency Response Plan

FINDING:

Not all local emergency plans are being kept current in accordance with the requirements of the BNL Laboratory Emergency Response Plan.

RESPONSE/STATUS:

The local Emergency Response Plans in general are current. The area of concern related to four plans, specifically AGS, HFBR, BMRR, and the Waste Management Area. The HFBR, AGS, BMRR and HWMA plans have been approved and issued. Included in all plans is the commitment to review/update emergency plans annually.

ACTION:

Update plans.

MILESTONES:

Update AGS, HFBR, BMRR.	12/31/89
Approve and Issue HWMA.	06/30/90
Issue final plans.	06/30/90

COSTS:

Base Program.

ROOT CAUSE:

Insufficient oversight.

REFERENCES:

N/A

TSA

TRACKING NO: 471
TRACK REF: EP. 3- 1
DUE DATE: 12/31/91
STATUS: Open

ASSIGNED TO: SEP
PRIORITY: 4
HAZARD: H2/C1
CODE: N/A

FINDING:

Neither initial nor continuing training programs for most emergency response personnel have established formal qualification/requalification requirements. (See also Concern TC.1-1.)

RESPONSE/STATUS:

Training has been initiated.

ACTION:

Those individuals requiring training will be identified. Training will be provided and drills conducted. The TRADE document "Guidelines Toward an Integrated Emergency Training System" is being used as an aid in establishing a comprehensive, emergency training system with respect to development of training needs and responsibilities. TRADE has recently formed an EP Training Manual Task Force, in which BNL is participating, for developing guidelines towards establishing formal qualification/regulation requirements. BNL will integrate those guidelines as developed. This training will be reviewed by the Training Task Force (see MGMT/BMPF-7).

MILESTONES:

Begin training.	06/30/90
Identify other population, requirements, and procedures for training.	09/30/90
Conduct/evaluate drills (start).	07/31/90
Develop schedule/plan for retraining.	12/31/90
Establish qualification/regulations requirements.	12/31/91

COSTS:

FY91: \$10K/year.

ROOT CAUSE:

Informality of operations.

REFERENCES:

N/A

ES&H TRACKING REPORT

TSA

TRACKING NO: 472
TRACK REF: EP. 5- 1
DUE DATE: 10/31/99
STATUS: Open

ASSIGNED TO: SEP/PE
PRIORITY: 3
HAZARD: H2/C2
CODE: DOE 5500.3A

FINDING:

The BNL Emergency Operations Facility is not equipped to facilitate the control of all postulated emergencies.

RESPONSE/STATUS:

As a backup to the EOF at Bldg. 50, the SEP Division has evaluated six potential alternate EOF locations and identified one which will be suitable for and during those emergencies when Bldg. 50 is not suitable. Equipment was purchased in FY89. The balance will be ordered by FY90.

ACTION:

Current areas on site are not appropriate for an alternate EOF. Line item funds will be requested in FY2000 for a new hardened facility.

MILESTONES:

Reviewed alternate locations.	05/31/90
Recommendation to the Assoc. Director.	08/15/90
Initiate project.	10/31/99

COSTS:

FY90: \$10K, FY2000: TBD.

ROOT CAUSE:

Inadequate implementation of DOE guidelines.

REFERENCES:

N/A

ES&H TRACKING REPORT

TSA

TRACKING NO: 428
TRACK REF: EP. 5- 2
DUE DATE: 06/30/91
STATUS: Open

ASSIGNED TO: SEP
PRIORITY: 3
HAZARD: H2/C1
CODE: ANSI-N320-1979

FINDING:

The radiation monitoring equipment designated for use during an emergency response does not meet all of the requirements of ANSI N320-1979.

RESPONSE/STATUS:

The instrumentation program is being upgraded to comply with ANSI N323 (ref. RP.8-1). Upon completion of the upgrade, the program will be capable of satisfying the test criteria outlines in ANSI N320.

ACTION:

An interim program will be established to gather test data on BNL instrument types from other facilities. A general review of portable instrumentation will be undertaken to replace any instrument types not conforming to ANSI N320 specifications.

MILESTONES:

Interim program for instrument test data.	11/30/90
Portable instrumentation upgrade.	04/30/91
Calibration facility & equipment upgrade (see RP.8-1).	06/30/91

COSTS:

FY91: \$75K for portable instrumentation; \$275K for facility upgrades.

ROOT CAUSE:

Insufficient oversight.

REFERENCES:

N/A

ES&H TRACKING REPORT

TSA

TRACKING NO: 473
TRACK REF: EP. 6- 1
DUE DATE: 12/31/90
STATUS: Open

ASSIGNED TO: SEP
PRIORITY: 3
HAZARD: H2/C1
CODE: DOE 5500.3B

FINDING:

Emergency assessment and notification practices and procedures are not based on current DOE emergency event classifications or protective action guides.

RESPONSE/STATUS:

Following a review of the September 1, 1989, draft revisions of sections of the BNL Laboratory Emergency Plan, these will be included into the plan. This draft revision incorporates EALs and PAGs which are consistent with DOE Orders.

ACTION:

The determination for specific BNL facilities and operations of the radioactive and other hazardous materials that could potentially require implementation of these EALs and PAGs will be made within the Action Plan of EP.1-1, "Organization and Administration."

MILESTONES:

Issue Draft BNL Site Emergency Plan.	03/31/90
Issue Revised Site Emergency Plan.	09/15/90
Issue Final BNL Site Emergency Plan.	12/31/90

COSTS:

N/A

ROOT CAUSE:

Lack of implementation of DOE guidelines.

REFERENCES:

N/A

ES&H TRACKING REPORT

TSA

TRACKING NO: 474
TRACK REF: FP. 1- 1
DUE DATE: 09/30/90
STATUS: Open

ASSIGNED TO: SEP/DOE
PRIORITY: 3
HAZARD: H1/C2
CODE: DOE 5480.7

FINDING:

Not all of the fire protection functions required by DOE 5480.7 and BNL Safety Department operations procedures and safety directives are being performed. (See also Concern OA.2-1.)

RESPONSE/STATUS:

An additional fire engineer was hired in April 1990.

ACTION:

BNL will hire an additional fire protection engineer, which will enable program elements not now being adequately addressed to be incorporated into the program. The CH fire protection appraisal (FP.1-3) will confirm whether all fire protection functions are being performed.

MILESTONES:

Hire engineer.	04/30/90
CH fire protection appraisal.	09/30/90

COSTS:

Included in MGMT/BMPF-5.

ROOT CAUSE:

Inadequate resources.

REFERENCES:

N/A

TSA

TRACKING NO: 475
TRACK REF: FP. 1- 2
DUE DATE: 10/31/99
STATUS: Open

ASSIGNED TO: DO/SEP
PRIORITY: 3
HAZARD: H1/C2
CODE: N/A

FINDING:

Fire protection deficiencies are not being corrected in a timely manner.
(See Performance Objectives FP.2, FP.3, and FP.7.)

RESPONSE/STATUS:

To date, \$7.3M has been allocated by DOE for fire protection Line Items I, II, and III.

ACTION:

Based on the most recent guidance on the level of MEL/FS funding to be expected each year (approximately \$8000K-\$9000K/year) and prioritizing the line-item requests, a Fire Protection IV (\$2500K) line item would be requested for FY96 and a Fire Protection Phase V in FY2000. Two Life Safety Code Line Items are currently planned for FY94 (\$3000K) and FY97 (\$3000K).

MILESTONES:

Life Safety I, project start.	10/31/93
Fire Protection IV, project start.	10/31/95
Life Safety II, Schedule 44.	10/31/96
Fire Protection V, Schedule 44.	10/31/99

COSTS:

FY94: \$500K. FY95: \$2500K. FY96: \$400K. FY97: \$3600K. FY98: \$1500K. FY2000: TBD.

ROOT CAUSE:

Inadequate resources.

REFERENCES:

N/A

TSA

TRACKING NO: 449
TRACK REF: FP. 1- 3
DUE DATE: 09/30/90
STATUS: Open

ASSIGNED TO: DOE
PRIORITY: 2
HAZARD: H2/C1
CODE: Compliance

FINDING:

The Chicago Operations Office has not conducted Fire Protection Appraisals of Brookhaven National Laboratory facilities at the frequency required by DOE 5480.7.

RESPONSE/STATUS:

DOE 5480.7 does not specify the frequency of fire protection appraisals. The CH schedule indicates that fire protection appraisals will be conducted on an annual basis at BNL, as well as other M&O contractor operations under CH purview. The appraisal at BNL in 1989 was suspended due to the conduct of the TSA in September 1989. The 1990 appraisal was scheduled for January 1990 and was postponed due to the conduct of the Tiger Team Assessment. The 1990 fire protection appraisal has been rescheduled for late FY90. CH has established an appraisal plan which calls for an annual fire protection appraisal of BNL. It is CH policy to conduct these appraisals annually when staffing and resources are available. CH, however, will not conduct an appraisal at one of its facilities when an equivalent or superior review has been conducted by qualified personnel during the scheduled time period. CH has planned to conduct an appraisal during this fiscal year as has previously been stated.

ACTION:

CH will conduct an appraisal during this fiscal year as stated above.

MILESTONES:

Complete fire protection appraisal.

09/30/90

COSTS:

Previously budgeted.

ROOT CAUSE:

Inadequate resources.

REFERENCES:

See MGMT/CF-8 and MGMT/BMPF-12.

TSA

TRACKING NO: 450
TRACK REF: FP. 1- 4
DUE DATE: 08/31/92
STATUS: Open

ASSIGNED TO: SEP/C&P
PRIORITY: 4
HAZARD: H2/C2
CODE: N/A

FINDING:

All requirements for testing frequency and documentation for fire protection equipment are not clearly identified in Brookhaven National Laboratory fire protection procedures.

RESPONSE/STATUS:

The frequency of inspections is currently assigned through coding in the Fire Program Management Information System.

ACTION:

The SEP/FP Standard Operating Procedure (SOP) for water flow tests and the SEP/FR SOP on fire safety inspections will include a statement of frequency level. The overall inspection, testing, and maintenance program will receive a detailed review by a fire protection consultant, and any deficiencies identified will be corrected.

MILESTONES:

Implement SEP/FR & FP SOP changes.	11/30/90
Develop consultant work package.	09/30/91
Authorization to proceed with consultant.	09/30/91
Award FP consultant contract.	12/31/91
Complete consultant contract.	02/20/92
Implement changes to program.	08/31/92

COSTS:

Engineering Consultant: FY91, \$25K. Upgrade Maintenance: Approximately \$50K/y base increment.

ROOT CAUSE:

Insufficient oversight.

REFERENCES:

N/A

ES&H TRACKING REPORT

TSA

TRACKING NO: 476
TRACK REF: FP. 2- 1
DUE DATE: 10/31/93
STATUS: Open

ASSIGNED TO: SEP
PRIORITY: 2
HAZARD: H1/C1
CODE: NFPA 101 DOE 5480.7-9.1(1)

FINDING:

BNL life safety provisions do not meet the minimum requirements of NFPA 101, the Life Safety Code, as required by DOE 5480.7-9.1(1).

RESPONSE/STATUS:

The schedule for line item requests is based on information concerning yearly MEL/FS Program funds expected for the Laboratory.

ACTION:

A site survey to identify work has been initiated. BNL will request funding to implement major Life Safety Code improvements starting in FY94 (see also Concern FP.1-2). Routine maintenance and operating funds will be used to correct deficiencies appropriate to these funding sources.

MILESTONES:

Start site surveys.	05/31/90
Complete initial surveys.	07/31/91
Complete conceptual designs.	10/31/91
Prepare funding request for FY94 work.	12/31/91
Initiate FY94 project.	10/31/93

COSTS:

Included in FP.1-2.

ROOT CAUSE:

Insufficient oversight.

REFERENCES:

N/A

ES&H TRACKING REPORT

TSA

TRACKING NO: 477
TRACK REF: FP. 3- 1
DUE DATE: 03/31/91
STATUS: Open

ASSIGNED TO: SEP
PRIORITY: 3
HAZARD: H2/C1
CODE: DOE 5480.7-9.a(3)

FINDING:

No quantitative analysis has been performed to ensure that an off-site release of hazardous amounts of toxic or radioactive materials will not occur under maximum credible fire conditions as per DOE 5480.7-9.a.(3). (See also Concerns EP.1-1 and PT.5-1.)

RESPONSE/STATUS:

An inventory of hazardous material has been completed.

ACTION:

This program element will be formally incorporated into the BNL fire protection program. Implementation will include an assessment of identified hazardous materials at BNL and their off-site impact should they be involved in a fire.

MILESTONES:

Develop inventory of hazardous materials.
Complete assessments.

06/30/90
03/31/91

COSTS:

N/A

ROOT CAUSE:

Insufficient oversight.

REFERENCES:

N/A

ES&H TRACKING REPORT

TSA

TRACKING NO: 478
TRACK REF: FP. 4- 1
DUE DATE: 12/31/90
STATUS: Open

ASSIGNED TO: SEP
PRIORITY: 3
HAZARD: H3/C1
CODE: DOE 5480.7-9.b

FINDING:

BNL has not performed an analysis to verify that a credible fire loss could not impair an operation in a vital facility for a period greater than 6 months, as required by DOE 5480.7-9.b.

RESPONSE/STATUS:

Items cited in findings FP.4-1 and FP.4-2 have been analyzed with regard to the performance objective and were found to meet the objective. This objective is also formally incorporated into all new Safety Analysis Reports; however, it is recognized that BNL does not have a formal program of routinely reassessing impairment of operation potentials.

ACTION:

The assessment program element will be formally incorporated into the BNL fire protection program. A fire protection engineer has been hired to assist in these assessments.

MILESTONES:

Hire new fire protection engineer.	04/30/90
Develop assessment schedule.	09/30/90
Initiate triennial review of assessments.	12/31/90

COSTS:

N/A

ROOT CAUSE:

Insufficient oversight.

REFERENCES:

N/A

TSA

TRACKING NO: 451
TRACK REF: FP. 4- 2
DUE DATE: 10/31/98
STATUS: Open

ASSIGNED TO: PE
PRIORITY: 4
HAZARD: H2/C2
CODE: FMDS 5-4

FINDING:

The transformer yard arrangement does not meet the criteria of Factory Mutual Data Sheet 5-4, Table III for equipment and building separation.

RESPONSE/STATUS:

Initially, a comprehensive study will be performed to review all substations at BNL for their compliance with the FM guidelines. The study will include a review of all potential solutions, including relocation of transformers, retrofilling of unit with less flammable fluids, addition of waterspray systems, or addition of separation barriers and containment structures. The potential solutions will be considered on a cost/benefit basis and will consider current loss prevention criteria. Costing of potential solutions and scheduling lead times will be included in the report.

ACTION:

Conduct a study in preparation for a conceptual design report for funding to upgrade BNL substations. Based on current information on the MEL/FS funding levels, upgrades would be included in the Transformer/Switchgear II Line-Item scheduled for initial funding in FY99.

MILESTONES:

Conduct a study (for FY99 project).
Initiate trans/switchgear II.

09/30/94
10/31/98

COSTS:

FY99 TEC: \$4000K.

ROOT CAUSE:

Insufficient oversight.

REFERENCES:

FMDS 5-4

ES&H TRACKING REPORT

TSA

TRACKING NO: 479
TRACK REF: FP. 5- 1
DUE DATE: 12/31/90
STATUS: Open

ASSIGNED TO: SEP
PRIORITY: 3
HAZARD: H3/C1
CODE: DOE 5480.7, 9.c, 9.d, 10.b(8),
and 10.b(11).

FINDING:

BNL has not determined that a maximum credible fire may result in an unacceptable property loss as required by DOE 5480.7, Sections 9.c, 9.d, 10.b.(8), and 10.b.(11).

RESPONSE/STATUS:

Items cited in Findings FP.4-1 and FP.4-2 had been analyzed with regard to the performance objective and were found to meet the objective. This objective is also formally incorporated into all new Safety Analysis Reports.

ACTION:

It is recognized that BNL does not have a formal program of routinely reassessing the potential for impairment of operation. This program element will be formally incorporated into the BNL fire protection program. A fire protection engineer has been hired to assist in these assessments.

MILESTONES:

See FP.4-1. 12/31/90

COSTS:

N/A

ROOT CAUSE:

Insufficient oversight.

REFERENCES:

N/A

ES&H TRACKING REPORT

TSA

TRACKING NO: 452
TRACK REF: FP. 5- 2
DUE DATE: 08/31/90
STATUS: Completed

ASSIGNED TO: PE/SEP
PRIORITY: 4
HAZARD: H2/C2
CODE: DOE 5480.7

FINDING:

A fire involving either the Chemistry or Physics complex cooling towers may result in direct damage to the buildings in excess of the "improved risk" criteria of DOE 5480.7.

RESPONSE/STATUS:

A risk assessment has been submitted to DOE for review. It is the Laboratory's conclusion that there is no risk which would warrant removal of the towers. However, a decision has been made to remove the tower at the Physics building, as a best management practice.

ACTION:

BNL will perform a risk assessment analysis of the two cooling towers and develop an interim action plan.

MILESTONES:

Risk assessment.
Provide assessment to DOE.

07/31/90
08/31/90

COSTS:

Demolish Physics Tower: FY91, \$100K.

ROOT CAUSE:

N/A

REFERENCES:

N/A

TSA

TRACKING NO: 453	ASSIGNED TO: PE/NSLS
TRACK REF: FP. 5- 3	PRIORITY: 3
DUE DATE: 07/31/91	HAZARD: H2/C2
STATUS: Open	CODE: FMDS 2-8

FINDING:

Combustible areas obstructed from sprinklers at the National Synchrotron Light Source and small combustible operations of the Alternating Gradient Synchrotron are not protected in accordance with Factory Mutual Data Sheet 2-8 for Highly Protected Risks.

RESPONSE/STATUS:

The identified sprinkler obstructions (except for the Laser Electron Gamma Source) at the National Synchrotron Light Source (NSLS) are being corrected. Modifications to the sprinkler systems in the obstructed areas around the Linac equipment area were completed on July 15, 1990. The identified obstruction to the Laser Electron Gamma Source is a hyperlon hood that will melt before there is a fire of enough magnitude to activate the sprinkler system. The identified operations without sprinklers at the Alternating Gradient Synchrotron (AGS) have been included in the sprinkler upgrade work currently underway at the facility.

ACTION:

Remove sprinkler obstructions in the NSLS and extend sprinkler protection to small combustible operations in the AGS.

MILESTONES:

Remove NSLS sprinkler obstructions.	09/30/90
Extend sprinkler protection at AGS.	07/31/91

COSTS:

FY90: NSLS, \$5K. FY91: AGS, \$10K.

ROOT CAUSE:

Inadequate implementation of existing guidelines.

REFERENCES:

N/A

TSA

TRACKING NO: 454
TRACK REF: FP. 5- 4
DUE DATE: 10/31/99
STATUS: Open

ASSIGNED TO: SEP
PRIORITY: 3
HAZARD: H2/C1
CODE: DOE 5480.7

FINDING:

Automatic Fire protection of critical records, off-site vital records storage, and the arrangement of equipment are not consistently provided for electronic data and computer apparatus as required by DOE 5480.7 and mandatory standards.

RESPONSE/STATUS:

The current schedule for line-item funding was developed based on guidance concerning the level of MEL/FS funding per year. If required, a storage facility would be scheduled for line item funding in FY2000.

ACTION:

BNL will conduct a detailed loss prevention/risk analysis of each of the areas identified in the findings, and prepare a plan of action for DOE concurrence. The risk analysis/loss prevention surveys identified in the response to Concern FP.4-1, FP.4-2 and FP.5-1 will include records and critical electronic data and computer equipment. Currently, if required, a new facility is planned for FY2000.

MILESTONES:

Report on findings for DOE concurrence.
Initiate project for new facility.

11/30/92
10/31/99

COSTS:

FY2000 TEC: \$4000K.

ROOT CAUSE:

Inadequate oversight, inadequate resources.

REFERENCES:

N/A

TSA

TRACKING NO: 456
TRACK REF: FP. 5- 6
DUE DATE: 10/31/95
STATUS: Open

ASSIGNED TO: SEP
PRIORITY: 4
HAZARD: H2/C2
CODE: FMDS 5-31

FINDING:

Cable tray arrangements do not meet the criteria of Factory Mutual Data Sheet 5-31, and the impact of a fire involving this material has not been recently analyzed.

RESPONSE/STATUS:

The schedules for line items which may be needed to address this finding are based on current information on the level of funding in the MEL/FS Program for BNL.

ACTION:

BNL will arrange for an independent fire protection survey of BNL cable trays for compliance with the requirements of Factory Mutual Data Sheet 5-31. Included in the task will be the preparation of a conceptual design report identifying loss potentials and associated risks, and proposed upgrades and their associated costs. The following facilities will be included in the survey: the Alternating Gradient Synchrotron, the National Synchrotron Light Source, the Radiation Effects Facility, the Tandem Van deGraaff, and the Heavy Ion Transfer Tunnel. Upgrades would be programmed in the Fire Protection IV Line-Item (FY96).

MILESTONES:

Scope survey work.	10/31/91
Authorization for FP survey contract.	10/31/91
Contract with fire protection consultant.	01/31/92
Engineering Report (CDR).	09/30/92
Factory Mutual Inspection.	12/31/92
Initiate FP IV.	10/31/95

COSTS:

Engineering survey, FY91: \$60K. Line-item costs given under FP.1-2.

ROOT CAUSE:

Inadequate oversight.

REFERENCES:

N/A

ES&H TRACKING REPORT

TSA

TRACKING NO: 457
TRACK REF: FP. 5- 7
DUE DATE: 10/31/99
STATUS: Open

ASSIGNED TO: SEP
PRIORITY: 3
HAZARD: H2/C2
CODE: DOE 5480.7

FINDING:

The lack of fire walls, smoke barriers, or sealed vertical cut-offs poses a loss potential in excess of the improved risk criteria of DOE 5480.7.

RESPONSE/STATUS:

Major upgrades will be included in Fire Protection IV and V line items. The schedule for these requests is based on current level of funding expected under the MEL/FS Program.

ACTION:

A detailed loss analysis/risk assessment of the specifically identified areas will be prepared and submitted to DOE for their concurrence. Adequacy of fire and smoke separations at BNL facilities will be included in the fire loss/risk assessment analysis program discussed under Concern FP.1-2. Work to be done in Physics includes installing positive latching devices on fire stairwells where only push-pull doors exist. Two stairwells will be rearranged to discharge directly outside the building as opposed to their current internal discharging arrangement.

MILESTONES:

Submit analysis of findings to DOE.	11/30/90
Factor Mutual Inspections	12/31/91
Initiate FP IV project.	10/31/95
Initiate FP V project.	10/31/99

COSTS:

Included in FP.1-2 schedule.

ROOT CAUSE:

Inadequate oversight, inadequate implementation of DOE standards.

REFERENCES:

N/A

ES&H TRACKING REPORT

TSA

TRACKING NO: 458
TRACK REF: FP. 5- 8
DUE DATE: 12/31/90
STATUS: Open

ASSIGNED TO: SEP
PRIORITY: 3
HAZARD: H2/C1
CODE: DOE 5480.7

FINDING:

Brookhaven National Laboratory has not determined through formal and regularly scheduled analyses that a maximum credible fire will not result in an unacceptable property loss, as required by DOE 5480.7.

RESPONSE/STATUS:

See FP.4-1.

ACTION:

See FP.4-1.

MILESTONES:

See FP.4-1.

12/31/90

COSTS:

See FP.4-1.

ROOT CAUSE:

Inadequate oversight.

REFERENCES:

N/A

ES&H TRACKING REPORT

TSA

TRACKING NO: 481
TRACK REF: FP. 7- 2
DUE DATE: 09/30/90
STATUS: Open

ASSIGNED TO: SEP
PRIORITY: 3
HAZARD: H3/C1
CODE: DOE 6430.1A-1530-7

FINDING:

The distribution of some portable fire extinguishers in several buildings is not in accordance with NFPA 10 and DOE 6430.1A-1530-7.

RESPONSE/STATUS:

Funds have been authorized for the purchase of fire extinguishers.

ACTION:

Class A portable fire extinguishers will be provided in accordance with the requirements of DOE and NFPA Standard 10. A survey of buildings is being conducted to determine those buildings needing additional Class A extinguishers.

MILESTONES:

Survey buildings for compliance with NFPA 10.	06/30/90
Purchase of additional extinguishers.	06/30/90
Installation of additional extinguishers.	09/30/90

COSTS:

Additional fire extinguishers: FY90: \$45K.

ROOT CAUSE:

Inadequate oversight.

REFERENCES:

N/A

ES&H TRACKING REPORT

TSA

TRACKING NO: 482
TRACK REF: FP. 7- 3
DUE DATE: 03/02/90
STATUS: Completed

ASSIGNED TO: SEP/DEPTS
PRIORITY: 4
HAZARD: H2/C2
CODE: N/A

FINDING:

Housekeeping and the control of ordinary combustibles is not adequate in several buildings at BNL. (See also Concern OS.5-2.)

RESPONSE/STATUS:

The cited instances of housekeeping deficiencies were isolated and not indicative of broad housekeeping problems. TSA members indicated that, from a housekeeping viewpoint, BNL was among the best laboratory facilities they had visited. Reinforcing good housekeeping practices is a continuous effort. Internal audits, including department/division self-inspections and SEP department/division audits, will continue to emphasize excellence of housekeeping practices.

ACTION:

Maintain schedules for department/division audits, Tier II audits and management oversight walkthroughs.

MILESTONES:

Identify facilities for immediate action. 12/31/89
OSHA training (02/12/89 through 03/02/90). 03/02/90

COSTS:

N/A

ROOT CAUSE:

Inadequate oversight.

REFERENCES:

N/A

ES&H TRACKING REPORT

TSA

TRACKING NO: 485
TRACK REF: FP. 7- 6
DUE DATE: 09/30/91
STATUS: Open

ASSIGNED TO: SEP/PE
PRIORITY: 3
HAZARD: H2/C1
CODE: DOE 5480.7-10.b(5) and 10.b(7)

FINDING:

BNL is not implementing an effective fire barrier maintenance program as required by DOE 5480.7-10.b.(5) and 10.b.(7).

RESPONSE/STATUS:

A survey of fire barriers has been completed.

ACTION:

BNL will upgrade its fire barrier maintenance program to include the following: 1) conduct surveys to identify upgrade and correct existing records of fire doors and fire walls; 2) upgrade the existing inspection program to emphasize fire barrier integrity; and 3) improve the maintenance practices of fire doors and fire barriers.

MILESTONES:

Initiate survey.	01/31/90
Upgrade inspection practices.	09/30/90
Complete survey work.	09/30/90
Upgrade maintenance practices.	09/30/91

COSTS:

N/A

ROOT CAUSE:

Inadequate oversight.

REFERENCES:

N/A

ES&H TRACKING REPORT

TSA

TRACKING NO: 486
TRACK REF: FP. 7- 7
DUE DATE: 10/31/99
STATUS: Open

ASSIGNED TO: SEP
PRIORITY: 3
HAZARD: H2/C1
CODE: DOE 5480.7-9.a(2)(a), DOE
6430.1A-0110-6.1

FINDING:

Materials with unusually high fire characteristics, notably expanded plastic duct insulation, exist in interior finish applications at BNL, in conflict with DOE 5480.7-9.a(2)(a) and 6430.1A-0110-6.1. (See also Concern FP.1-1.)

RESPONSE/STATUS:

N/A

ACTION:

BNL will arrange for the services of an engineering consultant to survey BNL facilities where expanded plastic is used as insulation and determine the most cost-effective means of complying with DOE 5480.7-9a.(2)(a) and DOE 6430.1A-0110-6.1. Upgrade work will be included with the scope of the Fire Protection V upgrade work identified in FP.1-2.

MILESTONES:

Contract with engineering consultant.	01/31/95
Complete engineering report.	01/31/96
Initiate FP V project.t, FP V.	10/31/99

COSTS:

FY95: \$50K.

ROOT CAUSE:

Low priority due to assessment of low risk.

REFERENCES:

N/A

ES&H TRACKING REPORT

TSA

TRACKING NO: 487
TRACK REF: FP. 7- 8
DUE DATE: 08/31/90
STATUS: Completed

ASSIGNED TO: PE/SEP
PRIORITY: 4
HAZARD: H2/C1
CODE: N/A

FINDING:

Fire water main flows, water storage tanks, and emergency lights and signs are not tested or inspected at NFPA-specified frequencies.

RESPONSE/STATUS:

Fire flow tests were scheduled. A biannual examination of water tanks was scheduled and completed. A plan for testing emergency lights was incorporated into maintenance procedures.

ACTION:

Emergency lights have been tested.

MILESTONES:

Test Emergency Light.

08/31/90

COSTS:

N/A

ROOT CAUSE:

Inadequate implementation of suggested guidelines.

REFERENCES:

N/A

ES&H TRACKING REPORT

TSA

TRACKING NO: 488
TRACK REF: FP. 7- 9
DUE DATE: 12/31/90
STATUS: Open

ASSIGNED TO: SEP
PRIORITY: 4
HAZARD: H2/C2
CODE: DOE/EV-0043

FINDING:

Not all portable and modular buildings at BNL conform to the requirements of DOE/EV-0043, "Fire Protection for Portable Structures," with respect to exposure distances and sprinkler protection.

RESPONSE/STATUS:

BNL has treated the so-called "modular" buildings as permanent structures subject to the requirements of the Uniform Building Code, not the requirements of DOE/EV-0043. While in some cases "factory built", they are not subject to portability.

ACTION:

BNL will seek a formal judgment from DOE as to whether the factory-built structures are "portable" within the intent of DOE/EV-0043. BNL will enforce strict compliance with DOE/EV-0043 for all new trailer and similar portable structures. Loss potentials and risk analysis associated with the so-called "modular" additions were evaluated individually when the structures were first erected, in accordance with DOE improved risk criteria. In most cases, this evaluation resulted in the construction of 1-1/2 hour fire separation barriers (walls and doors) between the new structure and the existing building. In one case, (Bldg. 197M), the new addition was fully sprinklered. For buildings with "modular additions" being sprinklered as part of the currently funded fire protection improvements upgrade work, the additions are also being sprinklered. The risk analyses of all remaining "modular structures" without protection will be evaluated as part of the program identified in FP.4-1 and FP.5-1, and automatic protection provided as part of Phase IV and Phase V fire protection improvement work.

MILESTONES:

Submit request to DOE for evaluation of portability. 12/11/89
Anticipate resolution from DOE. 12/31/90

COSTS:

N/A

ROOT CAUSE:

Inadequate oversight.

REFERENCES:

N/A

DATE: 08/29/90

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TSA

TRACKING NO: 459
TRACK REF: FP. 7-10
DUE DATE: 08/31/90
STATUS: Open

ASSIGNED TO: AGS/SEP
PRIORITY: 3
HAZARD: H2/C1
CODE: N/A

FINDING:

Precautions for the storage and use of compressed gas cylinders are not in accordance with improved risk practices.

RESPONSE/STATUS:

The compressed gas cylinders at the Alternating Gradient Synchrotron (AGS) have been moved away from the SB substation and guarding provided; and the oxygen and acetylene cylinders have been separated. Storage pads will be constructed at the welding shop and SB substation.

ACTION:

See OS.5-2 for additional proposed actions with respect to compressed gas cylinders.

MILESTONES:

Complete storage pad at welding shop and SB area.
See OS.5-2 for additional milestones.

08/31/90

COSTS:

FY90: \$20K.

ROOT CAUSE:

Inadequate oversight.

REFERENCES:

N/A

TSA

TRACKING NO: 460
TRACK REF: FP. 7-11
DUE DATE: 06/30/91
STATUS: Open

ASSIGNED TO: SEP
PRIORITY: 4
HAZARD: H2/C2
CODE: N/A

FINDING:

Automatic sprinkler systems at Brookhaven National Laboratory are not always arranged and maintained according to improved risk as outlined in the NFPA Fire Protection Handbook.

RESPONSE/STATUS:

BNL believes that stock storage along walls is allowed within 28 inches of the ceiling by NFPA Standard 13 and accepted industry practices. BNL also believes that sprinkler system sectional valves located within a building are allowed by the NFPA standard and are a good practice when their use will otherwise reduce the extent of an impairment because of system modifications. A formal request for interpretation has been forwarded to NFPA.

ACTION:

BNL will request a formal interpretation of this section of the standard from the National Fire Protection Association. BNL will prepare an analysis of their use of sectional valves for DOE's evaluation and concurrence. See FP.7-1.

MILESTONES:

Request NFPA interpretation of wall storage. 06/28/90
Forward analysis of valve use to DOE. 06/30/91
See FP.7-1 for additional milestones.

COSTS:

N/A

ROOT CAUSE:

Differences in interpretation of guidelines.

REFERENCES:

N/A

ES&H TRACKING REPORT

TSA

TRACKING NO: 462
TRACK REF: FP. 7-13
DUE DATE: 09/30/91
STATUS: Open

ASSIGNED TO: SEP
PRIORITY: 3
HAZARD: H2/C1
CODE: NFPA-70

FINDING:

Cable and wiring circuits are not fully maintained in accordance with NFPA 70 "National Electric Code".

RESPONSE/STATUS:

Plant Engineering and the departments have the lead in assuring compliance with the National Electric Code. Additional training was required for designers, electricians, electrical technicians, electrical inspectors in the requirements of NFPA 70, National Electric Code.

ACTION:

BNL will provide training in the requirements of the National Electric Code to designers, electricians, and electrical technicians. BNL will provide an electrical inspector in the SEP Division to conduct independent electrical inspections for compliance with the National Electric Code.

MILESTONES:

Conduct PE/NEC training. 05/31/90
Hire electrical inspector. 09/30/91

COSTS:

FY90: \$25K (Training). Included in MGMT/BMPF-5.

ROOT CAUSE:

Inadequate implementation of standards.

REFERENCES:

N/A

DATE: 08/29/90

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TSA

TRACKING NO: 463
TRACK REF: FP. 7-14
DUE DATE: 12/31/90
STATUS: Open

ASSIGNED TO: SEP
PRIORITY: 4
HAZARD: H2/C2
CODE: N/A

FINDING:

The presence of combustibles in critical equipment or otherwise unprotected areas, such as at the Alternating Gradient Synchrotron, poses an avoidable fire risk.

RESPONSE/STATUS:

The preliminary schedule for the assessments has been developed.

ACTION:

The presence of combustibles and their impact on the fire loss potentials will be included in the fire loss/risk assessment program discussed in FP.4-1 and FP.5-1.

MILESTONES:

See FP.4-1 and FP.5-1.

12/31/90

COSTS:

See FP.4-1 and FP.5-1.

ROOT CAUSE:

Inadequate oversight.

REFERENCES:

N/A

ES&H TRACKING REPORT

TSA

TRACKING NO: 464
TRACK REF: FP. 7-15
DUE DATE: 08/31/90
STATUS: Completed

ASSIGNED TO: AGS
PRIORITY: 4
HAZARD: H2/C2
CODE: N/A

FINDING:

Tobacco smoking is an ignition source to transient combustibles in the Alternating Gradient Synchrotron, a largely unprotected and important facility.

RESPONSE/STATUS:

Since June, access training has been given to over 500 personnel. The training emphasizes, among other things, no smoking, eating, or drinking in primary areas. Signs have been posted.

ACTION:

Smoking is prohibited in the AGS beam line complex. Signs will be posted and personnel trained.

MILESTONES:

Post signs.
Train.

07/31/90
08/31/90

COSTS:

N/A

ROOT CAUSE:

Inadequate implementation of guidelines.

REFERENCES:

N/A

ES&H TRACKING REPORT

TSA

TRACKING NO: 438
TRACK REF: FR. 4- 1
DUE DATE: 03/31/91
STATUS: Open

ASSIGNED TO: DO
PRIORITY: 3
HAZARD: H2/C1
CODE: DOE 5482.1B

FINDING:

Periodic facility safety reviews do not include a safety review of all procedures and operational activities as required by DOE 5482.1B.

RESPONSE/STATUS:

OS&H Guides on Operating Safety Limits and SARs are currently being updated. These will be used to develop a SEAPPM periodic safety review.

ACTION:

A policy/procedure for the SEAPPM will be developed requiring periodic reviews by departments/divisions of their safety procedures and operational activities. SEP will include this as part of their Tier II review of the departments/divisions.

MILESTONES:

Develop specific SEAPPM section.
Departments/divisions incorporate.

12/31/90
03/31/91

COSTS:

N/A

ROOT CAUSE:

Inadequate oversight, informality of operations.

REFERENCES:

N/A

ES&H TRACKING REPORT

TSA

TRACKING NO: 439
TRACK REF: FR. 5- 1
DUE DATE: 08/31/91
STATUS: Open

ASSIGNED TO: DO
PRIORITY: 3
HAZARD: H2/C1
CODE: N/A

FINDING:

Brookhaven National Laboratory does not perform a triennial appraisal of the safety review system. (Also see Concern SR.7-1, Appendix B.)

RESPONSE/STATUS:

N/A

ACTION:

A Triennial Review is scheduled for August 1991.

MILESTONES:

Conduct Triennial Review.

08/31/91

COSTS:

See SR.7-1.

ROOT CAUSE:

Inadequate oversight, inadequate implementation of DOE requirements.

REFERENCES:

N/A

ES&H TRACKING REPORT

TSA

TRACKING NO: 489
TRACK REF: FS. 2- 1
DUE DATE: 12/31/89
STATUS: Completed

ASSIGNED TO: SSD
PRIORITY: 4
HAZARD: H2/C2
CODE: N/A

FINDING:

Corrective actions and safety complaints are not being pursued on an aggressive, timely, and formal basis to reduce BNL's high accident rate involving security inspectors.

RESPONSE/STATUS:

SSD established an annual cash award to recognize individuals with excellent job performance showing good safety practices in driving and firearms handling and in avoiding injuries. The awards program also rewards group excellence. Accident statistics for other DOE security organizations are compared to BNL to gauge improvement. Safety problems are identified and corrected promptly. A tracking system ensures timely resolution. Ladders at the HFBR north and south posts have been replaced with Lapeyre-type staircases and the cage in the one security vehicle has been repositioned to maximize space for occupants.

ACTION:

N/A

MILESTONES:

Institute an excellence awards program.	10/31/89
Regularly obtain accident statistics from other DOE security organizations.	10/31/89
Reposition the vehicle's cage.	10/31/89
Rev. saf. plan to incl. doc. tracking of saf. concerns.	12/31/89
Replace the ladders at the HFBR posts.	12/31/89

COSTS:

N/A.

ROOT CAUSE:

Inadequate oversight.

REFERENCES:

N/A

ES&H TRACKING REPORT

TSA

TRACKING NO: 490
TRACK REF: FS. 3- 1
DUE DATE: 08/31/89
STATUS: Completed

ASSIGNED TO: SSD
PRIORITY: 4
HAZARD: H2/C3
CODE: N/A

FINDING:

Methods for reporting, evaluation, and tracking of BNL safety performance data are not in keeping with accepted industry practice.

RESPONSE/STATUS:

Effective August 1989, BNL retroactively reported all Security Division recordable injuries to SSDC. This was prior to TSA. BNL separately reports the BNL Security safety performance to the SSDC. SEP provides safety performance comparison data to the BNL Safeguards and Security Division quarterly.

ACTION:

The tracking and trending office (MGMT/BMPF-2) will be responsible for trending and lessons learned.

MILESTONES:

Report BNL Security separately to SSDC.

08/31/89

COSTS:

N/A

ROOT CAUSE:

Inadequate implementation of changing DOE guidelines.

REFERENCES:

N/A

ES&H TRACKING REPORT

TSA

TRACKING NO: 491
TRACK REF: FS. 5- 1
DUE DATE: 03/15/90
STATUS: Completed

ASSIGNED TO: SEP/SSD
PRIORITY: 4
HAZARD: H2/C3
CODE: N/A

FINDING:

The emergency medical response simulation did not follow good industry practice, thereby diminishing the quality of the training received as a result of these drills.

RESPONSE/STATUS:

N/A

ACTION:

Annual exercises are as realistic as possible. For example, actual use of bandages or other medical supplies are required to fully demonstrate the capabilities of the individuals trained to provide first aid. Simulations are kept to a minimum and drills are videotaped for later critiques.

MILESTONES:

Conduct drill. 03/15/90
Conduct an annual drill. 03/15/90

COSTS:

N/A

ROOT CAUSE:

Disagreement in interpretation of guides.

REFERENCES:

N/A

TSA

TRACKING NO: 492
TRACK REF: FS. 6- 1
DUE DATE: 10/31/89
STATUS: Completed

ASSIGNED TO: SSD
PRIORITY: 3
HAZARD: H2/C1
CODE: DOE 5480.16

FINDING:

The storage of Engagement Simulation System weapons does not comply with DOE 5480.16.

RESPONSE/STATUS:

N/A

ACTION:

Lock Engagement Simulation System weapons ESSW in a physically separate container from the live-fire weapons.

MILESTONES:

Store ESSW in locked separate container.

10/31/89

COSTS:

N/A

ROOT CAUSE:

Insufficient oversight.

REFERENCES:

N/A

ES&H TRACKING REPORT

TSA

TRACKING NO: 493
TRACK REF: FS. 6- 2
DUE DATE: 10/31/89
STATUS: Completed

ASSIGNED TO: SSD
PRIORITY: 3
HAZARD: H2/C2
CODE: N/A

FINDING:

There is a potential for an inadvertent mix-up between the Engagement Simulation System weapons and spare live-fire weapons which are kept in the same locked cabinet.

RESPONSE/STATUS:

N/A

ACTION:

See Action Plan for Concern FS.6-1.

MILESTONES:

See FS.6-1.

10/31/89

COSTS:

N/A

ROOT CAUSE:

Insufficient oversight.

REFERENCES:

N/A

TSA

TRACKING NO: 494
 TRACK REF: IH. 5- 1a
 DUE DATE: 06/30/91
 STATUS: Open

ASSIGNED TO: SEP
 PRIORITY: 3
 HAZARD: H2/C1
 CODE: ANSI Z136.1, ANSI Z88.2, DOE
 5480.4

FINDING:

BNL does not comply with the respiratory protection and laser safety standards required by DOE 5480.4. Internal audits have failed to identify these deficiencies.

RESPONSE/STATUS:

The respirator training program has been finalized. The OS&H Guide has been redrafted in preparation for submittal to the Laboratory Safety Committee. Respirator cleaning has been transferred to an off-site contractor, whose maintenance and training program will be audited.

ACTION:

Respirator Program

Currently SEP provides fit testing and training for negative pressure respirator users once every three years. A program will be developed to do this annually. A system will be set up to assure supervisors of respirator users are provided respirator training. The dual cartridge full face piece RAP respirators in Building 348 will be put on a documented monthly inspection. Training will be provided to Waste Management Group repair and inspection personnel. OS&H Respirator Guide will be modified to require documentation of all training provided under the program.

MILESTONES:

Develop program to retrain users annually.	05/31/90
Provide training to respirator maintenance personnel.	07/31/90
Revise OH&S Respirator Guide.	09/30/90
Provide training to supervisors of users.	03/31/91
Complete first year's training.	06/30/91

COSTS:

N/A

ROOT CAUSE:

Inadequate oversight.

REFERENCES:

N/A

ES&H TRACKING REPORT

TSA

TRACKING NO: 494	ASSIGNED TO: SEP
TRACK REF: IH. 5- 1b	PRIORITY: 3
DUE DATE: 12/31/90	HAZARD: H2/C1
STATUS: Open	CODE: ANSI Z136.1, ANSI Z88.2, DOE 5480.4

FINDING:

BNL does not comply with the respiratory protection and laser safety standards required by DOE 5480.4. Internal audits have failed to identify these deficiencies.

RESPONSE/STATUS:

An audit of all Class III-B and IV lasers was completed in 1989. The audit verified that appropriate SOPs existed for all covered lasers. A comprehensive IH audit program has been developed.

ACTION:

Written SOPs will be developed for all Class IV Laser users. This will cover alignment, operation, maintenance, and repair. These SOPs must be approved by the LSO. This has been completed for this year. Yearly respirator program audits will be conducted. A program will be established to assure routine internal audits are performed for all elements of BNL's IH program that SEP is responsible for coordinating. This may require an additional one-half person-year per year.

MILESTONES:

Develop SOPs for all Class IV lasers.	12/31/89
Develop a program of IH audits.	06/30/90
Conduct annual inspection/Class IIIB and IV lasers.	12/31/90
Initiate first cycle of IH audits.	12/31/90

COSTS:

N/A

ROOT CAUSE:

Inadequate oversight.

REFERENCES:

N/A

ES&H TRACKING REPORT

TSA

TRACKING NO: 495	ASSIGNED TO: SEP
TRACK REF: IH. 6- 1	PRIORITY: 3
DUE DATE: 12/31/90	HAZARD: H2/C1
STATUS: Open	CODE: 29 CFR 1910.1200, 29 CFR 1910.1450, DOE 5480.4, DOE 5483.1A

FINDING:

The BNL hazard communications program, required by DOE 5480.4 and 5483.1A, has not been fully implemented.

RESPONSE/STATUS:

The Hazard Communication Training Program has been defined. Draft training modules have been developed by an outside contractor. Train the trainer sessions are scheduled for mid-September

ACTION:

All employees will be provided basic training explaining their rights and the the employer's responsibilities under 1910.1200 and 1910.1450. Employees will be provided more specific and detailed training as required by the regulations depending upon their work activities. Training modules for each standard will be developed and provided to appropriate employees. The training must be provided as soon as possible. It will, however, also be reviewed by the Training Task Force (MGMT/BMPF-7).

MILESTONES:

Identify contents of training required.	06/30/90
Prep. completed training pkgs on 1910.1450 & 1910.1200.	09/30/90
Identify who needs 1910.1200 & 1910.1200 training.	09/30/90
Deliver 1910.1450 training.	10/31/90
Prepare specific MSDS packages for 1910.1200 training.	10/31/90
Deliver 1910.1200 training.	12/31/90

COSTS:

FY90: \$26K. FY91: \$99K.

ROOT CAUSE:

Inadequate oversight.

REFERENCES:

N/A

ES&H TRACKING REPORT

TSA

TRACKING NO: 496
TRACK REF: MA. 1- 1
DUE DATE: 01/31/93
STATUS: Open

ASSIGNED TO: DO
PRIORITY: 4
HAZARD: H2/C1
CODE: DOE 4330.4

FINDING:

A uniform, BNL-wide maintenance program, consistent with the requirements of DOE 4330.4, industry standards, and good practices, is not provided by the current organizational structure.

RESPONSE/STATUS:

The Associate Director for Management & Physical Plant has been assigned the responsibility for implementing DOE 4330.4 at BNL. He has appointed a Steering Committee to assist him with this task.

ACTION:

Members of the Steering Committee will be responsible for the Maintenance Program in their respective departments/divisions and for ensuring integration. The Steering Committee will consider the draft maintenance order as part of their charter.

MILESTONES:

Assign responsibility.	02/28/90
Establish Steering Committee.	03/31/90
Steering Committee meeting.	03/31/90
Implementation plan from each department/division.	08/31/90
Complete staffing.	09/30/91
Complete site-wide implementation of DOE 4330.4.	01/31/93

COSTS:

FY90: \$12K. FY91: \$300K/yr, Ops Support Office.

ROOT CAUSE:

Informality of operations.

REFERENCES:

N/A

ES&H TRACKING REPORT

TSA

TRACKING NO: 497
TRACK REF: MA. 1- 2
DUE DATE: 01/31/90
STATUS: Completed

ASSIGNED TO: NSLS
PRIORITY: 4
HAZARD: H2/C2
CODE: N/A

FINDING:

The responsibility for the maintenance activity at NSLS is not defined.

RESPONSE/STATUS:

Responsibility for maintenance activity in both electrical and mechanical areas of the NSLS has now been defined.

ACTION:

The person coordinating the maintenance activities at the NSLS will be shown on the organization chart. An NSLS maintenance responsibilities chart/list showing the individuals responsible for maintaining the NSLS storage rings and its ancillary equipment will be drawn up.

MILESTONES:

Add maintenance area to organization chart.	01/31/90
Draw up maintenance responsibility lists.	01/31/90
Electrical responsibilities.	01/31/90
Mechanical responsibilities.	01/31/90

COSTS:

N/A

ROOT CAUSE:

Informality of operations.

REFERENCES:

N/A

ES&H TRACKING REPORT

TSA

TRACKING NO: 419
TRACK REF: MA. 1- 3
DUE DATE: 12/31/91
STATUS: Open

ASSIGNED TO: AGS
PRIORITY: 4
HAZARD: H2/C2
CODE: N/A

FINDING:

Formal or uniform maintenance programs are not consistently implemented at the Alternating Gradient Synchrotron Facility.

RESPONSE/STATUS:

Planning has begun, and a lead person assigned.

ACTION:

AGS will identify specific personnel to oversee maintenance activities in all groups. AGS will adopt formal procedures which are consistent throughout all groups. Formal safety instructions will be a part of the maintenance procedures.

MILESTONES:

Identify maintenance areas and responsible personnel.	09/30/90
Start procedures manual and select data base.	01/31/91
Complete data base entry.	06/30/91
Complete procedures manual.	07/31/91
Implement initial training.	08/31/91
Implement maintenance program.	12/31/91

COSTS:

\$300K/year.

ROOT CAUSE:

Informality of operations.

REFERENCES:

N/A

ES&H TRACKING REPORT

TSA

TRACKING NO: 498	ASSIGNED TO: PE
TRACK REF: MA. 2- 1a	PRIORITY: 4
DUE DATE: 09/30/91	HAZARD: H2/C2
STATUS: Open	CODE: N/A

FINDING:

Many BNL facilities are crowded with equipment (which in some cases is unused) and may impact safe, effective operation, industry safety standards, and good operating practices.

RESPONSE/STATUS:

Plant Engineering: Housekeeping at the CSF has been given high priority. It is noted that during the 1989 TSA inspection, a new automatic fire protection sprinkler system was being constructed which adversely affected the appearance of the facility. Before the 1989 TSA, Plant Engineering management recognized the overcrowding. A new Central Steam Shop addition is proposed that will provide workshop and storage space, thus eliminating some overcrowding.

ACTION:

Plant Engineering management will establish a task group to determine: equipment that can be removed from the facility; materials and supplies that can be stored elsewhere; housekeeping procedures at the facility; and funds for new work area addition.

MILESTONES:

Establish task group.	12/31/89
Task group report to management.	02/28/90
Paint floor and improve housekeeping.	03/31/90
Centralize F.O. additive and new storage cabinets.	10/01/90
New work area addition.	03/31/91
Modify chemical test area and upgrade lighting.	09/30/91

COSTS:

FY91: \$175K.

ROOT CAUSE:

Inadequate resources.

REFERENCES:

N/A

TSA

TRACKING NO: 498
TRACK REF: MA. 2- 1b
DUE DATE: 10/31/99
STATUS: Open

ASSIGNED TO: CS
PRIORITY: 4
HAZARD: H2/C2
CODE: N/A

FINDING:

Many BNL facilities are crowded with equipment (which in some cases is unused) and may impact safe, effective operation, industry safety standards, and good operating practices.

RESPONSE/STATUS:

Construction was completed in June 1990 on shed to house lubricating oils. Phase I Upgrades will start October 1990 (Gen. Plant Project No. LNI 90 R 108). Expected completion is early FY92. A Line Item funding request would be scheduled for FY2000, Phase II funding request.

ACTION:

Central Shops: The Central Shops Division has developed a five-step plan for consolidating and modernizing shop facilities. This plan requires construction of 41,000 square feet of shop and office space. Based on current guidance, a Central Shops upgrade would be initiated in FY2000.

MILESTONES:

Evaluate existing equipment.	01/31/90
Remove unnecessary equipment.	06/30/90
Construct shed to house lubricating oils.	10/31/90
*Phase I: Move welding facility to Bldg. 479.	10/31/91
*Phase II-V: Initiate.	10/31/99

COSTS:

TEC: FY2000: \$2000K.

ROOT CAUSE:

Inadequate resources.

REFERENCES:

N/A

ES&H TRACKING REPORT

TSA

TRACKING NO: 420
TRACK REF: MA. 2- 2
DUE DATE: 01/31/93
STATUS: Open

ASSIGNED TO: DO
PRIORITY: 4
HAZARD: H2/C2
CODE: N/A

FINDING:

Documentation of maintenance activities for programmatic equipment is incomplete, and procedures for work control are not sufficient to ensure safe and efficient maintenance.

RESPONSE/STATUS:

ACTION:

The Steering Committee will address this issue (see MA.1-1).

MILESTONES:

See MA.1-1.
Site-wide implementation.

01/31/93

COSTS:

See MA.1-1.

ROOT CAUSE:

Informality of Operations.

REFERENCES:

N/A

ES&H TRACKING REPORT

TSA

TRACKING NO: 499
TRACK REF: MA. 5- 1
DUE DATE: 12/31/90
STATUS: Open

ASSIGNED TO: SEP
PRIORITY: 4
HAZARD: H2/C2
CODE: N/A

FINDING:

Lack of consistent application of safety requirements in maintenance shop areas promotes unsafe conditions and contributes to the potential for accidents and injury.

RESPONSE/STATUS:

Departmental/divisional safety inspections, which specifically address requirements of safety in shop areas, are conducted by departments/divisions with SEP participation. This participation is specifically designed to provide OJT to department personnel in the area of inspections. The checklist has been drafted.

ACTION:

SEP will emphasize careful review of shop areas and will issue guidelines/checklists specifically for evaluating shop areas. SEP provided OSHA training for Laboratory personnel and will train departments/divisions in the use of the checklist.

MILESTONES:

OSHA training.
SEP issue checklist.
Departments/divisions implement.

03/02/90
10/31/90
12/31/90

COSTS:

N/A

ROOT CAUSE:

Inadequate communication of standards.

REFERENCES:

N/A

DATE: 08/29/90

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TSA

TRACKING NO: 421
TRACK REF: MA. 5- 2
DUE DATE: 09/30/91
STATUS: Open

ASSIGNED TO: QA
PRIORITY: 4
HAZARD: H2/C2
CODE: N/A

FINDING:

A calibration and testing program which identifies instrumentation requiring periodic calibration and/or testing is not in place. (Also see Concern QV.4-1, Appendix B.)

RESPONSE/STATUS:

See QV.4-1.

ACTION:

This is part of Concern QV.4-1 and is addressed there.

MILESTONES:

See QV.4-1.
Implement calibration/testing program.

09/30/91

COSTS:

See MGMT/BMPF-5.

ROOT CAUSE:

Informality of Operations

REFERENCES:

N/A

DATE: 08/29/90

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TSA

TRACKING NO: 500
TRACK REF: MA. 7- 1
DUE DATE: 01/31/93
STATUS: Open

ASSIGNED TO: DO
PRIORITY: 4
HAZARD: H2/C1
CODE: N/A

FINDING:

Documentation of maintenance requirements, procedures, and activities is incomplete and not sufficiently accurate to ensure safe and effective maintenance. This lack of documentation may affect the continuity of operations of one-of-a-kind and other special equipment should existing experienced personnel retire or transfer.

RESPONSE/STATUS:

See MA.1-1.

ACTION:

See MA.1-1.

MILESTONES:

See MA.1-1.
Complete implementation.

01/31/93

COSTS:

N/A

ROOT CAUSE:

Informality of operations.

REFERENCES:

N/A

ES&H TRACKING REPORT

TSA

TRACKING NO: 422
TRACK REF: MA. 8- 2
DUE DATE: 01/31/93
STATUS: Open

ASSIGNED TO: DO
PRIORITY: 4
HAZARD: H2/C2
CODE: N/A

FINDING:

Maintenance procedures and documentation of maintenance activities for programmatic equipment frequently do not enable maintenance to be carried out in a controlled and safe manner. (Also see Concerns RP.3-5 and RP.3-7.)

RESPONSE/STATUS:

See MA.1-1.

ACTION:

See MA.1-1.

MILESTONES:

See MA.1-1.
Complete implementation.

01/31/93

COSTS:

N/A

ROOT CAUSE:

Informality of operations.

REFERENCES:

N/A

ES&H TRACKING REPORT

TSA

TRACKING NO: 466
TRACK REF: MS. 2- 1
DUE DATE: 05/31/90
STATUS: Completed

ASSIGNED TO: OMC
PRIORITY: 4
HAZARD: H2/C2
CODE: N/A

FINDING:

A formal tracking program does not exist in the Occupational Medical Clinic.

RESPONSE/STATUS:

OMC has developed a formal QA program.

ACTION:

This program will be included as an auditable element to be reviewed periodically.

MILESTONES:

Finalize QA program and training procedure.

05/31/90

COSTS:

N/A

ROOT CAUSE:

Insufficient oversight.

REFERENCES:

N/A

ES&H TRACKING REPORT

TSA

TRACKING NO: 467
TRACK REF: MS. 4- 1
DUE DATE: 09/30/91
STATUS: Open

ASSIGNED TO: DO/DOE
PRIORITY: 4
HAZARD: H2/C2
CODE: N/A

FINDING:

Policies, procedures, and practices of the Occupational Medical Clinic are not periodically reviewed and audited as required by good practices.

RESPONSE/STATUS:

N/A

ACTION:

BNL will provide for annual assessment of the OMC Program in accordance with the QA Program. It will be initiated in FY91.

MILESTONES:

Annual assessment.

09/30/91

COSTS:

N/A

ROOT CAUSE:

Insufficient oversight.

REFERENCES:

N/A

DATE: 08/29/90

ES&H TRACKING REPORT

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TSA

TRACKING NO: 468
TRACK REF: MS. 5- 1
DUE DATE: 12/31/90
STATUS: Open

ASSIGNED TO: OMC
PRIORITY: 4
HAZARD: H2/C3
CODE: N/A

FINDING:

The Health Awareness and Wellness Program is not fully implemented for Brookhaven National Laboratory by the Occupational Medical Clinic.

RESPONSE/STATUS:

The Health Promotion staff position has been approved.

ACTION:

Hire Health Promotion specialist.

MILESTONES:

Hire staff.
Implement program.

09/30/90
12/31/90

COSTS:

\$80K/year.

ROOT CAUSE:

Inadequate implementation of guidelines.

REFERENCES:

N/A

ES&H TRACKING REPORT

TSA

TRACKING NO: 509
TRACK REF: OP. 1- 1
DUE DATE: 10/31/90
STATUS: Open

ASSIGNED TO: DO
PRIORITY: 4
HAZARD: H3/C2
CODE: N/A

FINDING:

The responsibilities and authorities of each position in the organization are not uniquely defined in a formal document made available to the staff at large. (See Concern OA.6-1.)

RESPONSE/STATUS:

A draft section of the SEAPPM is currently under review.

ACTION:

Departments/divisions will be required to make this section of their SEAPPM available to all staff members. (See MGMT/BMPF-1 and MGMT/BMPF-3.)

MILESTONES:

Complete specific SEAPPM section.
Departments/divisions implement.

08/31/90
10/31/90

COSTS:

See MGMT/BMPF-1.

ROOT CAUSE:

Informality of operations.

REFERENCES:

N/A

DATE: 08/29/90

ES&H TRACKING REPORT

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TSA

TRACKING NO: 510
TRACK REF: OP. 1- 2
DUE DATE: 03/31/91
STATUS: Open

ASSIGNED TO: DO
PRIORITY: 4
HAZARD: H3/C2
CODE: N/A

FINDING:

Measurable goal and performance indicators are not used at many facilities to effectively improve performance and safe operations.

RESPONSE/STATUS:

See MGMT/BMPF-4

ACTION:

This is covered by MGMT/BMPF-4.

MILESTONES:

See MGMT/BMPF-4.

03/31/91

COSTS:

Included in MGMT/BMPF-4.

ROOT CAUSE:

Informality of operations.

REFERENCES:

N/A

ES&H TRACKING REPORT

TSA

TRACKING NO: 414
TRACK REF: OP. 1- 3
DUE DATE: 10/31/90
STATUS: Open

ASSIGNED TO: DO
PRIORITY: 4
HAZARD: H2/C2
CODE: N/A

FINDING:

Operations personnel do not clearly understand their authority and responsibility. (Also see Concern OA.1-2.)

RESPONSE/STATUS:

The draft section of the SEAPPM is currently under review.

ACTION:

Lines of authority and responsibility will be defined. Guidelines for implementing this action will be included in the Safety and Environmental Administrative Policy and Procedures Manual (SEAPPM).

MILESTONES:

Issue SEAPPM Guide on Authorities/Responsibilities.
Departments/divisions implement.

08/31/90
10/31/90

COSTS:

See MGMT/BMPF-1.

ROOT CAUSE:

Informality of operations.

REFERENCES:

N/A

TSA

TRACKING NO: 415
TRACK REF: OP. 1- 4
DUE DATE: 10/31/90
STATUS: Open

ASSIGNED TO: DO/DEPTS
PRIORITY: 4
HAZARD: H3/C2
CODE: N/A

FINDING:

Formal policy and guidelines from Department Chairpersons and Division Heads do not exist for development, review, approval, and issuance of organization charts. (Also see Concern OA.1-2.)

RESPONSE/STATUS:

A draft section of the SEAPPM on organizational charts is currently under review.

ACTION:

The Safety and Environmental Administrative Policy and Procedures Manual for the Laboratory will provide policy and procedures for the development of organizational charts.

MILESTONES:

Issue SEAPPM Guide on Organization Charts.
Departments/divisions implement.

08/31/90
10/31/90

COSTS:

See MGMT/BMPF-1.

ROOT CAUSE:

Informality of operations.

REFERENCES:

N/A

ES&H TRACKING REPORT

TSA

TRACKING NO: 416
TRACK REF: OP. 1- 5
DUE DATE: 04/30/91
STATUS: Open

ASSIGNED TO: DO/DEPTS
PRIORITY: 4
HAZARD: H2/C2
CODE: N/A

FINDING:

Department Chairpersons and Division Heads are not effectively formulating and issuing policy for their organizations which is specific for their needs.

RESPONSE/STATUS:

A Table of Contents and objectives for the SEAPPM has been developed. Other sections are currently under review.

ACTION:

The Laboratory's Safety and Environmental Administrative Policy and Procedures Manual will require that departments/divisions formulate policies and procedures specific to the operation of their organizations.

MILESTONES:

Issue Table of Contents/Form - Format of SEAPPM.	07/31/90
Issue first nine guides.	08/31/90
Complete issuance of SEAPPM.	04/30/91

COSTS:

See MGMT/BMPF-1.

ROOT CAUSE:

Informality of operations.

REFERENCES:

N/A

ES&H TRACKING REPORT

TSA

TRACKING NO: 511
TRACK REF: OP. 2- 1
DUE DATE: 05/31/91
STATUS: Open

ASSIGNED TO: DO
PRIORITY: 4
HAZARD: H3/C2
CODE: N/A

FINDING:

BNL, in general, does not have policy and procedures establishing the requirements for facility operations logs, their content, use and review.

RESPONSE/STATUS:

The Laboratory has established its guidelines for conduct of operations in accord with INPO standard, which includes the use of logs. The Operations Task Force has been established to review the applicability of these guidelines to the various facilities on site. Additionally, an Operations Support Office is being established to coordinate and assess the conduct of operations at the Laboratory.

ACTION:

Based on Task Force recommendations, the Laboratory will consider inclusion of procedures for operations as part of the SEAPPM. An Operations Support Office will be established.

MILESTONES:

Establish guidelines for conduct of operations.	01/31/90
Appoint Operations Task Force.	03/31/90
Task Force to provide recommendations.	09/30/90
Establish Operations Support Office.	10/31/90
Complete SEAPPM.	04/30/91
Departments/divisions to implement.	05/31/91

COSTS:

\$100K/yr.

ROOT CAUSE:

Informality of operations.

REFERENCES:

N/A

ES&H TRACKING REPORT

TSA

TRACKING NO: 512
TRACK REF: OP. 3- 1
DUE DATE: 05/31/91
STATUS: Open

ASSIGNED TO: DO
PRIORITY: 4
HAZARD: H2/C2
CODE: N/A

FINDING:

In general, the BNL process for procedure preparation, approval, modification, distribution, and safety impact determination is inconsistent, not formalized, and undocumented.

RESPONSE/STATUS:

The Operations Task Force was appointed in March, 1990, and the recommendations are scheduled for 09/30/90.

ACTION:

Laboratory will establish an Operations Task Force to define where procedures, etc., are needed.

MILESTONES:

See OP.2-1.

COSTS:

See OP.2.1.

ROOT CAUSE:

Informality of operations.

REFERENCES:

OP.2-1.

TSA

TRACKING NO: 513
TRACK REF: OP. 3- 2
DUE DATE: 05/31/91
STATUS: Open

ASSIGNED TO: DO/DEPTS
PRIORITY: 4
HAZARD: H2/C2
CODE: N/A

FINDING:

A policy controlling the posting and implementation of operating aids in the control rooms does not exist.

RESPONSE/STATUS:

See OP.2-1.

ACTION:

The concern relates to OP.2-1 and will be part of overall review by the Task Force.

MILESTONES:

See OP.2-1
Implement recommendation.

05/31/91

COSTS:

See OP.2-1.

ROOT CAUSE:

Informality of operations.

REFERENCES:

OP.2-1.

TSA

TRACKING NO: 514
TRACK REF: OP. 3- 3a
DUE DATE: 09/30/90
STATUS: Open

ASSIGNED TO: NSLS
PRIORITY: 3
HAZARD: H2/C2
CODE: DOE 5480.11

FINDING:

The operation of the NSLS and REF facilities are not in compliance with their Safety Analysis Reports.

RESPONSE/STATUS:

The Phase I and Phase II Safety Analysis Reports have been revised to comply with existing operating practices. These changes have been reviewed by the NSLS and BNL Safety Committees and approved by the Associate Director for Safety. The NSLS Safety video script has been updated and reviewed by NSLS and SEP Division personnel for compliance with DOE 5480.11.

ACTION:

NSLS (Phase I): Although the NSLS Phase I Safety Analysis Report requires at least two qualified machine operators on duty, it is appropriate to require two operation coordinators and a machine operator be present at all times. Therefore, the NSLS Safety Committee will review the current operations procedures and make recommendations regarding procedures to be followed. A training program will be initiated to qualify the operation coordinators to operate the machine while the machine operator is otherwise engaged. A call-in list naming the machine operator and the operation coordinators who are available for an emergency will be posted in the NSLS control room at all times.

MILESTONES:

Post call-in list.	11/15/89
NSLS Safety Committee consider Operations Procedure.	11/30/89
Initiate training of Coordinators in machine operation.	04/30/90
Issue an addendum to Phase I SAR.	04/30/90
Submit to LSC for review, recommendation, & approval.	05/31/90
Upgrade NSLS Safety Guides.	09/30/90

COSTS:

N/A

ROOT CAUSE:

Informality of operations, inadequate implementation of guidelines.

REFERENCES:

N/A

TSA

TRACKING NO: 514
TRACK REF: OP. 3- 3b
DUE DATE: 01/31/91
STATUS: Open

ASSIGNED TO: NSLS
PRIORITY: 3
HAZARD: H2/C2
CODE: DOE 5480.11

FINDING:

The operation of the NSLS and REF facilities are not in compliance with their Safety Analysis Reports.

RESPONSE/STATUS:

The Phase I and Phase II Safety Analysis Reports have been revised to comply with existing operating practices. These changes have been reviewed by the NSLS and BNL Safety Committees and approved by the Associate Director for Safety. The NSLS Safety video script has been updated and reviewed by NSLS and SEP Division personnel for compliance with DOE 5480.11.

ACTION:

NSLS (Phase II): NSLS Phase II SAR states that "users who will be staying for more than two weeks, or will be returning repeatedly, are required to attend the New Employee Safety Orientation and the Film Badge Wearers Orientation given by the SEP Division." The NSLS developed a safety video in lieu of the above because of realized scheduling difficulties with the transient users even if they were at the facility for up to one month. NSLS, with the help of SEP Division staff, will upgrade the NSLS Safety video to include safety items normally covered by SEP staff in the orientation lectures. The video will be reviewed by the NSLS Safety Committee and BNL management before implementation as a training vehicle.

MILESTONES:

Convene NSLS Safety Committee and BNL Management to review video.	05/31/90
Include modifications requested by above review.	07/31/90
Implement new User Training Program.	09/30/90
Issue an addendum to the NSLS Phase II SAR.	09/30/90
Upgrade NSLS Safety Video.	01/31/91

COSTS:

N/A

ROOT CAUSE:

Informality of operations, inadequate oversight of BNL safety policy.

REFERENCES:

N/A

ES&H TRACKING REPORT

TSA

TRACKING NO: 514
TRACK REF: OP. 3- 3c
DUE DATE: 09/30/90
STATUS: Open

ASSIGNED TO: REF/DO
PRIORITY: 3
HAZARD: H2/C2
CODE: N/A

FINDING:

The operation of the NSLS and REF facilities are not in compliance with their Safety Analysis Reports.

RESPONSE/STATUS:

The REF has developed procedures and appointed a department safety review committee. The draft SAR guidance is under review.

ACTION:

REF: REF will develop appropriate procedures for areas cited during the 1989 TSA.

Laboratory: BNL is reviewing the SAR process to augment the requirement for identification and delineation of the envelope of operating conditions. A draft guidance document on SARs is undergoing review. The Operations Task Force will also address this issue.

MILESTONES:

REF develop procedures.	12/08/89
Integrate with Operation Task Force.	05/31/90
Review draft guidance on SAR.	06/30/90
Issue final guidance in SEAPPM.	09/30/90

COSTS:

To be determined.

ROOT CAUSE:

Informality of operations, inadequate oversight.

REFERENCES:

N/A

ES&H TRACKING REPORT

TSA

TRACKING NO: 418
TRACK REF: OP. 4- 1
DUE DATE: 05/31/91
STATUS: Open

ASSIGNED TO: DO/DEPTS
PRIORITY: 4
HAZARD: H2/C2
CODE: N/A

FINDING:

A configuration control system did not exist requiring identification of safety-related components in the field and requiring formal review and approval before changes are made that may affect safe operation.

RESPONSE/STATUS:

Task Force recommendations will be forwarded to the Associate Director by 09/30/90.

ACTION:

The Operations Task Force will address this concern. A schedule for implementation will have to be determined following concurrence with recommendations of the Committee.

MILESTONES:

Appoint Task Force on Operations.	03/31/90
Recommendations to Director.	09/30/90
Schedule/initiate implementation.	12/31/90
Department/division implement.	05/31/91

COSTS:

To be determined.

ROOT CAUSE:

Informality of operations.

REFERENCES:

N/A

TSA

TRACKING NO: 515
TRACK REF: OP. 5- 1
DUE DATE: 03/31/91
STATUS: Open

ASSIGNED TO: DO/DEPTS
PRIORITY: 4
HAZARD: H2/C2
CODE: N/A

FINDING:

The control, use, and content of operating procedures for experiments are not sufficient to ensure that the experimenter is provided with a well-defined, safe operating envelope.

RESPONSE/STATUS:

The Task Force recommendations are scheduled for 09/30/90. A new guide, Operational Safety Limits, is being drafted.

ACTION:

The Operations Task Force (OP.3-1) will be charged with addressing this issue. A new guide will be developed on operational safety limits, and a section of the SEAPPM will be developed.

MILESTONES:

Appoint Operations Task Force.	03/31/90
Review OSL Draft.	06/30/90
Recommendations to Director.	09/30/90
Submit OSL to Laboratory Safety Committee.	11/30/90
Draft SEAPPM.	12/31/90
Department/division implement.	03/31/91

COSTS:

To be determined.

ROOT CAUSE:

Informality of operations.

REFERENCES:

N/A

TSA

TRACKING NO: 516
TRACK REF: OP. 5- 2
DUE DATE: 01/31/91
STATUS: Open

ASSIGNED TO: NSLS
PRIORITY: 4
HAZARD: H2/C2
CODE: N/A

FINDING:

Controls and procedures are not in place to ensure that access to the NSLS experimental floor area is restricted to authorized and trained users and escorted visitors.

RESPONSE/STATUS:

A system for utilizing the employee and/or visitor ID cards, suitably coded, as entry control via a card-reader system has been agreed upon by all parties, and the order for the new system will be placed shortly. The prototype system utilizing the stockroom withdrawal card system on a single entry door has worked well. The final system will be completed by January 1, 1991.

ACTION:

Two card readers will be placed at the east roll-up door entrances in place of the current digital keypads. The system will be tested with various codes to limit access to tradespeople and the like. If the testing phase is successful, a second phase will be initiated to replace the keypads at all the entry points to the experimental floor.

MILESTONES:

Install card readers, test software.	02/28/90
Purchase/install additional card readers.	07/31/90
Implement final system.	01/31/91

COSTS:

TEC: \$50K.

ROOT CAUSE:

Inadequate implementation of guidelines.

REFERENCES:

N/A

ES&H TRACKING REPORT

TSA

TRACKING NO: 517
TRACK REF: OP. 6- 1
DUE DATE: 09/30/91
STATUS: Open

ASSIGNED TO: DO
PRIORITY: 4
HAZARD: H3/C2
CODE: N/A

FINDING:

Management has not established standards and directives providing a clear, concise statement of acceptable operating status for facilities and experiments.

RESPONSE/STATUS:

The Operations Task Force has been appointed and the report is scheduled for 09/30/90.

ACTION:

The Task Force will be charged with defining the applicability of this concern to other facilities. (See OP.2-1.)

MILESTONES:

See OP.2-1.

COSTS:

See OP.2-1.

ROOT CAUSE:

Informality of operations.

REFERENCES:

N/A

ES&H TRACKING REPORT

TSA

TRACKING NO: 518
TRACK REF: OP. 6- 2
DUE DATE: 09/30/90
STATUS: Open

ASSIGNED TO: DO
PRIORITY: 2
HAZARD: H1/C1
CODE: 29 CFR 1910.147, DOE 5483.1A

FINDING:

BNL Health and Safety Guide 1.5.1, "Lock-Out/Tag-Out Requirements" is not being enforced as required by DOE 5483.1A and 29 CFR 1910.147.

RESPONSE/STATUS:

On October 18, 1989, the Laboratory issued a memo on the requirements of complying with Lock-Out/Tag-Out, requesting that departments/divisions determine where it is applicable and to develop specific procedures that will also be incorporated in the SEAPPM. (See MGMT/BMPF-1.) A draft SEAPPM section is currently under review.

ACTION:

Develop Laboratory SEAPPM for implementation by departments/divisions.

MILESTONES:

Issue draft of recent OSHA guide.	12/31/89
Issue generic procedure on Lock-Out/Tag-Out.	02/02/90
Issue revised 1.5.1 to comply with 29 CFR 1910.147.	04/30/90
Review draft SEAPPM on Lock-Out/Tag-Out.	08/31/90
Issue SEAPPM.	09/30/90

COSTS:

See MGMT/BMPF-1.

ROOT CAUSE:

Inadequate implementation of requirements; insufficient oversight.

REFERENCES:

N/A

ES&H TRACKING REPORT

TSA

TRACKING NO: 519
TRACK REF: OP. 7- 1
DUE DATE: 03/02/90
STATUS: Completed

ASSIGNED TO: DO
PRIORITY: 4
HAZARD: H2/C1
CODE: DOE 5483.1A, 29 CFR 1910.22

FINDING:

The housekeeping in some facilities is poor and is not in accordance with DOE 5483.1A, 29 CFR 1910.22, and generally accepted industrial practice. (See also Concerns OS.5-1 and FP.7-4.)

RESPONSE/STATUS:

The TSA points out that most of the Laboratory was quite clean and orderly, which is a good indication of the Laboratory's commitment to maintain a safe workplace. We will give continued attention and emphasis to maintaining an orderly workplace and stress that this applies to areas off the beaten path. General housekeeping is a part of the department/division safety inspections and was reemphasized during the SEP Tier II assessments. In addition, OSHA training has been provided to over 300 BNL employees.

ACTION:

Reissue reminder for managers to inspect facilities. Continue quarterly inspections.

MILESTONES:

Issue yearly reminder to mgrs. to inspect facilities. 12/31/89
Memo from Director on housekeeping safety. 01/22/90
Complete OSHA training. 03/02/90

COSTS:

N/A

ROOT CAUSE:

Inadequate oversight.

REFERENCES:

N/A

TSA

TRACKING NO: 520
TRACK REF: OP. 8- 1
DUE DATE: 12/31/89
STATUS: Completed

ASSIGNED TO: DO
PRIORITY: 4
HAZARD: H2/C2
CODE: N/A

FINDING:

The depth and breadth of operator knowledge is not commensurate with acceptable industrial practices at facilities of comparable sophistication and complexity.

RESPONSE/STATUS:

N/A

ACTION:

This concern is too general, and the findings do not substantiate that operators cannot perform their jobs safely. Our operators do have detailed knowledge of the equipment for which they are responsible. Whether an operator should have full knowledge of support equipment depends on whether equipment is plant related, in which case plant staff are responsible for appropriate operations/maintenance, or if the support equipment is facility related and controlled by the department/division. In larger facilities, specialized groups handle electrical, vacuum, mechanical, support, and research equipment. It is the operator's responsibility to identify if any support system is affecting the performance of the machine. Issues related to equipment status and training are addressed under operations and training.

MILESTONES:

No action.

12/31/89

COSTS:

N/A

ROOT CAUSE:

N/A

REFERENCES:

N/A

ES&H TRACKING REPORT

TSA

TRACKING NO: 521
TRACK REF: OP. 9- 1
DUE DATE: 09/30/92
STATUS: Open

ASSIGNED TO: DO
PRIORITY: 4
HAZARD: H2/C2
CODE: N/A

FINDING:

BNL has not developed and implemented coding convention standards (color, size, shape, position, and nomenclature) for facility components and equipment.

RESPONSE/STATUS:

There is a Laboratory OH&S standard for piping systems. The standard for electrical systems is the National Electric Code.

ACTION:

A survey of current facilities will be conducted and it will determine if changes are warranted. In addition, BNL has requested assistance from DOE to obtain criteria used at other laboratories with non-reactor facilities.

MILESTONES:

Request DOE assistance.	02/07/90
Initiate evaluation of existing systems.	09/30/91
Initiate changes as warranted.	09/30/92

COSTS:

To be determined.

ROOT CAUSE:

Informality of operations.

REFERENCES:

N/A

ES&H TRACKING REPORT

TSA

TRACKING NO: 562
TRACK REF: OP.10-1
DUE DATE: 04/30/91
STATUS: Open

ASSIGNED TO: AGS/DO
PRIORITY: 4
HAZARD: H2/C2
CODE: N/A

FINDING:

The current shift turnover process does not assure effective and accurate transfer of essential information regarding the facility status between crews and interacting members of the same crew.

RESPONSE/STATUS:

Prior to restart of the AGS in FY91, a complete a procedure manual and training program will be developed for AGS operators. Procedures are expected by the end of August, and training is to be completed by the end of November.

ACTION:

AGS will evaluate current system and establish procedures to assure essential information is being transmitted. Written procedures and training have occurred at facilities managed by PE and at the NSLS. The Laboratory has included this concern as it may relate to other areas on site within the Task Force on Operations and will address the Task Force recommendations by the issuance of one or more SEAPPM guides.

MILESTONES:

NSLS & PE review, revise, implement turnover procedures.	12/31/89
AGS draft information transfer procedures.	03/31/90
Lab. appoints Task Force.	03/31/90
AGS finalizes turnover procedures.	08/31/90
Recommendation from Task Force on other areas.	09/30/90
Complete SEAPPM.	04/30/91

COSTS:

N/A

ROOT CAUSE:

Informality of operations, inadequate safety oversight.

REFERENCES:

N/A

ES&H TRACKING REPORT

TSA

TRACKING NO: 447
TRACK REF: OS. 3- 1
DUE DATE: 04/30/90
STATUS: Completed

ASSIGNED TO: BIO
PRIORITY: 4
HAZARD: H2/C2
CODE: N/A

FINDING:

All pesticide hazards arising in the work place are not identified and controlled.

RESPONSE/STATUS:

See TS/BMPF-2 and TS/BMPF-1. The conditions in Biology have been corrected.

ACTION:

N/A

MILESTONES:

Correct conditions.

04/30/90

COSTS:

N/A

ROOT CAUSE:

Inadequate oversight.

REFERENCES:

N/A

ES&H TRACKING REPORT

TSA

TRACKING NO: 563
TRACK REF: OS. 4- 1
DUE DATE: 04/30/91
STATUS: OPEN

ASSIGNED TO: DO
PRIORITY: 3
HAZARD: H2/C1
CODE: DOE 5483.1A

FINDING:

The priority given to safety is not adequate to ensure that safety performance meets DOE expectations as required by DOE 5483.1A.

RESPONSE/STATUS:

Completion of the concerns listed in the TSA Report will serve to give adequate priority to safety and ensure that safety performance meets DOE expectations. The development of the SEAPPM will codify and formalize the Laboratory's requirements for operations, training, etc., and provide an auditable record of performance.

ACTION:

Complete Tiger Team Action Plan.

MILESTONES:

Complete SEAPPM.

04/30/91

COSTS:

See MGMT/BMPF-1.

ROOT CAUSE:

Inadequate oversight, inadequate implementation of BNL guidelines.

REFERENCES:

N/A

ES&H TRACKING REPORT

TSA

TRACKING NO: 524
TRACK REF: OS. 4- 2
DUE DATE: 04/30/90
STATUS: Completed

ASSIGNED TO: PE
PRIORITY: 2
HAZARD: H1/C1
CODE: DOE 5480.4; DOE 5480.9

FINDING:

BNL is not controlling hazardous conditions at its construction activities and is not enforcing construction safety standards as required by DOE 5480.4 and DOE 5480.9.

RESPONSE/STATUS:

The construction program safety requirement at BNL was reviewed to determine areas requiring changes and/or upgrading. A task force was established to review the construction safety program and to develop a formal safety program and safety procedures. A construction safety specialist was added to the staff. Construction specifications were modified to require contractors to attend safety briefing. PE construction and management personnel have been trained. Upgrade construction safety program.

ACTION:

N/A

MILESTONES:

Draft policy.	01/31/90
Modify construction specifications.	02/28/90
Complete policy.	03/31/90
Complete training.	04/30/90

COSTS:

N/A

ROOT CAUSE:

Inadequate implementation of OSHA and DOE standards.

REFERENCES:

N/A

TSA

TRACKING NO: 525
TRACK REF: OS. 4- 3
DUE DATE: 06/30/91
STATUS: Open

ASSIGNED TO: SEP
PRIORITY: 3
HAZARD: H1/C1
CODE: N/A

FINDING:

BNL has not established a formal program to track the corrective actions identified during injury and illness recording, investigation, and reporting.

RESPONSE/STATUS:

The Incident Investigations, Tracking and Analysis Program has been established. The SEP SOP has been written and tracking has been implemented.

ACTION:

BNL will develop and implement a formal procedure to track corrective actions identified during investigations of injury and illness. The program will include changes to the existing Occupational Safety Management Information System records of a data base to document and track the corrective actions. A new tracking/trending office will be established to coordinate on-site tracking/finding and "lessons-learned" analysis of all accidents. (MGMT/BMPF-2).

MILESTONES:

Evaluate methods of using existing resources to accomplish goals.	01/31/90
Draft SEP SOP and develop appropriate data base.	05/31/90
Implement tracking procedures.	06/30/90
Integrate with lessons learned program.	06/30/91

COSTS:

Included in MGMT/BMPF-5.

ROOT CAUSE:

Inadequate oversight.

REFERENCES:

N/A

ES&H TRACKING REPORT

TSA

TRACKING NO: 526
TRACK REF: OS. 5- 1
DUE DATE: 09/30/90
STATUS: Open

ASSIGNED TO: DO
PRIORITY: 3
HAZARD: H1/C1
CODE: DOE 5483.1A

FINDING:

BNL is not consistently enforcing the use of personnel protective equipment as required by DOE 5483.1A.

RESPONSE/STATUS:

BNL is proceeding to address this recommendation in accordance with the milestone schedule found in the Action Plan. The root cause of this problem has been the inconsistent enforcement of the established Laboratory policy on the use of personal protective equipment by supervisors. Department chairmen and division heads have been instructed by the Directorate that this policy must be enforced. A draft SEAPPM on use of protective equipment is currently under review.

ACTION:

Develop SEAPPM on use of protective equipment. Increase oversight during department/division inspections and Tier II audits.

MILESTONES:

Issue directive to enforce use of protective equipment.	01/31/90
Develop policy/procedures for protective equipment for inclusion in the SEAPPM.	08/31/90
Implement procedures.	09/30/90

COSTS:

See MGMT/BMPF-1.

ROOT CAUSE:

Inadequate oversight.

REFERENCES:

N/A

ES&H TRACKING REPORT

TSA

TRACKING NO: 527
TRACK REF: OS. 5- 2
DUE DATE: 02/28/91
STATUS: Open

ASSIGNED TO: SM/SEP
PRIORITY: 3
HAZARD: H2/C1
CODE: DOE 5480.4

FINDING:

The BNL Compressed Gas Cylinder Safety Policy and Procedures do not meet DOE 5480.4 requirements.

RESPONSE/STATUS:

All compressed gas cylinders which have failed hydrostatic testing have had valves removed and marked "out of service" per S&M procedures. The contract for cylinder testing has been revised, so that the Laboratory will not accept failed cylinders. A review of storage of all cylinder storage has been done to insure that they are properly secured.

ACTION:

BNL Occupational Health and Safety Guide 1.4.0, dated 10/18/78, is currently being revised to insure compliance with DOE 5480.4. A review of storage of all cylinder storage has been done to insure that they are properly secured.

MILESTONES:

Remove valves on failed cylinders.	02/28/90
Install new gas detection system.	06/30/90
Revise, and LSC approval of OHS Guide 1.4.0.	02/28/91

COSTS:

FY90: \$43K.

ROOT CAUSE:

Inadequate implementation of DOE requirements.

REFERENCES:

N/A

ES&H TRACKING REPORT

TSA

TRACKING NO: 448
TRACK REF: OS. 5- 3
DUE DATE: 09/30/90
STATUS: Open

ASSIGNED TO: PE
PRIORITY: 3
HAZARD: H1/C1
CODE: OSHA Section 5(a)(1)

FINDING:

Egress or rescue capability is not provided for the catch basins as required by the Occupational Safety and Health Act, Section 5(a) (1).

RESPONSE/STATUS:

Plant Engineering and Safety and Environmental Protection Divisions reviewed the requirements at both catch basins to meet the OSHA requirements and to determine the best method of providing egress and rescue capability.

ACTION:

BNL will provide life-saving equipment at both lagoons and provide egress capability.

MILESTONES:

Provide life-saving equipment at lagoons. 04/30/90
Provide egress capability. 09/30/90

COSTS:

FY90: \$2K.

ROOT CAUSE:

Inadequate implementation of OSHA requirements.

REFERENCES:

N/A

ES&H TRACKING REPORT

TSA

TRACKING NO: 528
TRACK REF: OS. 6- 1
DUE DATE: 01/31/90
STATUS: Completed

ASSIGNED TO: SEP
PRIORITY: 3
HAZARD: H2/C1
CODE: DOE 5483.1A

FINDING:

BNL is not posting their injury and illness data as required by DOE 5483.1A.

RESPONSE/STATUS:

An SEP SOP was developed to insure injury and illness data are posted as required by DOE 5483.1A.

ACTION:

N/A

MILESTONES:

Draft SEP SOP on posting requirements.
Implement posting requirements.

12/31/89
01/31/90

COSTS:

N/A

ROOT CAUSE:

Inadequate implementation of DOE requirements.

REFERENCES:

N/A

TSA

TRACKING NO: 529
TRACK REF: OS. 6- 2
DUE DATE: 01/31/90
STATUS: Completed

ASSIGNED TO: SEP
PRIORITY: 3
HAZARD: H2/C1
CODE: DOE 5483.1A

FINDING:

BNL safety training program is not adequate as required by DOE 5483.1A.

RESPONSE/STATUS:

DOE 5483.1A requires that all contractor employees be informed of specific information. Most are required to be instructed at least annually. Specifically, the order lists five areas of information that must be covered. The requirement is that this information be disseminated on an annual basis. The areas required by the order are included with our occupational worker training required under 5480.11. Putting this information in our Occupational Worker program would seem appropriate, as it covers all employees, and must include retraining. (See IH.6-1, MGMT/BMPF-1.)

ACTION:

N/A

MILESTONES:

Research DOE 5483.1A requirements.	11/30/89
Develop training materials.	12/31/89
Issue safety bulletin to all employees.	03/31/90
Include with occupational worker training.	01/31/90

COSTS:

N/A

ROOT CAUSE:

Inadequate implementation of DOE requirements.

REFERENCES:

N/A

ES&H TRACKING REPORT

TSA

TRACKING NO: 530
TRACK REF: PT. 2- 1
DUE DATE: 09/30/91
STATUS: Open

ASSIGNED TO: SM/SEP
PRIORITY: 3
HAZARD: H3/C1
CODE: DOE 5480.3, DOE 5482.1B

FINDING:

BNL has not routinely audited packaging and transportation functions as required by DOE 5480.3 and DOE 5482.1B.

RESPONSE/STATUS:

ISM Group has been included in the Safeguards and Security Division audit program. An audit has been performed.

ACTION:

Periodic Laboratory-wide audits of I&SM, Hazardous Waste Management (SEP), and Supply and Materiel Division (S&M) will be scheduled using the following criteria: program documentation, surveillance of activities; policies, directives, and procedures; management control systems; and conduct of packaging and transportation, including movement of hazardous materials.

MILESTONES:

Schedule/Conduct I&SM P&T audit.	10/31/89
P&T Manual.	10/31/90
Audit BNL P&T Operations.	09/30/91

COSTS:

FY91: \$10K/year for audit.

ROOT CAUSE:

Inadequate oversight.

REFERENCES:

N/A

ES&H TRACKING REPORT

TSA

TRACKING NO: 531
TRACK REF: PT. 3- 1
DUE DATE: 04/30/91
STATUS: Open

ASSIGNED TO: SM
PRIORITY: 3
HAZARD: H3/C1
CODE: DOE 5480.3/5480.4

FINDING:

BNL does not have policies and procedures for handling, packaging, and shipping hazardous materials, substances, and wastes, as required by the health, safety, and environmental requirements of DOE 5480.3 and 5480.4.

RESPONSE/STATUS:

An Ad Hoc Committee, composed of members from SEP, ISM, and S&M, was appointed to recommend procedures for packaging, shipping, and handling hazardous materials. This committee also made recommendations concerning PT.4-1, PT.5-1, and PT.6-1. The Ad Hoc Committee will continue to function until the P&T manual has been developed.

ACTION:

A P&T policy/procedures manual will be developed. P&T requirements will be included in the SEAPPM.

MILESTONES:

Appoint Ad Hoc Committee (ISM, SM, SEP, HWM)	12/06/89
Recommend policy/procedures.	03/31/90
Issue Procedures Manual.	10/31/90
Include policy/procedures, assignments in SEAPPM.	04/30/91

COSTS:

N/A

ROOT CAUSE:

Informality of operations, inadequate implementation of DOE requirements.

REFERENCES:

N/A

ES&H TRACKING REPORT

TSA

TRACKING NO: 532
TRACK REF: PT. 4- 1
DUE DATE: 09/30/91
STATUS: Open

ASSIGNED TO: SM/SEP
PRIORITY: 2
HAZARD: H3/C1
CODE: DOE 5480.1A

FINDING:

BNL does not have safety oversight of Packaging and Transportation (P&T) operations as required by DOE 5480.1A.

RESPONSE/STATUS:

A manager for P&T operations has been appointed. He is responsible for assuring that P&T operations are conducted in accordance with DOE 5480.1A. SEP Division is responsible for auditing the safety of these operations. This function is conducted through the Tier II appraisals.

ACTION:

Line of responsibility must be assigned for P&T operations. Safety oversight remains with SEP.

MILESTONES:

Appoint manager of P&T operations.
Site wide audit P&T.

03/31/90
09/30/91

COSTS:

N/A

ROOT CAUSE:

Informality of operations, inadequate oversight.

REFERENCES:

N/A

ES&H TRACKING REPORT

TSA

TRACKING NO: 533
TRACK REF: PT. 5- 1
DUE DATE: 09/30/91
STATUS: Open

ASSIGNED TO: S&M
PRIORITY: 3
HAZARD: H2/C1
CODE: DOE 5480.1A

FINDING:

BNL does not conduct handling, storage, intra-site movements, and emergency response aspects of hazardous materials, substances, and wastes (including hazardous, mixed, and radioactive) and does not have adequate safety requirements to meet the full intent of the health, safety, and environmental requirements of DOE 5480.1A. (See Concern EP.1-1.)

RESPONSE/STATUS:

An advisory committee has been established that includes representatives from the S&M, ISM, and SEP groups. In addition to the preparation of the P&T Manual to address the intra-site shipments of hazardous materials, there are two programs being pursued to assist the overall hazardous materials program at BNL. The hazardous materials carried in the inventory are all being coded to show the standard UN Classification Number and Emergency Response Guide Number associated with the material. This will assist the receiving, transportation, and emergency response personnel in handling and reacting to hazardous materials. The second action involves the modification of the Laboratory Work Copy to include a Hazardous Material Indicator (HMI), which will provide personnel with necessary hazardous information regarding the material.

ACTION:

Overall responsibility for P&T Operations has been assigned to the Supply and Material Division.

MILESTONES:

Assign responsibilities for P&T operations.	03/31/90
Manager of S&M appoint advisory committee.	04/15/90
Complete P&T Manual.	10/31/90
Audit P&T function.	09/30/91

COSTS:

N/A

ROOT CAUSE:

Inadequate implementation of DOE requirements.

REFERENCES:

N/A

ES&H TRACKING REPORT

TSA

TRACKING NO: 534
TRACK REF: PT. 6- 1
DUE DATE: 07/31/91
STATUS: Open

ASSIGNED TO: S&M
PRIORITY: 3
HAZARD: H2/C1
CODE: DOE 5480.3, DOE 5480.1A

FINDING:

The BNL training program for personnel with P&T functions does not meet the existing standards of DOE 5480.3(7/9/85) for off-site shipment or 5480.1A for intra-site movements. (See Concern TC.1-1.)

RESPONSE/STATUS:

DOT training was provided to staff members in SEP, SSD, and S&M in February. P&T training needs will be addressed in light of the recommendations of the Task Force on Training.

ACTION:

This concern is also part of the overall efforts of the P&T Manager and advisory committee. (See MGMT/BMPF-7.)

MILESTONES:

Provide training to those who do most P&T operations.	02/28/90
Prepare P&T manual.	10/31/90
Training Task Force Recommendations.	02/28/91
Integrate P&T Training with Task Force Recommendations.	05/31/91
Schedule training.	07/31/91

COSTS:

To be determined.

ROOT CAUSE:

Inadequate implementation of DOE requirements.

REFERENCES:

N/A

TSA

TRACKING NO: 535
TRACK REF: PT. 6- 3
DUE DATE: 09/30/91
STATUS: Open

ASSIGNED TO: SEP
PRIORITY: 3
HAZARD: H3/C1
CODE: DOE 5480.4, 40 CFR 112

FINDING:

BNL does not have a spill prevention, control, and countermeasures program which meets all the requirements of DOE 5480.4 and 40 CFR 112.

RESPONSE/STATUS:

The Laboratory has a fully operational SPCC Plan for the Central Steam Facility that is designed to meet the requirements of oils, etc. The plan is countersigned by a PE as per requirements. In addition, at the HWMA we have plans for hazardous spills. The Laboratory has an established protocol that relates to oil and chemical spills. This includes the hazardous spills.

ACTION:

Further planning for non-radiological spills at other areas is being addressed under EP.1-1. SPCC plans will be included in the local and site emergency plans. Local and site plans will be reviewed.

MILESTONES:

Complete review/update of spill plans.	07/31/91
Integrate into the site-wide non-rad. emergency plan.	09/30/91

COSTS:

FY90: \$32K.

ROOT CAUSE:

Differences in the interpretation of regulations.

REFERENCES:

N/A

ES&H TRACKING REPORT

TSA

TRACKING NO: 536
TRACK REF: QV. 1- 1
DUE DATE: 09/30/90
STATUS: Open

ASSIGNED TO: QA
PRIORITY: 3
HAZARD: H2/C1
CODE: DOE 5700.6B

FINDING:

Documented and approved quality assurance plans are not all in place at BNL as required by the BNL Quality Assurance Manual and DOE 5700.6B.

RESPONSE/STATUS:

All 21 departments/divisions have appointed designated quality assurance representatives. Nineteen of the 21 departments/divisions have now prepared formal QA programs.

ACTION:

The remaining two departments will complete their QA programs by 09/30/90. (See MGMT/CF-5, Environmental QA/BMPF-1, QA/BMPF-2.)

MILESTONES:

Appoint designated quality assurance representatives. 12/31/89
Complete department/divisions QA Plans. 09/30/90

COSTS:

N/A

ROOT CAUSE:

Inadequate resources.

REFERENCES:

N/A

TSA

TRACKING NO: 537
TRACK REF: QV. 1- 2
DUE DATE: 12/31/90
STATUS: Open

ASSIGNED TO: QA
PRIORITY: 3
HAZARD: H2/C1
CODE: DOE 5700.6B

FINDING:

Independent verifications, surveillances, and audits of quality attainment within the departments, divisions, and projects are too few to enable the BNL Director and his line managers to review and evaluate the implementation of their quality assurance programs, as required by DOE 5700.6B.

RESPONSE/STATUS:

Seventeen of the 21 departments/divisions have prepared audit schedules for calendar years 1990 and 1991. Some departments/divisions have begun to conduct internal audits in accordance with their audit schedules.

ACTION:

The remaining four are expected to prepare their schedules before 09/30/90. The audits will be performed in accordance with the schedules and contingent upon resource availability. (Staffing is identified in MGMT/CF-5.)

MILESTONES:

Prepare audit schedules and initiate.

12/31/90

COSTS:

See MGMT/CF-5.

ROOT CAUSE:

Inadequate resources.

REFERENCES:

N/A

DATE: 08/29/90

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ES&H TRACKING REPORT

TSA

TRACKING NO: 406
TRACK REF: QV. 1- 3
DUE DATE: 06/30/90
STATUS: Open

ASSIGNED TO: QA
PRIORITY: 4
HAZARD: H2/C2
CODE:

FINDING:

The Quality Assurance Steering Committee functions and lines of communication are not addressed in the Brookhaven National Laboratory Quality Assurance Manual.

RESPONSE/STATUS:

A description of the Quality Assurance Steering Committee functions and lines of communication was added to Part I of the BNL Quality Assurance Manual. The revised pages are currently being printed and will be distributed to Manual holders in early August.

ACTION:

The Quality Assurance Steering Committee functions and lines of communication will be described in Part I of the BNL Quality Assurance Manual.

MILESTONES:

Include Steering Committee description in QA Manual.

06/30/90

COSTS:

N/A

ROOT CAUSE:

Informality of operations.

REFERENCES:

N/A

TSA

TRACKING NO: 407
TRACK REF: QV. 1- 4
DUE DATE: 12/31/90
STATUS: Open

ASSIGNED TO: QA
PRIORITY: 3
HAZARD: H2/C2
CODE: N/A

FINDING:

Quality assurance audits at Brookhaven National Laboratory conducted by both the Quality Assurance Office and Designated Quality Assurance Representatives do not cover all departments and divisions as required by Laboratory policy. (Also see Concern QV.1-2, Appendix B.)

RESPONSE/STATUS:

Since the Tiger Team Assessment in April 1990, the BNL Quality Assurance Office has conducted, or is in the process of conducting, four audits in four departments/divisions. Some departments/divisions have begun to conduct internal audits in accordance with their audit schedules.

ACTION:

This should be part of TSA Concern QV.1-2. The QA Office will perform audits in approximately 14 Departments/Divisions annually. The QA Office will develop a computerized audit-tracking system for its audits.

MILESTONES:

Computerize audit tracking.
Initiate audits.

09/30/90
12/31/90

COSTS:

QA office costs have been included in estimate given in MGMT/CF-5.

ROOT CAUSE:

Inadequate resources.

REFERENCES:

N/A

ES&H TRACKING REPORT

TSA

TRACKING NO: 408
TRACK REF: QV. 1- 5
DUE DATE: 02/01/91
STATUS: N/A

ASSIGNED TO: DOE
PRIORITY: 3
HAZARD: H2/C2
CODE: DOE 5700.6B

FINDING:

The Chicago Operations Office had not conducted timely quality verification audits as required by DOE 5700.6B.

RESPONSE/STATUS:

DOE 5700.6B does not specify frequency for conducting quality verification audits. It has been recognized, however, that an increased frequency of QA audits by CH is needed. Transferring of QA oversight responsibilities to ESHD will begin to address this need. This concern will be addressed as part of the plan to correct Management and Organization Finding MGMT/CF-8.

ACTION:

See MGMT/CF-8.

MILESTONES:

See MGMT/CF-8.

COSTS:

N/A

ROOT CAUSE:

Inadequate resources.

REFERENCES:

See MGMT/CF-8 and MGMT/BMPF-12.

TSA

TRACKING NO: 409
TRACK REF: QV. 2- 1
DUE DATE: 09/30/90
STATUS: Open

ASSIGNED TO: QA
PRIORITY: 4
HAZARD: H2/C2
CODE: N/A

FINDING:

Brookhaven National Laboratory does not currently have a system in place for the evaluation and control of suppliers based on their past performance.

RESPONSE/STATUS:

Fourteen of eighteen departments/divisions have procedures for the use of Form BQF-003, or an equivalent form, and have indicated that the procedures are being implemented.

ACTION:

Departments/Divisions shall implement their BQF-003 procedures for nonconforming critical and major-purchased items (see Action Plan for QV.5-1). Copies of BQF-003 forms for nonconforming critical and major-purchased items shall be forwarded to the Division of Contracts and Procurement (DCP). DCP shall establish and implement a system for evaluating suppliers.

MILESTONES:

Departments/Divisions implement BQF-003 procedure.	06/30/90
Copies of BQF for nonconformances to DCP.	06/30/90
DCP to establish and implement evaluation system.	09/30/90

COSTS:

\$30K/yr.

ROOT CAUSE:

Informality of operations.

REFERENCES:

N/A

ES&H TRACKING REPORT

TSA

TRACKING NO: 538
TRACK REF: QV. 4- 1
DUE DATE: 09/30/91
STATUS: Open

ASSIGNED TO: QA
PRIORITY: 4
HAZARD: H2/C2
CODE: N/A

FINDING:

The BNL policy for calibration of measuring and testing equipment is not implemented by all departments and divisions.

RESPONSE/STATUS:

Twelve of seventeen departments/divisions have developed procedures documenting calibration systems and lists of equipment requiring calibration, including calibration frequency.

ACTION:

Each department/division will document and implement a system for calibrating and maintaining measurement and test equipment used for activities affecting the safety of its work. Measurement and test equipment that will be calibrated at BNL (rather than by an off-site service organization) will require documented procedures that detail the exact method of calibration for each type of equipment. Manufacturer's instructions will usually suffice, where appropriate.

MILESTONES:

Procedures documenting calibrating systems.	09/30/90
Prepare list of safety equipment requiring calibration.	11/30/90
Prepare schedule for calibration.	01/31/91
Impl. calibration to extent practical w/ existing funds	03/31/91
Budget for implementation.	06/30/91
Implement calibration systems.	09/30/91

COSTS:

TEC: Included in MGMT/CF-5.

ROOT CAUSE:

Informality of operations, inadequate resources.

REFERENCES:

N/A

DATE: 08/29/90

ES&H TRACKING REPORT

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TSA

TRACKING NO: 539
TRACK REF: QV. 5- 1
DUE DATE: 03/31/91
STATUS: Open

ASSIGNED TO: DEPTS
PRIORITY: 3
HAZARD: H2/C2
CODE: N/A

FINDING:

BNL management is not enforcing its basic policies for nonconformance issues.

RESPONSE/STATUS:

See QV.5-2.

ACTION:

This is a duplicate Concern. See Tracking No. 410 (QV.5-2).

MILESTONES:

See Tracking No. 410 (QV.5-2).
Departments implement.

09/30/90
03/31/91

COSTS:

N/A

ROOT CAUSE:

N/A

REFERENCES:

N/A

ES&H TRACKING REPORT

TSA

TRACKING NO: 410
TRACK REF: QV. 5- 2
DUE DATE: 03/31/91
STATUS: Open

ASSIGNED TO: QA
PRIORITY: 4
HAZARD: H2/C2
CODE: N/A

FINDING:

A formal system for the disposition of nonconforming materials has not been implemented by all Brookhaven National Laboratory departments and divisions.

RESPONSE/STATUS:

Twelve of nineteen departments/divisions have prepared nonconforming item procedures.

ACTION:

Each department/division shall prepare a procedure for the disposition and control of nonconforming critical and major items. Each department/division shall prepare and maintain a listing of personnel designated to approve use-as-is and repair dispositions for critical and major items. Each department/division shall implement their procedures for nonconforming critical and major items.

MILESTONES:

Depts/divs. prepare nonconforming item procedure.	09/30/90
Depts/divs. prepare listing of designees.	09/30/90
Depts/divs. implement nonconforming item procedures.	03/31/91

COSTS:

N/A

ROOT CAUSE:

Informality of operations.

REFERENCES:

N/A

TSA

TRACKING NO: 411
TRACK REF: QV. 5- 3
DUE DATE: 05/31/91
STATUS: Open

ASSIGNED TO: Operations Task Force
PRIORITY: 4
HAZARD: H2/C2
CODE: ANSI/ASME NQA-1

FINDING:

Identification, control, and storage of safety-related hardware and materials are not being performed in accordance with ANSI/ASME NQA-1 requirements.

RESPONSE/STATUS:

The AGS tachometer generator has been shipped to the supplier for repair. When it is returned, it will be tagged and stored in a manner that will protect it from damage. The AGS brushes are now identified as A-2 items. The spare Radiation Averages printed circuit boards are now identified as S-2 items, and are stored in a locked cabinet.

ACTION:

The substance of this concern will be addressed by the Operations Task Force, which was asked to develop policy and guidance for the identification, control, and storage of safety-related items.

MILESTONES:

See OP.3-1.
Implementation by departments/divisions.

05/31/91

COSTS:

To be determined.

ROOT CAUSE:

Insufficient oversight.

REFERENCES:

N/A

TSA

TRACKING NO: 412
TRACK REF: QV. 6- 1
DUE DATE: 03/31/91
STATUS: Open

ASSIGNED TO: QA
PRIORITY: 4
HAZARD: H2/C2
CODE: ANSI/ASME NQA 1

FINDING:

Personnel requesting inspections and tests do not always provide acceptance instructions or procedures describing the effort to be performed and the criteria for acceptance, as required by ANSI/ASME NQA-1.

RESPONSE/STATUS:

Procedures are being developed.

ACTION:

Each department/division shall prepare a procedure for the preparation of inspection instructions for critical and major items. Each department/division shall implement their procedure for the preparation of inspection instructions for critical and major items.

MILESTONES:

Depts/divs. prepare inspection instruction procedure. 09/30/90
Depts/divs. implement procedure. 03/31/91

COSTS:

See MGMT/BMPF-5.

ROOT CAUSE:

Informality of operations.

REFERENCES:

N/A

DATE: 08/29/90

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TSA

TRACKING NO: 413
TRACK REF: QV. 7- 1
DUE DATE: 08/31/90
STATUS: Open

ASSIGNED TO: CS
PRIORITY: 4
HAZARD: H2/C2
CODE: N/A

FINDING:

Material identification requirements are not adequately provided in welding rod control procedures and practices.

RESPONSE/STATUS:

The following Central Shops Division SOPs have been written and are being prepared for distribution: (1) SOP 5.1.0, Control of Welding Rods in Central Shops; (2) SOP 5.3.0, Storage of Welding Rods; and (3) SOP 5.4.0, Use of Welding Rods by Welders.

ACTION:

SOP 5.1.0 will be updated to include a control of welding rod storage and the flag-tagging of all welding rods purchased by Central Shops. (All welding rods are purchased with flag-tags as an existing procedure.)

MILESTONES:

Procedure written for both storage & flag-tagging.
SOP will be implemented.

06/30/90
08/31/90

COSTS:

N/A

ROOT CAUSE:

Insufficient oversight.

REFERENCES:

N/A

ES&H TRACKING REPORT

TSA

TRACKING NO: 540
TRACK REF: RP. 3- 1
DUE DATE: 12/31/91
STATUS: Open

ASSIGNED TO: SEP
PRIORITY: 4
HAZARD: H3/C2
CODE: DOE 5480.11

FINDING:

Implementation of some aspects, particularly radiation worker retraining, of DOE 5480.11 will not be accomplished by January 1, 1990, as specified in BNL's Implementation Plan. (See also Concern TC.2-1).

RESPONSE/STATUS:

The Laboratory disagrees with this finding. Since January 1990, all newly hired radiation workers have received radiation worker training. Changes to DOE 5480.11, dated 03/13/90, allows retraining of workers employed before 01/01/90 to be accomplished before 12/31/91.

ACTION:

The Laboratory will train and certify all radiation workers before 12/31/91 in compliance with the revised order. (See MGMT/BMPF-7.)

MILESTONES:

Begin retraining of radiation workers. 09/30/90
Complete retraining of radiation workers. 12/31/91

COSTS:

Included in MGMT/BMPF-7.

ROOT CAUSE:

N/A

REFERENCES:

N/A

TSA

TRACKING NO: 541
TRACK REF: RP. 3- 2
DUE DATE: 09/30/90
STATUS: Open

ASSIGNED TO: SEP/DEPTS
PRIORITY: 4
HAZARD: H2/C2
CODE: N/A

FINDING:

BNL does not have uniform posting in radiation areas.

RESPONSE/STATUS:

All departments were required to review and appropriately post radiation signs (1/90). A memo has been sent to department coordinators to inform each department/division that the audit will take place. Audit by SEP has been completed and deficiencies identified.

ACTION:

The SEP representatives will audit another representative's area for posting of radiation areas. The BSS Procedure No. 37, "Radiological Posting Requirements", will be used as the document which lists the posting requirements. Each representative will determine that his or her own department/division has corrected the items of non-compliance in the audit. This should be completed by September 30, 1990.

MILESTONES:

Correct deficiencies.

09/30/90

COSTS:

N/A

ROOT CAUSE:

Insufficient oversight.

REFERENCES:

N/A

ES&H TRACKING REPORT

TSA

TRACKING NO: 542
TRACK REF: RP. 3- 3
DUE DATE: 09/30/91
STATUS: Open

ASSIGNED TO: SEP
PRIORITY: 4
HAZARD: H2/C2
CODE: N/A

FINDING:

In general, there are no formal, documented departmental radiation protection procedures which implement the guides in the BNL Safety Manual.

RESPONSE/STATUS:

N/A

ACTION:

The Laboratory will develop a plan to implement departmental radiation protection procedures (DRPP) based on a generic plan, which can be amended by the different departments as appropriate. This requirement will be transmitted to the departments with some interpretive guidance and a procedure for concurrence and approval. After concurrence, the DRPP must be distributed to the staff with implementing procedures.

MILESTONES:

Draft SEAPPM module for RPP.	10/31/90
Identify operation and Building Safety Services proc.	11/30/90
Develop sample plans/procedures.	03/31/91
RPP's approved in all departments	09/30/91

COSTS:

Included in MGMT/BMPF-1.

ROOT CAUSE:

Inadequate implementation of guidelines.

REFERENCES:

N/A

TSA

TRACKING NO: 543
TRACK REF: RP. 3- 4a
DUE DATE: 09/30/91
STATUS: Open

ASSIGNED TO: AGS
PRIORITY: 2
HAZARD: H1/C2
CODE: BNL Safety Manual

FINDING:

Many of the interlock systems are not consistent with the BNL Safety Manual. (See also Concern OA.5-1.)

RESPONSE/STATUS:

At the AGS, independent review of the interlock systems by two Ad Hoc Committees has confirmed that common summing points for parallel circuits for dual interlocks exist in many areas. The Committees have recommended appropriate fixes.

ACTION:

AGS: These common summing problems will be corrected during the summer shutdown. When the AGS, Linac and slow beam areas are made new or modified for higher intensity beam, sequenced inspection stations will be used as appropriate.
Additions to the interlock testing checklists, such as non-technical descriptions of the test will be implemented by October 1, 1990.

MILESTONES:

Correct common summing problems.	10/01/90
For input devices, rewrite testing checklists.	10/01/90
Replace admin. procedures w/sequenced inspec. stations.	09/30/91

COSTS:

To be determined.

ROOT CAUSE:

Insufficient oversight.

REFERENCES:

N/A

TSA

TRACKING NO: 543
TRACK REF: RP. 3- 4b
DUE DATE: 04/30/90
STATUS: Open

ASSIGNED TO: NSLS
PRIORITY: 2
HAZARD: H1/C2
CODE: BNL Safety Manual

FINDING:

Many of the interlock systems are not consistent with the BNL Safety Manual. (See also Concern OA.5-1.)

RESPONSE/STATUS:

NSLS: Design changes to the x-ray and LINAC interlocks have been made to provide enhanced redundancy in those systems comparable to that provided in the x-ray beamline interlock systems. Testing protocols were developed for the upgraded systems. Upgrades were installed during the maintenance period in late March 1990. A "crossover" connection between the redundant chains in the x-ray ring interlock system was removed. A new test procedure for the modified system which also verifies redundancy has been developed. System was tested and returned to service.

ACTION:

N/A

MILESTONES:

Modify x-ray ring interlock.	09/30/89
Develop new test procedure.	09/30/89
Test x-ray interlock and return to service.	09/30/89
Complete upgrade design.	01/31/90
Complete installation and test.	04/30/90

COSTS:

To be determined.

ROOT CAUSE:

Insufficient oversight.

REFERENCES:

N/A

TSA

TRACKING NO: 543
TRACK REF: RP. 3- 4c
DUE DATE: 08/31/91
STATUS: Open

ASSIGNED TO: DO/DEPTS
PRIORITY: 2
HAZARD: H1/C2
CODE: BNL Safety Manual

FINDING:

Many of the interlock systems are not consistent with the BNL Safety Manual. (See also Concern OA.5-1.)

RESPONSE/STATUS:

Laboratory: The Laboratory established an Interlock Review Committee (IRC) to review designs, identify deficiencies, and recommend policies and procedures on design, testing, maintenance and documentation.

ACTION:

Based on current Laboratory requirements and recommendations from the IRC, a SEAPPM on interlocks will be developed.

MILESTONES:

Issue memo on interlocks.	10/18/89
Establish Interlock Review Committee.	02/28/90
IRC Recommendation to Laboratory.	08/31/90
Issue SEAPPM on interlock.	09/30/90
Review the system design/document.	12/28/90
Resolve deficiencies.	08/31/91

COSTS:

See MGMT/BMPF-1.

ROOT CAUSE:

Inefficient oversight.

REFERENCES:

N/A

TSA

TRACKING NO: 440
TRACK REF: RP. 3- 5
DUE DATE: 06/30/91
STATUS: Open

ASSIGNED TO: SEP
PRIORITY: 3
HAZARD: H2/C2
CODE: N/A

FINDING:

Many radiation protection procedures developed and used by operations personnel are outdated or do not apply accepted good practices. (Also see Concern MA.8-2.)

RESPONSE/STATUS:

N/A

ACTION:

All current procedures associated with safety will be entered into the Safety and Environmental Policy and Procedures Manual (SEAPPM). To ensure that all procedures comply with currently accepted good practice, all departments will review their radiological protection procedures and update them in consultation with SEP. To provide guidance on developing and reviewing procedures, each department will issue an SOP on SOP preparation. This SOP will become part of each department's SEAPPM. The documented procedure will then be used to review and issue all departmental radiation protection procedures. The SEP Representatives will be asked to identify areas where procedures would benefit safety.

MILESTONES:

Departments identify procedures required by RPP.	11/30/90
Submit draft RPP Plan and procedures approval.	03/31/91
Initiate training program for personnel using RPPs.	06/30/91

COSTS:

To be determined.

ROOT CAUSE:

Insufficient oversight.

REFERENCES:

See RP.3-3.

TSA

TRACKING NO: 441
TRACK REF: RP. 3- 6
DUE DATE: 09/30/91
STATUS: Open

ASSIGNED TO: SEP
PRIORITY: 4
HAZARD: H2/C2
CODE: N/A

FINDING:

Procedures issued by S&EP are not being effectively tracked for review, revision, and approval.

RESPONSE/STATUS:

Most SEP procedures were current. The procedures cited by the reviewer are being reviewed and will be reissued. In addition, a tracking system has been designed and will be implemented to ensure timely review in the future.

ACTION:

Review and revision of Hazardous Waste Management Procedures (approximately 60) has been initiated and will be completed by end of next fiscal year. The "landfill monitor" procedure has been revised and will be issued by 10/01/90. The tracking system for all SEP procedures will be issued by 09/30/90. BNL will create a tracking system for all SEP Division Standard Operation Procedures (SOPs). Tracking system when implemented will identify SOPs which are due for review.

MILESTONES:

BSS-2 procedure reissued.	10/01/90
Tracking system developed and initiated.	10/01/90
HWM procedures reissued.	09/30/91

COSTS:

N/A

ROOT CAUSE:

Insufficient oversight.

REFERENCES:

N/A

ES&H TRACKING REPORT

TSA

TRACKING NO: 442
TRACK REF: RP. 3- 7
DUE DATE: 03/31/91
STATUS: Open

ASSIGNED TO: SEP
PRIORITY: 3
HAZARD: H2/C1
CODE: DOE 5480.1

FINDING:

The existing Radiation Work Permit form lacks information required to ensure work is performed safely and does not ensure "as low as reasonably achievable."

RESPONSE/STATUS:

OS&H Guide 3.4.1 is undergoing revision. Written protective clothing specifications are required by OH&S Guide 3.5.0 for entry to all contamination and airborne radioactivity areas. Safety Instructions as described in 3.5.1 are a convenient way to do this.

ACTION:

Guide 3.4.1, "Safety Instructions, Written Procedures, and Radiation Work Permits," will be revised to incorporate a more stringent RWP program based upon commonly accepted industry practices adapted to the Laboratory requirements.

MILESTONES:

Draft new guide.	09/30/90
Review/approve guide.	11/30/90
Implement program.	03/31/91

COSTS:

N/A

ROOT CAUSE:

Insufficient oversight.

REFERENCES:

N/A

TSA

TRACKING NO: 443
TRACK REF: RP. 3- 8
DUE DATE: 08/01/90
STATUS: Completed

ASSIGNED TO: SEP
PRIORITY: 3
HAZARD: H2/C3
CODE: N/A

FINDING:

Brookhaven National Laboratory does not have an effective program to control access to radiological areas.

RESPONSE/STATUS:

BNL has updated guidance for compliance with DOE 5480.11. Guides 3.5.0 and 3.4.0 define requirements for access to radiological areas. Training of employees has been initiated.

ACTION:

BNL will define access control rules, based on perceived risk, for different parts of the Laboratory and training will be conducted.

MILESTONES:

Update 3.4.0 and 3.5.0.	12/31/89
Guidance on uniform posting.	01/30/90
Audit areas.	07/31/90
Initiate training program.	08/01/90

COSTS:

See MGMT/BMPF-1.

ROOT CAUSE:

Informatlity of operations.

REFERENCES:

N/A

ES&H TRACKING REPORT

TSA

TRACKING NO: 544
TRACK REF: RP. 4- 1
DUE DATE: 12/31/90
STATUS: Open

ASSIGNED TO: SEP
PRIORITY: 3
HAZARD: H2/C2
CODE: N/A

FINDING:

External radiation exposure control is not adequate to minimize exposures or to quickly recognize that higher than normal exposure is being received by personnel.

RESPONSE/STATUS:

The ALARA guide has been approved and issued. A hot spot definition and posting requirement have been incorporated into the approved OH&S Guide 3.4.0. The ALARA program (3.3.0) (see RP.11-1) incorporates ALARA goals for all facilities with high individual annual dose above 1 rem or with collective dose above 10 rem. The ALARA guide addresses "quick recognition" of undesirable dose accumulation by expecting the individual department's ALARA program to establish requirements for following significant doses monitored with pocket chambers. AGS studied radiation levels for penetrations and beam lines to assess doses under abnormal conditions.

ACTION:

AGS will finalize the Shielding Upgrade Report and provide written procedures for review of beam lines and shielding for radiation safety.

MILESTONES:

Approve ALARA OH&S Guide 3.3.0.	06/30/90
Complete measurements.	06/30/90
Finalize procedures and implement.	12/31/90

COSTS:

To be determined.

ROOT CAUSE:

Insufficient oversight.

REFERENCES:

N/A

ES&H TRACKING REPORT

TSA

TRACKING NO: 545
TRACK REF: RP. 5- 1
DUE DATE: 01/31/91
STATUS: Open

ASSIGNED TO: SEP
PRIORITY: 4
HAZARD: H3/C2
CODE: N/A

FINDING:

The commercial film badge service provided to BNL is not accredited under DOELAP.

RESPONSE/STATUS:

At the request of HQ DOELAP Administrator, a remedial action plan was submitted through DOE-Chicago. A DOELAP Application has been submitted. Permission to retest was requested in April 1990. Administrative changes are subject to dosimetry changes (if any) that may be made. Testing is underway.

ACTION:

Dependent on results of retest, submit plans to DOE.

MILESTONES:

Vendor completes DOELAP performance test.	09/30/90
Tech. basis for external dosimetry to be documented.	11/30/90
Dosimetry practices revised and changes documented.	01/31/91

COSTS:

FY90: \$10K.

ROOT CAUSE:

Insufficient oversight.

REFERENCES:

N/A

TSA

TRACKING NO: 444
TRACK REF: RP. 7- 1
DUE DATE: 07/31/91
STATUS: Open

ASSIGNED TO: SEP
PRIORITY: 3
HAZARD: H2/C1
CODE: DOE 5482.1B

FINDING:

The Safety and Environmental Protection Division internal dosimetry program has not undergone an internal audit as required by DOE 5482.1B.

RESPONSE/STATUS:

The position of an internal dosimetrist has been approved.

ACTION:

The existing program will be documented and formalized. Procedures for scheduling and conducting audits will be implemented by a new internal dosimetrist; currently requested. Scheduling and completion will be tracked by the Associate Director for Administration. (MGMT/CF-3.) The current whole body counting program will be met on an overtime basis. Analysis of the results will be conducted by a consultant.

MILESTONES:

Procedures for bioassay audit/conduct audit.	10/31/90
Procedure for WBC audit/conduct audit.	12/31/90
Procedures for internal dosimetry/conduct audit.	07/31/91

COSTS:

\$50K consultant.

ROOT CAUSE:

Insufficient oversight.

REFERENCES:

N/A

TSA

TRACKING NO: 546
TRACK REF: RP. 8- 1
DUE DATE: 06/30/91
STATUS: Open

ASSIGNED TO: SEP
PRIORITY: 3
HAZARD: H2/C1
CODE: DOE 5480.4

FINDING:

Calibration of radiation protection instruments does not meet ANSI N323 as required by DOE 5480.4.

RESPONSE/STATUS:

The concern of BNL TSA 89-RP.8-1 is the same as that of HFBR TSA 88-RP.8-1. In addition, the final item on the list of findings for 89-RP.8-1 states that "BNL recognizes the above areas of noncompliance and has a program to correct the deficiencies. Several items in the plan are completed. The milestones are all open items.

ACTION:

Funded program improvements are on schedule. However, proposed calibration facility improvements to allow the use of high level gamma beam irradiator and to improve geometry for neutron exposures have been budgeted but must be authorized for start. In addition, the BNL TSA has reaffirmed the need for an environmental testing program. The requirements for these efforts will be defined.

MILESTONES:

Check sources available/Instr. Calib. Procedures.	12/31/89
Order Beta sources, new temp., press., humidity equip.	03/31/90
Identify equip. & procedures for calib./maintenance.	06/30/90
Request staff to conduct calibration/maintenance.	10/31/90
Upgrade neutron source.	11/30/90
Identify staff/fund. rqrmts to meet all other ANSI N323	06/30/91

COSTS:

FY91: \$250K.

ROOT CAUSE:

Informality of operations.

REFERENCES:

N/A

ES&H TRACKING REPORT

TSA

TRACKING NO: 547
TRACK REF: RP. 9- 1
DUE DATE: 09/30/94
STATUS: Open

ASSIGNED TO: SEP
PRIORITY: 4
HAZARD: H3/C2
CODE: N/A

FINDING:

Air monitoring systems do not ensure reliable estimates of air activity.

RESPONSE/STATUS:

Airborne radioactivity is a very limited problem at BNL. At the present time, no area, other than the HFBR, requires routine air monitoring, and no area, other than the HFBR, is posted as an "Airborne Radioactivity Area". A consultant has been reviewing the air monitoring systems.

ACTION:

To ensure reliable estimates of air activity, existing air monitoring systems will be reviewed, and the need for new systems will be assessed. Each existing system will be reviewed for adequacy. The Laboratory site will be reviewed to determine whether any additional areas require air monitoring systems, and new systems will be purchased and installed as necessary.

MILESTONES:

Review the current monitoring program.	10/31/90
Determine other areas.	12/31/90
Assess/develop air discharge characterization plan.	12/31/90
Complete characterization.	09/30/92
Complete new monitoring upgrades.	09/30/94

COSTS:

FY90: \$60K. FY91-94: TBD.

ROOT CAUSE:

Low priority due to assessment of low risk.

REFERENCES:

N/A

DATE: 08/29/90

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ES&H TRACKING REPORT

TSA

TRACKING NO: 548
TRACK REF: RP.11- 1
DUE DATE: 12/31/90
STATUS: Open

ASSIGNED TO: SEP
PRIORITY: 3
HAZARD: H3/C2
CODE: 5480.11

FINDING:

BNL does not have a documented ALARA program.

RESPONSE/STATUS:

A BNL OH&S guide 3.3.0, guidance for a Laboratory ALARA program, has been drafted and approved by the LSC. Full implementation is required by 12/31/90.

ACTION:

The ALARA programs in the departments/divisions will be formally established and the internal procedures will be generated.

MILESTONES:

Approve ALARA guide.
Department/division implementation.

06/30/90
12/31/90

COSTS:

Included in Base Program.

ROOT CAUSE:

Informality of operation.

REFERENCES:

N/A

ES&H TRACKING REPORT

TSA

TRACKING NO: 549
TRACK REF: SR. 1- 1
DUE DATE: 10/31/89
STATUS: Completed

ASSIGNED TO: DNE
PRIORITY: 3
HAZARD: H2/C1
CODE: DOE 5482.1B

FINDING:

The Ad Hoc Committee for the review and approval of table-top and planned larger (non-Radiation Effects Facility) experiments are not in compliance with DOE 5482.1B, Section 9.d.

RESPONSE/STATUS:

A Safety Committee to review all DNE experiments has been appointed.

ACTION:

Appoint a Safety Committee to review all DNE experiments.

MILESTONES:

Appoint committee.

10/31/89

COSTS:

N/A

ROOT CAUSE:

Insufficient oversight.

REFERENCES:

N/A

ES&H TRACKING REPORT

TSA

TRACKING NO: 550
TRACK REF: SR. 7- 1
DUE DATE: 08/31/91
STATUS: Open

ASSIGNED TO: DO
PRIORITY: 3
HAZARD: H2/C1
CODE: DOE 5482.1B

FINDING:

BNL is not in compliance with DOE 5482.1B in all programmatic areas reviewed in this TSA.

RESPONSE/STATUS:

N/A

ACTION:

The Safety Assessment Program, BNL's internal safety appraisal system, will be reviewed for effectiveness and adequacy every three years beginning the Summer of 1991. The reviewer(s) will be charged by the Assistant Director for Safety and will be required to report the findings in writing.

MILESTONES:

Conduct Triennial Review.

08/31/91

COSTS:

\$10K.

ROOT CAUSE:

Inadequate oversight.

REFERENCES:

N/A

ES&H TRACKING REPORT

TSA

TRACKING NO: 551
TRACK REF: TC. 1- 1
DUE DATE: 05/31/91
STATUS: Open

ASSIGNED TO: Training Task Force
PRIORITY: 4
HAZARD: H2/C2
CODE: N/A

FINDING:

BNL has no Lab-wide training policy or requirements for initial and on-going qualification programs. (See also Concern OA.6-1.)

RESPONSE/STATUS:

The Training Task Force has been appointed.

ACTION:

The Training Task Force will be appointed to address the concerns in this area, as well as TC.1-2, TC.2-1, and TC.3-1. This Task Force will interact with the Operation Task Force to assure training requirements are duly considered in developing guidelines on operations/maintenance. See MGMT/BMPF-7.

MILESTONES:

See MGMT/BMPF-7.	06/30/90
Complete Task Force Report.	02/28/91
Begin implementation.	05/31/91

COSTS:

See MGMT/BMPF-7. To be determined.

ROOT CAUSE:

Informality of operations.

REFERENCES:

N/A

DATE: 08/29/90

ES&H TRACKING REPORT

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TSA

TRACKING NO: 552
TRACK REF: TC. 1- 2
DUE DATE: 05/31/91
STATUS: Open

ASSIGNED TO: Training Task Force
PRIORITY: 4
HAZARD: H2/C2
CODE: N/A

FINDING:

Training records of each individual's training participation and performance are not documented at BNL in several departments and divisions.

RESPONSE/STATUS:

See MGMT/BMPF-7.

ACTION:

See MGMT/BMPF-7.

MILESTONES:

See MGMT/BMPF-7.

05/31/91

COSTS:

See MGMT/BMPF-7.

ROOT CAUSE:

Informality of operations.

REFERENCES:

N/A

ES&H TRACKING REPORT

TSA

TRACKING NO: 553
TRACK REF: TC. 2- 1
DUE DATE: 02/28/91
STATUS: Open

ASSIGNED TO: SEP/Training Task Force
PRIORITY: 4
HAZARD: H2/C2
CODE: N/A

FINDING:

BNL does not have formalized lesson plans to ensure adequacy of safety training.

RESPONSE/STATUS:

SEP has hired an individual whose responsibility, in part, will be to develop new plans and upgrade existing plans.

ACTION:

There is currently a draft SOP for lesson plans. This draft will be finalized, and all SEP personnel who may be asked to develop training will be instructed in its use. Documentation of training is also an area of consideration of the Task Force on Training.

MILESTONES:

Finalize SOP on lesson planning.	11/30/90
Train SEP personnel on SOP.	12/31/90
List current files for revision, initiate program.	01/31/91
Recommendation from the Task Force on Training.	02/28/91

COSTS:

Base Program.

ROOT CAUSE:

Informality of operations.

REFERENCES:

N/A

ES&H TRACKING REPORT

TSA

TRACKING NO: 554
TRACK REF: TC. 3- 1
DUE DATE: 05/31/91
STATUS: Open

ASSIGNED TO: Training Task Force
PRIORITY: 4
HAZARD: H2/C2
CODE: N/A

FINDING:

BNL has not developed and documented qualification standards and evaluation methods to adequately verify trainee competence in maintenance activities.

RESPONSE/STATUS:

See MGMT/BMPF-7.

ACTION:

See MGMT/BMPF-7.

MILESTONES:

See MGMT/BMPF-7.

05/31/91

COSTS:

See MGMT/BMPF-7.

ROOT CAUSE:

Informality of operations.

REFERENCES:

N/A

ES&H TRACKING REPORT

TSA

TRACKING NO: 423
TRACK REF: TC. 4- 1
DUE DATE: 12/31/91
STATUS: Open

ASSIGNED TO: SEP
PRIORITY: 4
HAZARD: H2/C1
CODE: DOE 5480.11

FINDING:

All radiation workers at Brookhaven National Labortory have not been trained and certified to meet the requirements of DOE 5480.11.

RESPONSE/STATUS:

Since January 1990, all newly hired radiation workers have received radiation worker training. Proposed changes to DOE 5480.11, dated 03/13/90, will allow retraining of workers employed before 01/01/90 to be accomplished before 12/31/91.

ACTION:

BNL will train and certify all radiation workers prior to 12/31/91, in compliance with the revised order. (See RP.3-1, MGMT/BMPF-7.)

MILESTONES:

Revise Radworker exam (multiple versions establish passing requirements).	09/30/90
Begin retraining of radiation workers.	09/30/90
Complete retraining of radiation workers.	12/31/91

COSTS:

N/A

ROOT CAUSE:

N/A

REFERENCES:

N/A

TSA

TRACKING NO: 424
TRACK REF: TC. 4- 2
DUE DATE: 04/30/91
STATUS: Open

ASSIGNED TO: SEP
PRIORITY: 3
HAZARD: H2/C1
CODE: DOE 5480.11

FINDING:

Safety training and certification requirements for employee and visitor users are not in compliance with DOE 5480.11 at many Brookhaven National Laboratory facilities.

RESPONSE/STATUS:

All radworker classes have been scheduled. The Laboratory has contracted for the script for the videotape.

ACTION:

Employee users of BNL facilities will be trained to comply with DOE 5480.11 according to the schedule in TC4-1. Visitors will be trained and certified. One additional employee radiation worker class will be implemented. A challenge exam will be developed. A videotape to cover the requirements will be developed.

MILESTONES:

Schedule additional Rad Worker Class.	06/30/90
Develop challenge exam.	12/31/90
Produce videotape.	03/31/91
Initiate training program.	04/30/91

COSTS:

Development/video, FY91: \$150K, consultant and video.

ROOT CAUSE:

Informality of operations.

REFERENCES:

N/A

ES&H TRACKING REPORT

TSA

TRACKING NO: 425
TRACK REF: TC. 5- 1
DUE DATE: 08/31/91
STATUS: Open

ASSIGNED TO: PE/Training Task Force
PRIORITY: 4
HAZARD: H2/C2
CODE: N/A

FINDING:

At most Brookhaven National Laboratory facilities, there is no maintenance training and qualification program to ensure safe and effective maintenance activities. (Also see Concern TC.3-1, Appendix B.)

RESPONSE/STATUS:

The Plant Engineering work force is governed by a collective bargaining agreement. The formal testing of bargaining unit employees would require a negotiated change to the current agreement. In addition, the Training Task Force will review this issue and develop recommendations for site-wide training in maintenance.

ACTION:

Plant Engineering will request that the Division of Personnel and Labor Relations negotiate the necessary changes to the collective bargaining agreement to permit testing of employees for job qualifications. The Training Task Force will recommend a course of action for site-wide maintenance training.

MILESTONES:

See MGMT/BMPF-7.
Start collective bargaining.

02/28/91
08/31/91

COSTS:

N/A

ROOT CAUSE:

Informality of operations.

REFERENCES:

N/A

TSA

TRACKING NO: 426
TRACK REF: TC. 9- 1
DUE DATE: 11/30/93
STATUS: Open

ASSIGNED TO: SEP
PRIORITY: 3
HAZARD: H2/C1
CODE: DOE 5480.11

FINDING:

Documentation of the health physics training program required to verify that technicians receive certified training in compliance with DOE 5480.11 is incomplete and not readily available.

RESPONSE/STATUS:

A draft implementation plan has been developed based on a Laboratory decision to accredit all HP technicians in accord with DOE 5480.11. Training will not be complete until 11/93.

ACTION:

BNL will continue computer-based training and health physics technician seminars. A job/needs and tasks analysis will be conducted. Training design, development, implementation and evaluation will follow. The program will be extended to meet the requirements of DOE 5480.18 in accordance with the schedule it allows.

MILESTONES:

Job/needs analysis.	09/30/90
Develop initial programs.	10/31/90
Training begins.	11/30/90
5480.18 program complete.	11/30/93

COSTS:

FY91: \$100K/year.

ROOT CAUSE:

Informality of operations.

REFERENCES:

N/A

ES&H TRACKING REPORT

TSA

TRACKING NO: 555
TRACK REF: TS. 1- 1
DUE DATE: 04/30/91
STATUS: Open

ASSIGNED TO: DO
PRIORITY: 4
HAZARD: H2/C2
CODE: BNL QA Manual

FINDING:

BNL has no formal system to ensure review of proposed actions by interfacing organizations whose interests might be impacted.

RESPONSE/STATUS:

All major projects (excluding minor ILR work) have formal review cycles, whether for lump-sum construction or for in-house construction, including review by the "User" department. Procedures have been developed within the Plant Engineering Division to assure the review of projects. Other organizations will be required to develop similar procedures.

ACTION:

Prepare SEAPPM for departmental guidance concerning safety review procedures.

MILESTONES:

Prepare SEAPPM.

04/30/91

COSTS:

N/A

ROOT CAUSE:

Inadequate implementation of BNL standards.

REFERENCES:

BNL QA Manual

ES&H TRACKING REPORT

TSA

TRACKING NO: 556
TRACK REF: TS. 2- 1
DUE DATE: 02/28/90
STATUS: Completed

ASSIGNED TO: PE
PRIORITY: 4
HAZARD: H2/C2
CODE: BMP

FINDING:

Engineering personnel who design facility modifications do not all have cognizance of or full access to documents that define the safety requirements for individual facilities.

RESPONSE/STATUS:

Plant Engineering has prepared a procedure for further implement OH&S 3.4.1 for its engineering and operations personnel. This procedure will be part of the Plant Engineering Policies and Practices Manual showing those facilities that require safety instructions and written procedures before starting design and/or maintenance work. Plant Engineering also issued QA Procedure D&C 017, "Project Safety and Environmental Evaluations", a joint effort between Plant Engineering, Safety & Environmental Protection, and the ultimate user to identify safety and environmental concerns, SAR requirements, and any other concerns that could affect the project.

ACTION:

Train Plant Engineering personnel in new procedures to identify and define safety and environmental requirements for new and modified facilities.

MILESTONES:

Training engineering personnel.
Implementation of new procedure.

12/31/89
02/28/90

COSTS:

N/A

ROOT CAUSE:

Inadequate implementation of guidelines.

REFERENCES:

BNL Safety Manual.

TSA

TRACKING NO: 557
TRACK REF: TS. 2- 2
DUE DATE: 09/30/91
STATUS: Open

ASSIGNED TO: DO
PRIORITY: 4
HAZARD: H2/C2
CODE: BNL QA Manual

FINDING:

There is no system of procedures for formal interchange of information between technical and operations/maintenance staffs that ensures operation/maintenance practices and designs are consistent.

RESPONSE/STATUS:

As indicated in the findings of the TSA, Plant Engineering has detailed procedures covering the items listed in this concern. Since over 90 percent of the construction work is managed by Plant Engineering, the existing procedures are adequate for formal interchange of information between Plant Engineering's technical staff and the operations and maintenance staff. Both staffs jointly indentify preferred systems and product lines to ensure consistent safe and efficient operations. Policy for technical review of operating and maintenance procedures for systems and equipment is being developed by the Laboratory's Operations Task Force (see OP.3-1).

ACTION:

The Operations Support Office will develop Laboratory procedures for a BNL-wide system for technical review of operations and maintenance procedures.

MILESTONES:

Develop procedures.

09/30/91

COSTS:

N/A

ROOT CAUSE:

Lack of formality of operation.

REFERENCES:

BNL QA Manual.

TSA

TRACKING NO: 429
TRACK REF: TS. 2- 3
DUE DATE: 12/31/92
STATUS: Open

ASSIGNED TO: SEP
PRIORITY: 4
HAZARD: H2/C2
CODE: N/A

FINDING:

Operational safety limitations are not identified for most nonreactor facilities. (Also see Concern EA.4-1).

RESPONSE/STATUS:

Operational safety limits will be required for facilities at the Laboratory that have potential for significant safety concerns.

ACTION:

Safety Manual Guide 1.3.4 "Operational Safety Limits" is currently being drafted. This guide will provide guidelines for establishing boundaries or limits. These limits will become part of the facilities SAR, if an SAR is required. If an SAR is not required, the limits will become part of the operating procedures. A SEAPPM will be developed to address this area.

MILESTONES:

Draft Safety Manual Guide for review.	06/30/90
Submit to LSC for review/approval by Assoc. Director.	11/30/90
Distribute guide.	12/31/90
Schedule rev. of all existing SARs to conform w/ guide.	01/31/91
Initiate review of facilities/operations.	01/31/91
Complete review/revision.	12/31/92

COSTS:

N/A

ROOT CAUSE:

Informality of operations.

REFERENCES:

EA.4-1, TS.3-2.

TSA

TRACKING NO: 430
TRACK REF: TS. 2- 4
DUE DATE: 12/31/91
STATUS: Open

ASSIGNED TO: DO
PRIORITY: 4
HAZARD: H2/C2
CODE: N/A

FINDING:

In non-reactor areas, safety systems and devices are not fully identified, and special testing or maintenance requirements are not stipulated for such equipment.

RESPONSE/STATUS:

N/A

ACTION:

A study will be conducted to define those safety systems which will require performance testing, calibration, and maintenance, and to recommend appropriate programs for such systems.

MILESTONES:

Identify Safety Systems.	06/30/91
Define guidelines for testing, etc.	09/30/91
Begin implementation as necessary.	12/31/91

COSTS:

To be determined.

ROOT CAUSE:

Informality of operation.

REFERENCES:

N/A

DATE: 08/29/90

ES&H TRACKING REPORT

PAGE: 7- 149

TSA

TRACKING NO: 558
TRACK REF: TS. 3- 1
DUE DATE: 03/31/90
STATUS: Closed

ASSIGNED TO: PE
PRIORITY: 4
HAZARD: H3/C2
CODE: BNL QA Manual

FINDING:

Many of the BNL organizations do not have written procedures controlling design and review of modifications.

RESPONSE/STATUS:

PLANT ENGINEERING: Design and Construction QA Procedure 045 covers design and review of projects with specific documentation as mentioned under the response to Concern TS.1-1. NSLS: A Facilities Planning Committee was established 5/88 which reviews and approves all changes to the conventional facility. AGS: A written policy has been developed and issued covering approval levels and procedures, controlling design and review of modification to its facility.

ACTION:

No further action required.

MILESTONES:

No action required.

03/31/90

COSTS:

N/A

ROOT CAUSE:

Inadequate implementation of QA procedures.

REFERENCES:

BNL QA Manual.

ES&H TRACKING REPORT

TSA

TRACKING NO: 431
TRACK REF: TS. 3- 2
DUE DATE: 12/31/92
STATUS: Open

ASSIGNED TO: SEP
PRIORITY: 3
HAZARD: H2/C2
CODE: DOE 5481.1B

FINDING:

Safety Analysis Reports are not prepared before completion of a facility design or of a facility modification.

RESPONSE/STATUS:

The draft guide is currently under review. Schedules and completion dependent on identification of source of funds.

ACTION:

A Safety Manual Guide 1.3.3 "Safety Analysis Reports" is now in draft. This Guide follows the guidance of DOE 5481.1B. This Guide clearly states what facilities and/or modifications would require a SAR and when they must be completed. This Guide will also address existing facilities that would require an SAR to be completed. A SEAPPM will be developed to address this area.

MILESTONES:

Draft Safety Manual Guide for review.	06/30/90
Laboratory Safety Committee review/Assc. Dir. approval.	10/30/90
Distribute and implement guide.	12/31/90
Schedule review/update all existing SARs.	12/31/90
Complete review/update.	12/31/92

COSTS:

Four consultant man-years to review all SARs for conformance to new guidelines. \$120K per man-year. TOTAL: \$480K.

ROOT CAUSE:

Inadequate implementation of DOE requirements.

REFERENCES:

EA.4-1, TS.2-3.

TSA

TRACKING NO: 432
TRACK REF: TS. 3- 3
DUE DATE: 04/30/91
STATUS: Open

ASSIGNED TO: SEP
PRIORITY: 4
HAZARD: H2/C2
CODE: N/A

FINDING:

Brookhaven National Laboratory Occupancy Readiness Reviews do not satisfy the requirements for the more conventional Operational Readiness Reviews.

RESPONSE/STATUS:

The current Guide 1.3.2 is undergoing revisions.

ACTION:

Safety Manual Guide 1.3.2 "Occupancy Readiness Review" will be revised to require two levels of occupational readiness review. The first level "Beneficial" will cover the facilities and equipment that were part of the construction project. The second level "Final" will include the activities (experiments), operational procedures, and training for that facility. Readiness reviews will be incorporated in the SEAPPM.

MILESTONES:

Revise Safety Manual Guide 1.3.2.	09/30/90
Review by Laboratory Safety Committee.	11/30/90
Approval by Associate Director.	12/31/90
Include in SEAPPM.	04/30/91

COSTS:

N/A

ROOT CAUSE:

Difference in interpretation of current guidance.

REFERENCES:

N/A

TSA

TRACKING NO: 559
TRACK REF: TS. 4- 1
DUE DATE: 03/31/92
STATUS: Open

ASSIGNED TO: DO
PRIORITY: 4
HAZARD: H3/C2
CODE: N/A

FINDING:

There is no comprehensive program for systematic evaluation of equipment performance. (See also Concerns OA.5-1, MA.8-1, QV.1-2, and QV.5-1).

RESPONSE/STATUS:

N/A

ACTION:

Review the status of BNL department/division programs for the systematic evaluation of equipment performance relative to safety parameters. Audits of the programs for safety equipment performance will be conducted under the SEP Tier II audit programs.

MILESTONES:

See TS.2-4.
Initiate BNL Tier II audits.

12/31/91
03/31/92

COSTS:

N/A

ROOT CAUSE:

Informality of operations.

REFERENCES:

N/A

ES&H TRACKING REPORT

TSA

TRACKING NO: 560
TRACK REF: TS. 4- 2
DUE DATE: 12/31/91
STATUS: Open

ASSIGNED TO: DO
PRIORITY: 4
HAZARD: H3/C2
CODE: N/A

FINDING:

Not all performance testing and monitoring files are readily auditable by a third party for verification of compliance with requirements. (See also Concern QV.1-2.)

RESPONSE/STATUS:

This finding is part of the overall finding on performance evaluation and documentation of safety equipment (TS.2-4).

ACTION:

Review the status of policies, procedures, and data records for the performance testing and monitoring of safety related parameters within the BNL departments/divisions.

MILESTONES:

See TS.2-4.

12/31/91

COSTS:

To be determined.

ROOT CAUSE:

Informality of operations.

REFERENCES:

N/A

ES&H TRACKING REPORT

TSA

TRACKING NO: 433
TRACK REF: TS. 4- 3
DUE DATE: 12/31/91
STATUS: Open

ASSIGNED TO: DO
PRIORITY: 4
HAZARD: H2/C2
CODE: N/A

FINDING:

No formal site-wide system has been established for performance testing and monitoring of equipment within established safety parameters and limits. (Also see Concern TS.4-1, Appendix B.)

RESPONSE/STATUS:

N/A

ACTION:

This is covered under the study to be performed under Concern TS.2-4.

MILESTONES:

See TS.2-4.

12/31/91

COSTS:

To Be Determined.

ROOT CAUSE:

Informality of operations.

REFERENCES:

N/A

ES&H TRACKING REPORT

TSA

TRACKING NO: 561
TRACK REF: TS. 8- 1
DUE DATE: 12/31/89
STATUS: Completed

ASSIGNED TO: SEP
PRIORITY: 3
HAZARD: H3/C1
CODE: DOE 5400.1

FINDING:

The BNL Annual Site Environmental Report was not completed on the schedule required by DOE 5400.1.

RESPONSE/STATUS:

N/A

ACTION:

This is a DOE action item. BNL prepared the 1988 SER on schedule and submitted the same to DOE Headquarters for review.

MILESTONES:

No action.

12/31/89

COSTS:

N/A

ROOT CAUSE:

Inadequate resources.

REFERENCES:

N/A

8.0

OSHA RESPONSES AND PLANNED ACTIONS

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 1

TRACKING NUMBER 2

DEPT/DIV: CS
INSP. DATE:03/28/90
BLDG.#: 462
OFFICE #: N/A
LAB. #: N/A
DUE DATE:09/30/90
STATUS: Open

FINDINGS:

Portable tools - grounding not verified.

COMMITMENT:

A program of checking continuity of ground wires has been in place for at least a year in the Central Shops Division; however, it is informal, with no documentation. A formal program will be devised and accompanying documentation will be available.

MILESTONES:

Set up program for checking grounding continuity of hand tools.	-
Check all hand tools in division.	05/30/90
-	09/30/90
-	-
-	-

COSTS:

N/A

CROSS REFERENCE:

G-100B

ROOT CAUSE:

Informality of operations.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 2

TRACKING NUMBER 15

DEPT/DIV: SEP
INSP. DATE: 03/28/90
BLDG.#: 535
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 03/29/90
STATUS: Completed

FINDINGS:

OSHA reportable accidents--investigated injuries must be logged within 6 days.

COMMITMENT:

The SEP SOP IS-6 will be changed to ensure timely entry into OSHA 200 log.

MILESTONES:

Change SOP.	03/29/90
-	-
-	-
-	-
-	-

• COSTS:

N/A

CROSS REFERENCE:

G-1A

ROOT CAUSE:

Insufficient oversight.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 3

TRACKING NUMBER 16

DEPT/DIV: PE
INSP. DATE: 03/29/90
BLDG.#: 610
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 04/30/90
STATUS: Completed

FINDINGS:

1. A barrel pump on a Zep cleaning solution drum did not have a protective guard on the shaft.
2. The power cord to the sump pump was lying across the passageway creating a tripping hazard.

COMMITMENT:

The guard (W.O. 008988ZM) will be installed and the cord will be properly stored when not in use.

MILESTONES:

Install guard.	04/30/90
-	-
-	-
-	-
-	-

COSTS:

N/A

CROSS REFERENCE:

G-73B, 74A

ROOT CAUSE:

Inadequate communication of OSHA requirements, insufficient oversight.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 4

TRACKING NUMBER 17

DEPT/DIV: PE
INSP. DATE: 03/29/90
BLDG.#: 244
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 06/25/90
STATUS: Completed

FINDINGS:

Paint shop--Less than adequate wiring - should be Class I, Division 2 because of flammable storage.

COMMITMENT:

The Laboratory has ordered and will erect a separate flammable storage facility.

MILESTONES:

Flammable storage facility installed at Bldg. 244	06/25/90
-	-
-	-
-	-
-	-

COSTS:

\$13.4K

CROSS REFERENCE:

G-117B

ROOT CAUSE:

Insufficient communication of OSHA requirements.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 5

TRACKING NUMBER 18

DEPT/DIV: PE
INSP. DATE: 03/29/90
BLDG. #: 422
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 04/13/90
STATUS: Completed

FINDINGS:

- 1. A janitor's closet with combustible materials and less than a one hour fire separation is located under the stairs from the Sign Shop. A one hour fire separation must be provided.
- 2 & 3. A regular electrical outlet is installed within six feet of a sink in the bathroom creating an electrical shock hazard for malfunctioning equipment. A ground fault circuit interrupter is not installed.

COMMITMENT:

Work orders were issued to correct these problems (W.O.# 008904ZM and W.O.# 008903ZM).

MILESTONES:

Fire separation installed.	04/20/90
GFCI installed.	04/13/90
-	-
-	-
-	-
-	-

COSTS:

\$400

CROSS REFERENCE:

G-46A, 84B, 85B

ROOT CAUSE:

Insufficient oversight, inadequate communication of OSHA requirements.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 6

TRACKING NUMBER 20

DEPT/DIV: PE
INSP. DATE: 03/29/90
BLDG. #: 326
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 04/30/90
STATUS: Completed

FINDINGS:

1. Five gallon containers used for dispensing gasoline did not have flame arresters and were in a state of disrepair (unapproved containers).
2. Acetylene gas cylinders in the store room of Bldg. 326 were not supported to prevent them from being knocked over or damaged.
3. A regular electrical outlet installed within reaching distance of a sink creating a potential shock hazard to employees using faulty electrical equipment. A GFCI is not installed.

COMMITMENT:

The cans will be disposed of and replaced with new ones (W.O.# 008909ZM).
Cylinder restraints will be installed (W.O.# 008910ZM).
GFI will be installed (W.O.# 008972ZM).

MILESTONES:

Dispose of cans replace with new.	04/30/90
Install cylinder restraints.	04/30/90
Install GFCI.	04/30/90
-	-
-	-
-	-

COSTS:

N/A

CROSS REFERENCE:

G-55B, G-82B, G-85A

ROOT CAUSE:

Inadequate implementation of OSHA requirements, insufficient oversight.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 7

TRACKING NUMBER 21

DEPT/DIV: PE
INSP. DATE: 04/02/90
BLDG. #: 491
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 01/01/91
STATUS: Open

FINDINGS:

Illumination level in mechanical area was determined to be one foot-candle or less. Illumination levels should be increased to comply with levels specified in the IES Handbook, 6th edition.

COMMITMENT:

An ILR has been submitted to Plant Engineering to upgrade the lighting in the basement area of the BMRR.

MILESTONES:

Submit ILR.	05/11/90
Light survey by Plant Engineering.	06/01/90
Estimate and lead time.	07/01/90
Completion.	01/01/91
-	-
-	-

COSTS:

Estimated Cost - \$2,500

CROSS REFERENCE:

G-51A

ROOT CAUSE:

Inadequate communication of OSHA requirements.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 8

TRACKING NUMBER 22

DEPT/DIV: MD
INSP. DATE: 03/30/90
BLDG.#: 491
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 06/15/90
STATUS: Completed

FINDINGS:

1. Room 8-116--no sign for fire extinguisher.
2. Room 9-433--fire extinguisher is out of inspection.
3. Room 9-430B--no sign for fire extinguisher.
4. Room 9-243--defective electrical outlet.

COMMITMENT:

"Fire Extinguisher" signs will be hung, and extinguishers inspected, the inspection of fire extinguisher will be updated. A work order (#05G 073) has been issued to replace the defective electric outlet in the hall outside Rm. 9-243, as well as to check all electric outlets in Bldg. 490 and to replace all defective ones. Temporary extinguishers have been marked "temporary" and tags provided indicating date inspected.

MILESTONES:

Hang fire extinguisher signs.	04/30/90
Inspect extinguishers.	04/04/90
Modify temporary extinguishers.	04/30/90
Complete work/check all outlets	06/15/90
-	-
-	-

COSTS:

N/A

CROSS REFERENCE:

G-32B, G-37B, G-89A

ROOT CAUSE:

Insufficient oversight.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 9

TRACKING NUMBER 23

DEPT/DIV: PE
INSP. DATE: 04/02/90
BLDG.#: 600
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 07/30/90
STATUS: Completed

FINDINGS:

Inadequacy of guards to cover rotating shaft of supply pumps completely.

COMMITMENT:

Larger guards will be fabricated and installed (W.O.# 010007ZP).

MILESTONES:

New larger guards installed	07/30/90
-	-
-	-
-	-
-	-

COSTS:

N/A

CROSS REFERENCE:

G-73A

ROOT CAUSE:

Insufficient oversight.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 10

TRACKING NUMBER 24

DEPT/DIV: PE
INSP. DATE: 04/02/90
BLDG.#: 452
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 05/18/90
STATUS: Completed

FINDINGS:

1. Tongue guards were not installed on grinders in the metal and steam shops.
2. Canopy type exhaust hoods are provided for welding and cutting, but they do not provide positive ventilation in the welding zone of 100 linear feet per minute.
3. Kitchen in storage area had regular electrical outlet within reaching distance of a sink. A ground fault circuit interrupter is not installed.

COMMITMENT:

Tongue guards (W.O.# 012022ZM and W.O.# 010008ZP) will be installed.
A new flexible ducting system with proper ventilation (W.O.# 010010ZP) will be installed.
GFCI will be installed (W.O.# 010012ZP).

MILESTONES:

Install GFCI.	04/20/90
Install exhaust fans.	04/20/90
Install tongue guards.	05/18/90
-	-
-	-
-	-

COSTS:

N/A

CROSS REFERENCE:

G-66B, G-84A, G-86A

ROOT CAUSE:

Insufficient oversight.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 11

TRACKING NUMBER 25

DEPT/DIV: PE
INSP. DATE: 04/02/90
BLDG.#: 624
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 06/14/90
STATUS: Completed

FINDINGS:

1. Two five-gallon containers, with the flame arresters removed, used to store gasoline. These were not approved containers.
2. Tongue guards missing from bench grinders.
3. Nosings on loading dock stairs were loose and falling apart. They do not meet design criteria.

COMMITMENT:

Containers (W.O.# 010019ZP) will be removed.
Tongue guard (W.O.# 010022ZP) will be installed and steel nosings and patched concrete were removed.

MILESTONES:

Containers removed.	04/30/90
Removed steel nosings and patched concrete.	04/30/90
Tongue guard installed on bench grinder	06/14/90
-	-
-	-
-	-

COSTS:

N/A

CROSS REFERENCE:

G-56A, G-68A, G-80A

ROOT CAUSE:

Insufficient oversight.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 12

TRACKING NUMBER 26

DEPT/DIV: AGS
INSP. DATE: 04/02/90
BLDG. #: 911
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 04/30/90
STATUS: Completed

FINDINGS:

Nosing on east stairs above landing between floors was not serviceable.
Does not meet criteria.

COMMITMENT:

Cracked and slippery nosing will be cut off and loose treads will be recemented by PED.

MILESTONES:

Nosing cut off/loose treads recemented.	04/30/90
-	-
-	-
-	-
-	-
-	-

COSTS:

Approx. 20 man-hrs.

CROSS REFERENCE:

G-80B

ROOT CAUSE:

Insufficient oversight.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 13

TRACKING NUMBER 27

DEPT/DIV: AGS
INSP. DATE: 04/02/90
BLDG. #: 912
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 08/30/91
STATUS: Open

FINDINGS:

The RAPISTEEL and INTERLAKE decking mate unevenly in places so as to present a tripping hazard. Transformer yard is protected by substandard fence.

COMMITMENT:

All temporary decking and stairway work will be upgraded during AGS summer shutdown. An ILR (294385) for \$25,000 to fix hazards in Bldg 912 has been issued. Additional work will be funded in FY91. Plant Engineering has agreed to respond for all BNL substations having fences of less than 8-ft height.

MILESTONES:

Complete upgrade.	09/30/90
Investigate yard for requirements	12/30/90
Compl. temp. deck. and stairway before AGS startup	10/31/90
Modify as required.	08/30/91
-	-
-	-

COSTS:

\$1K (fence)
\$32,000 + for #27, 134, 136, 178, 179

CROSS REFERENCE:

G-45B, G-100A

ROOT CAUSE:

Insufficient oversight.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 14

TRACKING NUMBER 28

DEPT/DIV: AGS
INSP. DATE: 04/02/90
BLDG.#: 922
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 04/05/90
STATUS: Completed

FINDINGS:

North of Bldg. 922--cylinder storage too close to road; subject to vehicular traffic.

COMMITMENT:

The cylinder storage has been relocated east of the office trailer, further from the road, and behind the steel barrier.

MILESTONES:

Cylinder storage relocated.	04/05/90
-	-
-	-
-	-
-	-
-	-

COSTS:

N/A

CROSS REFERENCE:

G-52B

ROOT CAUSE:

Inadequate communication of OSHA requirements.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 15

TRACKING NUMBER 30

DEPT/DIV: AD
INSP. DATE: 04/02/90
BLDG.#: 922
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 05/15/90
STATUS: Completed

FINDINGS:

1. Regular electrical outlet installed 6 ft from emergency shower/eyewash creating an electrical shock hazard from malfunctioning equipment. GFCI not installed, and 250v outlet is installed too close to the potentially wet location.
2. No record available to establish that integrity of ground on portable electric drill had been verified.
3. Metal electrical connection boxes were not effectively closed, potential for electrical shock.

COMMITMENT:

The outlets were removed and all tools in the shop have been inventoried and tested. A log book has been initiated to document testing. Electrical boxes were effectively closed.

MILESTONES:

Outlets removed.	04/03/90
Electrical boxes closed.	04/03/90
Tools inventoried, tested and documented in log.	05/15/90
-	-
-	-
-	-

COSTS:

N/A

CROSS REFERENCE:

G-90B, G-102B, G-112A

ROOT CAUSE:

Inadequate communication of OSHA requirements, informality of operations.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 16

TRACKING NUMBER 31

DEPT/DIV: BD
INSP. DATE: 04/02/90
BLDG.#: 463
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 05/22/90
STATUS: Completed

FINDINGS:

MSDS not readily accessible to employees.

COMMITMENT:

We have made MSDS accessible to the glass-washing staff for products used in their work. Hazardous materials listed in the BNL Safety Manual are flagged at purchase authorization in the Biology Department. In these cases, MSDS will be circulated to the requisitioner by the Biology Dept.'s Safety Coordinator.

MILESTONES:

Circulation of MSDS.	05/22/90
-	-
-	-
-	-
-	-

COSTS:

N/A

CROSS REFERENCE:

G-17A

ROOT CAUSE:

Insufficient safety oversight.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 17

TRACKING NUMBER 32

DEPT/DIV: RD
INSP. DATE: 03/30/90
BLDG.#: 491
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 01/01/91
STATUS: Open

FINDINGS:

1. Handrail at both locations is less than 42 inches high.
2. A circulating fan on top of the control panel had a frayed electric cord.
3. Regular electric outlet was installed within 6 feet of a sink creating an electrical shock hazard for malfunctioning equipment. GFCI not installed.

COMMITMENT:

An ILR will be submitted to Plant Engineering to cover the materials and labor involved to increase the railing height to meet OSHA requirements. The fan was immediately taken out of service and disposed of. All identified areas at BMRR have had GFCI outlets installed. All areas at the HFBR were completed in February 1990.

MILESTONES:

Submit ILR for railings.	05/11/90
Review of job by Plant Engineering.	06/01/90
Complete job and inspection.	01/01/91
-	-
-	-
-	-

COSTS:

Estimated Cost - \$3,500

CROSS REFERENCE:

G-41B, G-87B, G-88A

ROOT CAUSE:

Inadequate communication of OSHA requirements, insufficient oversight.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 18

TRACKING NUMBER 34

DEPT/DIV: MD
INSP. DATE: 04/03/90
BLDG.#: 490494
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 06/15/90
STATUS: Completed

FINDINGS:

- 1 & 2. Chemical containers not being labeled with appropriate hazard warnings that would convey hazards of the chemical to employees.
- 3. MSDS not readily accessible to employees working in this area. MSDS are kept in SEP.

COMMITMENT:

A memorandum was sent to the entire staff of the Medical Department concerning the proper use of labels, including those for chemicals. New hazard labels are being put on bottles of chemicals, whose purchase predates the use of hazard labels. MSDS will be requested from SEP on April 19, 1990 and will be placed in the machine shop.

MILESTONES:

Request MSDS from SEP.	04/19/90
Complete all labeling.	06/15/90
-	-
-	-
-	-

COSTS:

N/A

CROSS REFERENCE:

G-11B, G-12A, G-17B

ROOT CAUSE:

Insufficient oversight.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 19

TRACKING NUMBER 36

DEPT/DIV: PE
INSP. DATE: 04/04/90
BLDG.#: 576
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 06/14/90
STATUS: Completed

FINDINGS:

At Sewage Treatment Plant, the Chlorine House has a regular electrical outlet in the presence of wet and damp floors. Ground fault interrupter is not installed.

COMMITMENT:

GFCI (W.O.# 013433ZM) will be installed.

MILESTONES:

Installed	06/14/90
-	-
-	-
-	-
-	-

COSTS:

N/A

CROSS REFERENCE:

G-96B

ROOT CAUSE:

Inadequate communication of OSHA requirements, insufficient oversight.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 20

TRACKING NUMBER 39

DEPT/DIV: NSLS
INSP. DATE: 04/04/90
BLDG.#: 725
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 06/01/90
STATUS: Completed

FINDINGS:

1. U16--cords on floor are tripping hazard.
2. 2-109--electrical outlet above sink needs GFCI.
3. U4--frayed cord on main transfer line.
4. 725B--electric cord on a vacuum cleaner had the ground wire removed from the wall plug.

COMMITMENT:

Cords will be removed or repositioned.
GFCI will be installed.
U4-Beam Line local contact will be notified. Cords will be removed or replaced June 1, 1990 or beam line will be shut down.
Plug will be replaced.

MILESTONES:

Cord removed/repositioned.	04/30/90
GFCI installed.	04/30/90
Plug replaced.	04/30/90
U-4 cords removed.	06/01/90
-	-
-	-

COSTS:

N/A

CROSS REFERENCE:

G-76B, 94B, 95B, 109A

ROOT CAUSE:

Insufficient oversight.

TIGER TEAM
OSHA FINDINGS

TRACKING NUMBER 40

DEPT/DIV: ATF
INSP. DATE:04/04/90
BLDG.#: 820
OFFICE #: N/A
LAB. #: N/A
DUE DATE:07/31/90
STATUS: Completed

FINDINGS:

1. Electrical cord frayed.
2. Metal relay box not effectively closed (west wall).
3. Floor is corrugated metal surface. It is uneven walking surface, increasing potential for people to lose their balance and fall. Handling materials stored in this area will further increase potential for injury (ATF, storage area, clean room).

COMMITMENT:

The electrical cord will be replaced and electricians will be scheduled to repair the box.
 Two signs indicating the load capacity will be made and will be installed. The storage area is equipped with proper access ladder, full permanent hand rails all around, a proper kick plate all around, adequate lighting throughout, and multiple storage benches and cradles designed to safely distribute storage loads. Activity on this storage surface is almost nonexistent due to the current funding situation. This storage area is entirely dedicated to the "mothballed" power transmission project.

MILESTONES:

Replaced cord.	04/05/90
Electricians scheduled for repairs.	05/25/90
Metal relay box lock installed.	06/21/90
Install signs.	07/31/90
-	-
-	-

COSTS:

N/A

CROSS REFERENCE:

G-96A,G-113A, G-124B

ROOT CAUSE:

Insufficient oversight.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 22

TRACKING NUMBER 42

DEPT/DIV: OM
INSP. DATE: 04/04/90
BLDG.#: 490
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 06/30/90
STATUS: Completed

FINDINGS:

- 1. Employee required to remove asbestos was not given questionnaire contained in Appendix D, Part I.
- 2. GFIs should be installed in outlets near sinks.

COMMITMENT:

- 1. Put OSHA asbestos questionnaire in place.
- 2. Install GFI's in outlets near sinks.

MILESTONES:

Questionnaire and procedures in place	06/30/90
Work completed.	06/30/90
-	-
-	-
-	-
-	-

COSTS:

N/A

CROSS REFERENCE:

G-48A, G-91A

ROOT CAUSE:

Insuffiicient oversight.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 23

TRACKING NUMBER 43

DEPT/DIV: SS
INSP. DATE: 04/05/90
BLDG. #: 423
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 04/05/90
STATUS: Completed

FINDINGS:

1. Five-gallon can is used in the stock room for storing gasoline. It did not have a flame arrester installed. This is not an approved container. 2. Pedestal mounted grinder did not have the tongue guard adjusted to 1/4 inch or less.

COMMITMENT:

The can was surplused and had not been in use. It was discarded on 4/5/90. The guard will be properly adjusted.

MILESTONES:

Discontinue use.	04/05/90
Guard adjusted.	04/05/90
-	-
-	-
-	-
-	-

COSTS:

N/A

CROSS REFERENCE:

G-56B, G-69B

ROOT CAUSE:

Insufficient oversight.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 24

TRACKING NUMBER 44

DEPT/DIV: PE
INSP. DATE: 04/05/90
BLDG.#: 575584
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 12/30/90
STATUS: Open

FINDINGS:

1. Need GFIs in screen house.
2. Tractor needs rollover protection.
3. Sewage Treatment Plant - 20,000 ton Clark forklift requires rollover protection.

COMMITMENT:

GFIs (W.O.# 013432ZM) will be installed.
Rollover protection will be added to this tractor.
The forklift was built in 1958, and, therefore, does not require rollover protection. However, we will investigate the possibility of installing rollover protection.

MILESTONES:

Install GFIs.	07/30/90
Investigate requirements and best method for adding rollover protection to tractor.	-
Investigate the possibility of installing rollover protection for the pre-1972 forklift	08/30/90
Install rollover guard.	-
	10/30/90
	12/30/90

COSTS:

\$1K

CROSS REFERENCE:

G-94A, 119A(63A), 119B

ROOT CAUSE:

Inadequate communication of OSHA requirements.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 25

TRACKING NUMBER 45

DEPT/DIV: ADD
INSP. DATE: 04/05/90
BLDG.#: 902
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 04/20/90
STATUS: Completed

FINDINGS:

1. Regular electrical outlet was installed within 6 feet of a sink creating an electrical shock hazard from malfunctioning equipment. GFCI is not installed.
2. Four metal relay boxes were not effectively closed.

COMMITMENT:

Plant Engineering (MMC#04G058) will install GFCI and close metal relay boxes.

MILESTONES:

Install GFCI.	04/20/90
Relay boxes closed.	04/20/90
-	-
-	-
-	-
-	-

COSTS:

\$150

CROSS REFERENCE:

G-97B, G-113B

ROOT CAUSE:

Insufficient oversight.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 26

TRACKING NUMBER 46

DEPT/DIV: ADD
INSP. DATE: 04/05/90
BLDG. #: 905
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 04/30/90
STATUS: Completed

FINDINGS:

1 & 2. Metal relay box was not effectively closed.

COMMITMENT:

The boxes were closed.

MILESTONES:

Closed boxes.	04/30/90
-	-
-	-
-	-
-	-

COSTS:

N/A

CROSS REFERENCE:

G-114A, G-114B

ROOT CAUSE:

Insufficient oversight.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 27

TRACKING NUMBER 48

DEPT/DIV: ADD
INSP. DATE: 04/05/90
BLDG.#: 1005
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 05/30/91
STATUS: Open

FINDINGS:

1. Lobby--fire extinguisher in hidden location and requires a sign to indicate its location.
2. 1005S--Stairways and exit halls have connection boxes that are not closed effectively.

COMMITMENT:

Plant Engineering (MMC#04H-152) work order, signs will be posted. All electrical boxes and connections will be completed when RHIC Project is funded for tunnel refab.--FY91.

MILESTONES:

Post sign.	04/30/90
Close all boxes.	05/30/91
-	-
-	-
-	-
-	-

COSTS:

N/A

CROSS REFERENCE:

G-34A, G-115B

ROOT CAUSE:

Insufficient oversight.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 28

TRACKING NUMBER 49

DEPT/DIV: CD
INSP. DATE: 04/05/90
BLDG. #: 555
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 09/30/92
STATUS: Open

FINDINGS:

No GFCIs anywhere in building.

COMMITMENT:

BNL's Plant Engineering Division will examine the GFI problem in all labs in the Chemistry bldg. and develop a plan. Based on this plan, Plant Engineering will determine costs and source of funding.

MILESTONES:

Plant Engineering plan of action.	10/31/90
Completed required activities.	09/30/92
-	-
-	-
-	-
-	-

COSTS:

To be determined from plan of action and funding source.

CROSS REFERENCE:

G-97A

ROOT CAUSE:

Insufficient oversight.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 29

TRACKING NUMBER 50

DEPT/DIV: SS
INSP. DATE: 04/05/90
BLDG. #: 153
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 04/30/90
STATUS: Completed

FINDINGS:

Lead bricks in three areas being used as door stops.

COMMITMENT:

Lead bricks were removed from the bldg. on 4/30/90.

MILESTONES:

Lead bricks were removed.	04/30/90
-	-
-	-
-	-
-	-
-	-

COSTS:

N/A

CROSS REFERENCE:

G-4A

ROOT CAUSE:

Insufficient oversight.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 30

TRACKING NUMBER 52

DEPT/DIV: SM
INSP. DATE: 04/03/90
BLDG.#: 87
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 05/14/90
STATUS: Completed

FINDINGS:

Need ground fault eliminators in Men's Room.

COMMITMENT:

A request was processed to the Plant Engineering Division to review all S&M Facilities for GFCIs and ungrounded outlets that were installed in kitchens and restrooms. As of May 14, 1990, all electrical hazards that relate to GFI or ungrounded outlets near water sources have been corrected according to the requirements specified in OSHA (W.O.# 010816ZP).

MILESTONES:

Replace regular outlets.	05/01/90
Disable ungrounded outlets.	05/14/90
-	-
-	-
-	-
-	-

COSTS:

\$1K

CROSS REFERENCE:

G-92A

ROOT CAUSE:

Insufficient oversight.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 31

TRACKING NUMBER 53

DEPT/DIV: SM
INSP. DATE: 04/03/90
BLDG.#: 89
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 07/30/90
STATUS: Completed

FINDINGS:

1. Need ground fault interrupts in Men's Room.
2. Panels/equipment for charging forklift batteries not protected from damage by materials or moving equipment.

COMMITMENT:

A request was processed to the Plant Engineering Division to review all S&M Facilities for GFCIs and ungrounded outlets that were installed in kitchens and restrooms. As of May 14, 1990, all electrical hazards that relate to GFCI or ungrounded outlets near water sources have been corrected according to the requirements specified in OSHA (W.O.# 010817ZP).

A barrier will be constructed around the electrical panels and equipment for charging forklift batteries in Bldg. 89.

MILESTONES:

Process ILR (313202) to Plant Engineering.	04/30/90
Replace regular outlets.	05/01/90
Disable ungrounded outlets.	05/14/90
Install barrier.	07/30/90
-	-
-	-

COSTS:

Total cost - \$3,500

CROSS REFERENCE:

G-92B, G-109B

ROOT CAUSE:

Insufficient oversight.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 32

TRACKING NUMBER 54

DEPT/DIV: SM
INSP. DATE: 04/03/90
BLDG.#: 90
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 05/14/90
STATUS: Completed

FINDINGS:

Need ground fault interrupts in restroom.

COMMITMENT:

A request was processed to the Plant Engineering Division to review all S&M Facilities for GFCIs and ungrounded outlets that were installed in kitchens and restrooms. As of May 14, 1990, all electrical hazards that relate to GFCI or ungrounded outlets near water sources have been corrected according to the requirements specified in OSHA (W.O.# 010818ZP).

MILESTONES:

Replace regular outlets.	05/01/90
Disable ungrounded outlets.	05/14/90
-	-
-	-
-	-
-	-

COSTS:

\$1K

CROSS REFERENCE:

G-93A

ROOT CAUSE:

Insufficient oversight.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

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TRACKING NUMBER 55

DEPT/DIV: SM
INSP. DATE: 04/03/90
BLDG. #: 91
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 05/14/90
STATUS: Completed

FINDINGS:

Need ground fault interrupts in restroom.

COMMITMENT:

A request was processed to the Plant Engineering Division to review all S&M Facilities for GFCIs and ungrounded outlets that were installed in kitchens and restrooms. As of May 14, 1990, all electrical hazards that relate to GFCI or ungrounded outlets near water sources have been corrected according to the requirements specified by OSHA (W.O.# 010819ZP).

MILESTONES:

Replace regular outlets.	05/01/90
Disable ungrounded outlets.	05/14/90
-	-
-	-
-	-
-	-

COSTS:

\$1K

CROSS REFERENCE:

G-93B

ROOT CAUSE:

Insufficient oversight.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 34

TRACKING NUMBER 56

DEPT/DIV: SM
INSP. DATE: 04/03/90
BLDG.#: 158
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 05/14/90
STATUS: Completed

FINDINGS:

Need ground fault interrupts in Lunch Room.

COMMITMENT:

A request was processed to the Plant Engineering Division to review all S&M Facilities for GFCIs and ungrounded outlets that were installed in kitchens and restrooms. As of May 14, 1990, all electrical hazards that relate to GFCI or ungrounded outlets near water sources have been corrected according to the requirements specified in OSHA.

MILESTONES:

Replace regular outlets.	05/01/90
Disable ungrounded outlets.	05/14/90
-	-
-	-
-	-

COSTS:

\$1K

CROSS REFERENCE:

G-91B

ROOT CAUSE:

Insufficient oversight.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 35

TRACKING NUMBER 61

DEPT/DIV: SEP
INSP. DATE: 04/06/90
BLDG.#: 445
OFFICE #: 8
LAB. #: N/A
DUE DATE: 05/15/90
STATUS: Completed

FINDINGS:

1. Electric table lamp had frayed cord and plug creating electrical shock hazard.
2. Electrical unit with faulty cord and plug.
3. Metal connection boxes had openings creating an electrical hazard.

COMMITMENT:

The lamp and electrical unit will be removed from service and openings on connections boxes will be plugged.

MILESTONES:

Remove from service.	04/30/90
Openings plugged.	05/15/90
-	-
-	-
-	-
-	-

COSTS:

N/A

CROSS REFERENCE:

G-98A, G-105B, G-115A

ROOT CAUSE:

Insufficient oversight.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 36

TRACKING NUMBER 64

DEPT/DIV: NSLS
INSP. DATE: 04/06/90
BLDG.#: 901
OFFICE #: N/A
LAB. #: 124
DUE DATE: 05/31/90
STATUS: Completed

FINDINGS:

901A Machine Shop--poor housekeeping results in metal filings on surfaces, which could result in electrical shorts.

COMMITMENT:

SEP have been requested to review the adequacy of the ventilation system in the welding area. Metal shields have been made and installed to protect the electrical systems from metal chips. A screen is on order to complete this work. Custodians have been advised of the housekeeping problem.

MILESTONES:

Fabricate and install shields for electrical equip.	04/30/90
Custodians advised of housekeeping problems.	04/30/90
S&EP to review ventilation system.	05/31/90
Screen installation.	05/31/90
-	-
-	-

COSTS:

N/A

CROSS REFERENCE:

G-77A

ROOT CAUSE:

Insufficient oversight.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 37

TRACKING NUMBER 65

DEPT/DIV: NSLS
INSP. DATE: 04/06/90
BLDG. #: 725
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 04/30/90
STATUS: Completed

FINDINGS:

Experimental Floor Area U16A--improper storage of acetone in plastic squeeze dispenser.

COMMITMENT:

These are appropriate bottles for laboratory settings. There is no action.

MILESTONES:

No action.	04/30/90
-	-
-	-
-	-
-	-

COSTS:

N/A

CROSS REFERENCE:

G-127B

ROOT CAUSE:

N/A

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 38

TRACKING NUMBER 67

DEPT/DIV: AGS
INSP. DATE: 04/09/90
BLDG. #: 912919
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 04/30/90
STATUS: Completed

FINDINGS:

Bldgs. 912 and 919--various hand tools, electronic instruments, table lamps, etc., had faulty wiring or plugs.

COMMITMENT:

The effort to locate and identify faulty wiring and plugs was conducted by electricians and technicians. All the wiring and plugs that were located have been repaired.

MILESTONES:

Located and repaired faulty wiring and plugs.	04/30/90
Completed but continuing inspections required.	-
-	-
-	-
-	-

COSTS:

N/A

CROSS REFERENCE:

G-106A

ROOT CAUSE:

Insufficient oversight.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 39

TRACKING NUMBER 68

DEPT/DIV: AGS
INSP. DATE: 04/09/90
BLDG. #: 919
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 04/30/90
STATUS: Completed

FINDINGS:

Outside--40-ton Shepherd crane without safety latch on hook.

COMMITMENT:

There is no means to add a safety catch. The present use of the crane makes the safety catch undesirable. No action has been taken.

MILESTONES:

No action.	04/30/90
-	-
-	-
-	-
-	-

COSTS:

N/A

CROSS REFERENCE:

G-126B

ROOT CAUSE:

N/A

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 40

TRACKING NUMBER 70

DEPT/DIV: CS
INSP. DATE: 04/09/90
BLDG.#: 462
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 05/15/90
STATUS: Completed

FINDINGS:

Light Machine Shop--bridge crane and hoist need inspection and/or documentation of inspection.

COMMITMENT:

Arrangements will be made to have the hoists inspected by the Plant Engineering Division.

MILESTONES:

Call for inspection of hoist.	05/15/90
Hoist to be inspected by PE.	05/15/90
-	-
-	-
-	-
-	-

COSTS:

N/A

CROSS REFERENCE:

G-39B, G-40A

ROOT CAUSE:

Insufficient oversight.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 41

TRACKING NUMBER 73

DEPT/DIV: PE
INSP. DATE: 04/09/90
BLDG.#: -
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 04/30/90
STATUS: Completed

FINDINGS:

BNL interpretation of Appendix D is not a strict application of the law for small scale, short duration jobs. Question 30-minute excursion limit on asbestos sampling, since there are no records of such sampling.

COMMITMENT:

BNL has received additional interpretations from OSHA on the requirement for 30-minute excursion limit sampling. Based on this guidance, excursion sampling is not required.

MILESTONES:

Review guidance.	04/30/90
-	-
-	-
-	-
-	-

COSTS:

N/A

CROSS REFERENCE:

G-47A

ROOT CAUSE:

Inadequate communication of OSHA requirements.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 42

TRACKING NUMBER 74

DEPT/DIV: SM
INSP. DATE: 04/03/90
BLDG.#: 88
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 06/30/90
STATUS: Open

FINDINGS:

Four file cabinets contain asbestos. Employee monitoring not performed.

COMMITMENT:

S&EP has been contacted and arrangements have been made to sample the air to determine if any hazard exists. Note: Bldg. 88 is an unmanned bldg. and is used for storage. Discussion with SEP (P. Williams) indicates that employee monitoring is not appropriate in this instance; therefore, the decision is to take air samples at the source.

MILESTONES:

Contact S&EP for sampling.	04/03/90
Conduct sampling.	04/30/90
Institute necessary actions.	06/30/90
Disposal of cabinets	12/31/90
-	-
-	-

COSTS:

N/A

CROSS REFERENCE:

G-1B

ROOT CAUSE:

Inadequate communication of OSHA requirements.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 43

TRACKING NUMBER 75

DEPT/DIV: SEP
INSP. DATE: 04/10/90
BLDG.#: 488
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 04/30/90
STATUS: Completed

FINDINGS:

Asbestos monitoring in Cafeteria not done.

COMMITMENT:

Asbestos monitoring was performed for the Cafeteria in 1988 and 1989. The potential to exceed excursion limit does not occur for Cafeteria employees.

MILESTONES:

No action.	04/30/90
-	-
-	-
-	-
-	-

COSTS:

N/A

CROSS REFERENCE:

G-2A

ROOT CAUSE:

N/A

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 44

TRACKING NUMBER 76

DEPT/DIV: SM
INSP. DATE: 04/09/90
BLDG.#: 88
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 04/04/90
STATUS: Completed

FINDINGS:

File cabinets containing asbestos are not marked as required.

COMMITMENT:

The asbestos labels were affixed to the file cabinets on April 4, 1990.

MILESTONES:

Labels affixed.	04/04/90
-	-
-	-
-	-
-	-
-	-

COSTS:

N/A

CROSS REFERENCE:

G-2B

ROOT CAUSE:

Inadequate communication of OSHA requirements.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 45

TRACKING NUMBER

77

DEPT/DIV: NSLS
INSP. DATE: 04/09/90
BLDG. #: 725
OFFICE #: N/A
LAB. #: Vac
DUE DATE: 04/04/90
STATUS: Completed

FINDINGS:

Compressed gas cylinder (helium) not in use registered pressure on both gauges of its regulator.

COMMITMENT:

The main valve was off and the regulator had not been "bled down." The regulator was "bled down" at time of inspection.

MILESTONES:

Regulator "bled down".	04/04/90
-	-
-	-
-	-
-	-

COSTS:

No cost

CROSS REFERENCE:

G-3A, G-3B

ROOT CAUSE:

Insufficient oversight.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 46

TRACKING NUMBER 78

DEPT/DIV: NSLS
INSP. DATE: 04/09/90
BLDG.#: 725
OFFICE #: 2-109
LAB. #: N/A
DUE DATE: 04/30/90
STATUS: Completed

FINDINGS:

Lead brick used as door stop in Mail Room.

COMMITMENT:

Inappropriate use of lead bricks has been added as a cited violation on safety inspections. The housekeeping committee will also enforce this on their inspection.

MILESTONES:

Bricks removed.	04/30/90
-	-
-	-
-	-
-	-
-	-

COSTS:

N/A

CROSS REFERENCE:

G-4B

ROOT CAUSE:

Insufficient oversight.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 47

TRACKING NUMBER 79

DEPT/DIV: AGS
INSP. DATE: 04/09/90
BLDG. #: 919
OFFICE #: N/A
LAB. #: DESR
DUE DATE: 05/14/90
STATUS: Completed

FINDINGS:

Design Room--two lead bricks on floor by doors.

COMMITMENT:

The bricks were removed and returned to AGS stock room.

MILESTONES:

Removed bricks.	05/14/90
-	-
-	-
-	-
-	-

COSTS:

N/A

CROSS REFERENCE:

G-5A

ROOT CAUSE:

Insufficient oversight.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 48

TRACKING NUMBER 80

DEPT/DIV: PD
INSP. DATE: 04/10/90
BLDG.#: 510
OFFICE #: N/A
LAB. #: H Bay
DUE DATE: 04/30/90
STATUS: Completed

FINDINGS:

1. Flammable liquids stored with combustible materials, respirators and ear muffs.
2. Hydrofluoric and phosphoric acids stored in flammable liquids cabinet with flammable liquid (Hexane).

COMMITMENT:

All the items belonged to one person working in the high bay. He was informed and items separated.

MILESTONES:

Flammable liquids and combustible materials separated.	-
-	04/30/90
-	-
-	-
-	-

COSTS:

N/A

CROSS REFERENCE:

G-5B, G-50B

ROOT CAUSE:

Insufficient oversight.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 49

TRACKING NUMBER 81

DEPT/DIV: ADD
INSP. DATE: 04/05/90
BLDG.#: 902
OFFICE #: N/A
LAB. #: Inst
DUE DATE: 04/30/90
STATUS: Completed

FINDINGS:

Flammable aerosol can in area designed for smoking--fire hazard.

COMMITMENT:

The instrument room is now a "no smoking area."

MILESTONES:

Post sign in area.	04/30/90
-	-
-	-
-	-
-	-
-	-

COSTS:

N/A

CROSS REFERENCE:

G-6A, G-6B

ROOT CAUSE:

Insufficient oversight.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 50

TRACKING NUMBER 82

DEPT/DIV: SEP
INSP. DATE: 04/06/90
BLDG. #: 445
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 04/30/90
STATUS: Completed

FINDINGS:

Flammables on open shelf in smoking area causing fire hazard.

COMMITMENT:

The area has been changed to a non-smoking area.

MILESTONES:

Area changed to non-smoking area.	04/30/90
-	-
-	-
-	-
-	-

COSTS:

N/A

CROSS REFERENCE:

G-7A, G-7B

ROOT CAUSE:

Insufficient oversight.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 51

TRACKING NUMBER 83

DEPT/DIV: PE
INSP. DATE: 03/29/90
BLDG.#: 610
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 04/30/90
STATUS: Completed

FINDINGS:

In smoking area--log books stored in wooden cabinet with flammable liquids, thereby creating a fire hazard.

COMMITMENT:

Flammable liquids were removed from the cabinet and stored properly.

MILESTONES:

Flammable liquids removed from cabinet and stored properly.	-
-	04/30/90
-	-
-	-
-	-

COSTS:

N/A

CROSS REFERENCE:

G-8A

ROOT CAUSE:

Insufficient oversight.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 52

TRACKING NUMBER 84

DEPT/DIV: AGS
INSP. DATE: 04/09/90
BLDG.#: 912
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 09/01/90
STATUS: Open

FINDINGS:

Flammable liquids and aerosol spray cans stored in work areas, which are also designated as smoking areas.

COMMITMENT:

Isolation of smoking and combustible storage has been accomplished in Bldg. 919. A plan has been initiated to move all flammable liquids and aerosols in Bldg. 912 shops to one room to be designated a non-smoking area. R. Hubbard will remove all flammables to storage locker outside EEA.

MILESTONES:

Isolation of combustibles in non-smoking room--919.	04/30/90
Isolation of combustibles in non-smoking room--912.	09/01/90
-	-
-	-
-	-
-	-

COSTS:

N/A

CROSS REFERENCE:

G-8B

ROOT CAUSE:

Insufficient oversight.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 3- 53

TRACKING NUMBER 85

DEPT/DIV: SEP
INSP. DATE: 04/09/90
BLDG.#: 445919
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 04/30/90
STATUS: Completed

FINDINGS:

1. Safety personnel poster did not have names of key referral personnel listed.
2. A compressed gas cylinder was not secured.

COMMITMENT:

An emergency placard has been updated to include names of key personnel. Unable to locate unsecured cylinder.

MILESTONES:

Emergency placard updated.	04/30/90
-	-
-	-
-	-
-	-

COSTS:

N/A

CROSS REFERENCE:

G-9A, G-53B

ROOT CAUSE:

Insufficient oversight.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 54

TRACKING NUMBER 86

DEPT/DIV: RD
INSP. DATE: 03/28/90
BLDG. #: 750
OFFICE #: N/A
LAB. #: L-9B
DUE DATE: 09/01/90
STATUS: Open

FINDINGS:

Containers for Vythene (1,1,1 Trichloroethane), Acetone, Methyl alcohol and kerosene did not have hazard warning labels.

COMMITMENT:

The containers were gallon safety cans with product name but no hazard statement nor NFPA codes. The correction will simply be to add NFPA codes to the containers. All containers of hazardous chemicals will be labeled using the NFPA diamond, and will have all appropriate warnings.

MILESTONES:

Order additional labels.	06/01/90
Distribute to Group Leaders or safety representatives.	-
Verify compliance, labels in place.	06/15/90
-	09/01/90
-	-

COSTS:

Negligible; cost of labels.

CROSS REFERENCE:

G-9B, B-10A

ROOT CAUSE:

Insufficient oversight.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 55

TRACKING NUMBER 87

DEPT/DIV: AGS
INSP. DATE: 04/02/90
BLDG.#: 912
OFFICE #: N/A
LAB. #: E794
DUE DATE: 06/19/90
STATUS: Completed

FINDINGS:

Flammable liquids and other hazardous chemicals stored on open shelf, not properly labeled. Shelf had no retaining lip as required by BNL Safety Manual, 2.1.1, VI.A.2. Exp. 794, "D" line, inside D-1 Exp. Gate.

COMMITMENT:

The storage shelf is in a secured radiation area.

MILESTONES:

Correction completed during AGS summer shutdown.	06/19/90
-	-
-	-
-	-
-	-

COSTS:

N/A

CROSS REFERENCE:

G-10B

ROOT CAUSE:

Insufficient oversight.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 56

TRACKING NUMBER 88

DEPT/DIV: PE
INSP. DATE: 04/02/90
BLDG.#: 624
OFFICE #: N/A
LAB. #: WTP
DUE DATE: 04/30/90
STATUS: Completed

FINDINGS:

Containers of chemicals not labeled with hazard warnings.

COMMITMENT:

We will label the chemical containers.

MILESTONES:

Chemical containers have been labeled.	04/30/90
-	-
-	-
-	-
-	-

COSTS:

N/A

CROSS REFERENCE:

G-11A

ROOT CAUSE:

Insufficient oversight.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 57

TRACKING NUMBER 89

DEPT/DIV: PE
INSP. DATE: 04/05/90
BLDG.#: 555
OFFICE #: N/A
LAB. #: 308
DUE DATE: 04/30/90
STATUS: Completed

FINDINGS:

Custodial worker had chemical containers not labeled with appropriate hazard warning.

COMMITMENT:

Proper labels will be affixed.

MILESTONES:

Proper labels affixed.	04/30/90
-	-
-	-
-	-
-	-

COSTS:

N/A

CROSS REFERENCE:

G-12B

ROOT CAUSE:

Insufficient oversight.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 58

TRACKING NUMBER 90

DEPT/DIV: CD
INSP. DATE: 04/06/90
BLDG. #: 555
OFFICE #: N/A
LAB. #: MAL
DUE DATE: 09/30/91
STATUS: Open

FINDINGS:

Chemical containers are not appropriately labeled.

COMMITMENT:

Labels will be affixed on all chemicals in Chemistry Division.

MILESTONES:

Complete all labeling in Chemistry Division.	09/30/91
-	-
-	-
-	-
-	-

COSTS:

N/A

CROSS REFERENCE:

G-13A

ROOT CAUSE:

Insufficient oversight.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 59

TRACKING NUMBER 91

DEPT/DIV: ADD
INSP. DATE: 04/09/90
BLDG.#: 919
OFFICE #: N/A
LAB. #: MCR
DUE DATE: 05/14/90
STATUS: Completed

FINDINGS:

Hazardous material containers of trichlorethane and acetone lacked health hazard labels.

COMMITMENT:

Labels will be affixed on containers.

MILESTONES:

Labels affixed.	05/14/90
-	-
-	-
-	-
-	-

COSTS:

N/A

CROSS REFERENCE:

G-13B

ROOT CAUSE:

Insufficient oversight.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 60

TRACKING NUMBER 92

DEPT/DIV: PE
INSP. DATE: 03/29/90
BLDG. #: 610
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 04/30/90
STATUS: Completed

FINDINGS:

Steam Power House, tank farm area--flammable gas sign on liquid propane tank is unreadable.

COMMITMENT:

We will provide a readable sign (W.O.# 008993ZM).

MILESTONES:

Sign changed.	04/30/90
-	-
-	-
-	-
-	-

COSTS:

N/A

CROSS REFERENCE:

G-14A

ROOT CAUSE:

Insufficient oversight.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 61

TRACKING NUMBER 93

DEPT/DIV: DAS
INSP. DATE: 04/10/90
BLDG.#: 815
OFFICE #: N/A
LAB.#: 1-25
DUE DATE: 04/30/90
STATUS: Completed

FINDINGS:

Label and hazard warnings could not be read on container of chemicals.

COMMITMENT:

The container will be labelled. DAS will continue to ensure compliance through Quarterly Safety Inspections.

MILESTONES:

Label containers.	04/30/90
-	-
-	-
-	-
-	-

COSTS:

N/A

CROSS REFERENCE:

14B

ROOT CAUSE:

Insufficient oversight.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 62

TRACKING NUMBER 94

DEPT/DIV: ADD
INSP. DATE: 04/09/90
BLDG. #: 919
OFFICE #: N/A
LAB. #: MCR
DUE DATE: 05/14/90
STATUS: Completed

FINDINGS:

No MSDS available for acetone or 1,1,1, trichloroethane.

COMMITMENT:

MSDS file initiated 05/14/90.

MILESTONES:

Initiated MSDS file/obtained data sheets.	05/14/90
-	-
-	-
-	-
-	-

COSTS:

N/A

CROSS REFERENCE:

G-15A

ROOT CAUSE:

Insufficient oversight.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 63

TRACKING NUMBER

95

DEPT/DIV: CS
INSP. DATE: 03/28/90
BLDG.#: 208
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 06/30/90
STATUS: Open

FINDINGS:

MSDS not maintained or available to employees for welding rods and other supplies, and are not in Hazard Communication Program.

COMMITMENT:

MSDS will be obtained for all welding rods and all "other supplies" and will be included in the Hazard Communication Program.

MILESTONES:

Obtain all welding rod MSDS.	06/30/90
Include in Hazard Communication Program.	06/30/90
-	-
-	-
-	-
-	-

COSTS:

N/A

CROSS REFERENCE:

G-15B

ROOT CAUSE:

Insufficient oversight.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 64

TRACKING NUMBER 96

DEPT/DIV: RD
INSP. DATE: 03/28/90
BLDG. #: 750
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 09/01/90
STATUS: Open

FINDINGS:

Flammables storage cabinets and laboratories had solvent containers with Vythene (1,1,1 Trichloroethane), a local trade name. Two days required to locate MSDS that referred to local trade name. This is not a timely response.

COMMITMENT:

All containers labeled "Vythene" or "Inhibisol" will be relabelled "Trichloroethane" to properly reflect the information on the MSDS.

MILESTONES:

Memo to all Group Leaders.	05/15/90
Verify compliance.	09/01/90
-	-
-	-
-	-
-	-

COSTS:

N/A

CROSS REFERENCE:

G-16A

ROOT CAUSE:

Inadequate communication of OSHA requirements and oversight.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 65

TRACKING NUMBER 97

DEPT/DIV: SM
INSP. DATE: 04/03/90
BLDG. #: 89
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 01/31/91
STATUS: Open

FINDINGS:

MSDS for Supply & Materials Division are not maintained at their facilities. MSDS are available only through special request from SEP.

COMMITMENT:

BNL is upgrading its system for making MSDS readily accessible to employees via an on-line, user-friendly computer system.

MILESTONES:

Identify/update MSDS for BNL material.	09/30/90
Upgrade existing computerized databases.	09/30/90
Select new software system/install.	11/30/90
Complete training/implement system.	01/31/91
-	-
-	-

COSTS:

FY90: \$60K, FY91: \$140K

CROSS REFERENCE:

G-19A

ROOT CAUSE:

Inadequate communication of OSHA requirements.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 66

TRACKING NUMBER 98

DEPT/DIV: DAS
INSP. DATE: 04/04/90
BLDG. #: 820
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 05/31/90
STATUS: Completed

FINDINGS:

Flammables storage cabinet--MSDS were reported to be kept in Bldg. 179 but could not be produced.

COMMITMENT:

MSDS will be made available. See also OSHA Tracking No. 97.

MILESTONES:

Make MSDS available.	05/31/90
-	-
-	-
-	-
-	-

COSTS:

N/A

CROSS REFERENCE:

G-19B

ROOT CAUSE:

Inadequate communication of OSHA requirements.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 67

TRACKING NUMBER 99

DEPT/DIV: NSLS
INSP. DATE: 04/04/90
BLDG.#: 725
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 06/01/90
STATUS: Completed

FINDINGS:

Flammable Storage Cabinet-No MSDS for 190 proof EtOH in work area. MSDS for denatured ethyl alcohol only was found.

COMMITMENT:

All supervisors and beam-line persons will be informed that they must have MSDSs for materials used in their work areas. The NSLS officer will maintain a file of the MSDSs for common materials.

MILESTONES:

Memo to supervisors and contact persons.	06/01/90
File of MSDS.	06/01/90
-	-
-	-
-	-
-	-

COSTS:

N/A

CROSS REFERENCE:

G-20A

ROOT CAUSE:

Inadequate communication of OSHA requirements.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 68

TRACKING NUMBER 100

DEPT/DIV: NSLS
INSP. DATE: 04/04/90
BLDG.#: 725
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 05/15/90
STATUS: Completed

FINDINGS:

VUV Experimental Areas U7 and U8--MSDS not maintained in the work area.

COMMITMENT:

All supervisors and beam-line persons will be informed that they must have MSDSs for materials used in their work areas. The NSLS officer will maintain a file of the MSDS for common materials. See OSHA Tracking No. 97.

MILESTONES:

Maintain MSDS for common materials.	05/15/90
-	-
-	-
-	-
-	-
-	-

COSTS:

N/A

CROSS REFERENCE:

G-20B

ROOT CAUSE:

Inadequate communication of OSHA requirements.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 69

TRACKING NUMBER 101

DEPT/DIV: DAS
INSP. DATE: 04/04/90
BLDG.#: 820
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 04/30/90
STATUS: Completed

FINDINGS:

A gallon of con-lux custom reducer (solvent) stored in metal wall cabinet.

COMMITMENT:

MSDS for con-lux reducer will be obtained and is on file. See also OSHA Tracking No. 97.

MILESTONES:

Make MSDS available.	04/30/90
-	-
-	-
-	-
-	-
-	-

COSTS:

N/A

CROSS REFERENCE:

G-21A

ROOT CAUSE:

Inadequate communication of OSHA requirements.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 70

TRACKING NUMBER 102

DEPT/DIV: SS
INSP. DATE: 04/05/90
BLDG. #: 423
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 05/30/90
STATUS: Completed

FINDINGS:

No MSDS available to employees for welding rods and other supplies, and are not included in Hazard Communications Program.

COMMITMENT:

MSDS for welding rods will be requested from the SEP Division. See also OSHA Tracking No. 97. MSDS for welding rods has been received for SEP and has been made available to employees. (Please see attached memo concerning factual errors in regard to missing MSDS for other supplies, noting that "the inspector leafed through all of our MSDSs in that location and commented only on the lack of the one on the welding rod. We had MSDSs on all the other substances required.")

MILESTONES:

Request MSDS from SEP.	05/09/90
SEP provide.	05/30/90
-	-
-	-
-	-
-	-

COSTS:

N/A

CROSS REFERENCE:

G-21B

ROOT CAUSE:

Insufficient oversight.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 71

TRACKING NUMBER 103

DEPT/DIV: CD
INSP. DATE: 04/05/90
BLDG.#: 555
OFFICE #: N/A
LAB. #: 308
DUE DATE: 01/31/91
STATUS: Open

FINDINGS:

MSDS are not readily accessible to custodial workers. MSDS are kept in supervisor's office (Bldg. 326).

COMMITMENT:

BNL is upgrading its MSDS system to ensure that they are readily accessible to employees via an on-line, user-friendly, computer system. See also OSHA Tracking No. 97.

MILESTONES:

Implement computerized MSDS system.	01/31/91
-	-
-	-
-	-
-	-
-	-

COSTS:

N/A

CROSS REFERENCE:

G-22A

ROOT CAUSE:

Inadequate communication of OSHA requirements.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 72

TRACKING NUMBER 104

DEPT/DIV: CD
INSP. DATE: 04/05/90
BLDG.#: 555
OFFICE #: N/A
LAB. #: All
DUE DATE: 12/30/90
STATUS: Open

FINDINGS:

MSDS are not readily accessible to people working in the building.

COMMITMENT:

Fischer Scientific is donating a full set of MSDS which will be located in Room 212, where it will be readily available to all Department members. See also OSHA Tracking No. 97.

MILESTONES:

Receive and locate MSDS in Stock Room.	12/30/90
-	-
-	-
-	-
-	-

COSTS:

N/A

CROSS REFERENCE:

G-22B

ROOT CAUSE:

Inadequate communication of OSHA requirements.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 73

TRACKING NUMBER 105

DEPT/DIV: ADD
INSP. DATE: 04/05/90
BLDG.#: 905
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 06/30/90
STATUS: Completed

FINDINGS:

Magnet Factory, south end--MSDS for dichloromethane could not be made available in a timely manner.

COMMITMENT:

A request has been made to S&M and BNL Safety Division for MSDS sheet. See also OSHA Tracking No. 97.

MILESTONES:

Request data sheets from BNL Safety Division.	04/30/90
Make available.	06/30/90
-	-
-	-
-	-
-	-

COSTS:

N/A

CROSS REFERENCE:

G-23A

ROOT CAUSE:

Inadequate communication of OSHA requirements.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 74

TRACKING NUMBER 106

DEPT/DIV: CD
INSP. DATE: 04/06/90
BLDG.#: 555
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 01/31/91
STATUS: N/A

FINDINGS:

Machine shop--MSDS not available for several chemicals found in this area.

COMMITMENT:

See also OSHA Tracking No. 97.

MILESTONES:

N/A

- -
- -
- -
- -
- -

COSTS:

N/A

CROSS REFERENCE:

G-23B

ROOT CAUSE:

Inadequate communication of OSHA requirements.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 75

TRACKING NUMBER 107

DEPT/DIV: CD
INSP. DATE: 04/06/90
BLDG.#: 555
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 12/31/90
STATUS: Open

FINDINGS:

Machine shop--employees had not received training on Hazard Communications Program.

COMMITMENT:

All employees will be provided training conveying their rights and responsibilities under 1910.1200 and 1910.1450. See IH.6-1.

MILESTONES:

Identify training contents.	06/30/90
Prepare training packages.	07/31/90
Initiate 1910.1450 training.	10/31/90
Prepare MSDS packages for 1910.1200 training.	10/31/90
Provide 1910.1200 training.	12/31/90
-	-

COSTS:

N/A

CROSS REFERENCE:

G-24A

ROOT CAUSE:

Insufficient oversight.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 76

TRACKING NUMBER 108

DEPT/DIV: CD
INSP. DATE: 04/06/90
BLDG. #: 555
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 12/31/90
STATUS: Open

FINDINGS:

Machine shop--employees had no training on how to protect themselves from exposure to chemicals, on work practices, emergency procedures or personal protective equipment to be used.

COMMITMENT:

See IH.6-1 and OSHA Tracking No. 107.

MILESTONES:

Implement training procedures	12/31/90
-	-
-	-
-	-
-	-

COSTS:

N/A

CROSS REFERENCE:

G-24B

ROOT CAUSE:

Insufficient oversight.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 77

TRACKING NUMBER 109

DEPT/DIV: CD
INSP. DATE: 04/06/90
BLDG.#: 555
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 12/31/90
STATUS: Open

FINDINGS:

Machine shop--employees had no training on the Hazard Communication Program.

COMMITMENT:

See IH.6-1 and OSHA Tracking No. 107.

MILESTONES:

N/A
-
-
-
-
-

COSTS:

N/A

CROSS REFERENCE:

G-25A

ROOT CAUSE:

Insufficient oversight.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 78

TRACKING NUMBER 110

DEPT/DIV: PE
INSP. DATE: 03/29/90
BLDG.#: 610
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 04/30/90
STATUS: Completed

FINDINGS:

Steam Plant, Battery room--shower and eyewash have not been checked in the past year.

COMMITMENT:

The shower will be put on PM system for annual test/inspection. An annual test will be performed.

MILESTONES:

Test.	04/30/90
-	-
-	-
-	-
-	-
-	-

COSTS:

N/A

CROSS REFERENCE:

G-25B

ROOT CAUSE:

Insufficient oversight.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 79

TRACKING NUMBER 111

DEPT/DIV: PE
INSP. DATE: 04/02/90
BLDG.#: 624
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 04/30/90
STATUS: Completed

FINDINGS:

Water Treatment Plant, laboratory--eyewash station had not been checked within the past year.

COMMITMENT:

The eyewash station will be checked (W.O.# 010021ZP).

MILESTONES:

Eyewash fountain checked.	04/30/90
-	-
-	-
-	-
-	-

COSTS:

N/A

CROSS REFERENCE:

G-26A

ROOT CAUSE:

Insufficient oversight.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 80

TRACKING NUMBER 112

DEPT/DIV: ADD
INSP. DATE: 04/05/90
BLDG. #: 905
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 04/30/90
STATUS: Completed

FINDINGS:

Magnet Factory--eyewash/shower stations have never been tested.

COMMITMENT:

Plant Engineering will institute a maintenance program for BNL site that will be inspected quarterly by AD/AGS safety committee.

MILESTONES:

Institute quarterly inspection.	04/30/90
-	-
-	-
-	-
-	-

COSTS:

N/A

CROSS REFERENCE:

G-26B

ROOT CAUSE:

Insufficient oversight.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 81

TRACKING NUMBER 113

DEPT/DIV: SEP
INSP. DATE: 04/06/90
BLDG.#: 445
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 04/30/90
STATUS: Completed

FINDINGS:

Hazardous Waste Mgt., lathe area--eyewash stations may not be operable--need to be tested.

COMMITMENT:

Eyewash station will be reviewed. Caps will be placed on top of the fountain nozzles to prevent dust and dirt from entering.

MILESTONES:

Caps placed on eyewash fountain nozzles.	04/30/90
-	-
-	-
-	-
-	-

COSTS:

N/A

CROSS REFERENCE:

G-27A

ROOT CAUSE:

Insufficient oversight.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 82

TRACKING NUMBER 114

DEPT/DIV: PD
INSP. DATE: 04/10/90
BLDG.#: 510
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 04/30/90
STATUS: Completed

FINDINGS:

High bay--ear muffs in storage cabinet with flammable material.

COMMITMENT:

All items belong to one person working in the high bay. He will be informed and items separated.

MILESTONES:

Items separated.	04/30/90
-	-
-	-
-	-
-	-
-	-

COSTS:

N/A

CROSS REFERENCE:

G-27B

ROOT CAUSE:

Insufficient oversight.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 83

TRACKING NUMBER 115

DEPT/DIV: PD
INSP. DATE: 04/10/90
BLDG.#: 510
OFFICE #: N/A
LAB.#: 1-56
DUE DATE: 04/10/90
STATUS: Completed

FINDINGS:

Machine Shop--no inspection tag on eyewash fountain.

COMMITMENT:

New eyewash station was installed; the plumber failed to tag it.

MILESTONES:

New eyewash station was installed.	04/10/90
-	-
-	-
-	-
-	-

COSTS:

N/A

CROSS REFERENCE:

G-28B

ROOT CAUSE:

Insufficient oversight.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 84

TRACKING NUMBER 116

DEPT/DIV: PD
INSP. DATE: 04/10/90
BLDG.#: 510
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 04/30/90
STATUS: Completed

FINDINGS:

High bay area--respirator stored in metal cabinet with flammable material and other paper goods.

COMMITMENT:

All items belong to one person working in the High Bay. He will be informed and items separated.

MILESTONES:

Items were separated.	04/30/90
-	-
-	-
-	-
-	-

COSTS:

N/A

CROSS REFERENCE:

G-29A

ROOT CAUSE:

Insufficient oversight.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 85

TRACKING NUMBER 117

DEPT/DIV: DAS
INSP. DATE: 04/10/90
BLDG.#: 315
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 06/30/90
STATUS: Completed

FINDINGS:

Basement shop--eyewash station contaminated with dust and dirt.

COMMITMENT:

DAS will issue a directive to ensure the basement eyewash fountain will be flushed weekly, as are the other fountains in the department area. DAS will ensure compliance through quarterly safety inspections.

MILESTONES:

Issue Directive.	06/30/90
-	-
-	-
-	-
-	-

COSTS:

N/A

CROSS REFERENCE:

G-28A

ROOT CAUSE:

Insufficient oversight.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 86

TRACKING NUMBER 118

DEPT/DIV: AGS
INSP. DATE: 04/02/90
BLDG.#: 922
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 04/30/90
STATUS: Completed

FINDINGS:

North/East door entrance needs illumination.

COMMITMENT:

The NE entrance is illuminated by normal power lighting and emergency battery-pack lighting. Also, there is an illuminated EXIT sign. No action will be taken.

MILESTONES:

No action.	04/30/90
-	-
-	-
-	-
-	-

COSTS:

N/A

CROSS REFERENCE:

G-29B

ROOT CAUSE:

N/A

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 87

TRACKING NUMBER 119

DEPT/DIV: SEP
INSP. DATE: 04/06/90
BLDG.#: 445
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 04/30/90
STATUS: Completed

FINDINGS:

Hazardous Waste Mgt., east door entrance--exterior light for door is out--not secured to wall. Rain flows on open wires creating electrical hazard.

COMMITMENT:

An exterior light fixture will be secured.

MILESTONES:

Exterior light fixture secured.	04/30/90
-	-
-	-
-	-
-	-

COSTS:

N/A

CROSS REFERENCE:

G-30A

ROOT CAUSE:

Insufficient oversight.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 88

TRACKING NUMBER 120

DEPT/DIV: PD
INSP. DATE: 03/28/90
BLDG. #: 750
OFFICE #: N/A
LAB. #: L14
DUE DATE: 07/01/90
STATUS: Completed

FINDINGS:

Fire potential--cigarette butts in ashtray in non-smoking area.

COMMITMENT:

No basis was found for area to be designated as a "No Smoking" area; the signs will be removed.

MILESTONES:

Review all work spaces.	06/01/90
Add or remove signs as required.	07/01/90
-	-
-	-
-	-
-	-

COSTS:

N/A

CROSS REFERENCE:

G-30B

ROOT CAUSE:

Insufficient oversight.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 89

TRACKING NUMBER 121

DEPT/DIV: CS
INSP. DATE: 04/09/90
BLDG. #: 462
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 06/30/90
STATUS: Open

FINDINGS:

Better enclosures and ventilation systems should be installed to control oil mists on milling machines.

COMMITMENT:

We are in the process of installing an enclosure on the Bostomatic. The Bostomatic does not use a spray unit; it uses a flood system. We also have a vacuum hose attached to a HEPA filter. This system will be attached to the enclosure. The Cintimatic 225 machine also had guards around it to control the coolant.

MILESTONES:

Complete the enclosure on the Bostomatic.	06/30/90
-	-
-	-
-	-
-	-

COSTS:

N/A

CROSS REFERENCE:

G-31A

ROOT CAUSE:

Insufficient oversight.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 90

TRACKING NUMBER 122

DEPT/DIV: AGS
INSP. DATE: 04/09/90
BLDG. #: 912
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 04/30/90
STATUS: Completed

FINDINGS:

Gate #9--manual fire alarm sign but no system.

COMMITMENT:

Sign removed.

MILESTONES:

Sign removed.	04/30/90
-	-
-	-
-	-
-	-

COSTS:

N/A

CROSS REFERENCE:

G-31B

ROOT CAUSE:

Insufficient oversight.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 91

TRACKING NUMBER 123

DEPT/DIV: CD
INSP. DATE: 04/06/90
BLDG.#: 555
OFFICE #: N/A
LAB. #: 265
DUE DATE: 04/06/90
STATUS: Completed

FINDINGS:

Emergency eyewash stations blocked.

COMMITMENT:

We will remove the apparatus that is blocking the eyewash station.

MILESTONES:

Provided access to eyewash.	04/06/90
-	-
-	-
-	-
-	-
-	-

COSTS:

N/A

CROSS REFERENCE:

G-32A

ROOT CAUSE:

Insufficient oversight.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 92

TRACKING NUMBER 124

DEPT/DIV: AGS
INSP. DATE: 04/02/90
BLDG. #: 912
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 09/01/90
STATUS: Open

FINDINGS:

East Experimental Bldg. Addition--no signs posted to indicate location of fire extinguishers.

COMMITMENT:

Locator signs will be posted over or near all fire extinguishers that are not in clear view from significant distance.

MILESTONES:

Order signs.	05/03/90
Install signs.	09/01/90
-	-
-	-
-	-
-	-

COSTS:

Sign purchase: \$756.

CROSS REFERENCE:

G-33A

ROOT CAUSE:

Disagreement on the interpretation of OSHA requirements.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 93

TRACKING NUMBER 125

DEPT/DIV: NSLS
INSP. DATE: 04/04/90
BLDG. #: 725
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 06/01/90
STATUS: Completed

FINDINGS:

Lobby--no sign posted indicating location of fire extinguisher.

COMMITMENT:

A sign will be placed to clearly mark the location of the extinguisher. An ILR will be issued for an additional ABC type extinguisher in the lobby area for fire hazards peculiar to that area.

MILESTONES:

Sign placed.	05/17/90
ILR for additional extinguisher.	06/01/90
-	-
-	-
-	-
-	-

COSTS:

\$150 estimated.

CROSS REFERENCE:

G-33B

ROOT CAUSE:

Disagreement on interpretation of OSHA requirements.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 94

TRACKING NUMBER 126

DEPT/DIV: ADD
INSP. DATE: 04/05/90
BLDG.#: 902
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 04/30/90
STATUS: Completed

FINDINGS:

Lobby--location of fire extinguisher not obvious; location not identified.

COMMITMENT:

A fire extinguisher sign will be posted.

MILESTONES:

Post sign.	04/30/90
-	-
-	-
-	-
-	-

COSTS:

N/A

CROSS REFERENCE:

G-34B

ROOT CAUSE:

Disagreement on interpretation of OSHA/NFPA standards.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 95

TRACKING NUMBER 127

DEPT/DIV: ADD
INSP. DATE: 04/05/90
BLDG.#: 902
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 06/30/90
STATUS: Completed

FINDINGS:

Lobby E-7--fire extinguisher missing.

COMMITMENT:

A fire extinguisher for #E7 will be ordered.

MILESTONES:

Order extinguisher.	04/30/90
Place new unit.	06/30/90
-	-
-	-
-	-
-	-

COSTS:

N/A

CROSS REFERENCE:

G-35A

ROOT CAUSE:

Insufficient oversight.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 96

TRACKING NUMBER 128

DEPT/DIV: SEP
INSP. DATE: 04/06/90
BLDG. #: 445
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 05/14/90
STATUS: Completed

FINDINGS:

1. No sign posted to indicate location of extinguisher; extinguisher blocked by metal cabinet-mounts on wall on both sides.
2. Fire extinguisher sitting on floor by overhead doors rather than being mounted on wall.

COMMITMENT:

A sign will be ordered and mounted on receipt. The fire extinguisher will be mounted on the wall.

MILESTONES:

Provide and mount sign.	05/15/90
Mount extinguisher.	05/15/90
-	-
-	-
-	-

COSTS:

N/A

CROSS REFERENCE:

G-35B, G-36A

ROOT CAUSE:

1. Disagreement on interpretation of OSHA/NFPA standards.
2. Insufficient oversight.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 97

TRACKING NUMBER 129

DEPT/DIV: AGS
INSP. DATE: 04/09/90
BLDG. #: 912
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 09/01/90
STATUS: Open

FINDINGS:

Signs for several fire extinguishers are missing and locations are often obstructed.

COMMITMENT:

Locator signs will be posted over or near all fire extinguishers that are not in clear view from reasonable distance.

MILESTONES:

Order signs.	05/03/90
Install signs.	09/01/90
-	-
-	-
-	-
-	-

COSTS:

Sign purchase: \$756

CROSS REFERENCE:

G-36B

ROOT CAUSE:

Disagreement with interpretation of OSHA/NFPA standards and insufficient oversight.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 98

TRACKING NUMBER 130

DEPT/DIV: PE
INSP. DATE: 03/29/90
BLDG.#: 610
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 04/30/90
STATUS: Completed

FINDINGS:

SE corner--fire extinguisher not inspected within the past year.

COMMITMENT:

The fire extinguisher was not out of compliance. It was green tagged because it is a temporary extinguisher. The regular extinguisher was in for service.

MILESTONES:

No action.	04/30/90
-	-
-	-
-	-
-	-

COSTS:

N/A

CROSS REFERENCE:

G-37A

ROOT CAUSE:

Disagreement on the interpretation of OSHA requirements.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 99

TRACKING NUMBER 131

DEPT/DIV: BD
INSP. DATE: 04/02/90
BLDG.#: 463
OFFICE #: 251
LAB. #: N/A
DUE DATE: 05/21/90
STATUS: Completed

FINDINGS:

Fire extinguisher not inspected within 1 year time.

COMMITMENT:

With the cooperation of the Fire Protection Group, tighter scheduling of inspections will prevent such occurrences. All extinguishers will be within 12 months of the last recorded inspection.

MILESTONES:

Initiate tighter schedule of inspections.	05/21/90
-	-
-	-
-	-
-	-

COSTS:

N/A

CROSS REFERENCE:

G-38A

ROOT CAUSE:

Insufficient oversight.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 100

TRACKING NUMBER 132

DEPT/DIV: MD
INSP. DATE: 04/03/90
BLDG.#: 490
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 04/30/90
STATUS: Completed

FINDINGS:

Clinic, Extinguisher #12 marked "Pool." No indication of maintenance check.

COMMITMENT:

We will replace with a new extinguisher, with proper inspection and dating.

MILESTONES:

Replace extinguisher.	04/30/90
-	-
-	-
-	-
-	-

COSTS:

N/A

CROSS REFERENCE:

G-38B

ROOT CAUSE:

Insufficient oversight.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 101

TRACKING NUMBER 133

DEPT/DIV: SEP
INSP. DATE: 04/06/90
BLDG.#: 446
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 05/14/90
STATUS: Completed

FINDINGS:

One ton hoist used to handle 55-gallon drums has not been inspected periodically.

COMMITMENT:

We will verify that the crane has been inspected and tagged.

MILESTONES:

Inspect/tag crane.	05/14/90
-	-
-	-
-	-
-	-

COSTS:

N/A

CROSS REFERENCE:

G-39A

ROOT CAUSE:

Insufficient oversight.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 102

TRACKING NUMBER 134

DEPT/DIV: AGS
INSP. DATE: 04/02/90
BLDG.#: 912
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 09/30/90
STATUS: Open

FINDINGS:

Stairs and walkways over beamline--Dextron 260 handrails/guardrails in "temporary" stairways/walkways over beam stop are not readily graspable.

COMMITMENT:

All temporary decking and stairway work will be upgraded during AGS summer shutdown. An ILR (294385) for \$25,000 to fix hazards in Bldg. 912 has been issued. Additional work will be funded in FY 91.

MILESTONES:

Complete upgrade.	10/31/90
-	-
-	-
-	-
-	-

COSTS:

\$32,000+ for #s 27, 134, 136, 178, 179

CROSS REFERENCE:

G-40B

ROOT CAUSE:

Inadequate communication of OSHA requirements.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 103

TRACKING NUMBER 135

DEPT/DIV: ADD
INSP. DATE: 04/04/90
BLDG. #: 820
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 04/06/90
STATUS: Completed

FINDINGS:

Storage Area above Clean Room--live load limit for floor of storage area not posted.

COMMITMENT:

Live load limits have been posted.

MILESTONES:

Limit posted.	04/06/90
-	-
-	-
-	-
-	-

COSTS:

N/A

CROSS REFERENCE:

G-41A

ROOT CAUSE:

Insufficient oversight.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 104

TRACKING NUMBER 136

DEPT/DIV: AGS
INSP. DATE: 04/09/90
BLDG. #: 912
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 10/31/90
STATUS: Open

FINDINGS:

"B" Line Power Separator--guardrails less than 42" high.

COMMITMENT:

All upgrading of the decking, stairway, and guardrail will be accomplished during the AGS summer shutdown. An ILR (294385) for \$25,000 to fix hazards in Bldg. 912 has been issued. Additional work will be funded in FY 91.

MILESTONES:

Complete upgrading.	10/31/90
-	-
-	-
-	-
-	-

COSTS:

\$32,000+ for #s 27, 134, 136, 178, 179

CROSS REFERENCE:

G-42A

ROOT CAUSE:

Insufficient oversight.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 105

TRACKING NUMBER 137

DEPT/DIV: PD
INSP. DATE: 04/06/90
BLDG.#: 510
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 04/06/90
STATUS: Completed

FINDINGS:

Cylinder Storage Area--oxygen cylinder stored without valve protection cap.

COMMITMENT:

An effort is being made to keep all unused cylinders capped. The cited oxygen cylinder was capped about an hour after being cited.

MILESTONES:

Cap cylinder.	04/06/90
-	-
-	-
-	-
-	-
-	-

COSTS:

N/A

CROSS REFERENCE:

G-42B

ROOT CAUSE:

Insufficient oversight.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 106

TRACKING NUMBER 138

DEPT/DIV: NSLS
INSP. DATE: 03/28/90
BLDG.#: 725
OFFICE #: N/A
LAB. #: X-1,2
DUE DATE: 03/28/90
STATUS: Completed

FINDINGS:

Electrical cord that runs outside on wall is not in conduit and could be snagged.

COMMITMENT:

The cord in question was removed shortly after the inspection. No unprotected conductors are now in this area.

MILESTONES:

Removed cord.	03/28/90
-	-
-	-
-	-
-	-

COSTS:

N/A

CROSS REFERENCE:

G-43A

ROOT CAUSE:

Insufficient oversight.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 107

TRACKING NUMBER 139

DEPT/DIV: PD
INSP. DATE: 04/10/90
BLDG. #: 510
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 09/30/90
STATUS: Open

FINDINGS:

High bay--openings in electrical boxes have not been closed.

COMMITMENT:

A work order will be issued for repairs (knockout seals missing).

MILESTONES:

Issue work order.	05/11/90
Complete repairs.	09/30/90
-	-
-	-
-	-
-	-

COSTS:

N/A

CROSS REFERENCE:

G-43B

ROOT CAUSE:

Insufficient oversight.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 108

TRACKING NUMBER 140

DEPT/DIV: ADD
INSP. DATE: 04/10/90
BLDG. #: 924
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 05/15/90
STATUS: Completed

FINDINGS:

1. Curing Area--boxes #4 and #8 are not effectively closed.
2. No safety catch on hook of 17-ton crane.

COMMITMENT:

The boxes in Bldg. 924 will be closed.
A safety catch will be ordered P/E (MMC #05G070).

MILESTONES:

Close boxes.	04/30/90
Order, install latch.	05/15/90
-	-
-	-
-	-
-	-

COSTS:

N/A

CROSS REFERENCE:

G-44A, G-127A

ROOT CAUSE:

Insufficient oversight.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 109

TRACKING NUMBER 141

DEPT/DIV: AGS
INSP. DATE: 04/09/90
BLDG.#: 912
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 04/30/90
STATUS: Completed

FINDINGS:

- 1. Gate ATF-23--roof above electrical box is leaking.
- 2. E 859--roof leaks allowing rain to drop onto experiment. Potential for electric shock exists.

COMMITMENT:

- 1. Cannot identify location, but response would be same as below.
- 2. Roof leaks have been reported to Plant Engineering including drawings locating leaks. PED has employed a consultant to recommend solution.

MILESTONES:

Repair roof leak.	04/30/90
-	-
-	-
-	-
-	-

COSTS:

N/A

CROSS REFERENCE:

G-44B, G-48B

ROOT CAUSE:

Insufficient oversight.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 110

TRACKING NUMBER 142

DEPT/DIV: AGS
INSP. DATE: 04/02/90
BLDG.#: 912
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 04/30/90
STATUS: Completed

FINDINGS:

Near overhead door #5--exit sign obscured by beam stop.

COMMITMENT:

Additional EXIT sign will be installed approximately 16 feet high on the wall over the door.

MILESTONES:

Additional exit sign installed.	04/30/90
-	-
-	-
-	-
-	-

COSTS:

N/A

CROSS REFERENCE:

G-45A

ROOT CAUSE:

Insufficient oversight.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 111

TRACKING NUMBER 143

DEPT/DIV: MD
INSP. DATE: 03/30/90
BLDG. #: 491
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 04/30/90
STATUS: Completed

FINDINGS:

Carcinogen storage room--emergency procedure has names of persons no longer at BNL.

COMMITMENT:

The emergency placard will be updated.

MILESTONES:

Update emergency placard.	04/30/90
-	-
-	-
-	-
-	-

COSTS:

N/A

CROSS REFERENCE:

G-46B

ROOT CAUSE:

Insufficient oversight.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 112

TRACKING NUMBER 144

DEPT/DIV: PE
INSP. DATE: 03/29/90
BLDG.#: 610
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 04/30/90
STATUS: Completed

FINDINGS:

Steam Power House, tank farm area--no smoking signs and flammable liquid signs do not list distance required from ignition source. Residue of cigarettes found throughout the area.

COMMITMENT:

New signs with proper information will be installed.

MILESTONES:

Install new signs.	04/30/90
-	-
-	-
-	-
-	-

COSTS:

N/A

CROSS REFERENCE:

G-55A

ROOT CAUSE:

Insufficient oversight.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 113

TRACKING NUMBER 145

DEPT/DIV: PE
INSP. DATE:04/10/90
BLDG.#: 815
OFFICE #: N/A
LAB. #: N/A
DUE DATE:04/10/90
STATUS: Completed

FINDINGS:

1. Basement--asbestos removal. Warning signs not displayed at each entry to regulated area. Area demarcated only with barrier tape.
2. Two asbestos abatement workers were observed drinking coffee in demarcated area.
3. Asbestos removal operations being conducted without establishing negative pressure enclosure.

COMMITMENT:

These findings and that contained in OSHA Tracking Nos. 214 and 215 are inaccurate. They arise from the OSHA TT assumption that the jobs being done were large-scale efforts. This was not the case; and, as such, their application of the requirements for signs, negative pressure enclosures, and for adjacent clean rooms is inaccurate.

MILESTONES:

N/A	-
-	-
-	-
-	-
-	-
-	-

COSTS:

N/A

CROSS REFERENCE:

G-47B,G-120A,G-120B

ROOT CAUSE:

N/A

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 114

TRACKING NUMBER 146

DEPT/DIV: AGS
INSP. DATE: 04/02/90
BLDG. #: 922
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 09/01/90
STATUS: Open

FINDINGS:

North end--190 proof ethyl alcohol not stored in proper storage cabinet in area designated for smoking.

COMMITMENT:

Supervisor will submit a purchase requisition (Work Copy No. 472273) to obtain a flammables storage cabinet.

MILESTONES:

Flammable storage cabinet in service.	09/01/90
-	-
-	-
-	-
-	-

COSTS:

N/A

CROSS REFERENCE:

G-57A, G-57B

ROOT CAUSE:

Insufficient oversight.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 115

TRACKING NUMBER 147

DEPT/DIV: ADD
INSP. DATE: 04/05/90
BLDG.#: 905
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 04/30/90
STATUS: Completed

FINDINGS:

Record of inspection of 10 ton crane not readily available.

COMMITMENT:

The crane will be tagged, accepted and the inspection completed.

MILESTONES:

Tag, inspect crane.	04/30/90
-	-
-	-
-	-
-	-

COSTS:

N/A

CROSS REFERENCE:

G-49A

ROOT CAUSE:

Insufficient oversight.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 116

TRACKING NUMBER 148

DEPT/DIV: AGS
INSP. DATE: 04/09/90
BLDG.#: 912
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 04/30/90
STATUS: Completed

FINDINGS:

Gas mixing room--Ethanol (flammable liquid) in an unapproved dispensing container (plastic squeeze bottle). MPS?

COMMITMENT:

These are appropriate bottles for laboratory settings. There is no action. There is no ethanol in gas mixing room. It has either been removed or disposed of.

MILESTONES:

No action.

04/30/90

-
-
-
-
-

-
-
-
-
-

COSTS:

N/A

CROSS REFERENCE:

G-49B

ROOT CAUSE:

N/A

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 117

TRACKING NUMBER 149

DEPT/DIV: PD
INSP. DATE: 04/10/90
BLDG. #: 510
OFFICE #: 1-52
LAB. #: N/A
DUE DATE: 09/30/90
STATUS: Open

FINDINGS:

1. Isopropyl alcohol (flammable liquid) in dispensary bottle not approved for use with flammable liquids.
2. No record to verify integrity of ground of 1/2 inch-electric drill.

COMMITMENT:

The use of inappropriate bottle will be corrected.
The verification of ground is already included in the physics inspection schedule.

MILESTONES:

Corrected.	04/10/90
Start verification of ground.	05/01/90
Complete verification.	09/30/90
-	-
-	-
-	-

COSTS:

N/A

CROSS REFERENCE:

G-50A, G-106B

ROOT CAUSE:

Insufficient oversight, Inadequate communication of OSHA requirements.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 118

TRACKING NUMBER 150

DEPT/DIV: AGS
INSP. DATE: 03/31/90
BLDG.#: 912
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 04/10/90
STATUS: Completed

FINDINGS:

1. Near overhead door #1--Acetylene cylinders stored within 20 feet of oxygen cylinders, vulnerable to vehicular traffic.
2. North vehicle entrance--Liquid petroleum gas cylinder not tied down and not in a proper storage area, subject to being struck by vehicular traffic.

COMMITMENT:

The chemicals will be segregated and an earth embankment excavated SE of above storage area. The cylinders will be relocated to a new area, not as vulnerable to traffic. All cylinders will be secured in racks. Oxygen cylinders will be isolated from acetylene cylinders.

MILESTONES:

Oxygen isolated from acetylene cylinders.	04/10/90
Cylinders relocated to new area not vulnerable to traffic.	-
All cylinders secured.	04/10/90
-	-
-	-

COSTS:

N/A

CROSS REFERENCE:

G-51B, G-52A

ROOT CAUSE:

Insufficient oversight.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 119

TRACKING NUMBER 151

DEPT/DIV: ADD
INSP. DATE: 04/05/90
BLDG.#: 902
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 04/30/90
STATUS: Completed

FINDINGS:

Flammable Liquids Storage Cabinet--unsecured acetylene cylinder stored in flammable cabinet, also unsecured "10 pound" compressed gas cylinder with unknown contents.

COMMITMENT:

The gas will be identified and labeled as acetylene, and will be relocated to storage area, stand on order.

MILESTONES:

Identify gas.	04/30/90
Relocate gas bottle.	04/30/90
-	-
-	-
-	-
-	-

COSTS:

N/A

CROSS REFERENCE:

G-54A, G-54B

ROOT CAUSE:

Insufficient oversight.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 120

TRACKING NUMBER 152

DEPT/DIV: PE
INSP. DATE: 03/29/90
BLDG. #: 610
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 04/30/90
STATUS: Completed

FINDINGS:

First floor center--flammable aerosol can stored over workbench in designated smoking area.

COMMITMENT:

The aerosol cans will be removed (W.O.# 008994ZM).

MILESTONES:

Remove cans.	04/30/90
-	-
-	-
-	-
-	-

COSTS:

N/A

CROSS REFERENCE:

G-58A

ROOT CAUSE:

Insufficient oversight.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 121

TRACKING NUMBER 153

DEPT/DIV: CD
INSP. DATE: 04/05/90
BLDG.#: 555
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 04/30/90
STATUS: Completed

FINDINGS:

Throughout building, flammable liquids are stored near gas outlets used for bunsen burners, thereby creating a potential for fire and explosion.

COMMITMENT:

The propane lines were installed in the laboratories when the building was built. They are not, however, used in areas where flammable liquids are in use. A review of the use of flammables in proximity to ignition sources will be initiated and will be a subject of scrutiny during quarterly inspections.

MILESTONES:

Initiate inspection program.	04/30/90
-	-
-	-
-	-
-	-

COSTS:

N/A

CROSS REFERENCE:

G-58B

ROOT CAUSE:

Insufficient oversight.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 122

TRACKING NUMBER 154

DEPT/DIV: DAS
INSP. DATE: 04/10/90
BLDG. #: 815
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 04/30/90
STATUS: Completed

FINDINGS:

Flammable liquids stored over gas line and near hot air glass dryer creating potential for explosion.

COMMITMENT:

The hot air glass dryer will be removed. DAS will ensure continued compliance during Department Safety Inspections.

MILESTONES:

Hot air dryer removed.	04/30/90
-	-
-	-
-	-
-	-
-	-

COSTS:

N/A

CROSS REFERENCE:

G-59A

ROOT CAUSE:

Insufficient oversight.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 123

TRACKING NUMBER 155

DEPT/DIV: CD
INSP. DATE: 04/05/90
BLDG.#: 555
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 09/30/91
STATUS: Open

FINDINGS:

In laboratories, flammable liquids are stored with other materials that react with water.

COMMITMENT:

By adding appropriately designed safety cabinets to selected laboratories, we will make every effort to eliminate this hazard. In some laboratories, flammable liquid cabinets will be installed, in others, cabinets suitable for water-reactive materials.

MILESTONES:

Order cabinets.	09/30/90
Install cabinets.	09/30/91
-	-
-	-
-	-
-	-

COSTS:

N/A

CROSS REFERENCE:

G-59B

ROOT CAUSE:

Insufficient oversight.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 124

TRACKING NUMBER 156

DEPT/DIV: RD
INSP. DATE: 03/30/90
BLDG. #: 491
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 07/01/90
STATUS: Completed

FINDINGS:

Service personnel observed working in basement without hard hats in designated hard hat area.

COMMITMENT:

A memo will be sent to all group leaders reaffirming the Reactor Division policy on personal protective equipment. Additional hard hats will be made available to facilitate compliance.

MILESTONES:

Memo to Group Leaders.	05/15/90
Additional hard hats to be provided.	07/01/90
-	-
-	-
-	-

COSTS:

Estimated Cost - \$500

CROSS REFERENCE:

G-60A

ROOT CAUSE:

Insufficient oversight.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 125

TRACKING NUMBER 157

DEPT/DIV: CS
INSP. DATE: 03/28/90
BLDG. #: 452462
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 04/15/90
STATUS: Complete

FINDINGS:

Proper personnel protective equipment has not been provided to protect against eye injury.

COMMITMENT:

Safety glasses are used by all Division employees. Side shields have been mounted to all safety glasses of employees working on the shop floors and adjacent areas. Non-safety glasses will not be permitted on the shop floor.

MILESTONES:

Install safety shields.	04/15/90
Install side shields.	04/15/90
-	-
-	-
-	-
-	-

COSTS:

N/A

CROSS REFERENCE:

G-60B, G-62A

ROOT CAUSE:

Insufficient oversight.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 126

TRACKING NUMBER 158

DEPT/DIV: PE
INSP. DATE: 03/29/90
BLDG.#: 422
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 04/30/90
STATUS: Completed

FINDINGS:

Proper protective equipment has not been provided to protect against eye injury.

COMMITMENT:

Side shields will be purchased and added to safety glasses bringing them into compliance. P.E. will provide eye protection that complies with 29 CFR 1910.133.

MILESTONES:

Side shields purchased and added to safety glasses.	04/30/90
Add side shields to safety glasses.	04/30/90
-	-
-	-
-	-
-	-

COSTS:

N/A

CROSS REFERENCE:

G-61A, G-62B

ROOT CAUSE:

Insufficient oversight.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 127

TRACKING NUMBER 159

DEPT/DIV: PE
INSP. DATE: 03/29/90
BLDG.#: 326
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 04/30/90
STATUS: Completed

FINDINGS:

Power take-off on tractor mounted mower did not have a guard over power take-off.

COMMITMENT:

A work order will be issued to provide guard (W.O.# 008906ZM).

MILESTONES:

Install guard.	04/30/90
-	-
-	-
-	-
-	-

COSTS:

N/A

CROSS REFERENCE:

G-63B

ROOT CAUSE:

Insufficient oversight.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 128

TRACKING NUMBER 160

DEPT/DIV: DAS
INSP. DATE: 04/10/90
BLDG.#: 315
OFFICE #: N/A
LAB. #: C-4
DUE DATE: 04/30/90
STATUS: Completed

FINDINGS:

Electric drill used to prepare samples was placed in vise and fitted with wire wheel; wheel not guarded. Improper use of hand drill.

COMMITMENT:

The wire wheel will be removed from the drill and the drill will be removed from the vise. DAS will ensure compliance with proper use of portable drills during Quarterly Safety Inspections.

MILESTONES:

Remove drill.	04/30/90
Remove wire wheel and drill.	04/30/90
-	-
-	-
-	-

COSTS:

N/A

CROSS REFERENCE:

G-64A, G-81B

ROOT CAUSE:

Insufficient oversight.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 129

TRACKING NUMBER 161

DEPT/DIV: DAS
INSP. DATE: 04/10/90
BLDG.#: 815
OFFICE #: N/A
LAB. #: D-4
DUE DATE: 07/01/90
STATUS: Completed

FINDINGS:

1. Chuck on lathe not guarded. Jaws extend past outer surface of body of check.
2. Oxygen/acetylene cylinders were kept in cart for long periods without being used--creates fire hazard.

COMMITMENT:

A chuck guard will be fabricated. DAS will inform the department using this lab, and will ensure compliance.

MILESTONES:

Ensure compliance.	07/01/90
Install chuck guard.	05/30/90
-	-
-	-
-	-
-	-

COSTS:

N/A

CROSS REFERENCE:

G-64B, G-83A

ROOT CAUSE:

Insufficient oversight.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 130

TRACKING NUMBER 162

DEPT/DIV: DAS
INSP. DATE: 04/10/90
BLDG.#: 815
OFFICE #: N/A
LAB. #: 1-21B
DUE DATE: 10/10/90
STATUS: Open

FINDINGS:

1. Chucks on 4 lathes not guarded. Lathes used to turn pieces requiring jaws to be extended past surface of body of chuck.
2. Adjustable tongue guard on Delta floor stand grinder was more than 1/4 inch from edge of grinding wheel.
3. Rockwell vertical sander/grinder with abrasive wheel has no guard.

COMMITMENT:

Guards will be installed, and adjusted in compliance.
DAS will investigate the fabrication of a suitable guard that will provide the needed flexibility in operation of the machine.

MILESTONES:

Adjust tongue guard.	04/30/90
Install guards.	07/10/90
Investigate.	08/10/90
Complete action.	10/10/90
-	-
-	-

COSTS:

Total cost approx. \$800

CROSS REFERENCE:

G-65A, G-71A, G-82A

ROOT CAUSE:

Insufficient oversight.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 131

TRACKING NUMBER 163

DEPT/DIV: DAS
INSP. DATE: 04/10/90
BLDG. #: 815
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 07/31/90
STATUS: Completed

FINDINGS:

Basement shop--chuck on Clausing lathe unguarded.

COMMITMENT:

DAS will prepare ILR to dispose of surplus lathes.

MILESTONES:

Dispose of lathes.	07/31/90
-	-
-	-
-	-
-	-

COSTS:

N/A

CROSS REFERENCE:

G-65B

ROOT CAUSE:

Insufficient oversight.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 132

TRACKING NUMBER 164

DEPT/DIV: AGS
INSP. DATE: 04/25/90
BLDG.#: 903
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 07/30/90
STATUS: Completed

FINDINGS:

Machine Shop--location of power controls on milling machines require operator to reach over work piece to stop machine.

COMMITMENT:

At no time is the operator required to work over the cutter. Machines are in "as manufactured" condition and have not been altered. We believe that the machine meets OSHA requirements and that no action is needed.

MILESTONES:

- -
- -
- -
- -
- -
- -

COSTS:

N/A

CROSS REFERENCE:

G-66A

ROOT CAUSE:

N/A

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 133

TRACKING NUMBER 165

DEPT/DIV: PE
INSP. DATE: 03/29/90
BLDG.#: 610
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 04/30/90
STATUS: Completed

FINDINGS:

Tongue guard not installed on grinders located between 2 I-beams and on workbench.

COMMITMENT:

Work order (W.O. #009483ZP) will be issued to install the guard.

MILESTONES:

Tongue guard installed.	04/30/90
-	-
-	-
-	-
-	-

COSTS:

N/A

CROSS REFERENCE:

G-67A, G-67B

ROOT CAUSE:

Insufficient oversight.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 134

TRACKING NUMBER 166

DEPT/DIV: AGS
INSP. DATE: 04/02/90
BLDG.#: 922
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 04/30/90
STATUS: Completed

FINDINGS:

NW area of bldg.--tongue guard clearance was more than 1/4 inch. Tool rest clearance more than 1/8 inch.

COMMITMENT:

The tongue guard and tool rest will be adjusted.

MILESTONES:

Adjustments made.	04/30/90
-	-
-	-
-	-
-	-

COSTS:

N/A

CROSS REFERENCE:

G-68B

ROOT CAUSE:

Insufficient oversight.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 135

TRACKING NUMBER 167

DEPT/DIV: ATF
INSP. DATE: 04/04/90
BLDG.#: 820
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 05/17/90
STATUS: Completed

FINDINGS:

End of tunnel area--tongue guard not installed on bench grinder.

COMMITMENT:

The tongue guard will be installed. This is not an ATF area. This item should be transferred to ADD if further follow-up action is required.

MILESTONES:

Install tongue guard.	05/17/90
-	-
-	-
-	-
-	-
-	-

COSTS:

N/A

CROSS REFERENCE:

G-69A

ROOT CAUSE:

Insufficient oversight.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 136

TRACKING NUMBER 168

DEPT/DIV: AGS
INSP. DATE: 04/09/90
BLDG. #: 912
OFFICE #: N/A
LAB. #: MPS
DUE DATE: 04/30/90
STATUS: Completed

FINDINGS:

Gas mixing room--tongue guard clearance greater than 1/4 inch.

COMMITMENT:

The grinding wheel will be replaced and the gap adjustments will be made.

MILESTONES:

Grinding wheel replaced.	Adjustments made.	04/30/90
-	-	-
-	-	-
-	-	-
-	-	-

COSTS:

N/A

CROSS REFERENCE:

G-70A

ROOT CAUSE:

Insufficient oversight.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 137

TRACKING NUMBER 169

DEPT/DIV: ADD
INSP. DATE: 04/09/90
BLDG.#: 919
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 07/01/90
STATUS: Completed

FINDINGS:

Motor control room--no tongue guard on bench grinder. Tool rest clearance more than 1/8 inch.

COMMITMENT:

The old grinder did not come with a tongue guard. A Supervisor will design, fabricate and install a guard or dispose of the grinder.

MILESTONES:

Design and install guard.	06/15/90
-	-
-	-
-	-
-	-

COSTS:

4 manhours

CROSS REFERENCE:

G-70B

ROOT CAUSE:

Insufficient oversight.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 138

TRACKING NUMBER 170

DEPT/DIV: PD
INSP. DATE: 04/10/90
BLDG.#: 510
OFFICE #: N/A
LAB. #: 233
DUE DATE: 04/10/90
STATUS: Completed

FINDINGS:

1. Tongue guard clearance on grinders was greater than 1/4 inch.
2. Guard not installed on bench grinder serial #A001365.

COMMITMENT:

All adjustments were made at the time of inspection. A guard will be installed on the grinder.

MILESTONES:

Adjust tongue guard clearance.	04/10/90
Install guard on grinder.	04/10/90
-	-
-	-
-	-
-	-

COSTS:

N/A

CROSS REFERENCE:

G-71B, G-72A

ROOT CAUSE:

Insufficient oversight.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 139

TRACKING NUMBER 171

DEPT/DIV: PD
INSP. DATE: 04/10/90
BLDG. #: 510
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 04/10/90
STATUS: Completed

FINDINGS:

Machine Shop--clearance between tool rest and grinding wheel was more than 1/8 inch. Clearance between tongue guard and grinding wheel was more than 1/4 inch.

COMMITMENT:

All adjustments were made at the time of inspection.

MILESTONES:

Adjust equipment.	04/10/90
-	-
-	-
-	-
-	-

COSTS:

N/A

CROSS REFERENCE:

G-72B

ROOT CAUSE:

Insufficient oversight.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 140

TRACKING NUMBER 172

DEPT/DIV: AGS
INSP. DATE: 03/31/90
BLDG.#: 912
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 03/31/90
STATUS: Completed

FINDINGS:

Overhead door #1--heavy steel ladder blocking aisle. Aisle serves as required emergency egress route.

COMMITMENT:

The ladder was temporarily located on the floor to be welded. It was moved out of the aisle in the presence of the inspector.

MILESTONES:

Ladder was moved. Spvsr. cautioned to maintain clear paths of egress	03/31/90
-	-
-	-
-	-
-	-

COSTS:

N/A

CROSS REFERENCE:

G-74B

ROOT CAUSE:

Insufficient oversight.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 141

TRACKING NUMBER 173

DEPT/DIV: AGS
INSP. DATE: 03/31/90
BLDG.#: 918
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 04/06/90
STATUS: Completed

FINDINGS:

South side--lumber with numerous protruding nails; significant potential for personal injury.

COMMITMENT:

The lumber with nails will be removed.

MILESTONES:

Lumber with nails removed.	04/06/90
-	-
-	-
-	-
-	-

COSTS:

N/A

CROSS REFERENCE:

G-75A

ROOT CAUSE:

Insufficient oversight.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 142

TRACKING NUMBER 174

DEPT/DIV: AGS
INSP. DATE: 04/02/90
BLDG.#: 922
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 04/30/90
STATUS: Completed

FINDINGS:

North/east entrance (outside)--water hose blocking path creating tripping hazard.

COMMITMENT:

Hose removed. Supervisor advised to maintain clear paths of egress.

MILESTONES:

Hose removed.	04/30/90
-	-
-	-
-	-
-	-

COSTS:

N/A

CROSS REFERENCE:

G-75B

ROOT CAUSE:

Insufficient oversight.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 143

TRACKING NUMBER 175

DEPT/DIV: AGS
INSP. DATE: 04/02/90
BLDG.#: 912
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 04/30/90
STATUS: Completed

FINDINGS:

Cable trays on floor near women's restroom at the east wall create tripping hazard.

COMMITMENT:

Decking will be installed over cabletrays.

MILESTONES:

Decking installed over cabletrays.	04/30/90
-	-
-	-
-	-
-	-

COSTS:

N/A

CROSS REFERENCE:

G-76A

ROOT CAUSE:

Insufficient oversight.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 144

TRACKING NUMBER 176

DEPT/DIV: PE
INSP. DATE: 04/04/90
BLDG.#: 575
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 06/30/91
STATUS: Open

FINDINGS:

1. STP Clarifier--a standard 42-inch railing has not been installed around clarifier tank.
2. Settling tank--grating has not been installed over the tops of the tanks.

COMMITMENT:

The best method of accomplishment and effect repair will be investigated, and the best method of accomplishment will be evaluated.

MILESTONES:

Investigate and plan for clarifier tank job.	12/30/90
Perform repair work on clarifier tank.	03/30/91
Complete clarifier tank work.	06/30/91
Plan settling tank job.	09/30/90
Complete settling tank job.	03/30/91
-	-

COSTS:

N/A

CROSS REFERENCE:

G-77B, G-78A

ROOT CAUSE:

Insufficient oversight.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 145

TRACKING NUMBER 177

DEPT/DIV: AGS
INSP. DATE: 04/02/90
BLDG.#: 912
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 09/30/90
STATUS: Open

FINDINGS:

Near overhead door #2--no toeboard provided where walkway is near edge of beam line concrete radiation barrier.

COMMITMENT:

All decking, stairway and guardrail upgrading on temporary structures will be accomplished during the AGS summer shutdown. An ILR (294385 for \$25,000 to fix hazards in Bldg. 912 has been issued. Additional work will be funded in FY 91.

MILESTONES:

Complete upgrade prior to AGS startup	10/31/90
-	-
-	-
-	-
-	-

COSTS:

\$32,000+ for #s 27, 134, 136, 178, 179

CROSS REFERENCE:

G-78B

ROOT CAUSE:

Insufficient oversight.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 146

TRACKING NUMBER 178

DEPT/DIV: AGS
INSP. DATE: 04/02/90
BLDG.#: 912
OFFICE #: N/A
LAB. #: E791
DUE DATE: 10/31/90
STATUS: Open

FINDINGS:

Walkway from upper level of E 791 counting house has no toeboard.

COMMITMENT:

All decking, stairway, and guardrail upgrading on temporary structures will be accomplished during the AGS summer shutdown. An ILR (294385) for \$25,000 to fix hazards in Bldg. 912 has been issued. Additional work will be funded in FY 91.

MILESTONES:

Completion expected prior to AGS startup	10/31/90
-	-
-	-
-	-
-	-

COSTS:

\$32,000+ for #s 27, 134, 136, 178, 179

CROSS REFERENCE:

G-79A

ROOT CAUSE:

Insufficient oversight.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 147

TRACKING NUMBER 179

DEPT/DIV: AGS
INSP. DATE: 04/02/90
BLDG.#: 912
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 09/30/90
STATUS: Open

FINDINGS:

Stairway leading to top of beam line near overhead door #2--vertical distance between risers is not uniform throughout flight of stairs.

COMMITMENT:

The first 16 steps are a commercially built stairway. The top 4 steps are custom built to adapt to the top of the shielding. Riser height is close to the height of the other steps. Modifying to add or subtract a step would create a worse condition. A "Watch Your Step" sign will be installed.

MILESTONES:

Install sign.	09/30/90
-	-
-	-
-	-
-	-

COSTS:

N/A

CROSS REFERENCE:

G-81A

ROOT CAUSE:

Insufficient oversight.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 148

TRACKING NUMBER 180

DEPT/DIV: PE
INSP. DATE: 03/29/90
BLDG. #: 452
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 06/30/91
STATUS: Open

FINDINGS:

Steam Shop--exhaust hoods for welding and cutting do not provide positive ventilation in welding zone of 100 linear ft/min.

COMMITMENT:

Plant Engineering will redesign and install a new exhaust hood for the welding and cutting operation in accordance with 29CFR 1910.252(f)(3)(i).

MILESTONES:

Redesign/Purchase hood	12/31/90
Installation	05/31/91
Test	06/30/91
-	-
-	-
-	-

COSTS:

\$10,000

CROSS REFERENCE:

G-83B

ROOT CAUSE:

Insufficient oversight.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 149

TRACKING NUMBER 181

DEPT/DIV: MD
INSP. DATE: 03/30/90
BLDG.#: 491
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 04/30/90
STATUS: Completed

FINDINGS:

BMRR Basement--install GFI for outlet near sink.

COMMITMENT:

All identified areas at the BMRR have had GFCI outlets installed. All areas at the HFBR were completed in February 1990.

MILESTONES:

GFCIs installed.	04/30/90
-	-
-	-
-	-
-	-

COSTS:

N/A

CROSS REFERENCE:

G-88B

ROOT CAUSE:

Insufficient oversight.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 150

TRACKING NUMBER 182

DEPT/DIV: AGS
INSP. DATE: 04/02/90
BLDG.#: 912
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 04/30/90
STATUS: Completed

FINDINGS:

Near women's restroom--GFI needed for outlet near sink.

COMMITMENT:

GFI will be installed.

MILESTONES:

GFI installed.	04/30/90
-	-
-	-
-	-
-	-

COSTS:

N/A

CROSS REFERENCE:

G-90A

ROOT CAUSE:

Insufficient oversight.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 151

TRACKING NUMBER 183

DEPT/DIV: NSLS
INSP. DATE: 04/04/90
BLDG. #: 725
OFFICE #: N/A
LAB. #: U16
DUE DATE: 09/30/90
STATUS: Open

FINDINGS:

Electrically powered equipment with frayed cord and a damaged wall plug.

COMMITMENT:

The frayed cord will be removed from service. The electricians will be informed of required service to outlet.

MILESTONES:

Frayed cord removed from service.	04/04/90
Inform electricians.	06/01/90
Complete repairs.	09/30/90
-	-
-	-
-	-

COSTS:

N/A

CROSS REFERENCE:

G-95A

ROOT CAUSE:

Insufficient oversight.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 152

TRACKING NUMBER 184

DEPT/DIV: PD
INSP. DATE: 04/10/90
BLDG.#: 510
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 09/30/90
STATUS: Open

FINDINGS:

Outlet near sink needs GFI.

COMMITMENT:

GFI receptacles will be installed in all labs. (1) A Survey will be sent to Group Leaders and Safety Supervisors instructing them to identify locations. (2) Locations will be verified and tagged on inspections. (3) Where no need exists, receptacles will be removed from service. (4) A work order will be issued to Plant Engineering for corrective actions. (5) Department work areas (custodial, bathrooms, etc.) will be corrected immediately.

MILESTONES:

Survey.	05/01/90
Corrections.	08/01/90
Installation.	09/01/90
Completion.	09/30/90
-	-
-	-

COSTS:

N/A

CROSS REFERENCE:

G-98B

ROOT CAUSE:

Insufficient oversight.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 153

TRACKING NUMBER 185

DEPT/DIV: DAS
INSP. DATE: 04/10/90
BLDG.#: 815
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 09/20/92
STATUS: Open

FINDINGS:

Outlets near sinks need GFIs.

COMMITMENT:

DAS requested estimate on the cost of installation of GFCIs in all bldgs.
Action will be taken upon receipt of estimate.

MILESTONES:

Department action on compliance will be initiated.	12/31/90
Complete.	09/20/92
-	-
-	-
-	-
-	-

COSTS:

To be determined.

CROSS REFERENCE:

G-99A

ROOT CAUSE:

Insufficient oversight with OSHA Regulations.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 154

TRACKING NUMBER 186

DEPT/DIV: SS
INSP. DATE: 04/11/90
BLDG. #: 170
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 09/30/90
STATUS: Open

FINDINGS:

First floor, north wing, panel box 3; second floor, east wing, panel box #9--panel directories are not complete.

COMMITMENT:

A memo will be sent to Maintenance Management requesting completion of these directories. Panel directories were completed by Maintenance Management on 6/01/90.

MILESTONES:

Sent memo to Maintenance Management.	05/09/90
Assigned MMC #s 05H244 and 054H245.	05/10/90
Complete directories.	09/30/90
-	-
-	-
-	-

COSTS:

N/A

CROSS REFERENCE:

G-99B

ROOT CAUSE:

Insufficient oversight.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 155

TRACKING NUMBER 187

DEPT/DIV: PE
INSP. DATE: 03/29/90
BLDG.#: 422
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 06/30/91
STATUS: Open

FINDINGS:

Assure proper grounding of hand tools.

COMMITMENT:

Plant Engineering will establish a policy of periodically checking hand tools for continuity between ground plugs and metal casings.

MILESTONES:

Develop policy and procedures.	09/30/90
Implement policy.	06/30/91
-	-
-	-
-	-
-	-

COSTS:

N/A

CROSS REFERENCE:

G-101A

ROOT CAUSE:

Insufficient oversight.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 156

TRACKING NUMBER 188

DEPT/DIV: AGS
INSP. DATE: 04/02/90
BLDG. #: 912
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 04/30/90
STATUS: Completed

FINDINGS:

East experimental building addition--plug on electrical cord on a hand tool did not have ground wire.

COMMITMENT:

All electric tools in EEBA have ground connectors. The defective tool will be repaired or removed.

MILESTONES:

Repair or remove defective hand tool.	04/30/90
-	-
-	-
-	-
-	-

COSTS:

N/A

CROSS REFERENCE:

G-102A

ROOT CAUSE:

Insufficient oversight.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 157

TRACKING NUMBER 189

DEPT/DIV: NSLS
INSP. DATE: 04/04/90
BLDG.#: 725
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 12/31/90
STATUS: Open

FINDINGS:

NRL area--3/8-inch drill; no record to verify integrity of ground.

COMMITMENT:

Assistance will be requested of SEP on developing testing program.

MILESTONES:

Request assistance.	06/01/90
Implement testing program.	12/31/90
-	-
-	-
-	-
-	-

COSTS:

N/A

CROSS REFERENCE:

G-103A

ROOT CAUSE:

Insufficient oversight.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 158

TRACKING NUMBER 190

DEPT/DIV: NSLS
INSP. DATE: 04/04/90
BLDG.#: 725
OFFICE #: N/A
LAB. #: U16
DUE DATE: 09/30/90
STATUS: Open

FINDINGS:

Electrically-powered equipment has improperly insulated wall plug.

COMMITMENT:

We will investigate and inform U16 personnel or NSLS electricians as appropriate.

MILESTONES:

Initiate correction.	06/01/90
Complete repairs.	09/30/90
-	-
-	-
-	-
-	-

COSTS:

N/A

CROSS REFERENCE:

G-103B

ROOT CAUSE:

Insufficient oversight.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 159

TRACKING NUMBER 191

DEPT/DIV: DNE
INSP. DATE: 04/04/90
BLDG.#: 320
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 05/01/90
STATUS: Completed

FINDINGS:

1. Two pieces of electrical equipment had faulty wiring and wall plugs.
2. South wall--connection box cover open.

COMMITMENT:

Faulty equipment will be repaired and the box cover will be corrected.

MILESTONES:

Repair completed and connection box closed.	05/01/90
-	-
-	-
-	-
-	-

COSTS:

N/A

CROSS REFERENCE:

G-104A, G-112B

ROOT CAUSE:

Insufficient oversight.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 160

TRACKING NUMBER 192

DEPT/DIV: ADD
INSP. DATE: 04/05/90
BLDG. #: 902
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 09/30/90
STATUS: Open

FINDINGS:

Electrical Shop--no record available to establish integrity of ground on portable electric drill.

COMMITMENT:

The drill is double insulated and the ground tester will be ordered.

MILESTONES:

Order tester.	04/30/90
Initiate testing on receipt of tester.	09/30/90
-	-
-	-
-	-

COSTS:

N/A

CROSS REFERENCE:

G-104B

ROOT CAUSE:

Insufficient oversight.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 161

TRACKING NUMBER 193

DEPT/DIV: ADD
INSP. DATE: 04/05/90
BLDG.#: 902
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 04/30/90
STATUS: Completed

FINDINGS:

RHIC Support Group E-9--main electrical line has wall plug with ground stem removed.

COMMITMENT:

The cord wire strip will be removed from service.

MILESTONES:

Remove from service.	04/30/90
-	-
-	-
-	-
-	-

COSTS:

N/A

CROSS REFERENCE:

G-105A

ROOT CAUSE:

Insufficient oversight.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 162

TRACKING NUMBER 194

DEPT/DIV: CS
INSP. DATE: 03/28/90
BLDG.#: 510
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 04/30/90
STATUS: Completed

FINDINGS:

Plug on electrical cord of portable sump pump had grounding prong removed.

COMMITMENT:

The plug will be replaced.

MILESTONES:

Plug replaced.

04/30/90

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-
-
-
-

-
-
-
-

COSTS:

N/A

CROSS REFERENCE:

G-107A

ROOT CAUSE:

Insufficient oversight.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 163

TRACKING NUMBER 195

DEPT/DIV: AGS
INSP. DATE: 04/02/90
BLDG.#: 922
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 04/30/90
STATUS: Completed

FINDINGS:

West end-workbench--electrical cord for portable fan had ground wire removed from wall plug.

COMMITMENT:

The plug will be cut off, and the fan will be disposed of. A technician will be advised to obtain and install 3-prong plug.

MILESTONES:

Remove plug and install 3-prong one.	04/30/90
-	-
-	-
-	-
-	-

COSTS:

N/A

CROSS REFERENCE:

G-108B

ROOT CAUSE:

Insufficient oversight.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 164

TRACKING NUMBER 196

DEPT/DIV: RD
INSP. DATE: 03/28/90
BLDG.#: 750
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 05/08/90
STATUS: Completed

FINDINGS:

Manager's Office--metal covers on two wall outlets on rear wall are not properly secured.

COMMITMENT:

Repairs were made and all similar areas will be reviewed in future safety inspections.

MILESTONES:

Repairs completed.	05/08/90
-	-
-	-
-	-
-	-

COSTS:

N/A

CROSS REFERENCE:

G-110A

ROOT CAUSE:

Insufficient oversight.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 165

TRACKING NUMBER 197

DEPT/DIV: RD
INSP. DATE: 03/30/90
BLDG. #: 491
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 04/30/90
STATUS: Completed

FINDINGS:

- 1. BMRR--knockout missing from side of electrical box just below "scram" button.
- 2. BMRR Control Room, balcony and stairs--metal electrical wall connection boxes not closed effectively.

COMMITMENT:

Repairs will be completed.

MILESTONES:

Repairs completed.	04/30/90
-	-
-	-
-	-
-	-

COSTS:

N/A

CROSS REFERENCE:

G-110B, G-111A

ROOT CAUSE:

Insufficient oversight.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 166

TRACKING NUMBER 198

DEPT/DIV: AGS
INSP. DATE: 04/02/90
BLDG.#: 912
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 05/08/90
STATUS: Completed

FINDINGS:

East experimental addition, north center of building--an electrical connection box conductor not effectively closed.

COMMITMENT:

Covers on two boxes have been secured properly.

MILESTONES:

Covers on boxes secured properly.

05/08/90

-
-
-
-
-

-
-
-
-
-

COSTS:

N/A

CROSS REFERENCE:

G-111B

ROOT CAUSE:

Insufficient oversight.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 167

TRACKING NUMBER 199

DEPT/DIV: PE
INSP. DATE: 04/10/90
BLDG. #: 815
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 07/31/90
STATUS: Completed

FINDINGS:

Basement--Worthington air compressor marked "4L-520" is powered by 50 feet of flexible cord strung along piping system.

COMMITMENT:

A work order will be issued to remove flexible cord and hard wire in accordance with NEC codes.

MILESTONES:

Work order for corrections issued	07/21/90
Wiring completed	07/31/90
-	-
-	-
-	-

COSTS:

\$1,200

CROSS REFERENCE:

G-116B

ROOT CAUSE:

Insufficient oversight.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 168

TRACKING NUMBER 200

DEPT/DIV: SM
INSP. DATE: 04/10/90
BLDG. #: 485
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 04/30/90
STATUS: Completed

FINDINGS:

Two electric heaters not approved for use in presence of flammable liquids (class 1, division 1) are installed in hazardous locations.

COMMITMENT:

The specific finding relates to two electrical heaters located in Bldg. 482 (Round House). During the course of the inspection, it could not be resolved satisfactorily that the heaters installed met the requirements. C. Johnson, Plant Engineering Division, has subsequently located the specification sheets for these heaters, which clearly indicate that they are suitable for their current location.

MILESTONES:

No action.	04/30/90
-	-
-	-
-	-
-	-

COSTS:

N/A

CROSS REFERENCE:

G-117A

ROOT CAUSE:

N/A

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 169

TRACKING NUMBER 201

DEPT/DIV: AGS
INSP. DATE: 04/02/90
BLDG.#: 912
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 04/30/90
STATUS: Completed

FINDINGS:

East Experimental Bldg. Addition Station Q-31--raised platform over electrical sump is not highlighted to indicate walking hazard.

COMMITMENT:

The perimeter of 6-8 inch high deck has been outlined with yellow tape for improved visibility.

MILESTONES:

Perimeter of deck outlined with yellow tape for improved visibility.	-
-	04/30/90
-	-
-	-
-	-

COSTS:

N/A

CROSS REFERENCE:

G-118A

ROOT CAUSE:

Insufficient oversight.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 170

TRACKING NUMBER 202

DEPT/DIV: CS
INSP. DATE: 03/28/90
BLDG. #: 462
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 09/30/91
STATUS: Open

FINDINGS:

Vapor degreaser tank ventilation fan improperly located inside bldg. Exhaust vapors can be forced back into the work area through leaking ducts.

COMMITMENT:

This will require investigation by Plant Engineering to ascertain the impact. The roof may not support the fan motor. An ILR to investigate and estimate will be issued to Plant Engineering.

MILESTONES:

Issue ILR to PE to investigate and estimate.	05/30/90
Complete any required work.	09/30/91
-	-
-	-
-	-
-	-

COSTS:

N/A

CROSS REFERENCE:

G-118B

ROOT CAUSE:

Insufficient oversight.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 171

TRACKING NUMBER 203

DEPT/DIV: AGS
INSP. DATE: 04/02/90
BLDG. #: 912
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 04/30/90
STATUS: Completed

FINDINGS:

Outside of vehicle entrance east side--vehicle parked and cigarette butts were found in an area near flammable gas storage.

COMMITMENT:

Flammable gas storage has been relocated further from vehicle traffic area.

MILESTONES:

Gas storage relocated.	04/30/90
-	-
-	-
-	-
-	-

COSTS:

N/A

CROSS REFERENCE:

G-124A

ROOT CAUSE:

Insufficient oversight.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 172

TRACKING NUMBER 204

DEPT/DIV: DAS
INSP. DATE: 04/10/90
BLDG.#: 815
OFFICE #: N/A
LAB. #: D-3
DUE DATE: 07/01/90
STATUS: Completed

FINDINGS:

Manually operated garage door could be opened or inadvertently left open during operation of Class 4 Lasers. The front and rear entry doors to the laboratory are interlocked but the garage door is not.

COMMITMENT:

The garage door is manually operated and can be opened ONLY from inside the laboratory D-3. To ensure that it will not be opened during Laser operation, the existing procedure for Laser start-up shall be suitably modified and reinforced with a posting on the door.

MILESTONES:

Implement modified procedure and post on door.	07/01/90
-	-
-	-
-	-
-	-

COSTS:

N/A

CROSS REFERENCE:

G-125A

ROOT CAUSE:

Insufficient oversight.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 173

TRACKING NUMBER 205

DEPT/DIV: AGS
INSP. DATE: 04/10/90
BLDG.#: -
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 08/30/90
STATUS: Open

FINDINGS:

LINAC and Booster--fence around high voltage electrical installation is not 8 feet high.

COMMITMENT:

Plant Engineering will provide access denial following an evaluation of the appropriate means of meeting PEC 1990. Plant Engineering Division has agreed to respond for all BNL substation fences of less than 8 feet height.

MILESTONES:

Investigate yard for proper upgrades.	12/30/90
Modify as required.	08/30/91
-	-
-	-
-	-
-	-

COSTS:

\$1K

CROSS REFERENCE:

G-128A

ROOT CAUSE:

Disagreement on interpretation of OSHA requirements.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 174

TRACKING NUMBER 206

DEPT/DIV: BD
INSP. DATE: 04/02/90
BLDG. #: 463
OFFICE #: 261
LAB. #: N/A
DUE DATE: 05/28/90
STATUS: Completed

FINDINGS:

Rooms #261 and 182--employees not wearing safety glasses with side shields or chemical safety goggles.

COMMITMENT:

Side shields were distributed only recently (late March); those made available did not fit non-standard frames on some prescription safety glasses.

MILESTONES:

Side shields will be added.	05/28/90
-	-
-	-
-	-
-	-

COSTS:

N/A

CROSS REFERENCE:

G-61B

ROOT CAUSE:

Insufficient oversight.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 175

TRACKING NUMBER 207

DEPT/DIV: PE
INSP. DATE: 03/29/90
BLDG. #: 326
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 07/23/90
STATUS: Completed

FINDINGS:

MSDS not maintained or available to employees for welding rods and other welding supplies, and are not included in the Hazard Communication Program.

COMMITMENT:

MSDS will be provided in this area (W.O.# 008910ZM). See also OSHA Tracking No. 97.

MILESTONES:

MSDS provided.	07/23/90
-	-
-	-
-	-
-	-
-	-

COSTS:

N/A

CROSS REFERENCE:

G-16B

ROOT CAUSE:

Insufficient oversight.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 176

TRACKING NUMBER 208

DEPT/DIV: PE
INSP. DATE: 03/29/90
BLDG. #: 610
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 04/30/90
STATUS: Completed

FINDINGS:

1. Fuel Pump House--step-up distance of 18 inches required from ground to pump house.
2. GFCI required for outlet in men's room.

COMMITMENT:

GFI will be installed and 18-inch step (W.O.# 008985ZM and W.O.# 008984ZM) will be shortened.

MILESTONES:

GFCI installed.	04/30/90
Shorten 18 inch step.	04/30/90
-	-
-	-
-	-

COSTS:

N/A

CROSS REFERENCE:

G-79B, G-86B

ROOT CAUSE:

Insufficient oversight.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 177

TRACKING NUMBER 209

DEPT/DIV: PE
INSP. DATE:03/29/90
BLDG.#: 610
OFFICE #: N/A
LAB. #: N/A
DUE DATE:04/06/90
STATUS: Completed

FINDINGS:

1. Work bench area--water circulating pump for OMARK Bricksaw not protected by GFCI.
2. Plug on electric cord for pump motor for cooling fluid for cut-off saw had ground prong removed.

COMMITMENT:

GFCI will be installed and plug will be corrected (W.O.# 008982ZM).

MILESTONES:

Install GFCI.	04/06/90
Plug repaired.	04/06/90
-	-
-	-
-	-

COSTS:

\$100

CROSS REFERENCE:

G-87A, G-107B

ROOT CAUSE:

Insufficient oversight.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 178

TRACKING NUMBER 210

DEPT/DIV: PE
INSP. DATE: 04/02/90
BLDG.#: 624
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 06/30/91
STATUS: Open

FINDINGS:

1. Lime pit--GFCIs needed for outlets.
2. Maintenance Shop--electric hand tools had ground wires and plugs but no assurance that grounds are properly connected to metal cases.

COMMITMENT:

GFI (W.O.# 010020ZP) will be installed.
Plant Engineering will establish policy of periodically checking hand tools for continuity between ground plugs and metal casings.

MILESTONES:

Install GFCIs.	04/30/90
Develop policy and procedure.	06/30/90
Implement policy.	09/30/90
-	-
-	-
-	-

COSTS:

N/A

CROSS REFERENCE:

G-89B, G-101B

ROOT CAUSE:

Insufficient oversight.

TIGER TEAM
OSHA FINDINGS

TRACKING NUMBER 211

DEPT/DIV: PE
INSP. DATE: 04/02/90
BLDG.#: 624641
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 06/14/90
STATUS: Completed

FINDINGS:

- 1. Bldg. 624, store room--electric cord for portable sump pump did not have grounding prong.
- 2. Bldg. 641, sump pump pipe gallery--sump pump operated with extension cords, not permanently wired into bldg. electrical system with automatic controls and circuit protection.

COMMITMENT:

Grounding prong (W.O.# 010014ZP) will be provided and the pump will be permanently wired (W.O.# 013434ZM).

MILESTONES:

Portable sump pump repaired.	04/30/90
Sump pump permanently wired at Bldg. 641	06/14/90
-	-
-	-
-	-
-	-

COSTS:

\$500

CROSS REFERENCE:

G-108A, G-116A

ROOT CAUSE:

Insufficient oversight.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 180

TRACKING NUMBER 212

DEPT/DIV: MD
INSP. DATE: 04/03/90
BLDG. #: 490
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 05/30/90
STATUS: Completed

FINDINGS:

MSDS sheets not readily accessible to employees; kept in SEP and safety rep. or SEP must be called to get them.

COMMITMENT:

MSDS will be requested from SEP on March 28, 1990 and will be placed in the area. See also OSHA Tracking No. 97.

MILESTONES:

Request MSDS from SEP.	03/28/90
Place in area.	05/30/90
-	-
-	-
-	-
-	-

COSTS:

N/A

CROSS REFERENCE:

G-18A, G-18B

ROOT CAUSE:

Inadequate communication of OSHA requirements.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 181

TRACKING NUMBER 213

DEPT/DIV: ADD
INSP. DATE: 04/05/90
BLDG. #: 902
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 04/30/90
STATUS: Completed

FINDINGS:

Safety catch not installed on two 15-tons Shepard Niles cranes.

COMMITMENT:

Safety latches have been installed.

MILESTONES:

Install safety latches.	04/30/90
-	-
-	-
-	-
-	-
-	-

COSTS:

N/A

CROSS REFERENCE:

G-126A

ROOT CAUSE:

Insufficient oversight.

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 182

TRACKING NUMBER 214

DEPT/DIV: PE
INSP. DATE: 04/10/90
BLDG.#: 815
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 04/10/90
STATUS: Completed

FINDINGS:

- Basement--1. No competent supervisor for asbestos removal.
2. Entry into demarcated area not controlled.
3. Decontamination facilities not provided adjacent to regulated areas.

COMMITMENT:

No action pending resolution of accuracy. See also OSHA Tracking No. 145.

MILESTONES:

- -
- -
- -
- -
- -
- -

COSTS:

N/A

CROSS REFERENCE:

G-121A, 121B, 122A

ROOT CAUSE:

N/A

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 183

TRACKING NUMBER 215

DEPT/DIV: PE
INSP. DATE: 04/10/90
BLDG.#: 815
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 04/10/90
STATUS: Completed

FINDINGS:

Basement--1. Clean room with locker not provided for storage of clothes which were kept in the open in regulated area.
2. Employees removed outer suit of protective clothing within contaminated area possibly contaminating inner clothing and exiting bldg. directly. 3. Employees removed respirators within regulated area.

COMMITMENT:

No action pending resolution of accuracy. See also OSHA Tracking No. 145.

MILESTONES:

- -
- -
- -
- -
- -
- -

COSTS:

N/A

CROSS REFERENCE:

G-122B, 123A, 123B

ROOT CAUSE:

N/A

DATE: 08/28/90

TIGER TEAM
OSHA FINDINGS

PAGE NO: 8- 184

TRACKING NUMBER 216

DEPT/DIV: AGS
INSP. DATE: 04/09/90
BLDG.#: 912
OFFICE #: N/A
LAB. #: N/A
DUE DATE: 04/10/90
STATUS: Completed

FINDINGS:

1. Gas mixing room--compressed gas cylinder not secured. Securing chain was not in serviceable condition.
2. Outside overhead door #2--uncompressed gas cylinder placed on driveway subject to being struck by vehicles.

COMMITMENT:

All cylinders will be secured in racks and the cylinder will be relocated to an area not vulnerable to traffic.

MILESTONES:

Secure cylinders.	04/10/90
Relocate cylinders to area not vulnerable to traffic.	-
-	04/10/90
-	-
-	-

COSTS:

N/A

CROSS REFERENCE:

G-53A, G-125B

ROOT CAUSE:

Insufficient oversight.

APPENDIX A

TABLES

APPENDIX A
TABLE 1.0
PLANNED ACTIONS, SCHEDULES, AND COSTS

FINDING NO.	PLANNED ACTION	COMPLIANCE PROTOCOL	BEGIN DATE	END DATE	COST \$ (000)
A/CF-1	File for permits.	6 NYCRR 201	09/30/90	02/28/91	TBD
A/CF-2	Install continuous ignition source.	6 NYCRR 200.7	07/30/90	11/30/90	FY91: 5
A/CF-3	Relocate sampler.	40 CFR 60 DOE 5484.1 DOE 5400.1 DOE 5400.XY	05/31/90	12/31/91	FY91: 75
A/CF-4	Move to appropriate place; post signs.	40 CFR 61 40 CFR 61.156	06/30/90	07/31/90	FY90: 1
A/CF-5	Post appropriate label.	40 CFR 80.22	04/30/90	04/30/90	00
A/BMPF-1	Move sampler.	DOE 5400 XY	09/30/90	11/30/91	FY91: 230
A/BMPF-2	Update SOP; implement.	DOE 6430.1A	04/30/90	09/30/92	See AX.5-1.
A/BMPF-3	Estimate inventory air emissions.	BMP	10/31/90	09/30/92	TBD
A/BMPF-4	Determine need for tower.	BMP	09/30/91	09/30/94	TBD
A/BMPF-5	Resolve discrepancies.	BMP	07/31/90	12/31/91	TBD
A/BMPF-6	Relocate analysis laboratory.	BMP	12/31/90	12/31/92	TBD
SSB/BMPF-1*	Conduct soil/sediment analysis.	DOE 5400.1	01/31/91	09/30/92	FY91-93: 6870
SW/CF-1	Develop inventory; characterize.	6 NYCRR 752.1(b)(i)	05/18/90	03/31/91	TBD
SW/CF-2	Develop procedure/policy.	6 NYCRR 751	05/31/90	07/31/91	N/A

*Costs revised since issuance of the FYP.

APPENDIX A
TABLE 1.0
PLANNED ACTIONS, SCHEDULES, AND COSTS

FINDING NO.	PLANNED ACTION	COMPLIANCE PROTOCOL	BEGIN DATE	END DATE	COST \$ (000)
SW/CF-3	Purchase equipment; develop procedures.	40 CFR 122.41(j)(4) 40 CFR 136	07/31/90	07/31/90	FY90: 1
SW/CF-4	Require data by 18th; update inventory.	BMP	05/31/90	06/30/91	N/A
SW/BMPF-1	Construct planned stations, identify need for other stations.	Suffolk County Sanitary Code 705.B.1	12/31/89 03/31/90	06/30/91 09/30/92	FY91: Stations 170 Other Costs: TBD
SW/BMPF-2	Issue directive.	10 NYCRR 5.31	05/31/90	07/31/90	TBD
SW/BMPF-3	Upgrade sewer system.	BMP	10/31/93	09/30/96	FY94-96: 7600
SW/BMPF-4	Develop SOP; implement.	BMP	07/31/90	02/28/91	N/A
SW/BMPF-5	Provide clarifier.	BMP	10/31/93	09/30/96	See SW/BMPF-3.
GW/CF-1*	Develop/implement plan.	DOE 5400.4 40 CFR 300.430	05/15/90	11/30/91	FY90-96: 3090
GW/CF-2*	Characterize/remediate (see also SSB/BMPF-1).	6 NYCRR 703.5 6 NYCRR 703.5(a)(3)(b) 40 CFR 141 B and G	12/31/90	TBD - Part of IAG	FY90-94: 13200+
GW/CF-3	Direction from NYS; implement.	6 NYCRR 360-2.11(c)(1)(i)	07/31/90	09/30/91	Cost included in GW/CF-1.
GW/CF-4	Agreement to NYS; implement.	6 NYCRR 360-2.11(a)(8)(vi)	06/30/90	09/30/91	000
GW/BMPF-1**	Check well specifications; reclose.	6 NYCRR 360-2.11(a)(8)(vi)	04/30/90	09/30/91	Cost included in GW/CF-1.

*Cost revised since issuance of the FYP.

**Closure date depends on other agency. End dates are not firm.

APPENDIX A
TABLE 1.0
PLANNED ACTIONS, SCHEDULES, AND COSTS

FINDING NO.	PLANNED ACTION	COMPLIANCE PROTOCOL	BEGIN DATE	END DATE	COST \$ (000)
GW/BMPF-2	Properly identify/assure correct installation.	BMP	06/30/90	11/30/90	Cost included in GW/CF-1.
GW/BMPF-3	Modify protocols/install.	BMP	08/31/90	09/30/91	FY90: 4
WM/CF-1*	NYS/EPA review/implement recommendation.	40 CFR 148, 262, 265, 268 6 NYCRR 372 and 373	05/15/90	09/30/90	Cost included in GW/CF-2.
WM/CF-2	Upgrade facilities.	6 NYCRR 373-3.3	12/31/89	04/30/93	FY90-91: 2400
WM/CF-3	Ship waste; upgrade procedures; improve inspection.	6 NYCRR 373-3.9 40 CFR 262.34 40 CFR 268.50 6 NYCRR 372.2 DOE 5400.3	04/30/90	12/31/90	Part of HMM Operations.
WM/CF-4*	Propose alternate/install new wells.	6 NYCRR 360-2	05/31/90	09/30/91	Cost included in GW/CF-1.
WM/CF-5	Develop procedures; implement.	6 NYCRR 360-1.14(h) 6 NYCRR 360-2.17(q) 6 NYCRR 360-2.17(t) 6 NYCRR 360-2	06/30/90	06/30/90	FY90: 2
WM/CF-6	Correct immediate deficiencies; develop SEAPPM; audit.	6 NYCRR 372.2 40 CFR 262.34 6 NYCRR 372.2(a)(8)(i) and (ii) 40 CFR 265.173, 174, and 177 DOE 5400.3 40 CFR 262 and 265 BMPs	06/30/90	01/31/91	N/A
WM/CF-7	Provide guidance; implement.	6 NYCRR 371	07/31/90	06/30/91	TBD
WM/CF-8	Distribute plan.	6 NYCRR 373-3.3(g) & 3.4(d)	06/30/90	06/30/90	N/A

*Closure date depends on external agencies.

APPENDIX A
TABLE 1.0
PLANNED ACTIONS, SCHEDULES, AND COSTS

FINDING NO.	PLANNED ACTION	COMPLIANCE PROTOCOL	BEGIN DATE	END DATE	COST \$ (000)
WM/CF-9	Assure report kept/filed.	40 CFR 259	04/30/90	05/31/90	N/A
WM/CF-10	Close landfill.	6 NYCRR 360-2 6 NYCRR 703-6	12/01/90	12/18/90	TBD
WM/BMPF-1	Dispose of LDR waste.	40 CFR 268.50 52 FR 15937	10/31/90	10/31/90	TBD
WM/BMPF-2	Train in detonation.	BMP	10/31/90	12/31/90	FY91: 5
WM/BMPF-3	Clean; mothball; develop SOP.	BMP	06/30/90	11/30/90	N/A
TS/CF-1	Complete inventory; provide HWMF guidance.	40 CFR 761 40 CFR 761.180(a)	05/18/90	10/31/90	N/A
TS/CF-2	Dispose of materials; change PCB storage.	40 CFR 761.65(b) SCSC Art. 12	04/30/90	10/31/90	FY90: 6
TS/CF-3	Stock labels; draft/approve guide.	40 CFR 761.40 40 CFR 761.45(a) 40 CFR 761.65(c)	08/30/90	06/30/91	FY90: 20
TS/CF-4	Develop hazardous waste/material SAPP; implement upgrades.	SCSC Art. 12	10/31/90	09/30/94	TEC: 1100 (FY90: 300)
TS/BMPF-1	Develop hazardous waste/material SAPP; implement.	ANSI/ASME NQA-1	10/31/90	05/31/91	N/A
TS/BMPF-2	Correct deficiencies.	40 CFR 165.10	04/30/90	04/30/90	N/A
TS/BMPF-3	Complete inventory; notify Fire Group.	40 CFR 761.30(a)(1)(vi)	05/18/90	07/31/90	N/A
QA/CF-1	Change procurement; audit labs.	BNL/QA	05/31/90	08/31/90	FY91: 10K/yr
QA/CF-2	Develop procedures; implement.	BNL/QA	08/31/90	11/30/90	See MGMT/BMPF-5.
QA/BMPF-1	Develop forms/SOP; hire sample custodian.	BMP DOE 5400.1	08/31/90	09/30/91	See MGMT/BMPF-5.

APPENDIX A
TABLE 1.0
PLANNED ACTIONS, SCHEDULES, AND COSTS

FINDING NO.	PLANNED ACTION	COMPLIANCE PROTOCOL	BEGIN DATE	END DATE	COST \$ (000)
QA/BMPF-2	Develop SOP; implement.	BMP	05/31/90	12/31/90	N/A
RAD/CF-1	Request EH-1 approval; survey, train, and fence yards.	DOE 5400.5	06/30/90	09/30/91	FY91: 625
RAD/CF-2	Staff; draft protocols; formalize program.	DOE 5400.1 DOE 5700.6B	09/30/90	11/30/91	See MGMT/BMPF-5.
RAD/BMPF-1	Identify, assess, characterize effluents.	DOE 5400.XY	12/31/90	09/30/92	TBD
IWS/CF-1	Negotiate/implement IAG. See also Mgmt 7, 8, 9.	DOE 5400.4 NCP 40 CFR 300	Ongoing	FY92	FY90-92: 1885 FY94: 1000/yr
IWS/CF-2	Comply with EPCRA.	40 CFR 370 EPCRA 303d	05/31/90	07/31/91	N/A
IWS/CF-3	Develop/implement community relations plan.	DOE 5400.4 40 CFR 300.430	11/30/90	04/01/91	Included in FY90 funds provided by Laboratory. Implementation Costs-TBD.
IWS/CF-4	Develop administrative record.	DOE 5400.4 40 CFR 300.800b	06/01/90	04/30/91	80/yr
IWS/CF-5	Draft/submit historic site plan to EPA.	DOE 5400.4 40 CFR 300.410 and 420	06/01/90	09/30/92	Cost included in IWS/CF-1.
IWS/BMPF-1	See TSA EP.1-2.	40 CFR 355	05/23/90	12/31/91	N/A
NEPA/CF-1	No further action.	52 CFR 47662 DOE 5400.1C			N/A
NEPA/BMPF-1	Provide NEPA guidance on EIS.	40 CFR 1502.9, 20, 28	06/01/90	*	TBD
NEPA/BMPF-2	CH prepare NEPA procedure; provide staff; train.	N/A	06/01/90	*	

*90 days after EH policy.

APPENDIX A
TABLE 1.0
PLANNED ACTIONS, SCHEDULES, AND COSTS

FINDING NO.	PLANNED ACTION	COMPLIANCE PROTOCOL	BEGIN DATE	END DATE	COST \$ (000)
MGMT/CF-1	Negotiate Price-Anderson clause for AUI contract.	42 USC 228 29 PL 100-48 42 USC 2273C	05/31/90	09/30/90	N/A
MGMT/CF-2	Negotiate environmental clause for AUI contract.	DOE 5480.1B DOE 5400 Series	Ongoing	09/30/91	N/A
MGMT/CF-3	Track audit performance.	DOE 5482.1B 6 NYCRR 360.2 40 CFR 300 DOE 5400 Series	07/31/90	12/31/90	FY92: 150/yr
MGMT/CF-4	Evaluate conflict of interest; implement changes as needed.	DOE 5482.1B	11/30/90	12/31/90	N/A
MGMT/CF-5	Complete QA plans; accelerate implementation.	DOE 5480.1B DOE 5482.1B DOE 5480.4 ANSI N323	09/30/90	06/30/91	FY91: 25 FY91: 250/yr (QA Office) *FY92: 2000/yr
MGMT/CF-6	Develop risk assessment program.	DOE 5481.1B DOE 5000.3 DOE 5480.7	10/31/90	01/31/91	N/A
MGMT/CF-7	Increase CH staff and oversight activities.	DOE 5482.1N SEN 11-89 SEN 6-6a-89	06/90	09/30/92	FY90: 140K FY91: 387K/yr FY92: 339K/yr
MGMT/CF-8	Increase ER staff and oversight activities.	DOE 5482.1B DOE 5700.6B	06/90	07/31/91	FY90: 2K/yr FY91: 277+340/yr

*Estimated if each dept/div adds QA staff.

APPENDIX A
TABLE 1.0
PLANNED ACTIONS, SCHEDULES, AND COSTS

FINDING NO.	PLANNED ACTION	COMPLIANCE PROTOCOL	BEGIN DATE	END DATE	COST \$ (000)
MGMT/CF-9	Increase BHO staffing program manag. responsibilities.	DOE 5400.4 40 CFR 120, 300.43 NYCRR 360, 700-705 SEN 11-89	06/01/90	12/31/92	See MGMT/CF-2, MGMT/CF-8, and MGMT/BMPF-12.
MGMT/CF-10	No further action.	DOE 3792.3 SEN 6A-89			N/A
MGMT/BMPF-1	Develop/issue Safety and Environmental Administrative Policy/Procedure Guide.	BMP	07/31/90	04/30/91	FY90: 75 FY91: 125
MGMT/BMPF-2	Establish lessons-learned program.	BMP	07/11/90	06/30/91	See MGMT/BMPF-5.
MGMT/BMPF-3	Issue specific SEAPPM Guide; complete SEAPPM.	BMP	08/31/90	04/30/91	See MGMT/BMPF-1.
MGMT/BMPF-4	Complete long-range ES&H plan.	BMP	05/30/90	03/31/91	FY91: 60
MGMT/BMPF-5	Increase staff.	BMP	03/31/91	09/30/92	FY90: 125 FY91: 2100/yr FY92: Add. 1000/yr
MGMT/BMPF-6	See MGMT/BMPF-4.	BMP	07/12/90	03/31/91	See MGMT/BMPF-4.
MGMT/BMPF-7	Appoint task force; develop action plan; implement.	BMP	06/30/90	05/31/91	FY91: \$125K + 2000K/yr*
MGMT/BMPF-8	Review system; implement improvements if needed.	BMP	11/30/90	02/28/91	See MGMT/BMPF-5.
MGMT/BMPF-9	Develop/implement lessons learned program (see MGMT/BMPF-2).	BMP	09/30/90	09/30/91	See MGMT/BMPF-5.

*If dedicated training staff are required in each department/division.

APPENDIX A
TABLE 1.0
PLANNED ACTIONS, SCHEDULES, AND COSTS

FINDING NO.	PLANNED ACTION	COMPLIANCE PROTOCOL	BEGIN DATE	END DATE	COST \$ (000)
MGMT/BMPF-10	Develop/implement SEAPP.	DOE 4330.4 DOE 5480.1A DOE 5480.3 DOE 5480.4 DOE 5483.1A DOE 5480.7	07/31/90	04/30/91	See MGMT/BMPF-1.
MGMT/BMPF-11	Add ES&H activities to position descriptions.	DOE 3430.3A DOE 3430.4A DOE 0511.1A SEN-6A-89	09/30/90	12/31/90	N/A
MGMT/BMPF-12	Increase ER, CH, BHO resources.	BMP	06/01/90	FY92	FY90: 100 FY92: 1000
AX.5-1	Install pressure drop monitoring.	ALARA	06/30/90	09/30/92	FY91: 40
CS.1-1	No action.	BNL Safety Manual ANS 8.1-1983	04/30/90	04/30/90	See MGMT/CF-4.
CS.5-1	Install accident alarm system.	DOE 5480.6 DOE 5480.5 DOE 5480.11	06/30/90	01/31/91	FY91: 170
EA.2-1	Develop SEAPP requiring safety committee charters for dept/div.	BMP	07/31/90	08/31/90	See MGMT/BMPF-1.
EA.4-1	Develop safety guide and SEAPP to define limits of Operation; schedule review; upgrade SARs.	DOE 5481.1B	06/30/90	12/31/92	See TS.3-2.
EP.1-1	Assess hazards; revise local and site emergency plans.	BNL Laboratory Emergency Response Plan	04/30/90	09/30/91	N/A
EP.2-1	Update local emergency plans.	BNL Laboratory Emergency Response Plan	12/31/89	06/30/90	N/A
EP.3-1	Train and drill.	BNL Laboratory Emergency Response Plan	06/30/90	12/31/91	FY91: 10K/yr

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FINDING NO.	PLANNED ACTION	COMPLIANCE PROTOCOL	BEGIN DATE	END DATE	COST \$ (000)
EP.5-1	Designate alternate EOF; identify funding.	DOE N 5500.3 ANSI N323-1979	03/31/90	09/30/92	FY90: 10K FY00: TBD
EP.5-2	Bring calibration into compliance.	ANSI N323 ANSI N320-1979	11/30/90	06/30/91	FY91: 350
EP.6-1	Revise BNL emergency plan.	BNL Laboratory Emergency Response Plan	03/31/90	12/31/90	N/A
FP.1-1	Add staff.	DOE 5480.7 DOE Resource Manual	04/30/90	09/30/90	N/A
FP.1-2	Identify actions for long-range plan. Complete improvements.	BMP	Contin.	10/31/99	FY94-99: 8500+
FP.1-3	CH will conduct appraisals.	DOE 5480.7		09/30/90	N/A
FP.1-4	Identify testing frequency and documentation requirements; change program; implement.	BMP	11/30/90	08/31/92	FY91: 25 & 50/yr
FP.2-1	Survey/prepare funding request.	NFPA 101 DOE 5480.7-9	05/31/90	09/30/96	See FP.1-2.
FP.3-1	Develop hazardous material inventory; complete assessment.	DOE 5480.7-9a(3)	06/30/90	03/31/91	N/A
FP.4-1	Develop assessment schedule; complete initial assessments.	DOE 5480.7-9.b	04/30/90	12/31/90	N/A
FP.4-2	Bring transformer yards into compliance.	FMDS 5-4	09/30/94	10/31/98	FY99: TEC 4000
FP.5-1	Same as FP.4-1.	DOE 5480.7	04/30/90	12/31/90	N/A
FP.5-2	Demolish Physics tower.	DOE 5480.7	07/31/90	08/31/90	FY91: 100
FP.5-3	Remove obstructions; extend sprinklers.	FMDS 2-8	09/30/90	07/31/91	FY90: 15
FP.5-4	Loss prevention analysis; plan of action; identify cost.	DOE 5480.7	11/30/92	10/31/99	FY00: 4000 (New Facility)

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FINDING NO.	PLANNED ACTION	COMPLIANCE PROTOCOL	BEGIN DATE	END DATE	COST \$ (000)
FP.5-5	Repair roofs on priority basis.	DOE 5480.7	10/31/92	10/31/97	FY92: 1400 FY93: 600 FY94: 1000 FY97 (TEC): 4000
FP.5-6	Independent FP survey; identify actions and funding implement.	FMSD 5-31	10/31/91	01/31/93	FY91: 60
FP.5-7	Analysis will be done; work identified and scheduled (see FP.1-2).	DOE 5480.7	11/30/90	10/31/99	See FP.1-2.
FP.5-8	Same as FP.4-1.	DOE 5480.7		12/31/90	See FP.4-1.
FP.7-1	Survey system; prepare funding request.	DOE 1530-4.1-6430.1A	01/31/96	10/31/99	See FP.1-2.
FP.7-2	Provide appropriate extinguishers.	DOE 6430.1A-1530-7 NFPA-10	06/30/90	09/30/90	FY90: 45
FP.7-3	Dept/div inspections; management walkthroughs.	BMP	12/31/89	03/02/90	000
FP.7-4	Update Safety Manual/SAPPM; install cabinets.	DOE 5480.7-9 NFPA 30	12/31/90	12/31/91	5/unit
FP.7-5	Retrain.	QA PE-015		01/31/90	000
FP.7-6	Upgrade program; survey buildings.	DOE 5480.7-10b	01/31/90	09/30/91	N/A
FP.7-7	Survey facilities; plan upgrades.	DOE 6430.1A-0110-b.1 DOE 5480.7-9a	01/31/95	10/31/99	See FP.1-2. FY95: 50
FP.7-8	Provide schedule and test.	NFPA	01/31/90	08/31/90	N/A
FP.7-9	Evaluate portability review resolution from DOE.	DOE/EV-0043	12/11/89	12/31/90	000
FP.7-10	Complete storage pads.	NFPA 51 FMSD 5-4		08/31/90	FY90: 20

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FINDING NO.	PLANNED ACTION	COMPLIANCE PROTOCOL	BEGIN DATE	END DATE	COST \$ (000)
FP.7-11	Request interpretation and review; forward analyses of values to DOE.	NFPA 13	06/28/90	06/30/91	N/A
FP.7-12	Request interpretation; forward to DOE.	NFPA 30	06/28/90	12/31/91	N/A
FP.7-13	Conduct NEC training; hire inspector.	NFPA-70	05/31/90	01/31/91	Included in MGMT/BMPF-5. FY90: 25
FP.7-14	Included in FP.4-1 and FP.5-1.	BMP		12/31/90	N/A
FP.7-15	Prohibit smoking; install signs.	BMP	07/31/90	08/31/90	N/A
FP.7-16	Review areas; develop funding request for upgrades.	FMSD 5-4	07/31/90	08/31/90	N/A
FR.4-1	Develop SAPP and procedures for operational reviews by dept/div.	DOE 5482.1B	12/31/90	03/31/91	N/A
FR.5-1	Perform Triennial Review.	DOE 5482.1B		08/31/91	000
FS.2-1	Take actions to reduce accident rates.	BMP	10/31/89	12/31/89	N/A
FS.3-1	Report BNL security separately to SSDC.	BMP		08/31/89	N/A
FS.5-1	Conduct exercises (annually).	BMP		03/15/90	N/A
FS.6-1	Lock ESSW separately.	DOE 5480.16		10/31/89	N/A
FS.6-2	Separate storage of ESSW.	DOE 5480.16		10/31/89	N/A
IH.4-1	Revise procedures; train staff.	BMP	11/30/90	12/31/90	N/A
IH.5-1	Upgrade laser protection and respiratory protection programs to assure compliance; audit progress.	DOE 5480.4 ANSI 2136.1-1986 ANSI 288.2-1980	12/31/89	06/30/91	N/A

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FINDING NO.	PLANNED ACTION	COMPLIANCE PROTOCOL	BEGIN DATE	END DATE	COST \$ (000)
IH.6-1	Prepare training; train.	BNL Safety Manual DOE 5480.4 DOE 5483.1A	06/30/90	12/31/90	FY90: 26 FY91: 99
IH.6-2	This concern is identical to IH.6-1.	29 CFR 1910.1450 29 CFR 1910.1200		12/31/90	N/A
MA.1-1	Establish Steering Committee; develop implementation plans; implement.	DOE 4330.4	02/28/90	01/31/93	FY90: 12 FY91: 300/yr
MA.1-2	NSLS define maintenance activity.	BMP	01/31/90	01/31/90	N/A
MA.1-3	AGS develop/adapt formal procedures:	BNL Safety Manual	09/30/90	12/31/91	FY91: 300/yr
MA.2-1a	Survey/develop cost estimate; implement upgrades.	BMP	12/31/89	09/30/91	FY91: 175
MA.2-1b	Remove unnecessary equipment; upgrade areas.	BMP	01/31/90	10/31/99	FY00: 4000
MA.2-2	Maintenance Task Force will address this issue (see MA.1-1).	BMP		01/31/93	TBD
MA.5-1	OSHA training; S&EP inspection checklist; implement checklist during inspection.	BMP	03/02/90	12/31/90	N/A
MA.5-2	This is addressed under QV.4-1.	BMP		09/30/91	N/A
MA.7-1	This will be addressed by task group (see MA.1-1).	DOE 1324.2		01/31/93	N/A
MA.8-1	See MA.1-1.	BMP		01/31/93	N/A
MA.8-2	See MA.1-1.	BMP		01/31/93	N/A
MS.2-1	Finalize QA program.	BMP		05/31/90	N/A
MS.4-1	Initiate annual audit OMC.	BMP		09/30/91	N/A
MS.5-1	Hire staff; implement program.	BMP	09/30/90	12/31/90	FY91: 80/yr

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FINDING NO.	PLANNED ACTION	COMPLIANCE PROTOCOL	BEGIN DATE	END DATE	COST \$ (000)
OP.1-1	Develop specific SEAPP; make available to all.	BMP	08/31/90	10/31/90	See MGMT/BMPF-1.
OP.1-2	See MGMT/BMPF-4.	BMP		03/31/91	See MGMT/BMPF-4.
OP.1-3	Develop SEAPP to address lines of authority and responsibility.	BMP	08/31/90	10/31/90	See MGMT/BMPF-1.
OP.1-4	SEAPP on organization charts.	BMP	08/31/90	10/31/90	See MGMT/BMPF-1.
OP.1-5	See MGMT/BMPF-1.	BMP	07/31/90	04/30/91	See MGMT/BMPF-1.
OP.1-6	Require use of "shall" (SEAPP).	BNL Safety Manual		07/31/90	See MGMT/BMPF-1.
OP.2-1	Operations Task Force; develop guidance; implement recommendations, institute Operations Support Office	BMP	01/31/90	05/31/91	TBD
OP.3-1	See OP.2-1.	BMP	03/31/90	05/31/91	TBD
OP.3-2	See OP.2-1.	BMP		05/31/91	TBD
OP.3-3a	Post call in list; review/revise SAR; upgrade NSLS grids.	BMP	11/15/89	09/30/90	N/A
OP.3-3b	Review Phase II SAR; train .	BMP	04/30/90	01/31/91	N/A
OP.3-3c	REF update procedures; issue Safety Guide and SEAPP.	BMP	12/08/89	09/30/90	TBD
OP.4-1	See OP.2-1.	BMP	03/31/90	05/31/91	TBD
OP.5-1	See OP.2-1.	BMP	03/31/90	05/31/91	TBD
OP.5-2	Install card readers.	BMP	02/28/90	01/31/91	FY90: 50
OP.6-1	See OP.2-1.	BMP	01/31/90	09/30/91	TBD

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FINDING NO.	PLANNED ACTION	COMPLIANCE PROTOCOL	BEGIN DATE	END DATE	COST \$ (000)
OP.6-2	Issue generic procedure on lock-out/tag-out; develop/implement a specific SEAPPM.	DOE 5483.1A 29 CFR 1910.147 BNL Health & Safety Guide 1.5.1	12/31/89	08/31/90	See MGMT/BMPF-1.
OP.7-1	Dept/div inspection; OSHA training.	DOE 5483.1A 29 CFR 1910.22	12/31/89	03/02/90	FY90: 45
OP.8-1	No action.	BMP		12/31/89	N/A
OP.9-1	See OP.2-1.	BMP	02/07/90	09/30/92	TBD
OP.10-1	See OP.2-1.	BMP	03/31/90	04/30/91	TBD
OS.3-1	Correct conditions (see TS/BMPF-1 and TS/BMPF-2).	BMP		04/30/90	N/A
OS.4-1	See MGMT/BMPF-1.	DOE 5483.1A		04/30/91	See MGMT/BMPF-1.
OS.4-2	Improve construction safety program.	DOE 5480.4 DOE 5480.9	01/31/90	04/30/90	N/A
OS.4-3	Develop database; implement tracking.	BMP	01/31/90	06/30/91	Included in MGMT/BMPF-5. See MGMT/BMPF-2.
OS.5-1	Issue SEAPPM specific to personnel protective equipment.	DOE 5483.1A BNL Safety Manual	01/31/90	09/30/90	See MGMT/BMPF-1.
OS.5-2	Install new detector system; revise guide.	DOE 5480.4	02/28/90	02/28/91	FY90: 43
OS.5-3	Provide life saving equipment and egress capability.	OSHA, Section 5(a)(1)	04/30/90	09/30/90	FY90: 2
OS.6-1	Post injury/illness data.	29 CFR 1903 DOE 5483.1A	12/31/89	01/31/90	N/A
OS.6-2	Develop training, including occupational worker training.	DOE 5483.1A	11/30/89	01/31/90	N/A

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FINDING NO.	PLANNED ACTION	COMPLIANCE PROTOCOL	BEGIN DATE	END DATE	COST \$ (000)
PT.2-1	Schedule/conduct audit.	DOE 5480.3 DOE 5482.1B	10/31/89	09/30/91	FY91: 10K/yr (audit)
PT.3-1	Review/assign responsibilities; include in SEAPPM.	DOE 5480.1A DOE 5480.3 DOE 5480.4 BNL Safety Manual	12/06/89	04/30/91	N/A
PT.4-1	Assign safety oversight; audit.	DOE 5480.1A	03/31/90	09/30/91	N/A
PT.5-1	Develop PT manual; audit PT function.	BNL Safety Manual DOE 5480.1A	03/31/90	09/30/91	N/A
PT.6-1	Provide training to PT operators; prepare training requirements on PT manual; schedule further training.	DOE 5480.3 DOE 1540.1 DOE 1540.2	02/28/90	07/31/91	TBD
PT.6-3	Revise existing plan and Chem protocols; integrate into SPCC. Integrate SPCC into Emergency Plans.	DOE 5480.4 40 CFR 112 BNL SPCC Plan	03/31/90	12/31/91	FY91: 32
QV.1-1	Appoint QA representatives; document QA program.	ANSI/ASME NQA-1 DOE 5700.6B CH 5700.6 BNL QA Manual	12/31/89	09/30/90	N/A
QV.1-2	Schedule/initiate audits.	DOE 5700.6B		12/30/90	See MGMT/CF-5.
QA.1-3	Include committee description in manual.	DOE 5700.6B		06/30/90	N/A
QV.1-4	Computerize tracking; initiate audits.	DOE 5700.6B	09/30/90	12/31/90	See MGMT/CF-5.
QV.1-5	See MGMT/CF-8 and MGMT/BMPF-12.	DOE 5480.7		07/31/91	See MGMT/CF-8 and 12.
QV.2-1	Implement QA procedure; implement evaluation system.	Form BQF-003	06/30/90	09/30/90	N/A
QV.4-1	Dept/div implement calibration program.	BNL QA Manual	09/30/90	09/30/91	See MGMT/CF-5.

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FINDING NO.	PLANNED ACTION	COMPLIANCE PROTOCOL	BEGIN DATE	END DATE	COST \$ (000)
QV.5-1	Prepare and implement conformance procedure.	BNL QA Manual	09/30/90	03/31/91	
QV.5-2	Same as QV.5-1.	BMP	09/30/90	03/31/91	
QV.5-3	See OP.2-1.	ANSI/ASME NQA-1	03/31/90	05/31/91	TBD
QV.6-1	Prepare and implement inspection instruction procedure.	BNL QA Manual ANSI/ASME NQA-1	09/30/90	03/31/91	TBD
QV.7-1	Control welding rod storage.	BNL QA Manual	06/30/90	08/31/90	N/A
RP.3-1	Train and certify all radiation workers.	DOE 5480.11 BNL Safety Manual	09/30/90	09/30/91	See MGMT/BMPF-7.
RP.3-2	Correct deficiencies in posting of radiation areas.	DOE 5480.11 BNL Safety Manual		09/30/90	N/A
RP.3-3	Develop procedure for SEAPPM and implement.	BNL Safety Manual	10/31/90	09/30/91	See MGMT/BMPF-1.
RP.3-4a	Correct interlock deficiencies at AGS.	BNL Safety Manual	10/01/90	09/30/91	TBD
RP.3-4b	Modify interlocks and test at NSLS.	BNL Safety Manual	09/30/89	04/30/90	TBD
RP.3-4c	Issue SEAPPM section on interlocks and resolve deficiencies.	BNL Safety Manual	10/18/89	08/31/91	See MGMT/BMPF-1.
RP.3-5	Develop RP procedures; initiate training.	BMP	12/31/91	06/30/91	TBD
RP.3-6	Develop tracking system; train staff.	BMP	07/31/90	09/30/90	N/A
RP.3-7	Draft work permit guide and implement.	ALARA	08/31/90	03/31/91	N/A
RP.3-8	Develop guidance: visitor control and implement	BMP	08/31/90	08/01/90	See MGMT/BMPF-1.
RP.4-1	Finalize and implement ALARA Guide 3.3.0.	ALARA	06/30/90	12/31/90	TBD

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FINDING NO.	PLANNED ACTION	COMPLIANCE PROTOCOL	BEGIN DATE	END DATE	COST \$ (000)
RP.5-1	Complete accreditation of film badge service.	DOELAP	07/01/90	12/31/90	FY90: 10
RP.7-1	Develop procedures for internal dosimetry audits.	DOE 5482.1B	10/31/90	07/31/91	FY91: 50 (consultant)
RP.8-1	Develop calibration program; hire staff; and implement.	ANSI N323 DOE 5480.4	12/31/89	06/30/91	FY91: 250K
RP.9-1	Review air monitoring program; complete upgrades.	BMP	10/31/90	09/30/94	FY90: 60 FY91-94: TBD
RP.11-1	Approve ALARA Guide 3.3.0 and implement.	ALARA BNL Safety Manual	06/30/90	12/31/90	N/A
SR.1-1	Appoint committee.	DOE 5482.1B, Section 9.d DOE 5482.1B(9)(d)		10/31/89	N/A
SR.7-1	Conduct Triennial Review.	DOE 5482.1B		08/31/91	N/A
TC.1-1	See MGMT/BMPF-7.	BMP	06/30/90	05/31/91	TBD
TC.1-2	See MGMT/BMPF-7.	BMP	06/30/90	05/31/91	TBD
TC.2-1	Develop SOP for lesson plans and train staff.	BMP	11/30/90	02/28/91	N/A
TC.3-1	See MGMT/BMPF-7.	BMP	06/30/90	05/31/91	TBD
TC.4-1	Retrain radiation workers.	DOE 5480.11	09/30/90	12/31/91	N/A
TC.4-2	Develop training program and initiate training.	DOE 5480.11	06/30/90	04/30/91	FY91: 150 (video/ consultant)
TC.5-1	Plan PE training program and initiate.	BMP	02/28/91	08/31/91	N/A
TC.9-1	Plan and initiate training program; certify HP technicians.	DOE 5480.11 DOE 5480.18	11/30/90	11/30/93	FY91: 100/yr

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FINDING NO.	PLANNED ACTION	COMPLIANCE PROTOCOL	BEGIN DATE	END DATE	COST \$ (000)
TS.1-1	Prepare SEAPP.	BMP		04/30/91	
TS.2-1	Train personnel; implement new procedures.	BMP	12/31/89	02/28/90	N/A
TS.2-2	OSO develop procedures.	BNL QA Manual		09/30/91	N/A
TS.2-3	Develop OSL guide; implement.	DOE 5481.1B	06/30/90	12/31/92	N/A
TS.2-4	Review, develop guidelines, implement actions.	BMP	06/30/91	12/31/91	TBD
TS.3-1	No action.	BNL QA Manual		03/31/90	
TS.3-2	Complete Guide 1.3.3; update SARs.	BMP	06/30/90	12/31/92	FY91-92: 480
TS.3-3	Revise Guide 1.3.2; issue SEAPP section.	BMP	09/30/90	04/30/91	N/A
TS.4-1	See TS.2-4.	BMP	03/31/90	03/31/92	N/A
TS.4-2	See TS.2-4.	BMP	06/30/91	12/31/91	TBD
TS.4-3	Covered under TS.4-1.	BMP		03/31/92	N/A
TS.8-1	Submit as required by DOE.	DOE 5400.1, Part 11.4.c		12/31/89	N/A

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FIVE-YEAR PLAN (FYP) BUDGETS
FOR PLANNED ACTIVITIES

Finding No.	Planned Action	Schedule \$ (000)					Total \$ (000)	FYP ADS	Priority Assigned	Year When New Actions Will Be Added to FYP
		FY90	FY91	FY92	FY93	FY94				
A/CF-1	File permits, complete inventory.								3	N/A
A/CF-2	Install ignition source.		5				5		3	N/A
A/CF-3	Move sampler, measure velocity.		75				75		3	N/A
A/CF-4	Move AGS asbestos/post areas.	1					1		3	N/A
A/CF-5	Post signs.	0					0		3	N/A
A/BMPF-1	Upgrade stations.		230					CH-2016	4	Included in CH-2016.
A/BMPF-2	Develop SOP, schedule upgrades.								4	See AX.5-1.
A/BMPF-3	Develop inventory and characterization.								4	Costs have not been determined.
A/BMPF-4	Review need, install if necessary.						TBD		4	FY95 FYP.
A/BMPF-5	Review, recommend actions.								4	Costs have not been determined.
A/BMPF-6	Evaluate space, identify costs.								3	Costs for new facility have not been determined.
GW/CF-1*	Upgrade program.	493	200	800	400	400	400	CH-2001	2	Revised ADS submitted to CHO on 6/26/90
GW/CF-2	Continue to characterize groundwater.							CH-2001	1	Total: 1329+ Extend and increase CH-2001, include in FY93 ADS submission.

* Revised since issuance of FYP.

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FOR PLANNED ACTIVITIES

Finding No.	Planned Action	Schedule \$ (000)					Total \$(000)	FYP ADS	Priority Assigned	Year When New Actions Will Be Added to FYP
		FY90	FY91	FY92	FY93	FY94				
	Characterize soil sediment contamination.							CH-2002		See SSB/CF-1.
	Remediate landfill areas.	2526	2600	1838			7000	CH-2016		
	Remediate groundwater.				1500	3000	4500	CH-2015		
	D Tank removal.	690					690	CH-2014		
	Miscellaneous removals.*			950	150		1100	CH-2052		New ADS submitted to CHO on 6/26/90.
	RI/FS Support.							CH-2033		Cost given under IWS/CF-1.
GW/CF-3	Guidance from NYSDEC, replace wells as needed.							CH-2001	3	Cost given under GW/CF-1.
GW/CF-4	Reclose as needed.							CH-2001	3	Cost given under GW/CF-1.
GW/BMPF-1	Reclose as needed.							CH-2001	3	Cost given under GW/CF-1.
GW/BMPF-2	Upgrade current program.							CH-2001	3	Cost given under GW/CF-1.
GW/BMPF-3	Modify procedures, install caps.	4					4		4	Supported by Laboratory.
IWS/CF-1	Provide RI/FS support/management.	295	585	1000	1000	1000	5885	CH-2033	2	FY90 \$295 will be supported by Laboratory.
						**	**			Revise CH-2033 ADS submitted to CHO on 6/26/90.

* Added since issuance of the FYP.

** Costs increased from FYP.

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FOR PLANNED ACTIVITIES

Finding No.	Planned Action	Schedule \$ (000)					Total \$(000)	FYP ADS	Priority Assigned	Year When New Actions Will Be Added to FYP
		FY90	FY91	FY92	FY93	FY94				
IWS/CF-2	Submit list as appropriate.								2	N/A
IWS/CF-3	Laboratory prepare draft plan. Submit to DOE. DOE review and submit to NYSDEC and EPA for approval.							CH-2003	2	Cost for plan development supported by Laboratory and included in IWS/CF-1. Implementation cost not defined. Will be estimated and included in ADS-CH-2033.
IWS/CF-4	BNL establish record. DOE establish record.							CH-2003	2	See IWS/CF-1. The Laboratory is currently supporting this effort. Out-year cost should be borne by CH-2033.
IWS/CF-5	Develop historic site review plan.							CH-2033	2	See IWS/CF-1.
IWS/BMPF-1	Upgrades protocol.							N/A	4	N/A
NEPA/CF-1	No action.									N/A
NEPA/BMPF-1	Review/revise as necessary.									TBD
NEPA/BMPF-2	Provide staff, train.	20					20			Supported by Operations Office.
QA/CF-1	Change procurement procedure.		10	10	10	10			3	Yearly program cost.
QA/CF-2	Institute verification procedure.								3	N/A
QA/BMPF-1	Hire staff.								3	See MGMT/BMPF-5.
QA/BMPF-2	Develop SOPs.								4	N/A
RAD/CF-1	Survey, institute control.	125	500				625		2	Supported by Laboratory/Program.

APPENDIX A
TABLE 2.0
FIVE-YEAR PLAN (FYP) BUDGETS
FOR PLANNED ACTIVITIES

Finding No.	Planned Action	Schedule \$ (000)					Total \$(000)	FYP ADS	Priority Assigned	Year When New Actions Will Be Added to FYP
		FY90	FY91	FY92	FY93	FY94				
RAD/CF-2	Add staff. Update protocol								3	Included in MGMT/BMPF-5.
RAD/BMPF-1	Characterize effluent streams.								4	TBD
SSB/BMPF-1	Characterize soil/sediment.*		3370	2500	1000			CH-2002	3	Cost has been revised.
SW/CF-1	Inventory, assess, characterize.								3	TBD
SW/CF-2	Develop protocol.								3	Supported by Laboratory.
SW/CF-3	Develop protocol, purchase equipment.	1					1		3	Supported by Laboratory.
SW/CF-4	Issue directive, audit.								3	Supported by Laboratory.
SW/BMPF-1	Construct stations, inventory, assess, characterize other sources.		170					CH-2016	4	Included in GW/CF-2. Cost for characterizing other sources fully has not yet been determined.
SW/BMPF-2	Issue directive, audit.								4	N/A. Costs borne by departments.
SW/BMPF-3	Upgrade system: Phase I. ** Upgrade system: Phase II. ***					3000	4000 3600	CH-2035	4	Not in current FYP. Is included in FY92 ADS. Will require revisions. Phase II is FY97 project.
SW/BMPF-4	Develop protocol/train.								4	Supported by Laboratory.

* Revised since issuance of FYP.

** Will be revised for FY93 ADS submission and Phase II included.

*** Operations costs have increased and increase is not reflected in FYP.

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		FY90	FY91	FY92	FY93	FY94				
SW/BMPF-5	Provide clarifier.							CH-2035	4	Included in SW/BMPF-3.
TS/CF-1	Develop SOP.							CH-2017	3	Part of HWM Operations.
TS/CF-2	Upgrade procedures, provide better storage.							CH-2017	3	Part of HWM Operations.
TS/CF-3	Draft guide, implement.	20					20		3	Supported by Laboratory.
TS/CF-4	Upgrade storage; develop SEAPP.	300					300	CH-2004		TEC FY88-90: 1100
TS/BMPF-1	Develop SEAPP.								3	Supported by Laboratory.
TS/BMPF-2	Correct deficiencies.								3	Supported by Laboratory.
TS/BMPF-3	Update inventory, provide to Fire Group.								3	Supported by Laboratory.
WM/CF-1	Action determined by NYSDEC/EPA.							CH2082**	2	Current operation is supported by Laboratory. Future costs for modifications included in CH-2082. See GW/CF-2.
WM/CF-2	Upgrade facilities.	160	2240				2400	CH-2007	1	Other upgrades are also identified in the FYP (CH-2008, CH-2009).
WM/CF-3	Correct deficiencies, ship waste.	45						CH2017***	2	Part of HWM operations.

* Costs increased from FYP.

** Added since issuance of FYP.

*** Revised since issuance of FYP. Operating costs have increased.

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		FY90	FY91	FY92	FY93	FY94				
WM/CF-4	See GW/CF-1.								3	
WM/CF-5	Perform inspections, submit annual report.								3	Supported by Laboratory.
WM/CF-6	Develop SEAPPM, implement.									Supported by Laboratory.
WM/CF-7	Develop SEAPPM, issue guidance, audit.								3	Supported by Laboratory.
WM/CF-8	Distribute plan.								3	Supported by Laboratory.
WM/CF-9	Maintain record, issue report.								3	Supported by Laboratory.
WM/CF-10	Close landfill.							CH-2016	2	See GW/CF-2.
WM/BMPF-1	Dispose of LDR waste.							CH-2017*	3	Part of HWM Operations.
WM/BMPF-2	Draft SOP, train.	5					5	CH-2017*	4	Part of HWM Operations.
WM/BMPF-3	Empty/clean, develop procedures.								4	Supported by Laboratory.

* Revised since issuance of FYP. Operating costs have increased.

APPENDIX B

LIST OF ACRONYMS

APPENDIX B

List of Acronyms

ADM	Action Description Memorandum
AGS	Alternating Gradient Synchrotron
ALARA	As low as reasonably achievable
AMLM	Assistant Manager for Laboratory Management, CH
ANSI	American National Standards Institute
AOC	Area of Concern
AST	Above Ground Storage Tanks
AUI	Associated Universities, Inc.
BHO	Brookhaven Area Office DOE
BLIP	Brookhaven Linear Isotope Production Facility
BMP	Best Management Practice
BMPF	Best Management Practice Finding
BMRR	Brookhaven Medical Research Reactor
BNL	Brookhaven National Laboratory
BP	Base Program
BSS	Building Safety Supervisor
CDQ	Council on Environmental Quality
CF	Compliance Finding
CFR	Code of Federal Regulations
CH	Chicago Operations Office (DOE)
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CLIF	Chemistry Linac Irradiation Facility
CSF	Central Steam Facility
CTO	Certificate to operate
CY	Calendar Year
DOE	U.S. Department of Energy
DOEHQ	Headquarters, Department of Energy
DOELAP	Department of Energy Laboratory Accreditation Program
DRPP	Department Radiation Protection Procedures
EA	Environmental Assessment
EH	Office of the Assistant Secretary for Environment, Safety, and Health
EIS	Environmental Impact Statement
EM	Office of Environmental Restoration and Waste Management, DOE
EPA	U.S. Environmental Protection Agency
EPCRA	Emergency Planning Community Right-to-Know Act
ER	Office of Energy Research, DOE
ES&H	Environment, Safety and Health
ESHD	Environment, Safety & Health Division, CH

FP	Fire Protection
FR	Federal Register
FS	Feasibility Study
FTE	Full Time Equivalent
FY	Fiscal Year
FYP	(Environmental Restoration and Waste Management) Five Year Plan
GFCI	Ground fault circuit interrupter
GM	General Management
HEPA	High-efficiency particulate air
HFBR	High Flux Beam Reactor
HQ	Headquarters
HWMF	Hazardous Waste Management Facility
IAG	Interagency Agreement
IH	Industrial Hygiene
IITA	Incident Investigation, Tracking and Analysis
INPO	Institute of Nuclear Power Operations
ISM	Isotope and Special Material
LAN	Local Area Network
LDR	Land Disposal Restricted Waste
LINAC	Linear Accelerator
LSO	Laboratory Safety Officer
MORT	Management Oversight Risk Tree
MSDS	Material Safety Data Sheet
MTF	Memorandum-to-File
N/A	Not applicable
NCP	National Contingency Plan
NE	Office of the Assistant Secretary for Nuclear Energy, DOE
NEPA	National Environmental Policy Act
NESHAP	National Emission Standards for Hazardous Air Pollutants
NYSDEC	New York State Department of Environmental Conservation
NPDES	National Pollutant Discharge Elimination System
NPL	National Priorities List
NQA-1	ANSI/ASME NQA-1, "Nuclear Quality Assurance-1"
NSLS	National Synchrotron Light Source
NYCRR	New York Compilation of Rules and Regulation
OH&S	Occupational Health and Safety
OJT	On-the-Job Training
OSHA	Occupational Safety and Health Administration
OSL	Operating Safety Limits
OSO	Operations Support Office

P&T Packaging and Transportation
 PCB Polychlorinated biphenyls
 PDB Position Designation Board
 PMFD Program and Facilities Management Division, CH

QA Quality Assurance
 QC Quality Control
 QV Quality Verification

RCRA Resource Conservation and Recovery Act
 REF Radiation Effects Facility
 RI Remedial Investigation
 RSC Reactor Safety Committee
 RWP Radiation Work Permit

S-1 Office of the Secretary, DOE
 S&H Safety and Health
 S&M Supply and Materiel
 SAR Safety Analysis Report
 SARA Superfund Amendments and Reauthorization Act
 SCDHS Suffolk County Department of Health Services
 SEAPPM Safety and Environmental Administrative Policy and
 Procedures Manual

SEN Secretary of Energy Notice
 SEP Safety and Environmental Protection
 SES Senior Executive Service
 SOP Standard Operating Procedure
 SPCC Spill Prevention Countermeasures and Controls
 SPDES State Pollutant Discharge Elimination System
 SSD Safeguards and Security Division
 SSDC System Safety Development Center
 STP Sewage Treatment Plant

TBD To Be Determined
 TDS Total Dissolved Solids
 TEC Total Estimated Cost
 TSA Technical Safety Appraisal
 TT Tiger Team
 TTA Tiger Team Assessment

UOR Unusual Occurrence Report
 USC United States Code
 USEPA United States Environmental Protection Agency
 UST Underground storage tank

VOC Volatile organic compound