

New York City

*Department of Environmental Protection
Environmental, Health & Safety*

2006 Annual Report



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1. A MESSAGE FROM COMMISSIONER LLOYD

The New York City Department of Environmental Protection (DEP) is a vast agency charged with delivering many services vital to public health. To promote workplace practices that are consistent with this environmental mission and to ensure compliance with all relevant federal and state regulations, DEP administers a comprehensive environmental health and safety (EHS) program. The primary goal of our EHS program is to develop and institutionalize practices, organizational structures and guidelines that will enhance our delivery of water and sewer services to the City's population, bolster employee safeguards against workplace hazards, and establish mechanisms that allow employees to provide feedback on the design and direction of this essential program.

Initially, DEP's EHS program focused exclusively on two major operating bureaus, the Bureau of Water Supply (BWS) and the Bureau of Water and Sewer Operations (BWSO), but in 2006 EHS programs were successfully launched in all remaining bureaus. This expansion has encouraged the development of a more consistent and effective set of EHS guidelines, practices and policies, and has helped DEP achieve several key milestones.

Most notably, BWSO's 2006 release from the supervision of a court-appointed monitor attests to the success of DEP's EHS program and establishes a model of transformation for the rest of the department. We are hopeful that, in 2007, BWS will replicate this progress and become the second major bureau to be released from supervision. As evidence of the successful programs administered by both operating bureaus, a recently completed review of their compliance with federal and state laws governing drinking water sampling found that both have superior records of compliance.

Aside from enhancing departmental compliance with key environmental regulations, DEP's EHS program has strengthened employee dynamics and led to more effective employee reporting of workplace problems and hazards. In response to concerns voiced by employees via a department hotline, in 2006 all DEP managers and supervisors participated in anti-retaliation training, which reinforced the need to address all employee concerns fairly and equitably. In addition, DEP has continued to improve its mandatory

Right to Know training and to oversee a robust Employee Concerns Program, both of which encourage a safer work environment.

These many successes establish a strong EHS foundation for DEP and ground our operations in policies and structures that increasingly guarantee the health and safety of our employees and the public. To ensure that this commitment continues to flourish, however, EHS must remain a priority focus for DEP.

In 2006, the Bureau of Wastewater Treatment (BWT) came under the supervision of a court-appointed monitor, and though the bureau has already enlarged its EHS compliance division by 20 full-time staff and corrected more than 12,000 deficiencies identified during high-priority audits (HPAs) of the City's 14 wastewater treatment plants (WWTPs) and more than 100 other facilities, this supervision indicates that DEP's EHS program is not yet fully institutionalized.

As we move forward, I am confident that we can collectively confront these remaining challenges and build an organizational culture that ensures enduring compliance with all of the EHS rules and regulations governing our operations.

2. DEP EHS POLICY STATEMENT

The New York City Department of Environmental Protection's (DEP) primary mission is to protect the environmental health and well-being of City residents by providing an abundant and safe supply of drinking water, treating and properly disposing of wastewater, and ensuring that adequate drainage is provided for stormwater runoff. In furtherance of this mission, DEP operates and maintains the City's water supply and wastewater systems, including (among other facilities) reservoirs, dams, aqueducts, tunnels, gatehouses, wastewater treatment plants, pumping stations, laboratories, and combined sewage overflow facilities.

DEP also interprets, administers and enforces a number of local laws, rules and regulations intended to protect the environmental health, welfare and natural resources of the City, including the New York City Air and Noise Codes, local laws on hazardous material spills and asbestos remediation, and the City's community Right-to-Know Law.

In performing all of these activities, DEP employees are committed to providing the people of New York City with superior service and a healthy environment.

As an agency with an environmental mission, DEP is especially sensitive to protecting natural resources, ensuring the health and safety of its employees, and promoting a healthy environment in the communities in which it operates. Accordingly, in performing its day-to-day functions, DEP is committed to:

- *Informing and educating our employees, contractors, suppliers, and the general public about the importance of environmental, health and safety concerns;*

- *Making sure that our daily operations are conducted in a manner that protects the environment and safeguards the health and well-being of our workforce and of the public we serve;*
- *Establishing effective programs that ensure the agency's compliance with all applicable environmental, health and safety laws, rules and regulations;*
- *Encouraging policies and practices which prevent or reduce pollution, conserve resources, and promote efficiency without sacrificing adherence to such laws, rules and regulations; and*
- *Establishing appropriate and effective systems to monitor and gauge the agency's progress in meeting the foregoing commitments.*

DEP and its predecessor agencies have a proud legacy of service to the City and its residents, spanning a period of over 150 years. In a complex and changing world, it is incumbent on all DEP employees not only to do their jobs well, but to conduct themselves in a manner that is consistent with the underlying purpose behind everything we do — namely, protecting and preserving a healthy environment and quality of life for all New Yorkers. By following the principles enumerated in this Statement, which are intended to reflect and embody this standard of conduct, we hope to continue the legacy of service and dedication over the next 150 years and beyond.

3. DEP OPERATIONS

DEP's 6,000 employees are committed to supplying the best possible service to the people of New York while providing a safe and healthy environment. The agency's responsibilities cover a broad range of activities, centered on managing the City's water supply and wastewater treatment systems. They also include handling hazardous materials emergencies and toxic site remediation, overseeing asbestos removal, managing citywide water conservation programs, and collecting water and sewer fees. DEP's chief operations are implemented among the following bureaus:

Office of Environmental, Health & Safety Compliance (OEHSC)

The Office of Environmental, Health & Safety Compliance is charged with the responsibility of ensuring that DEP complies with applicable federal, state and local environmental and occupational health & safety laws and regulations. It is also responsible for overseeing Bureau compliance with such laws as well as policy development, facility compliance auditing and employee training.

Bureau of Customer Services (BCS)

The Bureau of Customer Services oversees water conservation through metering and leak survey and enforces water use regulations to prevent water waste, theft of service, and threats of contamination from illegal connections. The Bureau of Customer Services also provides consumers of New York City's municipal water and sewer systems with accurate billings and courteous customer service.

Bureau of Environmental Compliance (BEC)

The Bureau of Environmental Compliance is comprised of the Division of Air & Noise Policy, Permitting and Enforcement, the Asbestos Control Program, the Division of Emergency Response and Technical Assessment, and the Environmental Economic Development Assistance Unit. These divisions respond to hazardous material emergencies, as well as air and noise code complaints and inspect and monitor for asbestos removal projects. The Bureau is also responsible for certifying asbestos handlers, inspecting and issuing operating certificates to stationary combustion and industrial process sources, maintaining a comprehensive database of facilities containing hazardous and toxic materials, and helping to implement the requirements of the Clean Air Act.

Bureau of Engineering, Design and Construction (BEDC)

The primary responsibility of the Bureau of Engineering, Design and Construction is to plan, design, and construct major water quality related capital projects. These projects focus on two important issues for the City: the continued improvement of water quality within the New York Harbor and estuaries, and the delivery of high quality drinking water.

Bureau of Human Resources and Administration (BHRA)

The Bureau of Human Resources and Administration provides administrative support and oversight for the entire Department in a number of areas such as Human Resources Management, Facilities Management and Construction, Fleet Administration, Downstate Security, Management Analysis, Fiscal Services, Capital Budgeting and Expense and Revenue Budgeting.

Bureau of Communications and Intergovernmental Affairs (BCIA)

The Bureau of Communications and Intergovernmental Affairs manages the public information function of the agency in New York City and its watershed. It is responsible for all press releases and media inquiries, environmental education, special projects and events; production of all public information, both print and electronic; and for management of the graphic and photographic needs of all DEP bureaus. The Bureau is also responsible for communicating with all federal, state and local government officials regarding legislative issues, and is the liaison between New York City's 59 community boards and the Agency.

Bureau of Water & Sewer Operations (BWSO)

The primary responsibilities of the Bureau of Water & Sewer Operations are to operate, maintain and protect the City's drinking water and wastewater collection (sewer) systems; to protect adjacent waterways; and to plan and develop the Department's Capital Water and Sewer Design projects. The Bureau also approves and inspects water and sewer connections performed by licensed plumbers and/or authorized contractors. The Bureau has overall responsibility for the approval and inspection of all public and private construction projects within New York City that could impact the City's water or sewer systems.

Bureau of Water Supply (BWS)

To ensure delivery of a sufficient quantity of high quality drinking water, the Bureau of Water Supply is responsible for managing, operating, maintaining and protecting New York City's upstate water supply system – a network of 19 reservoirs and three controlled lakes in a 2,000 square mile watershed extending 125 miles north and west of New York City. The Bureau is also responsible for water system planning, water resources management, acquisition and management of water supply and watershed lands, and providing security for the water supply system.

There are three distinct watersheds that supply drinking water to the City: Croton (also referred to as the East-of-Hudson Division), and Catskill and Delaware (together referred to as the West-of-Hudson Division). Each Division is operated under the supervision of a Division Engineer.

Bureau of Wastewater Treatment (BWT)

The Bureau of Wastewater Treatment maintains the chemical and physical integrity of New York Harbor and other local water bodies and viability of the New York water environment through the removal of organic and toxic pollutants from the City's wastewater; control of discharges from the Combined Sewer Overflows and dry weather bypassing; management of operation of treatment plant collection systems; and integration of watershed management concepts into facilities' planning and design. The Bureau is also responsible for the enforcement of a city-wide industrial pretreatment program and a pollution prevention program, and the operation of water pollution control plants, wastewater pumping stations and dewatering facilities.

Bureau of Legal Affairs (BLA)

The Bureau of Legal Affairs is charged with providing all legal services required by DEP to fulfill its mission. The bureau is also responsible for identifying potential legal problems, bringing them to the attention of appropriate personnel, explaining options and the risks associated with each, and assisting staff in carrying out the actions decided upon by management.

4. BUILDING AND SUSTAINING THE DEP EHS PROGRAM

4.1 Background

In August, 2001, DEP signed a plea agreement following certain violations of federal environmental laws. As a result of its plea, DEP was directed to establish and implement compliance programs designed to prevent and detect violations of environmental, health and safety regulations, to establish an internal compliance office (Office of Environmental, Health and Safety Compliance – OEHSC) and to conduct audits of its facilities to identify any deficiencies that needed to be addressed. Since that time, DEP has developed the critical elements of an effective environmental, health and safety (EHS) compliance program for BWS and BWSO: written programs, training, program implementation, employee concerns, management structure, and auditing compliance.

In February 2006, DEP signed a further agreement to resolve an investigation by the US Attorney’s Office into certain incidents during the August 2003 blackout. This new agreement provided for DEP to expand its EHS Compliance Program so that it encompasses BWT and all other bureaus and offices not previously covered by the program (Mission Support Bureaus - “MSBs”).

This Annual Report summarizes the accomplishments, challenges and future EHS goals for DEP.

4.2 Programs



DEP identified almost 40 regulatory areas involved in its day-to-day operations which could benefit by the adoption of written environmental and health and safety programs. The DEP Environmental and Health and Safety Coordination Committees completed the writing of these programs, which instruct employees on how to perform their jobs in compliance with applicable EHS laws and regulations, and serve as the cornerstone of the DEP environmental, health & safety compliance effort.

In 2006, the Committees continued to work on revisions of the programs to address recommendations identified by field personnel charged with implementing the procedures and to ensure that the programs appropriately addressed the operations of all DEP bureaus. Further, upon development of Compliance Action Plans (CAPs) for BWT and the MSBs, additional areas were identified for which the Coordination Committees would have to develop written programs.

The programs are available electronically to DEP employees on the DEP EHS intranet site and have been synopsized in an easy-reference Employee EHS Handbook.

4.3 Employee Training

The DEP EHS training program has several components: (i) training provided by the OEHSC EHS training team and bureau EHS training divisions; (ii) EHS awareness and competency training provided to DEP employees by Con Edison Incorporated (Con Ed); (iii) specialty training developed in conjunction with Consultants; and (iv) a plan to ensure that DEP employees continue to receive all required initial and refresher EHS training in an effective and timely manner.

OEHSC Training Division

The 2006 staffing included a Director of EHS Training and three EHS Training Specialists. Two of the Specialists primarily conduct RTK training; one coordinates intranet enhancements, policy and procedure upgrades, and publications production. Two additional Specialists are to be hired. The Training Division continues to provide the majority of the Agency's annual Right-to-Know/Hazard Communication training for office workers. This module has been revised and enhanced to better address regulatory requirements as well as training content and delivery quality.

The EHS Training Division continued to review the bureaus' training modules as well as to pilot, implement and develop training modules to enhance future training initiatives. It wrote, updated and published its training materials and information relevant to the health and safety of all employees in V.I.E.W.S., the OEHSC quarterly employee newsletter, and on the OEHSC web site on *Pipeline*.

EHS Training Coordination Committee

The EHS Training Coordination Committee re-convened in 2006. The mission of this committee is to form working relationships among bureaus in order to ensure furtherance and enhancement of EHS training for all employees, regardless of title or job function. The following goals were accomplished:

- Maintenance of agency-wide communication and effective coordination of all training needs to ensure compliance and employee health and safety;
- Formation of the Web Campus Users Subcommittee to address agency usage, bureau requirements, etc.;

- Evaluation, update and electronic compilation of existing EHS training modules by the Training Module Review Subcommittee ;
- Continued evaluation of agency training needs in accordance with changing regulations and employee needs;
- Continued development, enhancement and standardization of training modules;
- Formation of the VIEWS Subcommittee to elicit agency-wide participation in DEP's quarterly employee newsletter;

Web Campus

DEP completed the transition to a centralized personnel/training database management system for EHS Training data management, recording and tracking (Web Campus). RMP training data was entered. OEHSC worked with the Office of Training and Development (OTD) to roll out the system (Web Campus) to BWT and the Mission Support Bureaus (MSBs).

Con Edison-Based Employee Training

Over 3,500 DEP employees received awareness and competency training involving more than 40 programs throughout the agency. The Training Division has been assessing EHS Training modules for content, regulatory requirements and quality of training to address different learning styles in the agency. Enhancements to existing modules continue to be built into the areas of competency training; awareness training has been revised to reflect both regulatory requirements and agency policy standards. Training continued to be provided to new hires and to employees requiring refresher training.

Anti-Retaliation Training

DEP worked with a Consultant to develop training on (i) what constitutes retaliation; (ii) how to properly address EHS concerns raised by their staff; and (iii) what resources are available to supervisors seeking guidance on how to handle EHS and retaliation concerns. Beginning in June 2006, DEP provided this course to approximately 1500 supervisors in all of its bureaus.

Management Skills Training

In addition to supervisory training conducted by BHRA at various staff meetings and conferences, training is being developed by the BHRA Office of Training Development, in conjunction with DCAS, pursuant to the August 2006 Staff Development and Communication Plan. All supervisors will be instructed on key personnel management concepts, including the fundamentals of being an effective supervisor, how to manage different types of employees and conflict resolution.

Employee Rights and Responsibilities Training

A mandatory training program that focuses on employee EHS-related rights and responsibilities is being developed by the BHRA Office of Training Development, pursuant to the August 2006 Staff Development and Communication Plan. Employees will be instructed as to their responsibility to voice their EHS concerns and their right to do so without suffering adverse employment consequences. DEP wishes to communicate to all employees that DEP management really does value their participation in the EHS program and wants to hear *all* EHS-related concerns.

Employee Concerns Program-Related Training

The Employee Concerns Policy was enhanced to include bureau Employee Concerns Liaisons (ECLs) and On-Call Responders (OCRs), all of whom received training on their responsibilities. The revisions to this agency policy will be incorporated for all DEP employees within the agency RTK training module.

Disciplinary Training

In 2006, EHS Disciplinary Training continued to be provided as a joint OEHS-Office of Disciplinary Council (ODC) effort to ensure that all employees in supervisory capacities are aware of how to address EHS-related disciplinary issues. This training will be conducted on a quarterly basis for newly identified managers and supervisors.

Future Training Goals

OEHS will continue to work with OTD and the MSBs to identify any additional requirements of Web Campus. OEHS will continue to assess and audit existing training programs, both in-house and by outside sources for content and compliance accuracy; it will also assess toolbox EHS trainings to ensure compliance and employee understanding of such trainings.

Quarterly assessments and enhancements related to RMP training will commence; RMP training will be addressed as an agenda item by the Training Coordination Committee on a quarterly basis.

The Training Division will continue to address team development and data sharing among the bureaus. The formation of a Training Policy subcommittee will commence in early 2007 to establish written guidelines in an effort to standardize EHS training modules for the agency.

4.4 Implementation

By August 2004, BWS and BWSO had substantially implemented programs in 44 subject matter areas. OEHSC and bureau EHS continue to work to ensure that compliance with all tasks required for full implementation of a program is maintained.

As the EHS program was rolled out to the remaining bureaus, implementation tasks in these and other newly-identified subject matter areas were undertaken. BWT timely implemented the subject matter area and any interim measures due by December 2006.

4.5 Employee Programs

Environmental, Health and Safety Procedures

Employees may access the full text of any procedure in the “library” of the DEP Intranet site at <http://egov.nycnet/dep>. In addition, each employee has been provided with the EHS Handbook which summarizes the key elements of each procedure.

“Serious About Safety” Awards

In an effort to improve awareness and share information about environmental, health and safety compliance achievements throughout the agency, DEP continues to offer the *Serious about Safety* Awards Program, for which all DEP employees are eligible. This effort is intended to highlight the many individual accomplishments contributing to the agency’s implementation of a comprehensive EHS compliance program. Employees may be nominated by their supervisors for these awards. Award recipients receive a monetary award and certificate, and their EHS achievements are highlighted in agency-wide communications, including the employee newsletter, *The DEP Digest*, and *Pipeline*, the agency’s intranet site.

Employee Concerns Program

The Employee Concerns Program offers a vehicle by which DEP employees may report concerns relating to EHS issues at DEP without the fear of intimidation or reprisal. The *Employee EHS Concerns Procedure* outlines the process by which an employee who believes he has been told to do something that violates an environmental or health and safety law, or a requirement of probation, may transmit his concern by calling the toll-free 24-hour Employee EHS Concerns Hotline (800-897-9677). Within 24 hours, the concern/complaint is forwarded to an outside Investigator who contacts the employee and conducts a thorough inquiry into the matter. The Investigator reports his findings to a Committee that recommends to the Commissioner corrective action to be taken to resolve the concern. OEHSC tracks completion of all recommended actions.

Employees are encouraged to communicate any EHS concern by a toll-free telephone number (800-897-9677) that is available to them 24 hours a day, 7 days a week. They may also contact their bureau Employee Concerns Liaison (ECL), or they may call the Federal Monitor, A. Patrick Nucciarone, Esq., toll free, at 888-875-4800.

4.6 Facility Auditing

The OEHSC audit staff continued to conduct full regulatory compliance audits of BWS and BWSO facilities in keeping with the established auditing cycle based on the high, medium or low prioritization of these facilities. The primary objective of the DEP facility auditing program is to ensure that DEP facilities are in full compliance with all EHS laws and regulations. Auditing teams are composed of experienced environmental, and health and safety professionals who utilize EHS-specific audit software to identify action items or deficiencies that facility personnel must correct in order to achieve compliance with various EHS regulations.

Throughout 2006, in addition to identifying regulatory compliance concerns, the facility audits provided OEHSC auditors with an opportunity to gauge the effectiveness of recently implemented EHS standard operating procedures as well as other components (e.g., employee training) of the Compliance Action Plan (CAP). Information obtained from the audits enabled OEHSC to identify trends in compliance that proved to be useful in the revision of the agency's EHS programs.

By the close of 2006, the OEHSC auditors had conducted full compliance audits and spot audits of approximately 319 BWS and BWSO facilities: two (2) cycles of twenty – three (23) high priority facility audits, the initial cycle of sixty-six (66) medium priority facility audits and three (3) cycles of verification spot audits. BWS and BWSO had corrected 97% of deficiencies identified during these audits.

During 2006, OEHSC began conducting full regulatory compliance audits of the MSBs offices in the Lefrak High and Low Rise Buildings. High Priority Assessments (HPAs) of BWT and certain MSB facilities were conducted by Areva. The purpose of the HPAs was to identify any serious environmental, health and safety issues while the Bureaus were in the process of developing and implementing their EHS programs.

OEHSC auditing practices were also strengthened with the provision of specialized training to its auditors on various compliance issues, e.g., electrical safety. In addition, when necessary, special meetings were held with Bureau and facility representatives to discuss and clarify regulatory issues and to identify feasible measures for meeting compliance requirements. Other meetings, such as the opening and closing audit conferences, provided useful opportunities for auditors to obtain insight into facility operations and to discuss action items before issuance of the formal report.

It is expected that, in 2007, the audit program will continue to be the key mechanism for the identification of agency-wide and facility-specific compliance issues. In its integral role of ensuring the agency's compliance with EHS requirements, OEHSC looks forward to maintaining a vibrant compliance monitoring program, to providing useful information on the comprehensive EHS program and to promoting an environment that facilitates the sharing of ideas and information in effort to improve the EHS program.

4.7 Staff Development and Communication Plan

DEP commenced implementation of its August 1, 2006 Staff Development and Communication Plan, developed to expand and institutionalize DEP efforts to encourage both line employees and supervisors to integrate EHS principles into their daily job tasks, to provide opportunities for employees to voice EHS concerns, and to instill confidence in employees that such concerns would be addressed promptly, fairly, and without retaliation.

The Plan includes 1) enhancements to Training, including Anti-retaliation training, Management Skills training, and Employee Rights and Responsibilities training (see discussion of such training in Section 4.3 above); 2) outsourcing of the EHS Employee Concerns Hotline (see Section 4.5 above); 3) a review of the disciplinary process; and 4) an EHS and anti-retaliation communications campaign to be developed by BCIA which affirms DEP's core EHS values.

4.8 Contract Management Plan

DEP has taken steps to seek greater internal efficiencies in letting contracts, with special focus on those necessary for EHS requirements. This Management Plan outlines initiatives, both current and future, consistent with the procurement rules, to streamline the process from the time a need is identified to the time a contract is awarded. Areas addressed include information management, training, staffing, bureau collaboration, alternatives to competitively bid contract procurement and coordination with outside agencies.

4.9 Regulatory Compliance Analysis (RCA)

DEP's EHS Consultant, ABBL, commenced a review of BWT operations to determine whether they comply with applicable environmental laws and permits (including SPDES and Clean Air Act permit obligations) as well as with DEP environmental policies. ABBL developed a regulatory matrix identifying federal, state and city environmental regulations applicable to BWT operations and an assessment checklist in order to identify any compliance gaps at BWT facilities. It is anticipated that this review will be completed in late 2007, after which ABBL will provide compliance assistance.

4.10 Safe Drinking Water Act/State Sanitary Code Review

In early 2006, DEP retained a consultant to conduct a thorough review of (1) all reporting requirements related to drinking water quality standards imposed on DEP pursuant to the Safe Drinking Water Act and State Sanitary Code (SDWA and SSC); and (2) field sampling, field testing and related recordkeeping practices relating to samples and tests used for the purpose of determining compliance with the SDWA and the SSC outside of the City's distribution system. By the end of the year, a Reporting, Field

Sampling, Field Testing, and Recordkeeping Review, Phase II, with respect to the Distribution System, was completed as well. The consultant developed and assisted DEP in implementation of compliance programs to ensure adherence to all legal requirements covered by these reviews.

4.11 Review of BWT Labs

DEP initiated the process of retaining a consultant to evaluate for NELAC Compliance all operations and activities conducted by BWT laboratory personnel at the BWT Process Control, Microbiology, Special Projects and Field Process and Microbiology Laboratories. Upon completion of its review, the consultant will assist DEP in the development of comprehensive programs to ensure adherence to all legal requirements covered by the review; its assistance will include drafting SOPs, designing training materials, and assisting DEP in implementing a recordkeeping system.

4.12 Spill Prevention Program

DEP continues to implement and improve its spill prevention program. Spill prevention training provided to DEP employees and contractors working at DEP facilities, increases awareness of the types of activities that cause spills, explains agency and bureau requirements for reporting spills, and discusses initiatives for reduction of spills.

Practices such as pre-use inspections of equipment, proper labeling of valves and ports transferring or receiving chemical and petroleum products, installation of secondary containment devices, adherence by employees and contractors to preventive maintenance schedules and replacement of damaged or old equipment have been implemented. The bureaus continue to initiate additional measures such as the pre- and post-award review of contractors' spill histories, tracking spills by vehicle, staff and equipment relocation efforts and examination of CBS/PBS related spills.

OEHSC facility audits include an evaluation of compliance with spill prevention measures. OEHSC and the bureaus are monitoring and analyzing spill events, identifying their root causes, and developing and tracking corrective actions in order to determine what additional resources or steps may be required to prevent future incidents. Quarterly reports on these metrics are prepared by the bureaus and presented to the EHS Executive Oversight Committee, chaired by the Commissioner.

4.13 Legacy Assessments

The OEHSC Legacy staff manages the Legacy Assessment Program. DEP commenced the Program to identify and remediate, as appropriate, the presence of asbestos-containing materials (ACM), lead-containing paint (LCP), mercury-containing materials and polychlorinated biphenyls (PCBs) at 389 BWS and BWSO facilities, which may have utilized, stored or disposed of materials or equipment containing these contaminants of concern (COCs).

The facility assessments performed at each facility included: (i) performance of a walk-through assessment; (ii) preparation of a facility-specific work plan (FSWP) and health and safety plan (HASP); (iii) performance of detailed assessment; (iv) preparation of a facility specific assessment report (FSAR); (v) input of the assessment results into the Legacy Action Tracking System (LATS) database.

As of August 31, 2006, FSARs were finalized for all 105 staffed and 284 unstaffed facilities. The FSARs included 3350 recommendations. Responsibilities for corrective measures were assigned and corrective actions initiated. All recommendations from the FSARs were uploaded into the LATS database. Of these recommendations:

- 1856 (55 %) are for Paint Abatement,
- 643 (19 %) are to Manage ACM in Place
- 234 (7 %) are to Repair and Manage ACM in Place
- 382 (11 %) are for Mercury
- 90 (3 %) are for PCBs
- 59 (2 %) are for Other COC
- 64 (2 %) are for ACM Abatement
- 1 (< 1%) are for ACM Encapsulation
- 21 (1%) are for Other Lead

Recommendations from the assessments were categorized as follows:

1. Items that require immediate response because of potential employee exposure
2. Items that require some management activities and
3. Items that can either be incorporated into existing contracts or must go through the contract bid and award process to implement them.

BWS and BWSO are in the process of addressing action items identified during the assessments and tracking correction of those deficiencies on LATS. The following initiatives have been undertaken to address Legacy recommendations:

- Planning is underway to let contracts to conduct a paint abatement program at approximately 16 BWS and 2 BWSO facilities

- For locations with undamaged asbestos, “ACM Manage in Place” recommendations have been assigned to bureau EHS and/or facility Safety Officers, who have been trained to perform the required annual inspections in accordance with DEP Asbestos Management policy.
- Non-paint PCB and Mercury action items have all been assigned to Responsible Individuals. Bureaus are prioritizing these items with existing ongoing projects based on risk to employees and will be using currently available contracts to schedule remediation.
- ACM Repair, Abatement and Encapsulation have been assigned to the Asbestos Task Force (ATF).

Beginning in January 2007, OEHSC will audit remediation requirements during all regularly scheduled full regulatory compliance audits. Just as the OEHSC auditors now verify the completion of previously identified action items included in the AIT, they will conduct a review of the status of the facility’s Legacy assessment recommendations included in LATS. The results of this review will be included in the facility’s Audit Report.

OEHSC has convened a Legacy Coordination Committee (LCC) comprised of members from BWS, BWSO, BWT, Legal Affairs, and BHRA Facilities Management and Construction Services (FMC). The Committee’s goal is to ensure that Legacy implementation conforms to agency policies and procedures and that lessons learned from the BWS/BWSO Legacy assessments are applied as the Program is extended to BWT and the MSBs.

DEP has undertaken a competitive procurement for a Legacy consultant for BWT and the remaining bureaus. The solicitation is being bid as two separate contracts – one for the BWT WPCPs, and the other for the remaining BWT facilities and the MSB facilities; both contracts are proceeding contemporaneously. It is anticipated that the Notices to Commence Work will be issued by December 2007.

4.14 Risk Management Program/Process Safety Management (RMP/PSM)

The RMP/PSM Management Plan, developed in July 2006, detailed additional management initiatives to build on the progress BWS and BWSO had made in achieving compliance with RMP/PSM requirements and to ensure sustained compliance and a program of continuing improvement. By the end of 2006, DEP had made significant strides toward meeting the Plan’s staffing, MIS, employee participation, training and compliance auditing goals.

4.15 MIS Initiatives

DEP previously implemented several Information Technology systems to aid in managing the Agency's EHS programs. To facilitate document control and sharing of Legacy work plans and reports, the Legacy website (LATS) was developed. A web-based computer system, Web Campus, was developed to track and manage all training requirements, including those that are EHS-related. The Permit Management and Compliance Information System (PMIS) tracks and notifies personnel of their obligations to comply with air and water discharge permits, and reminds them of monthly, annual and other perennial environmental, health and safety compliance requirements. During 2006, these systems became operational for BWS, BWSO and BWT.

In addition, the Office of Information Technology (OIT) worked with BWS and BWSO to develop an RMP/PSM tracking system scheduled to be operational in 2007. The system will include a number of interconnected modules which will facilitate RMP/PSM compliance by tracking the following: correction of action items, progress on recommended process safety improvements; root causes and contributing factors identified in incident investigations; the implementation of recommended corrective actions; status of actions that may need to be completed upon a start-up; and the status of actions and associated training that may need to be completed after a change in process. It will also assist in the analysis of trends in incidents and equipment failures.

5. BUREAU ACHIEVEMENTS

DEP has focused, over the past several years, on rolling out a robust EHS program to two of its largest bureaus, BWS and BWSO, and both bureaus have made tremendous strides in implementing the program. During 2006, BWT successfully completed much training and many implementation tasks included in its Compliance Action Plan (CAP).

5.1 Bureau of Water Supply



EHS activities within BWS are performed by the Division of Regulatory Compliance and Facilities Remediation (DRCFR) and by EHS personnel from the East and West of Hudson Divisions (EOH and WOH) as well as the Division of Drinking

Water Quality Control (DWQC). EHS personnel from the DRCFR, East and West of Hudson Divisions and DWQC regularly interact.

Division of Regulatory Compliance and Facilities Remediation (DRCFR)

The chief point-of-contact for handling EHS issues within BWS is DRCFR which is staffed by 27 employees. DRCFR has primary responsibility for the development, implementation, and oversight of all BWS EHS compliance programs. The mission of DRCFR is multi-faceted: (1) to serve as the technical resource for all of BWS, as it achieves and maintains EHS compliance; (2) to provide emergency spill response and remediation at BWS facilities and to supervise contractors hired for hazardous waste/materials remediation and waste disposal; (3) to provide EHS training to BWS personnel.

East and West of Hudson District EHS Programs

Division personnel (3 EOH, 3 WOH) dedicated to EHS activities implement EHS programs developed by the Agency, conduct in-field assessments of EHS-related conditions at BWS Operations facilities, respond to inquiries regarding worker health and safety issues, provide training and other information sessions to Operations staff, develop EHS programs tailored to the Division's individual needs, work with personnel from state and federal agencies, and coordinate their efforts with other BWS or DEP EHS personnel.

Division of Drinking Water Quality Control

The mission of the Division of Drinking Water Quality Control (DWQC) is to ensure the quality of New York City's drinking supply. In order to accomplish this mission, DWQC performs extensive water quality monitoring and research. Specialized EHS personnel (2 who cover the Watershed Laboratory and Field Operations outside of New York City and 1 to cover the in-City Distribution Laboratory) have been assigned to work with Division personnel in the drinking water laboratory and field programs.

Bureau Accomplishments

Health and Safety

Bureau EHS Health and Safety initiatives included:

- Performance of workplace exposure assessments for carbon dioxide, mold, lead, wood dust, biosolids, noise, asbestos, and VOCs.
- Performance of indoor air quality, ventilation and ergonomic assessments in response to employee concerns.

- Performance of ongoing job hazard assessments as job requirements and tasks changed; assessments resulted in revised PPE requirements and/or the development of safe work practice guidelines.
- Development of Bureau-wide safety guidelines for employees required to work alone in remote locations.

Contracts

In calendar year 2006, DRCFR staff managed eight (8) Capital and Expense funded contracts totaling approximately \$11 million. Major accomplishments under these contracts included sump remediations, emergency spill responses and remediations, groundwater monitoring, chamber remediations, sample collection and analysis, employee medical monitoring, installation of employee evacuation alarms, development of spill prevention control and countermeasure plans, and paint abatement at 12 BWS facilities.

Upcoming contract work will involve paint and asbestos abatement at additional bureau facilities identified in the recently completed Legacy Assessment Program. Further, DRCFR continues to work jointly with BEDC on the development and implementation of the newly drafted \$9M paint abatement contract for approximately 16 facilities. This contract is expected to commence in late 2007.

Training

In 2006, Bureau EHS trained and/or coordinated training for more than 5000 attendees, which equated to each BWS employee's being trained in 5 courses over the year; training sessions addressed over 77 different topics. The Bureau, in coordination with OEHSC and the BHRA Office of Training and Development (OTD), commenced use and implementation of the Agency's Web Campus program for tracking of all facets of the Bureau's training program.

Division EHS staff (i.e. Operations, Water Quality, Land Management, etc.) continued to assist the EHS Training Section by providing formal and informal tailgate safety training sessions on topics such as Cranes & Hoists, Personal Protective Equipment (PPE), Right-to-Know, Confined Space, Blood borne Pathogens, and Control of Hazardous Energy – Lock Out Tag Out (LOTO). DRCFR staff assisted Bureau Management by participating in Employee Information Sessions covering Bureau EHS contracts, new spill prevention procedures, standard operating procedures (SOPs), and EHS policies recently implemented and/or modified and implemented by the Agency.

Audits

The Action Item Tracking (AIT) database, developed to track EHS deficiencies identified during audits, indicated that BWS had a total of 4089 action items, of which

3986 or more than 97% were corrected by the end of 2006. Of the remaining 103 action items, many are considered external or related to contract (long-term) work.

Spills

With continued emphasis on training, the percentage of BWS spills attributable to human error decreased. BWS has taken steps to further reduce its spills such as posting of additional signs at all BWS fueling stations, development of an ERR database to track spills, and issuance of directives concerning fueling procedures. Additional planned measures include pre-use checklists for heavy equipment, evaluating needs to replace older equipment and exploring options for indoor storage of heavy equipment during cold weather.

Risk Management Program/Process Safety Management (RMP/PSM)

After correcting the findings from audits conducted by consultants retained by DEP and the Federal Monitor, Bureau EHS worked on implementing the measures contained in the DEP RMP Management Plan, including an increase in staffing, development of information management systems, enhancement of employee training and participation, and planning for the joint OEHS/BWS/BWSO internal audit program.

5.2 Bureau of Water and Sewer Operations



BWSO's core mission is to operate, maintain and protect New York City's drinking water and wastewater (sewer) collection systems. The BWSO EHS division, created in January 2002, is staffed by 17 EHS professionals; it is responsible for overseeing EHS compliance within BWSO operations, conducting employee training, providing regulatory guidance and assistance, conducting and responding to facility regulatory compliance audits or assessments, and overseeing environmental remediation projects.

In addition to its “in-house” safety staff, BWSO has designated certain in-field facility personnel as Safety Officers. Safety Officers assist BWSO EHS staff by apprising them of concerns, providing input to and from the facilities, and providing support to BWSO EHS initiatives at the facility level. BWSO EHS staff holds regular meetings with the Safety Officers and Responsible Managers, during which they identify problems, recognize successes and provide a venue for educating these critical health and safety field representatives on EHS issues and policies.

Accomplishments

BWSO was deemed by the Court to have an effective compliance program in place and was released from the Federal Monitor’s supervision in October 2006.

Health and Safety

Health and Safety initiatives included:

- Performance of workplace assessments for mold, lead, asbestos, organic compounds, carbon monoxide and dust.
- Performance of ongoing hazard assessments as job requirements and tasks changed.
- Performance of 31 work zone safety evaluations, generating recommendations for improvements, where necessary.

Contracts

BWSO EHS oversaw the completion of a large remediation project involving the removal of 6 underground petroleum storage tanks. Additional work in 2006 included the submittal of a closure plan involving a full groundwater investigation to assess potential environmental impacts associated with the tanks.

The Environmental Compliance group also finished the planning for Contract 001B which will address environmental remediation of remaining groundwater stations in 2007. Work on this contract will begin in Spring 2007.

Bureau EHS managed the Medical Surveillance, Safety Shoe and Hearing Conservation programs and contracts. In addition, Bureau EHS was responsible for the management of 67 hazardous/non-hazardous waste projects through the Bureau’s HMHD 2004 and 2007 contracts.

Training

In 2006, BWSO EHS administered and/or coordinated (through the Con Ed Learning Center contract) training on over 40 environmental and/or health and

safety-related policies and procedures. In total, 3014 BWSO attendees were trained in 2006. A regular New Employee Orientation continued to be conducted.

The bulk of EHS training focused on Hazard Communication/Right to Know and EHS Awareness for both Field and Office Staff, and included site-specific requirements, as needed. Concurrently, BWSO conducted, for all employees, environmental policy awareness training sessions. The course informs employees of what policies are being implemented and how the policies affect their day-to-day activities. New or emphasized training initiatives in 2006 included:

- Development of a 5-day training module for a Water Operators course designed to assist the operators in obtaining or maintaining their licenses (hydraulics, mathematics, cross connections, water chemistry, and system operations).
- Training and education through toolbox talks, presentation of new materials at Safety Officer and Responsible Manager meetings, internal audits and pre-audit walkthroughs.
- Additional Tool Box trainings on Excavation, Trenching and Shoring Safety for all Field Operations locations and Bureau EHS Staff.
- Implementation of a 3 year refresher requirement in Traffic Work Zone Safety for all affected field personnel.

Audits

The AIT database indicated that BWSO had a total of 3974 actions items, of which 3827 or more than 96% were corrected by the end of 2006.

Spills

Bureau EHS responded to 63 spills in 2006. This was down from 74 in 2005. Although equipment failure is still the leading cause of spills, the overall number has decreased significantly.

Risk Management Program/Process Safety Management (RMP/PSM)

Bureau EHS devoted significant resources and effort to bringing the Reservoir Operations RMP/PSM program into compliance by making improvements in the areas of mechanical integrity, process safety, hazard analysis, management of process changes and incident investigations. Expanded Risk Management Program training was provided to Reservoir Operations Staff. Additional staffing will be added in 2007 in order to maintain the safety record of the two downstate chlorine facilities.

5.3 Bureau of Wastewater Treatment

In February 2006, DEP's EHS Program was formally expanded to include BWT. The EHS Compliance section was enlarged from a staff of 6 to a staff of 26 and supplemented by the addition of 18 Safety Engineers, assigned to the various plants and collection facilities. The role of the Safety Engineers at each facility includes the programmatic inspection of safety equipment and storage tanks, the dissemination of EHS information, tracking and reporting progress on correction of audit findings, acting as a point of contact at their respective facilities for staff questions and concerns, and ensuring that the overall goals of the EHS program are communicated to each facility.

Overall, much progress was made in creating and implementing an effective EHS program through the following accomplishments:

- The bureau developed, and is in the process of implementing its Compliance Action Plan (CAP) including a draft training matrix of topics and required attendees.
- Because there are different regulations governing maritime activity, an additional CAP is being developed for the Marine Section, which is charged with responsibility for the marine transport of sludge in New York City's waterways.
- High Priority Audits (HPAs) of the 14 Wastewater Treatment Plants, 94 Pumping Stations, Laboratories, managed Landfills and Crew Quarters were completed. Approximately 17,000 deficiencies were identified. By the end of 2006, approximately 9,100 had been corrected. These deficiencies are tracked and managed utilizing the DEP AIT.
- In order to assess BWT compliance with various regulations and permit requirements, consultant services have been procured to evaluate the following programs:

○ Environmental Compliance (RCA)	Underway
○ Marine Section	Underway
○ Water Sampling, Analysis, Lab Practices	Commence May 2007
○ Legacy Program	Commence December 2007
○ Biosolids	Underway
○ Landfill Closure	Underway
- In order to more effectively report water sampling conducted for process control, regulatory reporting and monitoring programs, BWT is preparing a Request for Proposals to procure consultant services for development and implementation of a Laboratory Information Management System. It is anticipated that the project will be bid by June 2007.

5.4 Other Bureaus

Other DEP bureaus (the Mission Support Bureaus or MSBs) identified bureau-specific EHS staff and began work to train staff and implement the DEP EHS programs. Either full regulatory compliance audits or HPAs of their facilities were conducted, and the bureaus are working to correct identified deficiencies. A full report on MSB EHS compliance accomplishments is disseminated annually on June 30.

6. CONCLUSION

In 2006, DEP expanded our EHS compliance program to the entire agency with the development of Compliance Action Plans for BWT and the MSBs. BWT and the MSBs have made significant progress in training their employees and completing the tasks required for implementation of the CAP subject matter areas.

BWS and BWSO continued to work to demonstrate that they have the systems in place to sustain compliance. In October 2006, the Court determined that BWSO had a truly effective EHS program and terminated the Monitor's oversight jurisdiction of BWSO. BWS will continue working in 2007 toward achieving that goal.

During 2007, DEP will strive to better integrate compliance into how we do our work from day to day. With the assistance of the Monitor, DEP will continue our efforts to change the culture of the agency from one that is focused mainly on delivery of services, to one that places equal value on how we treat the environment, our neighbors, and our employees in delivering those services.