NYC Department of Environmental Protection

EMPLOYEE ENVIRONMENTAL, HEALTH & SAFETY HANDBOOK

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NYC

OFFICE OF ENVIRONMENTAL, HEALTH & SAFETY COMPLIANCE

Employee Environmental, Health & Safety Handbook

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ENVIRONMENTAL

INTRODUCTION

The DEP Employee Environmental, Health and Safety (EHS) Handbook is an important part of our agency's EHS Compliance Program, one goal of which has been defined by Commissioner Ward as "to teach DEP employees to have concern for the environment and for worker safety while completing the critical task of delivering clean water to our City."

This handbook is comprised of summaries of the EHS policies and procedures developed by DEP EHS Committees made up of representatives from the Bureaus of Water Supply, Water and Sewer Operations, Environmental Engineering, Customer Services, Human Resources Management, Environmental Compliance, Wastewater Treatment, and Legal Services and the Office of Planning and Assessment, in conjunction with the Office of Environmental, Health and Safety Compliance (OEHSC) under the guidance of Assistant Commissioner Gerould McCoy.

The summaries are designed to be "plain language guides" to the more detailed policies, simply and clearly listing key procedures and the responsibilities of managers, supervisors and employees. The Handbook is not intended to replace the text of any policy or procedure. For further information, please refer to DEP Policies and Procedures, which are posted in the "library" of the DEP Intranet site at http://egov.nycnet/dep. You can also contact your supervisor, your Bureau EHS office, or OEHSC.

Please take some time to read through this document, and keep it available for reference. Even a quick skim of the Handbook will reveal the careful work done to devise these policies and underscore the important role every employee plays in making the DEP EHS program a success.

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1 Purpose

The purpose of this guide is to ensure that DEP employees and contractors are not exposed to airborne asbestos fibers above any regulatory standards and that they know the location of asbestos-containing material (ACM) or presumed ACM (PACM) in DEP facilities.

Only personnel with appropriate NYS/NYC Certification may perform asbestos abatement work that disturbs, removes, encapsulates, or repairs friable asbestos or cleans up waste and debris from ACM/PACM.

2 Key Responsibilities

The Responsible Manager must:

- Retain documentation on the location, testing and quantity of ACM or PACM (and data to rebut PACM) for the duration of facility ownership and transfer documentation to new owner, when required.
- Ensure that all employees receive awareness training on ACM location, hazards and appropriate work practices.
- Notify Local Program Administrator (LPA), Asbestos Task Force (ATF) and BEHS when ACM/PACM is reported to be damaged.

Local Program Administrator (LPA)/Competent Person must:

- Identify, inventory and communicate to employees and contractors existing asbestos hazards in the workplace and select appropriate exposure control strategy.
- Oversee custodial maintenance non-abatement work and implement training for those employees performing such work.
- Ensure labeling of all ACM and PACM or posting of warning signs.

- Conduct annual inspection of all ACM/PACM for any change in condition and maintain inspection records for as long as there is encapsulated asbestos at a facility.

Employees must:

- Notify their supervisors when damaged or deteriorated ACM/PACM is found.
- Not disturb any building material posted with asbestos warning labels.

3 Safety Rules

- Follow all prescribed work practices and all signs prohibiting entry.
- Do not disturb any material posted with ACM/PACM labels.
- Immediately notify Supervisor if any damaged or deteriorated ACM/PACM is found or if any unlabeled material is suspected to be ACM.
- An inspector certified by New York State and possessing a NYC DEP Asbestos Investigation Certificate must conduct the identification and assessment of ACM/PACM and provide written inspection reports.
- Asbestos hazards must be communicated through training and proper labeling.
- Abatement work must be performed in keeping with NYS/NYC laws.

4 Work Practices

Custodial Maintenance Non-Abatement Work

- Housekeeping activities that contact but do not disturb ACM/PACM (e.g., maintenance or cleaning of resilient flooring or ceiling tile) must be conducted by personnel with required awareness training.
- Sanding or stripping of ACM/PACM flooring material is prohibited.

Inspection, Repair, Assembly or Disassembly of Automotive Brakes or Clutches

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- Use dust control method such as Negative Pressure Enclosure/HEPA vacuum, low pressure/wet cleaning or equivalent method per 29 CFR 1910.1001 Appendix F.
- The Negative Pressure Enclosure/HEPA Vacuum Method encloses the clutch or brake assembly while providing negative pressure through a HEPA-filtered vacuum, impermeable sleeves and a view of the parts. Inspect for leaks and integrity before beginning. First, loosen the asbestos containing residue from the brake and clutch parts using the vacuum. Compressed-air may then be used to remove asbestos fibers or particles from the enclosure as long as the enclosure is kept under negative pressure.
- The Low Pressure/Wet Cleaning Method uses a catch basin under the brake assembly positioned to avoid splashes and spills and a reservoir with water and an organic solvent or wetting agent. Gently flood the brake assembly between the drum and support before removing the drum. After removing the drum, thoroughly wet the wheel hub and back of the brake assembly. Before removing the old shoes, thoroughly wash the support plate, shoes and attaching components. NEVER dry brush during low pressure/wet cleaning.
- Full filters (HEPA or wet washing filters, when used) are wetted with a fine water mist, then placed immediately in an impermeable container, labeled and disposed per 29 CFR 1910.1001(j)(4) and (k). Any releases from inside of the enclosure or vacuum hose equipment or asbestos-containing aqueous solution/asbestos-containing waste material shall be immediately cleaned up and disposed of according to 29 CFR 1910.1001(k).
- If no more than 5 pairs of brakes or 5 clutches are inspected, disassembled, reassembled and/or repaired per week, an alternative wet method is allowed. Use a spray bottle, hose nozzle, or other fine mist of water or amended water or use another low pressure water delivery system to first thoroughly wet the brake and clutch parts. Then wipe brake and clutch components clean with a cloth and place them in an impermeable container. Label and dispose as described above or launder the cloth in a way to prevent the release of asbestos fibers in excess of 0.1 fiber per cubic centimeter of air. Clean up any spills as described above.

5 For further information, see the following standard operating procedure:

- Asbestos Management


NEW YORK CITY DEPARTMENT OF
DEP
ENVIRONMENTAL PROTECTION

1 Purpose

The purpose of this guide is to minimize or prevent DEP employee occupational exposure to and/or infection from bloodborne diseases.

2 Key Responsibilities

The Responsible Manager must:

- Work with Bureau EHS to evaluate the workplace to determine if employees are at risk of occupational exposure to bloodborne pathogens.
- Assist in development of an Exposure Control Plan, where required, and ensure that affected employees receive training on the plan.
- Maintain and provide all necessary personal protective equipment (PPE), engineering controls, labels, and red bags as required by the BBP standard.
- Ensure that all occupationally exposed employees complete their hepatitis B vaccination requirements or sign a vaccination declination statement.

Supervisors must:

- Ensure that the Exposure Control Plan is implemented in their assigned areas and that the plan is understood and followed by those in their charge.
- In the event of an exposure incident, in consultation with Bureau EHS, initiate an Incident Investigation Report (IIR) and instruct the exposed employee(s) to report to an approved healthcare service within 24 hours for testing.
- Ensure that personnel exposed to infectious materials receive prompt medical attention and follow-up.

Employees must:

- Comply with policy procedures and exposure control plan.
- Become familiar with the hazards associated with their jobs.
- Use applicable safe work practices and PPE required for their facilities and field operations.
- Report to supervisor any exposure to infectious materials.

3 General Requirements

A written Exposure Control Plan (ECP) is required for employees with an occupational risk of exposure to bloodborne pathogens.

An exposure determination must be made either by job classification or by tasks/procedures (i.e., duties) to identify all personnel for inclusion in an ECP (e.g., employees who are designated to provide first aid as a primary or collateral duty are included in the ECP; personnel trained in CPR or first aid but who are not required to perform such activities as part of their employment are not included).

4 Exposure Control Plan

The Exposure Control Plan must address the following:

- Tasks, procedures and job classifications in which occupational exposure to blood occurs.
- Universal precautions, engineering and work practice controls, and PPE.
- Hepatitis B vaccinations.
- Communication of hazards to employees, post-exposure evaluation and follow-up, and recordkeeping.
- Hand washing and decontamination procedures following exposure to BBPs.
- Methods for labeling and managing contaminated laundry and other regulated waste.
- Procedure for evaluating circumstances surrounding exposure incidents.
- Training, recordkeeping and accessibility of plan to employees and availability to outside agencies.

5 Training and Recordkeeping

- Training must occur within 90 days of the Exposure Control Plan's effective date, initially upon assignment and annually.
- Medical records are to be kept for each employee with occupational exposure for the duration of employment plus 40 years, must be confidential and must include name and social security number; hepatitis B vaccination status (including dates); results of any examinations, medical testing and follow-up procedures; a copy of the healthcare professional's written opinion; and a copy of information provided to the healthcare professional. HBV declination records will be maintained by Bureau EHS.
- Training records must be maintained for three years and must include dates, contents of the training program or a summary, trainer's name and qualifications, names and job titles of all persons attending the sessions.

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- Medical records must be made available to the subject employee, anyone with written consent of the employee, and PESH.
- Injuries from sharps must be recorded in the Sharps Injury Log. Entries into the log must include the following information:
  - The date of the injury.
  - The type and brand of the device involved.
  - The department or work area where the incident occurred.
  - An explanation of how the incident occurred.

6 For further information, see your bureau, workgroup or task-specific exposure control plan and the following standard operating procedures:

- Bloodborne Pathogens
- Medical Consultation and Exposure/Medical records

Health & Safety	Confined Space Entry	November 2004

1 Purpose

The purpose of this guide is to protect employees from hazards of working in confined spaces such as aqueducts, manholes, water tanks, vaults, shafts etc. Hazards include atmospheric (oxygen deficient, toxic and explosive) and physical (engulfment).

2 What is a Confined Space?

- A confined space is any area large enough and so constructed that an employee can enter (partially or whole-body) and perform assigned work; has limited or restricted means for entry or exit; and is not designed for continuous employee occupancy.
- A permit-required confined space (PRCS) contains a recognized or potential health or safety hazard and must have a posted sign which states: DANGER- PERMIT-REQUIRED CONFINED SPACE – DO NOT ENTER!
- At a minimum, entry in permit-required confined spaces requires an entry permit, entry supervisor, an attendant, an entrant, atmospheric monitoring, forced ventilation and provision for rescue. For non-permit confined spaces (without recognized or potential hazards), entry requires atmospheric monitoring, one (1) attendant and one (1) entrant. All employees must be appropriately trained before entering permit-required or non-permit confined spaces.

3 Key Responsibilities

All employees must understand what confined spaces are and that they should not enter confined spaces unless they are under the Confined Space Entry program.

The Responsible Manager must**:**

- Select a Local Program Administrator who ensures that the Confined Space Entry program is implemented and maintained at the facility/workgroup level and that training is provided.
- Provide adequate resources (proper equipment and training) for safe confined space entry.
- Coordinate with any DEP staff managing contractor activities that involve permit-required confined space entry.

Entry Supervisor must:

- Know the hazards that may be faced during entry, including the mode, signs and symptoms, and consequences of any exposure.
- Verify that all tests specified by the permit have been conducted and that all necessary procedures and equipment are in place before endorsing the permit and allowing entry to begin.
- Terminate the entry and cancel the permit when required.
- Verify that rescue services are available and all means of summoning them are operable.
- Remove unauthorized individuals who attempt to enter the permit space during entry operations.
- Determine that entry operations remain consistent with terms of the entry permit and that acceptable entry conditions are maintained.
- Ensure that entry permit is properly completed and filed after entry is complete.

Attendant must:

- Adhere to the confined spaces program as required and in keeping with training received.
- Know the hazards that may be faced during entry, including information on the mode, signs or symptoms and consequences of any exposure.

- Be aware of possible behavioral effects of hazard exposure in authorized entrant(s).
- Continuously maintain an accurate count and identification of authorized entrants in the PRCS.
- Remain outside the PRCS until relieved by another attendant.
- Communicate with authorized entrants as necessary to monitor entrant status and to alert entrants to the need to evacuate the PRCS.
- Monitor activities inside and outside the space to determine if it is safe for entrants to remain in the PRCS.
- Order the authorized entrants to evacuate the PRCS immediately if conditions are hazardous or safety and health are compromised.

Entrant must:

- Adhere to the confined spaces program as required and in keeping with training received.
- Know the hazards that may be faced during entry, including information on the mode, signs or symptoms and consequences of any exposure.
- Properly use equipment per manufacturer's specifications and training received.
- Communicate with attendant as necessary to enable the attendant to monitor entrant status and to enable the attendant to alert entrants to the need to evacuate the space.
- Alert the attendant when warning sign or symptom of exposure to a dangerous situation is recognized or a prohibited condition is detected.
- Exit from permit space whenever ordered to do so, when a warning sign or symptom of exposure is recognized, a prohibited condition is detected or evacuation alarm is activated.

4 For further information, see the following standard operating procedures:

- Confined Space Entry
- Hot Work
- Personal Protective Equipment
- Control of Hazardous Energy Lock Out/Tag Out
- Traffic Work Zone Safety

Health and Safety	Control of Hazardous Energy (Lock-Out/Tag-Out -LOTO)	November 2004

1 Purpose

The purpose of this guide is to ensure that before employees perform service or maintenance on a machine or equipment where the unexpected energizing, startup, or release of stored energy (for example water, steam, or electricity) could occur and cause injury, the machine or equipment is isolated, rendered inoperative and locked out.

2 Key Responsibilities

The Responsible Manager must:

- Ensure employees are trained, and retrained when there are changes in job assignment, equipment, new hazards introduced, or new procedures implemented.
- Provide LOTO-authorized employees with any required equipment, including unique pieces of equipment.
- Verify that appropriate training has been provided to affected employees working in the facility.
- Designate only authorized employees to write equipment- and/or machine-specific LOTO procedures.
- Ensure that whenever major replacement, repair, renovation, or modification of equipment is performed, the energy-isolating device is designed to incorporate a lockout device.
- Ensure that all construction and capital equipment projects have provisions in place to comply with the standard.
- Review and sign all completed annual inspections.

Supervisors must:

- Monitor and enforce the use of LOTO procedures.

- Ensure that all employees required to perform lock out and tag out are trained to the level of LOTO-authorized employee.
- Ensure that LOTO-authorized employees have the knowledge and skills required for the safe application, use and removal of energy controls.
- Provide each authorized employee with required safety equipment, and maintain records of distribution.
- Ensure that all personnel working on or near equipment requiring the use of LOTO procedures are trained to the level of "Affected Employee".
- Exchange information about DEP LOTO procedures with outside contractor supervisors.
- Ensure that their personnel understand and comply with outside contractors' LOTO procedures.

LOTO-Authorized Employees must:

- Lock out machines and equipment as required.
- Perform LOTO procedures in accordance with the DEP LOTO Program.
- Coordinate their activities with other LOTO-Authorized Employees when using group lock outs and for transfer ring locks and tags during personnel shift changes.
- Follow equipment-specific LOTO requirements.
- Check the work area to ensure that all personnel involved in the LOTO procedure are accounted for and located safely away from the equipment.
- Notify affected employees that service or maintenance has been completed and that the equipment is ready for use.

Affected Employees (Employees who do not perform the servicing or maintenance tasks for LOTO but who normally operate or work near equipment on which such servicing or maintenance is performed) must:

- Understand the purpose and use of lockout/tagout procedures.
- Never start or re-energize equipment that has been locked out/tagged out.
- Strictly adhere to all requirements of the LOTO program.

3 Types of LOTO

- General LOTO: The general LOTO procedure may only be used for equipment in which all equipment of the hazardous energy is easily isolated with a single action.
- Equipment-specific LOTO: A written equipment-specific LOTO procedure is required for any equipment or system that has more than one energy source or that does not otherwise meet all of the criteria of the general LOTO procedure.
- Group LOTO: If the number of workers performing maintenance activity makes it impractical for each of them to apply LOTO devices directly to the energy isolating device(s), a group LOTO may be used.

4 Procedure common to all types of LOTO

- When personnel or shifts change, the lock and tag of the arriving LOTO-authorized employee must be applied before the lock and tag of the departing employee is removed.
- Only the LOTO-authorized employee who applied them shall remove LOTO locks and tags.
- Personnel shall use the appropriate personal protective equipment (PPE) when performing LOTO activities.
- A lockable energy-isolating device shall be installed on equipment before personnel begin any service or maintenance work that could result in the unexpected release of hazardous energy. Non-lockable energy-isolating devices shall be designed or modified to accept a lock whenever equipment is replaced, new equipment is installed or a major modification is performed.
- Annual LOTO inspection shall be performed for each facility by an authorized Bureau EHS employee (must be someone other than the person utilizing the LOTO procedure being inspected).

5 Training

- Affected employees will be instructed in LOTO procedure and about the prohibition against attempts to restart or re-energize machines or equipment which is locked out, as part of safety orientation or EHS awareness training.

- LOTO-authorized employees shall receive training to recognize the applicable hazardous energy sources, the types and magnitude of the energy available in the workplace, the methods and the means necessary for energy isolation and control, and the requirements of the procedure.

6 For further information, see the following standard operating procedure:

- Control of Hazardous Energy (Lockout/Tagout – LOTO)

1 Purpose

The purpose of this guide is to ensure that DEP employees are provided with the information, equipment, tools and training for safe and effective evacuation and response in case of an emergency. The safety of personnel and the public is a higher priority than the protection of equipment or property.

2 Key Responsibilities

The Responsible Manager must:

- Select a Plan Administrator for each manned facility.
- Provide necessary resources (proper equipment and training) for foreseeable emergencies.

The Plan Administrator must:

- Develop, implement and annually review the facility-specific Emergency Action Plan (EAP) or Emergency Response Plan (ERP).
- Ensure that employees are trained on the EAP/ERP initially on hire or transfer; annually, as part of HazCom training; and when the plan changes or deficiencies are revealed in drills or evaluations.
- Conduct annual drills.

- Post emergency telephone numbers and evacuation plans showing exit routes, locations of alarms, and designated assembly areas.
- Ensure proper maintenance and operation of emergency phones, emergency lighting, evacuation routes, emergency exits, automatic fire/smoke doors, emergency evacuation alarm systems, and fire protection systems.
- Maintain required documentation on training, drills, and emergency lighting/alarm/fire protection equipment maintenance for at least 3 years.
- Be responsible for answering any questions from employees concerning the application of the EAP.

Facility Emergency Coordinator must:

- Coordinate notification to employees of emergencies and any necessary evacuation.

Special Assistance Aid must:

- Assist disabled persons during an emergency.

All Employees must:

- Report all emergencies in accordance with the emergency plan.
- Evacuate immediately upon being notified, by voice or alarm signal, to do so.
- Report to designated assembly areas and remain there until accounted for.
- Attempt to control ONLY incipient level fires or releases, if it safe to do so and if they are properly trained.
- Engage in “limited” response activities or emergency shutdown of their process, but only if present when event occurs and properly trained to do so.

- Follow emergency and evacuation plans during practice drills and actual emergencies.
- Have access to a copy of the EAP/ERP.
- Be informed of the physical, chemical and fire hazards to which they may be exposed.

3 Facility-Specific Emergency Plans

Facilities relying on outside emergency responders will have an **EAP** defining evacuation procedures.

Facilities with their own trained emergency response team will have an **ERP**.

Fire Prevention Plan (FPP) requirements will be integrated in the EAP/ERP (workplace fire hazards, their proper handling and control procedures, and available fire protection equipment and systems).

Contents of Plans include:

- Emergency evacuation procedures, routes and safe assembly points.
- Procedures for employees designated to operate critical facility operations before they evacuate.
- Emergency notification procedures including emergency phone numbers.
- Facility alarm systems and the meanings of individual alarm signals.
- Name of the Plan Administrator.
- Procedures to account for all employees after an evacuation.
- Rescue and medical duties for designated employees.

- A list of all major fire hazards; proper handling and storage procedures for hazardous materials and potential ignition sources and their control.
- Procedures to control accumulations of flammable and combustible waste materials.
- Procedures for regular maintenance of safeguards installed on heat-producing equipment to prevent the accidental ignition of combustible materials.
- The name or job title of employees responsible for maintaining equipment to prevent or control sources of ignition, fires or fuel source hazards.
- The name or job title of employees who may be contacted by employees who need more information about the plan or an explanation of their duties under the plan.

4 For further information, see the following standard operating procedures:

- Facility Emergency Action/Fire Prevention Plan or Emergency Response Plan
- Emergency Planning
- Hazard Communication/Right-to-Know Program
- Personal Protective Equipment

1 Purpose

The purpose of this guide is to ensure the proper training, maintenance, inspection and operation critical to working safely with cranes and hoists.

2 Responsibilities

The Responsible Manager must:

- Ensure that all employees operating cranes have the necessary training to safely rig and lift loads.
- Ensure that "before use" inspections are conducted. (Periodic written inspections must be conducted by designated crane maintenance groups or contractors).
- Maintain written records of inspections, tests and repairs and provide them when requested.

All employees must:

- Be familiar with the hazards related to operating or using cranes and hoists such as falling objects or heavy loads being lifted overhead.
- Never operate a crane or hoist unless crane operator trained.

- Never stand or pass under a load on a hook.
- Notify your supervisor immediately, stay out of the area and instruct others to stay away from the load, if you observe a suspended, unattended load.

3 Crane & Hoist Inspection

Visual inspections of cranes, hoists, or rigging must be performed by employees trained in Crane and Hoist operation. Annual inspections must be performed by those knowledgeable in crane maintenance:

- **Daily** visual "before use" inspection (for all operational mechanisms hydraulic systems, tanks, pumps, hooks, hoist chains and connections). Documentation of inspection IS NOT required. Cover items in Attachment B of the DEP Crane and Hoist Safety Procedure.
- **Monthly** visual inspection (for all hooks, hoist chains, ropes/cables) including a written certification that contains the date of the inspection, signature of inspector and any findings. Documentation of inspection IS required using the form in Attachment B of the DEP Crane and Hoist Safety Procedure.
- **Annually** for items covered under the daily and monthly inspections as well as bolts, units, brakes, gears, electrical components, drive gears sheaves, wire ropes and other components. Documentation of inspection IS required using the form found in Attachment C of the DEP Crane and Hoist Safety Procedure (or equivalent) and shall include the date of the inspection, signature of inspector and any findings.

4 General Safety Rules for Employees Using Cranes/Hoists

NEVER modify a crane without careful design review and load rating by a qualified engineer or the equipment manufacturer. The rated load of the crane must be plainly marked on each side of the crane, and if the crane has more than one hoisting unit, each hoist shall have its rated load marked to be clearly visible from the ground or floor.

Operators must:

- Safely operate cranes or hoists, and only operate equipment for which they are trained and which they are qualified and authorized to use.
- Conduct performance or functional tests of the cranes, hoists, or rigging prior to use.
- Select the correct rigging equipment for the job at hand.
- Inspect slings, fastenings and related attached equipment for damage and/or defects prior to each use and remove any or all from service if damaged or defective.
- Receive hand signals from only one person who is properly trained and knowledgeable.
- Never move a load over people and ensure that rated load capacity is not exceeded.
- Initially lift a load only a few inches to test rigging and balance.
- Never leave the position at the controls of a crane when a load is suspended.

Other Crane and Hoist requirements are provided in training, the DEP Crane and Hoist Safety Procedure and, in some cases, site-specific operating procedures.

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5 For further information, see the Personal Protective Equipment Assessment concerning crane use at the facility and the following standard operating procedure:

- Crane and Hoist Safety

1 Purpose

The purpose of this guide is to provide a safe and healthful work environment, prevent work-related repetitive stress injuries and ensure that workplace ergonomic hazards are assessed and addressed.

2 Key Responsibilities

The Responsible Manager must:

- Provide necessary resources to prevent work-related repetitive strain injuries (RSI) and have work sites evaluated in response to reports of such injuries.
- Ensure that appropriate employees receive Video Display Terminal (VDT) ergonomics training as part of HazCom/RTK training.

Supervisors must:

- Complete any required injury reporting and take action to correct identified problems in response to reports of symptoms of RSI.

Employees must:

- Understand VDT workstation ergonomic hazards associated with their jobs (as explained in HazCom/RTK training).
- Follow work practices to prevent RSI.
- Report any such injuries or any identified workstation design problems to their supervisors.

3 Citywide VDT Agreement and Mayoral Directive covers:

- Employees who operate VDTs for 20 hours or more per week.
- Standards for procurement of new VDT equipment.
- Required alternative work breaks of not less than 15 minutes every two hours.
- Assignment to alternative work of any employee physically incapable of operating a VDT.
- Provision of eye examination vouchers.
- Training.

4 Procedure

- Notify OEHSC when procuring new or remodeled work stations and ensure that they conform to the standards in Mayoral Directive 1-91.
- Assess existing work stations when there are complaints about work station design or symptoms of RSI. Although replacement may not be immediately possible, there should be modification such as the addition of accessories and adjustments to furniture or work practices to conform to the standards and improve work station comfort.
- Medical Management – when a work-related RSI occurs, it must be managed in accordance with the New York State Workers' Compensation Law requirements.

5 For further information, see the following standard operating procedures:

- Ergonomics
- HazCom/RTK
- Injury and Illness Reporting

1 Purpose

The purpose of this guide is to ensure that each DEP employee involved in excavation and trenching can recognize and avoid unsafe conditions. Excavation and trenching is recognized as one of the most hazardous construction operations. Potential hazards include falls, falling loads, hazardous atmospheres and incidents involving mobile equipment.

2 Key Responsibilities

The Responsible Manager must:

- Ensure the safety of employees entering an excavation or trench and make them aware of the potential hazards.
- Evaluate the work to be performed and determine the means of protection.
- Coordinate required training.
- Ensure that underground installations are identified and verified.
- Provide a Competent Person to properly identify and evaluate hazards.

The Supervisor must:

- Ensure that all employees entering or working near excavations are aware of the hazards of open excavations and the potential cave-in warning signs.
- Make a complete assessment of the trenching/excavation location to confirm the location of underground utilities and overhead lines.
- Ensure that all employees in the trench/excavation are protected from the potential of excavated materials or equipment falling or rolling into the excavation.
- Ensure that a Competent Person is available to determine the protective systems and inspect as required and that his authorization to take any necessary prompt corrective actions is recognized.

The Competent Person must:

- Be trained to identify existing and predictable hazards or working conditions which are unsanitary, hazardous or dangerous to employees.
- Ensure that all other related and necessary programs (e.g. LOTO, Confined Space Entry, Work Zone Safety, PPE, etc.) are implemented as required to maintain a safe work place.
- Perform inspections of excavations and adjacent areas, determine if special safety measures are required, and advise all employees in the excavation to immediately exit the trench if there are warning signs of failure.
- Maintain completed inspection checklists for at least 30 days.
- Determine if existing shoring/shielding equipment/system is adequate for employee protection.
- Conduct soil classification prior to the start of work.

- Examine excavations less than 5 feet deep that will be entered without protective systems to first determine that there is no indication of a potential cave-in.
- If an excavation exceeds 5 feet, be present whenever personnel enter the excavation; if excavation exceeds 4 feet, determine the potential for hazardous atmosphere/oxygen deficiency.

Employees must:

- Report suspected unsafe conditions or equipment to the competent person.
- Work in accordance with the provisions of this policy.
- Constantly remain aware of the signs of trench wall failure, such as tension cracks, ground settlement, changes in wall slope, distress, water seepage, etc.
- Exit the trench/excavation immediately when told to do so by a Competent Person or when there are warning signs of failure.
- Not enter any trench/excavation determined or suspected to be unsafe.

3 General Excavation & Trenching Requirements

- Underground utilities shall be determined and marked out prior to opening an excavation (contact the NYC or NYS "one-call" center to locate underground utilities/installations at least 2 days but no longer than 10 days before digging).
- Barricades, walkways, lighting and posting shall be provided as necessary for the protection of the public prior to the start of excavation operations.

- Stairs, ladders or ramps shall be provided where employees are required to enter trench excavations over 4 feet deep. Lateral travel required to reach the means of egress shall not exceed 25 feet.
- All employees working in trenches or excavations shall wear approved personal protective equipment (PPE) such as hard-hats, steel toed shoes or boots, gloves and safety glasses.
- Employees shall not work in excavations that contain or can accumulate water unless precautions have been taken to protect them against the hazards posed by water accumulation.
- No employee shall be permitted underneath loads handled by lifting or digging equipment.
- Adequate protection shall be provided to employees from loose rock or soil that could pose a hazard by falling or rolling from an excavation face.

4 For further information, see the following standard operating procedures:

- Excavation and Trenching
- Personal Protective Equipment
- Confined Space Entry
- Hearing Conservation
- Control of Hazardous Energy (Lock-Out/Tag-Out)
- Respiratory Protection

Health & Safety	FDNY Certificate of Fitness & Related Permits	November 2004

1 Purpose

The purpose of this guide is to ensure that employees working with flammable liquids and gases or conducting other activities with the potential for causing a fire or toxic chemical release obtain permits and/or a Certificate of Fitness from the New York City Fire Department (FDNY).

The Certificate of Fitness is a written statement issued by the Commissioner of the FDNY, certifying that the person to whom it is issued has passed an examination and is therefore qualified to perform or supervise activities that by law or rule require certification for reasons of fire safety.

2 Key Responsibilities

The Responsible Manager must:

- Ensure that all required Certificates of Fitness & related FDNY permits are obtained and maintained current.

Supervisors must:

- Identify all tasks and materials that require supervision by a Certificate of Fitness holder.
- Ensure that employees holding a current Certificate of Fitness are available to conduct or supervise those activities where a Certificate is required.

Employees must:

- Not work with flammable liquid or gases, weld, grind, or conduct any other activity with the potential for causing a fire or toxic chemical release without obtaining a Certificate of Fitness.

3 Procedure

Certificate of Fitness is required for the supervision of:

- Chemical laboratories where flammable gases, solids, liquids, explosive materials, oxidizing materials, and reactive materials are used in testing, research, experimental or instructional work.
- Locations that are used for spraying, dipping, or immersing any article with flammable paints, varnish, or lacquers, or any other flammable or combustible substance, if the amount of substance used exceeds two (2) quarts per day or storage exceeds 20 gallons.
- Storage, use, and/or transfer of acids at all facilities having bulk storage of acids in tanks.
- Storage and use of flammable mixtures, combustible mixtures or paints.
- Storage and use of liquefied chlorine.
- Compression, generation, storage, and handling of all gasses when greater than 15 pounds per square inch (psi).
- Use of any air compressor that compresses air at pressures above 100 psi or having a total air receiver capacity of 30 cubic feet or more.

- Use of Liquefied Petroleum Gas (LPG) in manhole operations.
- Use of LPG heaters for tar kettles.
- Any use of LPG, regardless of quantity, and any storage in quantities requiring a permit.
- Any storage or use of flammable non-liquefied gases and combustible gases in quantities requiring a permit.
- Use of portable gasoline container.

Certificate of Fitness is also required for:

- Fireguards and operators of torches when using torch for construction, alteration, demolition or emergency torch operations (use of flammable gases for cutting and welding).
- Self-service dispensing of motor fuels at any DEP facility (must be observed by a Certificate holder).
- Connection and disconnection of LPG cylinders to powered industrial trucks.

4 For further information, see the following standard operating procedure:

- FDNY Certificate of Fitness and Related Permits


NEW YORK CITY DEPARTMENT OF
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Health & Safety	Hazard Communication/Right To Know (RTK)	November 2004

1 Purpose

The purpose of this guide is to ensure that information on the hazards and appropriate protective measures for all chemicals and toxic substances to which DEP employees and contractors may be exposed during use or in an emergency is available at the workplace, and that appropriate training is provided.

2 Key Responsibilities

The Responsible Manager must:

- Identify and inventory all hazardous/toxic substances in the workplace and develop a facility Hazardous/Toxic Substance List (HTSL) to be included in a binder with all related Material Safety Data Sheets (MSDS).
- Ensure that the NYS Right-to-Know (RTK) notice and "Job Safety and Health Protection" (DOSH-908 3-97) poster informing employees of their rights to information on effects of toxic substances are always posted.
- Ensure that employees know the location of the written HazCom/RTK program and the MSDS binder containing the HTSL.
- Provide and maintain records of initial and annual facility-specific training.
- Maintain, update and perform annual review of HTSL and MSDS binder to ensure that all hazardous/toxic substances used are listed and have an MSDS.
- Ensure that chemicals are properly labeled.
- Provide HazCom/RTK information to contractors via the Project Engineer and ensure that contractors provide MSDS for any new chemicals brought into the facility.

Employees must:

- Attend training and understand potential hazards associated with chemicals in their work area.
- Know the location of the written HazCom/RTK program and MSDS binder.
- Use in proper manner only those authorized chemicals on which they have been trained.
- Never remove chemical labels unless a container is empty.

3 Access

- The facility Hazardous and Toxic Substances List (HTSL), MSDS, HazCom/RTK Program and Training Manual must be accessible to all employees and contractors during their work shifts.
- When information is needed in the field away from the primary worksite, it may be provided by phone or radio.

4 Labeling Requirements

- All containers must bear labels containing identity of the chemical, hazard warnings, manufacturer's name and CAS number until the product's ultimate use or disposal.

- Small portable containers do not have to be labeled if used within the work area during the work shift by the employee transferring the substance.

5 Training

- All employees will be trained on the safe use of hazardous/toxic substances as appropriate to their work place. Facility-specific training must include: how to access and understand information in the HazCom/RTK program and MSDS binder, names and properties of hazardous/toxic substances in their work areas, proper use and exposure control measures, methods to detect a release and procedures for clean-up.
- All employees will be trained when assigned to a new facility and annually. Additional instruction will be provided when new hazards are introduced into their work areas or prior to their performing non-routine tasks.

6 Recordkeeping

- Bureau EHS will maintain all training records, including dates and names of the trainer and employees trained.
- RMs will retain all MSDS for products removed from use at a facility for 40 years.
- DEP will maintain for 40 years names, addresses and social security numbers of every employee who handles Subpart Z Toxic and Hazardous Substances.

7 For further information, see the following standard operating procedures:

- Hazard Communication/Right to Know (RTK)
- Hazard Communication/RTK Training Manual
- Bloodborne Pathogens
- Hazardous Waste Management
- Ergonomics
- Hazard Markings and Color Coding


NEW YORK CITY DEPARTMENT OF
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Health & Safety	Hazard Markings and Color Coding	November 2004

1 Purpose

The purpose of this guide is to help prevent injuries and illnesses by using hazard signs, labels, tags and color codes to allow employees to easily identify potential workplace hazards.

2 Key Responsibilities

The Responsible Manager must:

- Ensure that hazard-marking materials are procured and that all required markings, accident prevention signs, tags, and color-coding are properly applied.
- Coordinate with Bureau EHS and the Project Engineer/Contract Supervisor on construction/renovation activities to ensure that all hazards are identified and properly color-coded or labeled as appropriate.

Supervisors must:

- Ensure that all required markings, accident prevention signs, tags, and color-coding required by this procedure are legible and repair or replace them, as necessary.

Employees must:

- Recognize and understand the various types and meanings of markings used to identify workplace hazards, as communicated in new hire and annual refresher HazCom/RTK training.
- Observe and follow all warnings and instructions provided by signs, tags, labels, or color-codes at their work places.

3 Safety Color Codes

When hazard signs are required, standard color-coding must be used:

- YELLOW for caution and for marking physical hazards; also as the standard color for items such as storage cabinets for flammable materials and containers of flammable or combustible liquids.
- RED for fire protection equipment and apparatus, emergency stop buttons on hazardous machines, and danger signs.
- GREEN to designate the location of first aid and safety equipment.
- BLACK/WHITE in stripes or checks for housekeeping and traffic markings.
- BLUE on informational signs and bulletin boards not pertaining to safety.

4 Accident Prevention Signs

Signs conveying hazard information to employees must have rounded or blunt corners and be free from any sharp projections; they should be placed as close to the hazard as possible to link the message with the hazard.

- **Danger**: immediate danger - special precautions necessary. Colors: red, black, and white.
- **Caution**: potential hazards or caution against unsafe practices. Colors: black and yellow.
- **Safety Instruction**: general instructions on safety. Colors: green, white and black.
- **Slow-moving vehicle emblem**: for vehicles which move slowly (25 m.p.h. or less) on public roads. Colors: fluorescent yellow-orange triangle with dark red border.

5 Accident Prevention Tags

- Used to prevent accidental injury or illness to employees who are exposed to hazardous conditions, equipment or operations which are unexpected or not readily apparent.
- Types include *Danger* for major hazards, *Caution* for minor hazards, *Warning* for hazards between "*Caution*" and "*Danger*", and *Biological Hazard* for biological hazards.

6 Identification of Piping Systems

All hazardous piping at DEP facilities must be labeled with the contents. For piping that is unlabeled, the contents must be communicated to employees in HazCom training.

7 For further information, see the following standard operating procedures:

- Hazard Markings and Color-Coding
- HazCom/RTK


NEW YORK CITY DEPARTMENT OF
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Health & Safety	Hearing Conservation	November 2004

1 Purpose

The purpose of this guide to prevent temporary or permanent noise-induced hearing loss to employees from work-related activities. The guide is of particular importance to employees exposed to noise levels above the OSHA action level [8-hour time-weighted average (TWA) of 85 decibels (dBA)] or exposed to impulsive or impact noise at or above 140 dBA.

2 Key Responsibilities

The Responsible Manager must:

- Implement and maintain recommended engineering and administrative controls to attenuate noise levels.
- Implement a noise monitoring program where action levels are exceeded.
- Procure appropriate hearing protective devices, maintain noise survey records, and communicate hearing protection requirements to employees, visitors, and contractors.

Supervisors must:

- Inform employees when they are exposed to an 8-hour TWA noise level of 85 dBA or greater.
- Ensure hearing protective devices are available to, used and maintained by employees.
- Enforce the use of engineering and administrative controls to attenuate noise levels.

Employees must:

- Wear and maintain hearing protective devices as instructed.

3 General Requirements

- Identifying areas with high noise levels by utilizing factors that suggest that noise exposures in the workplace may be at or exceed action levels: employee complaints about the loudness of noise, indications that employees are losing their hearing, or noisy conditions that make normal conversation difficult.
- Performing noise monitoring to determine if exposures are at or above the action level.
- Wherever possible, implementing engineering and administrative controls to attenuate noise levels.
- Where noise monitoring indicates that the action level is exceeded, and it is not possible to attenuate the noise through engineering and administrative controls, enter affected employees into the Hearing Conservation Program: components include yearly audiograms, training, providing and posting of the OSHA Hearing Conservation standard.
- Providing hearing protection devices to all employees and visitors exposed to noise levels above the action level.

4 Training

Employees enrolled in the Hearing Conservation Program must receive annual training which includes information on the effects of noise on hearing; the purpose, use and care of hearing protectors; and the purpose of audiometric testing.

5 Recordkeeping

DEP must retain all noise exposure measurement records for as long as there is no more recent test for the same area (recommended) and for a minimum of 40 years (required).

Audiometric test records and any employee notification forms issued must be retained for 40 years after the affected employee's employment.

6 For further information, see workplace, work Area, or job-specific noise assessments and the following standard operating procedure:

- Hearing Conservation


NEW YORK CITY DEPARTMENT OF
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Health & Safety	Hot Work	November 2004

1 Purpose

The purpose of this guide is to provide information to minimize the potential for creating fire or explosion during or after Hot Work (HW) activities. HW is any work that uses an open flame, sources of heat or ignition that could ignite materials in the work area or cause an explosion.

A Hot Work Permit (HWP) is a document issued by the authority having jurisdiction for the purpose of authorizing performance of a specified hot work activity.

2 Key Responsibilities

The Responsible Manager must:

- Communicate hazards of HW and DEP requirements to employees and contractors.
- Ensure that cutters or welders and their supervisors are properly trained and certified to do all HW activities.
- Ensure that a suitable trained Permit Authorizing Individual (PAI) and Certified Fire Watch is provided, if needed.
- Maintain and retain completed Hot Work Permits for 30 days.

Supervisors must:

- Recognize when jobs may result in HW and initiate HWP procedures.
- Determine that the HW operator has secured safe working conditions, safe welding or cutting equipment and the applicable certification.
- Ensure Fire Watches are available when required.

Permit Authorizing Individuals (PAI) must:

- Conduct site inspection and provide HW authorization.
- Identify site-specific hazards for HW operations.
- Determine if HW operators and Fire Watches have secured safe working conditions.
- Determine if a Fire Watch is needed at the site. Where no Fire Watch is needed PAI will make a final inspection of the work site ½ hour after HW has ended to detect any potential fire hazard.
- Ensure that appropriate PPE, safe equipment and applicable fire suppression systems are available.
- Determine if proper Lockout / Tagout has been performed prior to start of work.

Hot Work Operator must:

- Handle equipment safely, using it so as not to endanger lives or property.
- Have PAI approval before starting HW operations and use the required PPE, shields and ventilation.
- Examine all equipment for safe operation and cease HW if an unsafe condition develops.
- Post HWP at the work location for the duration of the HW.

Fire Watch must:

- Have the required training and certification, and the ability to extinguish incipient level fires that may result from HW.
- Be aware of potential fire hazards in the HW area and maintain appropriate fire suppression equipment and a safe work site for the duration of the HW operation.
- Remain in the affected areas during the work and stop HW if unsafe conditions develop; inspect work site ½ hour after completion of HW.
- Be familiar with the facility's policies and procedures regarding HW.

3 Types of Designated Hot Work Areas

Permanent Designated Hot Work Areas (PDHWA):

- Where possible, PDHWA will be designated, such as a maintenance shop or a detached outside location. Areas should be of a non-combustible or fire-resistant construction and free of combustible and flammable materials; they should have appropriate and adequate ventilation and applicable fire suppression or extinguishing equipment. Bureau EHS will conduct an evaluation to designate a PDHWA and inspections will be conducted on an annual basis. Once a PDHWA is approved, no HWP is necessary as long as operators maintain the area according to the Designated Hot Work Area Approval Form.

Temporary Designated Hot Work Areas (TDHWA):

- TDHWA may be established by PAI inspection using the same conditions applied in designating a PDHWA. HWP is required to prevent any changes in the work area that could endanger the safety of the personnel or the work site. Any changes compromising the area must be immediately rectified before HW can continue.

HW in Non-Designated Areas:

- These areas require PAI approval and posted HWP, and must meet all conditions on the HWP prior to the start of work.

4 Special Conditions

Precautions must be taken when doing HW in confined spaces, near combustible atmospheres, in motor vehicle repairs shops and on field construction sites.

Confined Spaces: Confined Space procedures must be followed. All HW equipment must be removed when not in use; all gas cylinders must be stored outside of space; proper ventilation and retrieval equipment must be in place.

Combustible Atmospheres: Combustible atmospheres require air testing. All HW must cease if 10% Lower Explosive Limit (LEL) is reached.

Motor Vehicle Repair: If repairs are performed in a PDHWA, no HWP is required but a Fire Watch may be required and Vehicle Repair Safe Work Practices must be followed.

Field Construction: HWP is not required if the work is conducted in an open area.

Hot Work activities are prohibited where fire suppression systems are inoperable or compromised and in hollow spaces or containers unless they have been vented or purged of any known hazards or gases.

5 For further information, see the following standard operating procedures:

- Hot Work (including Vehicle Repair Safe Work Practices)
- FDNY Certificates of Fitness and Related Permits
- Confined Space

Health & Safety	Injury & Illness Investigation and Recordkeeping	November 2004

1 Purpose

The purpose of this guide is to allow DEP and other government agencies to assess occupational illness and injury rates for DEP and to prevent recurrences of such injuries and illnesses by investigating major incidents, identifying root causes and taking corrective actions.

2 Key Responsibilities

The Responsible Manager must:

- Update the Log of Work Related Injuries and Illnesses (SH 900).
- Post the Injury and Illness Annual Summary (SH 900.1).
- Initiate incident investigation procedures for major incidents.
- Implement corrective actions.
- Ensure all completed Injury and Illness Incident Report Forms (SH 900, SH 900.1 SH 900.2) are filed and maintained for at least 5 years.

Supervisors must:

- Immediately report any fatality or case of two or more hospitalizations to the Responsible Manager, Bureau EHS and OEHSC.
- Complete Injury and Illness Incident Report Forms.
- Assist in implementing corrective actions.
- Preserve a major incident scene and protect any evidence.

Employees must:

- Report to their supervisors all occupational injuries and illnesses, including any near-misses.

3 Injury or Illness Incident Reporting

- Each DEP establishment (location where employees report to work) must maintain its own injury and illness records. Each recordable injury or illness requires an Injury and Illness Incident Report (SH900.2), and is added to the Log of Work Related Injuries and Illnesses (SH 900). The Injury and Illness Annual Summary (SH 900.1) must be prepared and posted in a conspicuous location between February 1st and April 30th of each year.

- All work-related needle-stick injuries and cuts from sharp objects that are contaminated with another person's blood or other potentially infectious material must be recorded. Such injuries are treated as a "Privacy Concern Case".

4 Motor Vehicle and Boat Accident Reporting

- Employees must report any motor vehicle accidents to their supervisors immediately. If a Commercial Drivers License (CDL) holder is involved in a serious accident resulting in loss of life or a moving traffic violation under state or local laws, the employee must immediately call the DEP Office of Discipline (718-595-4168) to report this. During off-hours, employees must use the 24-hour DEP hotline (718- DEP – 24HR).

- Employee must complete NYS Form MV-104 within 48 hours of any accident and submit to the Fleet Services Risk Manager at 718-610-0700, who will determine whether the accident qualifies for submission to NYS.

- Boating accidents on navigable waters under the jurisdiction of the US Coast Guard are subject to Coast Guard reporting procedures. The DEP captain of the vessel or captain of the port must complete the Coast Guard Report of Marine Accident, Injury or Death and deliver to US Coast Guard as soon as possible.

5 PESH Reporting

The OESHC Assistant Commissioner will report to the nearest PESH Office within 8 hours after death of any employee from a work-related incident or the in-patient hospitalization of two or more employees as a result of a work-related incident.

6 Incident Investigation Process

An Incident Investigation Report (IIR) must be completed for major incidents and some minor incidents, when required. The investigation will focus on identifying the causes of the hazards, risks associated with the hazards and the selection of controls/corrective actions.

7 For further information, see the following standard operating procedures:

- Injury and Illness Investigation and Recordkeeping
- Bloodborne Pathogens


NEW YORK CITY DEPARTMENT OF
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Health & Safety	Lead Management	November 2004

1 Purpose

The purpose of this guide is to provide information to employees about the sources and hazards of lead, to provide procedures for exposure control, handling, cleanup, and disposal of lead-containing materials, and to prevent employee exposure to lead at levels above the OSHA Action Level (AL) of 30 micrograms/cubic meter as a Time Weighted Average (TWA).

2 Responsibilities

The Responsible Manager must:

- Notify Bureau EHS before starting work where a reasonable possibility exists that any employee may be exposed to lead and request an exposure determination.
- Maintain a copy of all lead exposure determinations performed.
- If facility lead data exists, maintain a copy of the inventory of known lead and lead-containing materials and tests of materials.
- Ensure that employees and contractors performing low-risk maintenance jobs are informed of and use the work practices outlined in the Lead Management policy.
- Notify Bureau EHS when previously unknown lead or lead-containing materials are discovered, when the condition of these materials requires abatement or when there is a change in work activities that could result in exposure above the AL or Permissible Exposure Limit (PEL).
- Minimize the use of lead as a sealant for pipe joints, especially the pouring of molten seals, and minimize the disturbance of existing lead piping and lead-containing paint.

The Supervisor must:

- Notify the RM when previously unknown lead or lead-containing materials are discovered, when the condition of these materials requires abatement or when work activities change that could result in exposure above the AL or PEL.
- Ensure that any additional protective measures identified during an exposure assessment or written compliance program are fully implemented.
- Know the hazards of lead and when exposure can be anticipated.

All employees must:

- Be aware of the hazards of lead, including information on the mode, signs or symptoms, and consequences of lead exposure.
- Know the location of identified lead and lead-containing materials in the workplace.
- Unless authorized by the RM, not disturb painted surfaces, or equipment containing lead.
- Notify their supervisors when previously unknown lead or lead-containing materials are discovered, when the condition of these materials requires abatement or when there is a change in work activities that they believe could result in exposure above the AL or PEL.
- Receive lead hazard awareness training as part of the annual HazCom/RTK training.
- If they potentially could be exposed to lead at or above the AL on any one day, receive additional training in accordance with the OSHA lead standard before the initial job assignment and annually thereafter.

3 Lead Safety Procedures

- Employees will assume that all painted surfaces contain lead-based paint (defined as 1 mg/cm^2 or 0.5% by weight) unless there is information to the contrary. DEP Lead Management procedure contains a list of common job tasks where employees may be exposed to lead and the potential exposure level (high risk versus low risk tasks).

- The work practices detailed in the Lead Management procedure for low risk jobs will be followed when performing tasks determined to be "low risk."
- RMs will obtain an initial exposure determination when they believe any of their employees will be engaged in any jobs listed in the Lead Management policy as having the potential for exceeding the AL (e.g., melting Lead to seal pipe, cutting Lead pipe, etc.) or in any tasks with a potential exposure level deemed as "high risk" in a facility that may contain lead paint.
- If the initial exposure determination shows that an employee may be exposed over the AL, all work will be performed in accordance with requirements of the OSHA Lead Standard.
- DEP Hazmat personnel and individuals trained in lead clean-up techniques may clean up peeling/flaking lead-based paint and clear small lead surfaces for other work such as welding.
- Employees shall not perform the following prohibited activities:
    - Lead abatement.
    - Burning off lead-based paint.
    - Heat gun operation above 1,100 °F.
    - Dry machine sanding, grinding, or blasting lead-based paint without a HEPA vacuum exhaust tool.
    - Uncontained hydroblasting or high-pressure washing.
    - Compressed air blowdown of clothing or debris containing lead.
    - Welding on lead-painted surfaces in enclosed spaces unless paint is removed at least 4 inches from area of heat application.

4 Record Keeping

If an employee is exposed above the AL, records must be maintained in accordance with the DEP Medical Consultation and Exposure/Medical Records policy.

An entry on the SH-900 log must be made when an employee has a blood lead level that exceeds 50 µg/dl, has symptoms of lead poisoning, such as colic, nerve damage, renal damage, anemia, or gum problems and/or receives medical treatment to lower blood lead levels or for lead poisoning.

5 For further information, see the following standard operating procedures:

- Lead Management
- Personal Protective Equipment
- Hazard Communication/Right-to-Know
- Hazardous Waste Management

Health & Safety	Medical Consultation and Exposure/ Medical Records	November 2004

1 Purpose

The purpose of this guide is to provide information about how DEP employees' medical evaluation, exposure assessment and medical records are managed for both confidentiality and access by the current or future employee. Information is also provided on the availability of medical consultation and advice on matters of occupational health.

2 Key Responsibilities

The Responsible Manager must:

- Provide a copy of the OSHA Standard, "Access to Employee Exposure and Medical Records" to employees upon request.
- Maintain and provide employees access to copies of the "Sample authorization letter for the release of employee medical record information to a designated representative (Non- Mandatory)," and the standard titled, "Availability of NIOSH registry of Toxic Effects of Chemical Substances (RTECS) (Non Mandatory)".
- Ensure that employees are aware of exposure monitoring records.
- Ensure that any informational materials provided by OSHA for communication to employees are promptly distributed.

Supervisors must:

- Ensure that Bureau EHS is informed about any employee's need for medical advice and consultation on matters of occupational health.

Employees must:

- Inform their supervisors when they need medical advice, consultation on matters of occupational health and access to medical and exposure records.

3 Medical Monitoring and Exposure Assessment

- When medical monitoring or exposure assessments are performed to assess exposure to toxic chemicals or harmful physical agents, employees must be informed upon first entering into employment or an assignment, and at least annually thereafter, of their rights to access these records.
- Whenever baseline medical examinations are required by DEP or regulation for certain employee job assignments, they will be administered by the selected Health Care Professional (HCP) provider in accordance with all the applicable OSHA and DEP requirements.
- When required, follow-up examinations to determine any change in an employee's health status or to allow detection of ill health will be conducted with the frequency and scope established by the required regulation and other DEP requirements.
- Upon employee request for advice on matters of occupational health, Bureau EHS may recommend the DEP HCP; if this is declined or the HCP is not readily available, then access to the employee's personal physician will meet the requirements of the relevant OSHA standard.
- Bureau EHS will provide oversight and coordination to ensure that contracts are in place at all times with organizations that can provide an appropriate HCP, for consultation on matters of occupational health, medical examinations and records management.

4 Access to Records

- Bureau EHS must identify an employee to maintain and provide access to employee medical and exposure assessment records.

- Access to employee records is permitted to designated representatives, with the employee's written consent. Without the employee's consent, it must be stated, in writing, the record to be disclosed and the occupational need for gaining access to the records. Employee exposure records shall be provided upon request, in a reasonable time, place and manner as required by regulations.

- Bureau EHS shall, upon request, ensure employee access to employee medical records of which the employee is the subject, unless a physician representing DEP believes that the information could be detrimental to the employee's health.

- Upon request, Bureau EHS will ensure employee or designated representative access to analyses using exposure or medical records concerning the employee's workplace and conditions. Personal identifiers, whether direct or indirect, will be removed before access is provided, unless this is not feasible, in which case, access to the personally identifiable portions will not be provided.

- DEP shall provide the NYS Dept. of Labor and Public Employee Safety and Health (PESH) Administration with prompt access to employee exposure and medical records and analyses using exposure and medical records.

5 Recordkeeping

- Employee medical records shall be preserved and maintained for duration of employment plus forty (40) years.
- Employee exposure records including MSDS shall be preserved and maintained for at least forty (40) years unless otherwise specified by an occupational safety and health standard.
- Contract providers will be required to ensure that medical records for employees are kept confidential and are retained for the duration of employment plus 40 years.

6 For further information, see the following standard operating procedures:

- Medical Consultation and Exposure/Medical Records
- Hazard Communication/RTK Program
- Asbestos Management
- Lead Management
- Mercury Management
- Bloodborne Pathogens

Health & Safety	Mercury Management	November 2004

1 Purpose

The purpose of this guide is to provide information to employees about the sources and hazards of mercury; exposure control; handling and cleanup of mercury spills; and disposal of mercury residues.

2 Key Responsibilities

The Responsible Manager must:

- Minimize the use of equipment containing mercury whenever possible by procuring and using alternative equipment/ instruments.
- Provide mercury spill kits to safely contain spilled mercury where it is routinely used.
- Notify Bureau EHS of spills, and ensure that cleanup is performed only by trained employees.

Employees must:

- Be aware of the hazards of mercury communicated in General Safety Awareness training and facility-specific HazCom/ RTK training.
- Not disturb painted surfaces, thermostats, or equipment containing elemental mercury.
- In the event of a spill of mercury, avoid skin contact and inhalation, leave the immediate area, and report all spills **immediately** to RM or Bureau EHS.

3 Work Practices for Mercury-Containing Products

- Report painted surfaces with severe flaking or dust formation and avoid contact. No invasive action on painted

surfaces may be performed without following the DEP Lead Management Guidelines.

- Report when wall thermostats are vulnerable to damage in an area where regular material handling or heavy equipment use occurs.
- Avoid handling mercury-containing thermostats, thermometers, electrical or lab equipment, or fluorescent/UV/mercury vapor lighting unless authorized to do so, and report breakage of any mercury-containing devices.

4 Work Practices Where Mercury is Handled

- Only employees who are authorized, have job-specific training (either lab chemical hygiene or other appropriate training) and understand the hazards and proper procedures may work with mercury – PPE and MSDS information with specific instructions may be required.
- Mercury Spill Kits containing HgX® Mercury Decontaminant Powder must be available in each work area where unenclosed mercury containing equipment is present.
- Only personnel trained in mercury cleanup are authorized to clean up mercury spills.
- Skin and eye contact must be avoided.

5 Management of Mercury Above the DEP Ceiling Limit

- Bureau EHS must evaluate the presence of mercury in air, on surfaces and in sumps collecting groundwater or building drainage at all DEP facilities where it is believed that there may have been equipment containing large quantities of mercury.
- Where mercury breathing zone vapor readings are above DEP's ceiling limit of 0.025 mg/m^3, all personnel will immediately evacuate the area until readings are below the DEP ceiling limit.
- Only authorized personnel using suitable personal protective equipment (PPE) in accordance with the DEP PPE, Respiratory Protection and Mercury Management procedures may enter.
- Bureau EHS will post warning signs to prevent unauthorized entry.

6 Medical Monitoring and Access to Air Monitoring Results

- When DEP employees may have potentially been exposed above ceiling levels, DEP will provide employees with the opportunity for medical monitoring.
- The medical provider will communicate the results of the monitoring to the employee, DEP and NYSDOH.
- Bureau EHS will maintain exposure records for 40 years and provide employees and their representatives with access to air monitoring results for facilities upon request.

7 For further information, see the following standard operating procedures:

- Mercury Management
- Hazard Communication/RTK Program
- Medical Consultation and Exposure/Medical Records


NEW YORK CITY DEPARTMENT OF
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Health & Safety	Personal Protective Equipment	November 2004

1 Purpose

The purpose of this guide is to ensure that at all DEP workplaces where hazards are likely to exist, hazard assessments are performed of routine workplace activities as well as specialized activities or job tasks.

2 Key Responsibilities

The Responsible Manager must:

- Communicate hazards and Personal Protective Equipment (PPE) requirements to DEP and contract employees at the facility.
- Select and procure appropriate PPE according to the hazards identified.
- Conduct with Bureau EHS, training for supervisors and affected employees on hazards and appropriate PPE use.
- Keep copies of the final workplace assessments and forward all training documentation to the Bureau.

Supervisors must:

- Understand and communicate hazards to employees.
- Maintain administrative and engineering controls that prevent workplace hazards.
- Ensure proper PPE is used and maintained by employees.
- Monitor and enforce the use of applicable safe work practices and PPE as recommended by the hazard assessment.

Employees must:

- Know the hazards and duties of their positions.
- Use applicable safe work practices and the PPE required for facility and field operations.
- Use and care for PPE properly.
- Report new hazards in the workplace to their Supervisors.

3 Assessment by Workplace, Work Area, or Job

A workplace assessment must be done to determine if hazards are present, or are likely to be present that necessitate the use of PPE. There must be a written certification of this assessment that identifies:

- The workplace assessed
- The date of the assessment
- The person certifying the assessment
- The hazards found
- PPE selected

Before PPE is selected, it must be determined whether exposure to the hazard can be reduced or eliminated by using administrative or engineering controls. Hazards remaining after engineering and administrative controls are utilized may require head, eye, face, hand, foot and body protection based on specific job activities and the degree of the hazard.

4 Types of Assessments

Simple Facilities- One Assessment

At least one assessment must be performed per facility or field operation. Simple facilities may only need to perform one assessment that specifies PPE for the non-office work area (e.g., long sleeve shirt, safety shoes and safety glasses) and for routine tasks that require additional PPE (e.g., goggles for machining).

Complex Facilities – Assess Work Areas/ Work Groups

In facilities where hazards and activities differ based on building/activity (e.g., vehicle repair shop and a plant on same property), separate assessments should be performed for each part of the facility with a different hazard profile that may require different "ALWAYS USED" PPE.

Special Hazard Job Tasks – Assess Job Task

Separately assess individual job activities in cases where the job task or activity involves unusual procedures/ hazards, multiple hazards, higher inherent hazards or is believed to involve the potential for a very serious incident.

5 Training

All employees who are required to wear PPE must be trained to know:

- What PPE is needed
- When to wear PPE
- How to put on and remove PPE
- Limitations of PPE
- Proper care and maintenance of the PPE being issued

6 For further information, see the following standard operating procedures:

- Personal Protective Equipment
- Hearing Conservation
- Asbestos Management
- Mercury Management
- Lead Management
- Hazard Communication/RTK

Health & Safety	Powered Industrial Trucks	November 2004

1 Purpose

The purpose of this guide is to provide information for the safe operation and proper maintenance of Powered Industrial Trucks (PIT) (e.g. tow mowers, forklift trucks) used for material handling at DEP facilities.

2 Key Responsibilities

The Responsible Manager must:

- Ensure that only PIT approved for operation within a specified area are used.
- Ensure that all trainees using PIT are working under the direct supervision of persons who have the knowledge, training, and experience to train operators and evaluate their competence in the safe use of PIT.

Supervisors must:

- Ensure that the PIT under their responsibility are properly inspected and maintained in safe operating condition.
- Working with Bureau EHS, evaluate the area(s) where PIT are used to determine the atmospheric hazard classification.
- Ensure PIT are only operated in the environment and on surfaces for which they are designated by the manufacturer.
- Ensure that all employees who operate PIT have received appropriate training and are periodically evaluated (and re-trained, if necessary) by someone having the necessary knowledge, training and experience; and that training and evaluation certification records are maintained.
- Ensure that training of PIT operators covers location-specific criteria during training or during facility toolbox talks.
- Monitor employees for safe operation of PIT.
- Ensure that the manufacturer's mark or label indicating approval by the testing laboratory and any plates, tags, or decals identifying capacity, operation, and maintenance instruction are maintained in readable condition on every PIT.

- Never modify or allow employees to modify a PIT in any way that affects capacity and safe operation without manufacturer's prior written approval.

Employees must:

- Operate only equipment they have been trained and authorized to use.
- Conduct required pre-use inspections (prior to placing PIT into service each day/shift) per guidelines in the procedure or guidelines provided by the manufacturer.
- Operate all PIT in a safe manner.
- Immediately shut down all malfunctioning or unsafe PIT.
- Report all equipment defects and/or maintenance needs to their supervisors.
- Not modify a PIT or remove safety devices without specific instructions from their supervisor following approval by the manufacturer.

3 Safe Operation of PIT

- All DEP employees authorized to use PIT must operate them safely in accordance with DEP guidelines, operator training they have received, any facility-specific procedures and posted speed limits. PIT must only be used for the environment, atmospheres and surfaces for which they are designated by the manufacturer.

- No employee is expected to operate a PIT in need of repair, defective, or in any way unsafe; it must be immediately taken out of service until restored to safe operating condition. All defects must be reported to a supervisor.

- If maintenance is required, it must be performed by authorized DEP employees. The supervisor responsible for PIT maintenance and repair *must* ensure that those authorized to perform maintenance are trained and or knowledgeable in the maintenance requirements.

4 Training and Evaluation

- Employees must successfully complete training before being permitted to operate a PIT. The training program includes instruction and hands-on operational training on the types of PIT to be used by the employee, as well as an evaluation in the work place.

- Refresher training may be required, including an evaluation of the effectiveness of the initial training, to ensure that the operator has the knowledge and skills needed to operate the PIT safely. This may be required whenever an operator has been observed operating a PIT recklessly, has been involved in an accident or near-miss, or has been assigned to a different truck; or when the condition of the workplace changes.

- An evaluation must be conducted of each PIT operator's performance at a frequency of once every 3 years or less. The evaluation shall be conducted by a person with the knowledge, training, and experience to evaluate the PIT operator's competence. The evaluation shall be certified and include the name of the operator, the date of the evaluation, and the identity of the person(s) performing the training or evaluation.

5 For further information, see the following standard operating procedure:

- Powered Industrial Trucks


NEW YORK CITY DEPARTMENT OF
DEP
ENVIRONMENTAL PROTECTION

1 Purpose

The purpose of this guide is to protect the health of employees performing job tasks that can expose them to air contaminants with harmful dusts, fogs, fumes, mists, gases, smokes, sprays, or vapors above the OSHA permissible exposure limit (PEL) when effective engineering controls are not feasible.

2 Key Responsibilities

The Responsible Managers must:

- Provide respirator equipment/accessories to employees identified as exposed to hazardous or oxygen-deficient atmospheres.

Program Administrators must:

- Be qualified with appropriate training and/or experience for the proper selection, use, and maintenance of respirators and for implementation of the respiratory protection program.

- Work with the RMs of facilities and field operations with potential respiratory hazards to perform, document, review, and revise hazard determinations & respirator selection.

- Evaluate atmospheric hazards and recommend the implementation of feasible engineering and administrative controls to reduce worker exposure.
- Periodically review and update the program.

Supervisors must:

- Ensure that identified employees receive training, medical evaluation and respirator equipment/accessories appropriate to the nature of the hazard.
- Maintain engineering and administrative controls to prevent workplace hazards.
- Conduct inspections to ensure proper use of respirators.
- Provide suitable respirator storage and encourage proper maintenance of respirator equipment.

Employees must:

- Wear, use, store, inspect and maintain their respiratory protection devices in accordance with instructions and training received.
- Guard against damage to the respirator and immediately turn in to Program Administrator or Supervisor poorly fitting, damaged, defective or expired respirators.
- Report any symptoms of illness related to respirator usage or exposure to hazardous atmosphere and any medical signs or symptoms that may affect the ability to use a respirator.

- Be familiar with DEP policy on voluntary use (ONLY filtering facepiece dust masks are permitted for voluntary use).
- Notify supervisors of any problems with respirators or changes that may necessitate a new respirator fit test (such as weight change of 20 pounds or more, significant facial scarring in the area of the facial seal, major dental surgery, reconstructive or cosmetic surgery, or any other condition that might interrupt the face seal).
- Notify supervisors of any credible evidence (e.g. visual, odor or other indication) that an unknown substance may be present in the workplace.
- Never repair respirators, but return them to RM for replacement or repair by a trained technician.

3 Respiratory Program

In any workplace in which respirators are required, a written respiratory program with worksite-specific procedures for required respirator use must be developed and include procedures for:

- Selecting respirators for use in the workplace.
- Proper use of respirators in routine and reasonably foreseeable emergency situations.
- Medical evaluations of employees who must be found capable of wearing the selected respirator.
- Fit testing by trained personnel when employees are required to wear tight-fitting respirators. Fit testing must be done initially, annually, and when a change occurs that may alter respirator fit (e.g., major dental surgery, 20+ pound weight change).
- Cleaning, disinfecting, storing, inspecting repairing, discarding and maintaining PPE in a proper manner.

- Training employees in the proper use of respirators and the respiratory hazards to which they are potentially exposed during routine and emergency situations.
- Evaluating the effectiveness of the written program.

4 For further information, see the following standard operating procedures:

- Respiratory Protection
- Personal Protective Equipment and PPE assessment

1 Purpose

The purpose of this guide is to prevent illness and injury from biological hazards found in the workplace by ensuring that employees are advised of good hygiene practices and are given access to sanitary facilities and potable water.

2 Key Responsibilities

The Responsible Manager must:

- Ensure that employees have access to potable water and well-maintained sanitary facilities in any permanent place of employment (i.e., manned facilities).
- Inform affected employees of known hazards and good hygiene practices that can be used to prevent or minimize risk of illness.
- Refer to the Hazcom/Right-to-Know and/or PPE procedures, as applicable, for training on disease prevention.
- Provide appropriate PPE for specific jobs involving close contact with sewage.
- Ensure the facility is kept clean and free of rodents, insects and other vermin.

Employees must:

- Use applicable safe work practices and PPE required for their facilities and field operations, as communicated in training and by their supervisor.
- Report immediately to supervisor or RM any injury or illness that could have resulted from exposure on the job.

3 General Rules for Good Hygiene Practices

- Wash your hands well with clean water and soap before you eat or smoke and after work.
- Do not touch your nose, mouth, eyes, or ears with your hands, unless you have just washed.
- Keep your fingernails short; use a stiff soapy brush to clean under your nails.
- Always wear gloves when your hands are chapped or burned or you have a rash or a cut.
- Shower and change out of your work clothes before you leave work.
- Do not keep your soiled work clothes with your other clothes.

4 Additional Guidelines for Working in Proximity to Sewage

- Frequent, routine hand washing is the most important safeguard in preventing infection by agents present in sewage.
- Protective clothing (i.e., work clothes, coveralls, boots, and, when appropriate, gloves and plastic face shields) is recommended; such work clothes should not be worn home or outside the immediate work environment.

- Waterproof gloves should be worn by employees cleaning pumps or screens and handling wastewater, sludge, or grit.
- A basic series of three immunizations for Tetanus-diphtheria (Td) is recommended (for those who have completed the, series, a booster should be given every ten years). No other immunizations are routinely recommended at the present.

5 Prevention of Mosquito and Other Vector-Borne Diseases

The "NYC Procedures to Prevent the Transmission of Vector-Borne Diseases to City Employees and the Occupational Exposure to Pesticides and Related Chemicals Used to Control Such Diseases" (measures include long sleeves, long pants, socks, repellent and PPE for exposure to sources treated with pesticides) must be followed by employees who:

- Perform activities to control mosquitoes or other vectors.
- Maintain or inspect sites that may be treated habitats for such vectors.
- Have outdoor duties that result in possible occupational exposure to such vectors.

6 For further information, see the following standard operating procedures:

- Sanitation, Disease Prevention, and Hygiene
- Personal Protective Equipment and PPE Assessment
- DEP Hazard Communication/Right to Know
- NYC Procedures to Prevent the Transmission of Vector-Borne Diseases to City Employees and the Occupational Exposure to Pesticides and Related Chemicals Used to Control Such Diseases

1. Purpose

The purpose of this guide is to provide employees with information to protect them from exposure to traffic hazards during maintenance and utility roadwork, while allowing for safe use of the roadway.

2. Key Responsibilities

The Responsible Manager must:

- Provide adequate and approved equipment.
- Work with Bureau EHS to provide on-the-job and classroom training to all DEP employees authorized to work on roadway maintenance and utility operations.
- Identify when new tasks/conditions/hazards require a new or modified Temporary Traffic Control Plan.

Supervisors must:

- Ensure that employees under their supervision have received appropriate traffic safety training.
- Approve/develop traffic control plan.
- Ensure the availability and appropriate use of work zone safety equipment and accessories.

- Be aware of tasks requiring the use of traffic control devices and enforce the proper use of such devices.
- Ensure that equipment is maintained in a satisfactory condition.
- Coordinate with Bureau EHS on how to address Work Zone Safety hazards or other related concerns.

Employees involved in roadway work must:

- Maintain, inspect and store work zone safety supplies and accessories (i.e. signs, channeling devices, etc.) in a clean and safe manner.
- Inform supervisors when equipment is no longer in satisfactory condition.
- Inform supervisors of any safety concerns regarding the Work Zone Traffic Plan.
- Insure that the work zone set-up remains intact during roadway work.
- Inform supervisor of any hazards that they feel are not adequately addressed.
- Remain alert and attentive while working in traffic control situations.
- Always use protective, high visibility clothing in the work zones and wear required Personal Protective Equipment.
- Keep equipment and material in the work zone or a staging area.
- Use extreme caution while working around heavy equipment.

3. General Requirements for a Safe Work Zone

- **Traffic Control Plan**

Get attention - Devices must be clearly visible and stand out from the background.

Give a clear message - Devices must convey a simple, easily understood message.

Allow adequate time for response - Devices must be in a sequence that provides time for the public to understand and respond to signals without confusion.

- **Traffic Control Devices**

These can include signs, cones, barricades, lighted arrow panels, flagging, and backup vehicles used in various combinations to provide maximum protection.

- **Traffic Control Zones**

Include the entire section of roadway between the first advance warning sign through the last traffic control device. Most traffic control zones can be divided into **5 areas: "ATBAT": A- Advance Warning Area; T-Transition Area; B-Buffer Space; A-Activity Area; T-Termination Area.**

Typical work areas covered by roadway work zone safety include:

- Work on sidewalks (adjacent to traffic)
- Shoulder work
- Work on low volume streets
- Work on two-lane roadways with closure of a lane
- Work on multiple lane roadways with closure of one or more lane(s)
- Work on multiple lane two-way traffic roadway with closure of lane(s)

4 For further information, see the following standard operating procedure:

- Traffic Work Zone Safety (including technical specifications, installation and removal of Traffic Control Devices; technical guidelines for Advance Warning Areas, Transition Areas, Buffer Spaces, Activity [work] Areas and Termination Areas; descriptions and explanations of typical work area operations; and diagrams of typical work areas).

Health & Safety	Walking/Working Surfaces- Scaffolding/Aerial Lifts	November 2004

1 Purpose

The purpose of this guide is to prevent or minimize employee injuries associated with the erection, dismantling or use of scaffolding and the use of aerial lifts.

2 Key Responsibilities

The Responsible Manager must:

- Designate a Competent Person to supervise erection, use and dismantling of scaffolding.
- Ensure that all employees performing work while on a scaffold or aerial lift have been trained in its safe use.

Supervisors must:

- Ensure that a Competent Person (properly trained in scaffolding structural integrity, maintenance and assessing the load) is assigned to supervise scaffold use.

Competent Person must:

- Identify and eliminate hazardous working conditions.
- Supervise construction and dismantling of scaffolding.
- Inspect all components of scaffolding prior to every work shift.
- Train employees who erect, maintain or disassemble scaffolding.
- Ensure that employees who work on scaffolding are trained.
- Determine whether employees require retraining.

Employees must:

- Be familiar with hazards associated with the use of scaffolding and aerial lifts including falls, falling objects, structural instability and overloading.
- Use safe work practices communicated in their training.

3 Key Safety Rules for Scaffolding

- Scaffolding must be designed, constructed, inspected, used and dismantled in accordance with OSHA standards.
- All scaffolding must support its own weight and at least 4 times the maximum intended load.
- Scaffolding must be accessed via ladders, stairways, ramps, walkways, access frames, etc., and not via cross braces.
- Fall protection must be provided, where feasible, for employees erecting or dismantling scaffolding, and for employees on a scaffold more than 10 feet above a lower level.
- Protection from falling objects (in addition to the wearing of hardhats) shall be provided by installation of toeboards, guardrails, screens, debris nets, catch platforms or canopy structures.
- Scaffolding must be erected and dismantled by a trained employee under the supervision of a Competent Person.
- Scaffolding must be inspected by a Competent Person using the checklist included in the procedure prior to each shift and after any occurrence which could affect its structural integrity; checklists must be maintained at the worksite for the duration of scaffold use plus 30 days.
- Damaged scaffolding must be removed from service by being clearly tagged until it can be repaired, replaced or braced, as appropriate.

4 Key Safety Rules for Aerial Lifts

- Aerial lifts must be designed, constructed, tested and used in accordance with ANSI and OSHA standards.
- Aerial lifts, including boom platforms, aerial ladders and vertical towers, may be operated only by employees trained on the regulatory and manufacturer's requirements for use.
- Lift controls must be tested daily from the ground.
- Brakes must be set and outriggers used.

- Boom and basket load limits must never be exceeded and employee must not be raised above the basket floor.
- A body harness must be worn, and a lanyard must be attached to the boom or basket.

5 For further information, see the following standard operating procedure:

- Walking/Working Surfaces – Scaffolding/Aerial Lifts


NEW YORK CITY DEPARTMENT OF
DEP
ENVIRONMENTAL PROTECTION

Environmental	Auditing	November 2004

1 Purpose

The purpose of these guidelines is to provide guidance to facility personnel to prepare for OEHSC audits in compliance with EHS regulations.

2 Key Responsibilities

The Responsible Manager must:

- Provide timely and accurate responses to pre-audit questionnaires and information requests.
- Ensure access to facilities, personnel and records for the EHS audit.
- Implement recommended corrective actions in a timely manner following receipt of audit report findings.

Every DEP employee must participate in an audit when requested.

3 Prioritization of Facilities for Frequency of Auditing

A facility is ranked as a **High** (every 18 months), **Medium** (every 3 years), or **Low** (every 5 years) priority site depending on factors such as:

- Number of employees.
- Hazards present at the facility, such as hazardous chemicals and confined spaces.
- Record of compliance (e.g., frequency of Notifications of Violations, correction of action items from prior audits).

4 Audit Process

- Pre-audit: RM must respond to auditors' Request for Information 2 weeks prior to audit and review items with auditors in a telephone conference one week prior.
- On–Site:
  - Opening meeting acquaints auditors with staff and site-specific information.
  - Site tour familiarizes auditors with facility operations.
  - Auditors interview employees, review documents and operations.
  - Exit meeting is held to present preliminary observations noted during the visit.

High Priority facilities are scheduled for three-day audits, Medium facilities for two-day, and Low facilities for one-day.

5 Audit Findings

Priority I finding - immediately dangerous situation such as a leaking chemical tank - must be addressed by RM immediately to remove imminent risk.

Priority II finding - substantial threat to life, health or the environment such as improper storage of hazardous materials – auditors will identify at the exit meeting and communicate in writing within seven days of the exit meeting. The RM will confirm in writing that the deficiency has been corrected no later than 30 days after the exit meeting.

Priority III finding - regulatory compliance issue such as the failure to post a tank registration - must be addressed no later than 110 days from the exit meeting.

If findings are not or cannot be addressed in the given timeframe, the RM must file for an extension with the Assistant Commissioner of OEHSC.

6 For further information, see the following standard operating procedure:

- Program Improvement/Auditing


NEW YORK CITY DEPARTMENT OF
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ENVIRONMENTAL PROTECTION

Environmental	Chemical Bulk Storage Tank and Container Management	November 2004

1 Purpose

The purpose of this guide is to provide information to prevent spills of hazardous substances from Chemical Bulk Storage ("CBS") tanks and containers. Chemical Bulk Storage tanks and containers may include:

- stationary aboveground storage tanks (AST) with a capacity of 185 gallons or greater containing hazardous substances other than petroleum products (like gasoline or diesel fuel).
- underground storage tanks (UST) of *any* capacity containing hazardous substances other than petroleum products.
- non-stationary tanks (for example totes or other holding vessels) used to store 2,200 lbs. or more of a hazardous substance for 90 consecutive days or more.
- containers with a capacity in excess of 5 gallons.

2 Key Responsibilities

A special group of employees called the CBS Tank Oversight Group, comprised of Bureau EHS and/or Operations/Facilities personnel, are responsible for:

- Making sure that any facility with regulated CBS tanks registers the tanks with NYSDEC. The registration must include any out-of-service tank(s) not permanently closed, and the registration must be renewed every two (2) years.

- Properly closing any tank *temporarily* out of service for thirty or more days. Storage tanks "temporarily" out of service are STILL subject to all tank management requirements (testing, inspection, registration, etc.). Any tank taken *permanently* out-of-service must be closed. NYSDEC must be notified three (3) days prior to permanent closure.
- Maintaining accurate records for any change in the type of hazardous material stored in a regulated CBS tank.
- Conducting CBS inspections and/or testing in accordance with the following:

Underground Storage Tanks:

- Monthly inspections: Visually inspect the CBS tank or container for cleanliness, leakage, corrosion, and integrity of vents, pressure relief devices, gauges, alarms, overfill prevention equipment, cathodic protection monitoring equipment, general monitoring equipment, warning alarms, and safety equipment.
- Annual testing: check automatic line leak detectors and cathodic systems providing protection to tanks or pipes subject to corrosion to ensure equipment is properly operating.
- Leak Detection: For CBS USTs, check for leakage using a NYSDEC-approved method, including but not limited to: monthly inventory monitoring; weekly monitoring of interstitial space (double-walled tanks); or weekly data from automated tank gauging equipment.

Aboveground Storage Tanks:

- Daily Inspections: CBS ASTs must be visually inspected daily for spills and leaks.
- CBS ASTs with 10% or more of the tank beneath the ground surface must have monthly release detection inspections.
- Annual Inspections: CBS ASTs must be annually inspected for: deficiencies in the corrosion protection systems, warning systems, and leak/gauging equipment; structural integrity and maintenance (inspection records must be kept for 5 years).
- Five-year Inspections: ASTs and all piping equipment must be inspected every five (5) years in accordance with a standard that meets the requirements of state regulations.

3 Spill Prevention Report (SPR)

The CBS Tank Oversight Group must prepare, annually review, and maintain a Spill Prevention Report (SPR) for all facilities with CBS tanks to which this Policy is applicable. The SPR addresses the prevention of and response to spills, releases, and accidents at the facility. It should remain at the facility at all times and must be kept on-site for 10 years.

4 Container Management

The Responsible Manager must:

- Ensure that any liquid hazardous substances held in containers with a capacity of more than five (5) gallons are stored and dispensed within suitable secondary containment such as a concrete dike. Indoor storage of containers is preferred, but if outdoor storage is necessary, there must be allowances made for rainfall, weather-related issues, and storm events.

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5 For further information, see the following standard operating procedures:

- Chemical Bulk Storage Tank and Container Management
- Emergency Planning
- Environmental Incident Reporting and Investigation

Environmental	Environmental Permit Management	November 2004

1 Purpose

The purpose of this guide is to provide information to ensure that environmental permits are obtained, maintained, followed and renewed in accordance with all applicable environmental regulations.

2 Key Responsibilities

The Responsible Manager must:

- Ensure compliance with all permit conditions during facility operation.
- Notify Bureau EHS of any exceedance and/or violation of permit requirements and ensure that required agency notifications are made.
- Notify Bureau EHS of changes in operations or equipment that might trigger the need for permit amendments or new environmental permits.
- Maintain a copy of all facility environmental permits and post when required.

DEP Employees must not violate any permit condition at any facility.

3 Tracking Permits and Renewals

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Bureau EHS will develop and maintain a system to list all environmental permits for its facilities, identify the schedule for renewal, advise a facility's RM when permit renewal applications are due and track completion of renewals. The system shall include:

- Type of permit and issuing agency
- Brief description of purpose
- Permit number
- Effective date and expiration/renewal date
- Fees

4 Recordkeeping

Bureau EHS shall maintain copies of all original permits and registrations to document original installation as well as current permits and amendments.

5 For further information, see the following standard operating procedures:

- Environmental Permit Management
- Stormwater and Wastewater
- Petroleum Bulk Storage Tank and Container Management
- Chemical Bulk Storage Tank and Container Management

Environmental	Environmental Incident Reporting & Investigation For Spills in New York City	November 2004

1 Purpose

The purpose of this guide is to ensure that all incidents that result in the spill of a petroleum product or hazardous substance are properly reported.

2 Key Responsibilities

Responsibilities of All DEP Employees

It is the responsibility of every employee to immediately report any chemical or petroleum spill to:

- Supervisors and Co-workers.
- **Emergency 911 (or Local Police/Responders**, if no 911 service), after notifying the supervisor, IF the incident presents obvious danger to employees or the public. If employee doesn't have access to a phone, notify Supervisor.
- The Responsible Manager.

The Responsible Manager

The facility Responsible Manager or highest-ranking Supervisor on duty for the operation must:

- For **spills in NY City**: immediately notify the DEP 24 Hour Call Center (212-689-1520) and provide the following information:

- material spilled,
- quantity,
- location, and
- spill area.

- Immediately notify On-call Bureau EHS staff.
- Immediately notify other emergency contacts in accordance with the facility emergency plan.
- Notify the New York State Department of Environmental Conservation (NYSDEC), if the spill must be reported as determined by the "NYSDEC Petroleum Spills Reporting Requirements" provided below.
- Complete Part 1 of the DEP Internal Environmental Release Report (ERR) (Attachment A of the DEP procedure).

NYCDEP Contractors

NYCDEP Contractors are required to immediately report any chemical spill to the DEP Project Engineer/Manager, Responsible Manager or highest-ranking Supervisor, or, at the discretion of the Project Engineer, the DEP 24 Hour Call Center.

3 Spill Reporting Requirements for NYSDEC Petroleum Spills

All petroleum spills that occur within New York State (NYS) must be reported to the NYSDEC Spill Hotline (**1-800-457-7362**) within **2 hours** of discovery, **except,** petroleum spills that meet **all of the following criteria:**

- The quantity is known to be less than **5 gallons**; **and**
- The spill is **contained** and under the control of the spiller; **and**
- The spill has not and will not reach the State's water or any land; and
- The spill is **cleaned up within 2 hours** of discovery.

A spill is considered to have **not impacted land** if it occurs **on a paved surface** such as asphalt or concrete. A spill on a dirt or gravel parking lot is considered to have impacted land and is reportable.

4 Procedures for Spill Clean-up

DEP employees should never attempt to clean-up a spill of hazardous chemicals and associated contaminated soil, water, waste or equipment, unless:

- authorized by the Responsible Manager,
- trained in accordance with applicable regulations,
- knowledgeable about the chemical hazards,
- knowledgeable about the health and safety procedures.

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5 For further information, see the following standard operating procedures;

- Environmental Incident Reporting & Investigation
- Petroleum Bulk Storage Tank and Container Management
- Chemical Bulk Storage Tank and Container Management
- Remediation Management
- Asbestos Management
- Lead Management
- Mercury Management
- PCBs Management

Environmental	Environmental Incident Reporting & Investigation For Spills Outside NYC	November 2004

1 Purpose

The purpose of this guide is to provide information to ensure that all incidents that occur at non-city DEP facilities, **on or near NYC property,** that result in the spill of a petroleum product or hazardous substance are properly reported.

2 Key Responsibilities

Responsibilities of All DEP Employees and DEP Contractors

All DEP employees and Contractors must immediately report any chemical or petroleum spill to:

- Supervisors and Co-workers.
- Emergency 911 (or Local Police/Responders if no 911 service) if the incident presents obvious danger to employees or the public (after notifying a supervisor).
- The facility's Responsible Manager.

The Responsible Manager

The facility Responsible Manager or highest-ranking Supervisor on duty for the operation must immediately call 888-426-7433 (DEP BWS Police Command Center) for all releases and must report the following information:

- Name and address of site of incident and time of incident;
- Chemical or material spilled;
- Status of staff (injuries if any);
- Responsible Manager's name, position and telephone number ;
- Duration and estimated quantity of material spilled; and
- Estimated impact to the environment and site weather conditions.

The Responsible Manager must also immediately fill out the BWS "Incident Report Form" and fax it to all persons listed on the form.

DEP BWS Command Center and BWS Hazardous Materials (Haz Mat) Response Team

The DEP BWS Command Center must perform the following actions on an "as needed" basis:

- Notify local emergency support (local fire or police department, hazardous materials response teams).
- Notify BWS Haz Mat Response Team.
- Notify BWS Facility Emergency Coordinators.
- Notify the National Response Center.
- Notify NYS Department of Environmental Conservation Spill Hotline.

- Fill out the BWS Incident Report Form and fax it to all persons listed on the form (if not already completed by the Responsible Manager).
- BWS Haz Mat Team, in coordination with the Command Center, shall complete the **Emergency Release Report** ("ERR") and forward it to all appropriate managerial staff and relevant regulatory agencies.

3 Spill Clean-up Procedures

DEP employees should never attempt to clean-up spill of hazardous chemicals and associated contaminated soil, water, waste or equipment, unless:

- Authorized by the Responsible Manager;
- Trained in accordance with applicable regulations;
- Knowledgeable about the chemical hazards; and
- Knowledgeable about the health and safety procedures.

4 For further information, see the following standard operating procedures:

- Environmental Incident Reporting and Investigation
- Petroleum Bulk Storage Tank and Container Management
- Chemical Bulk Storage Tank and Container Management


NEW YORK CITY DEPARTMENT OF
DEP
ENVIRONMENTAL PROTECTION

Environmental Compliance	Environmental Remediation Sampling and Quality Assurance	November 2004

1 Purpose

The purpose of this guide is to provide information to ensure that environmental assessment, investigation, sampling, and/or remediation of petroleum products or hazardous materials is conducted in accordance with DEP quality assurance/quality control (QA/QC) protocols that meet applicable regulatory requirements.

2 Key Responsibilities

Responsible Manager must:

- Coordinate with Bureau EHS to determine requirements, responsibilities, equipment, training, or contractors necessary to perform the sampling activities.
- Obtain equipment, training and contractors necessary to perform required sampling and QA/QC activities.

All DEP employees must:

- Never enter an active remediation area or collect samples unless properly trained and authorized to enter the area.
- Review the site Health and Safety Plan (HASP) for required safety procedures and PPE for site remediation activities.

3 General Sampling and Quality Assurance Protocols

Written protocols and/or project-specific plans covering each type of environmental sample to be collected must include:

- Qualifications required of individuals collecting the sample,
- Quantity and location of samples to be collected,
- Applicable sample procedures,
- Materials to be used during sample collection,
- Analyses to be performed and specific analytical method references,
- Field instrument calibration procedures and frequency,
- Sample labeling, chain of custody and shipment procedures, and
- References to applicable QA/QC procedures or plans.

4 Reporting

A copy of the analytical results and any assessment reports shall be forwarded to Bureau EHS which must inform the Responsible Manager of any results that may affect employee health and safety as well as any information on waste characterization needed for waste management and disposal.

Sampling related to spills shall be reported as defined in DEP Environmental Incident Reporting and Investigation procedure.

5 For further information see the following standard operating procedures:

- Environmental Remediation Sampling and Quality Assurance
- Environmental Incident Reporting and Investigation
- Personal Protective Equipment


NEW YORK CITY DEPARTMENT OF
DEP
ENVIRONMENTAL PROTECTION

Environmental	EPCRA and Related Hazardous Materials Reporting	November 2004

1 Purpose

The purpose of this guide is to provide information to DEP employees so that they, in turn, can provide to emergency responders and the community information about hazardous substances stored at DEP facilities. This guide gives some basic information about Emergency Planning and Community Right-to-Know Act (EPCRA) reporting and hazardous substance management requirements of the NYC Community Right-to-Know Program.

Facilities must submit an annual report of their hazardous substance inventory to:

- Local Emergency Planning Committee (LEPC).
- NY State Emergency Response Commission (SERC).
- Local Fire Department.

2 Key Responsibilities

Responsible Manager must:

- Provide a chemical inventory and related information to BEHS on hazardous substances stored at the facility and determine quantities that trigger a notification in the event of a "spill."

- Coordinate preparation and submittal of a NYC Facility Inventory Form (FIF) and other hazardous substance notifications required by Federal Regulations, by March 1st of each year.
- Provide information to Bureau EHS for preparation and submittal of NYC Risk Management Plans and annual updates (for in-city facilities only).
- Maintain current copies of the facility's Federal and NYC-FIF notifications and associated Material Safety Data Sheets (MSDS).
- Report any Notices of Violation from the New York State Department of Environmental Conservation or local Fire Departments immediately to District Engineering, Bureau EHS, Office of Environmental, Health & Safety Compliance and General Counsel.
- Maintain chemical container labeling required by the NYC Community Right-to-Know Program.

3 Release (Spill) Reporting

Upon discovery of a release to the environment, the Responsible Manager, Bureau EHS and/or Responsible Personnel shall follow the Agency's "Environmental Incident Investigation and Reporting" procedure for both emergency notification and follow-up written reports.

4 Labeling Requirements

All containers of chemicals subject to the NYC FIF requirements must have a label, tag, or mark that:

- Indicates the chemical name (as presented on the NYC List of Hazardous Substances).

- Indicates the Chemical Abstract Service (CAS) Number (upstate facilities will follow this procedure if directed to do so by their Bureau).
- Is legible, in English, and prominently displayed.

A label is not required on a portable container if the employee who transfers the chemical into the container remains in control of the container at all times.

5 For further information, see the following standard operating procedures:

- EPCRA and Related Hazardous Materials Reporting
- Petroleum Bulk Storage Tank and Container Management
- Chemical Bulk Storage Tank and Container Management
- Asbestos Management
- Lead Management
- Mercury Management
- PCB Management
- Hazardous Communication/Right to Know (RTK) Program
- Environmental Incident Reporting and Investigation


NEW YORK CITY DEPARTMENT OF
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ENVIRONMENTAL PROTECTION

Environmental	Hazardous Waste Identification	November 2004

1 Purpose

The purpose of this guide is to help DEP employees properly identify hazardous waste.

2 Key Responsibilities

All DEP employees must**:**

- Never assume that an unknown waste is non-hazardous.
- Never apply knowledge of how a waste was generated (equipment or operation) to a new waste stream without laboratory testing results.
- Never dispose of any kind of waste down a drain or in the regular trash.
- Always properly dispose of hazardous waste.

The Responsible Managers must:

- Arrange for Responsible Personnel to obtain appropriate training.
- Coordinate the sampling and testing of hazardous waste for their facility.
- Sample and test their facility's hazardous waste streams every two years.

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- Notify their bureaus of new hazardous waste streams.
- Maintain records for all activities regarding the hazardous waste streams.

3 How to Identify Hazardous Waste

Only properly trained and authorized facility personnel may determine the hazardous/non-hazardous nature of waste streams at a facility.

- **First** determine if the waste stream is a solid waste.

  The regulatory definition of solid waste includes 1) materials that are abandoned; 2) materials that are recycled; 3) materials that are inherently waste-like; and 4) waste military munitions. Materials that do not fall within one of these categories cannot be classified as a hazardous waste.

- **Next,** determine if the solid waste may be excluded or exempt from hazardous waste regulations.
- **Next, if** the waste is not excluded or exempted from being a hazardous waste, determine if it is "listed" under federal or state hazardous waste regulations.
- **Finally, if** the waste is not excluded or exempted from being a hazardous waste, determine if it meets any of the hazardous characteristics.

Bureau EHS can help you make this determination.

4 For further information, see the following standard operating procedures:

- Hazardous Waste Identification.
- Hazardous Waste Management.

1 Purpose

The purpose of this guide is to provide information concerning the proper handling of hazardous wastes.

2 Key Responsibilities

The Responsible Manager must:

- Determine his facility's generator status.
- Arrange for his personnel's appropriate training.
- Coordinate off-site shipments of hazardous waste.
- Maintain hazardous waste inventories.
- Maintain the hazardous waste storage area.

All DEP employees must:

- Properly dispose of hazardous waste.

3 General Rules for Managing Hazardous Waste

- Never assume that an unknown waste is non-hazardous.
- Never apply process knowledge to a new waste stream before a laboratory analysis.
- Never dispose of an unknown waste down a drain or in the regular trash.

- Never place a hazardous waste into a non-hazardous waste container.

4 Hazardous Waste Management Requirements

There are two types of hazardous wastes. Characteristic hazardous waste has certain chemical or physical properties that can be toxic or dangerous to human health or the environment. Listed hazardous waste also has certain dangerous or toxic chemical/ physical properties, but is usually produced from specific types of manufacturing activities that EPA has divided into the "F", "P", "K", and "U" lists.

The quantity of hazardous waste that each facility produces will determine how that facility handles hazardous waste. As a facility's classification increases, so do the regulations.

- Conditionally Exempt Small Quantity Generators (CESQG) - less than 220 pounds/month.
- Small Quantity Generators (SQG) - more than 220 pounds /month, but less than 2,200 pounds.
- Large Quantity Generators (LQG) - more than 2,200 pounds each month.

5 General Hazardous Waste Management Rules for Employees

A hazardous waste inventory must be kept at the hazardous waste storage area. It must contain:

- A generic name for the waste stream (e.g., spent solvents, waste gasoline, etc.);
- The quantity of waste added to the storage area;
- The date the waste was added to the storage area;
- The initials of the individual who added the waste to the storage area;

- The date the waste was removed from the storage area; and
- The initials of the individual who removed the waste from the storage area.

6 For further Information, see the following standard operating procedures:

- Hazardous Waste Management
- Hazardous Waste Manifest
- Hazardous Waste Identification


NEW YORK CITY DEPARTMENT OF
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Environmental	Hazardous Waste Manifest	November 2004

1 Purpose

The purpose of this guide is to provide information to track hazardous waste from the point of generation to the point of disposal to prevent illegal dumping and pollution.

2 Key Responsibilities

The Responsible Manager must**:**

- Ensure that personnel responsible for preparing and signing the facility's hazardous waste manifest obtain appropriate training, and that only properly trained personnel prepare and sign hazardous waste manifests.
- Ensure that all information provided on the hazardous waste manifest accurately represents the shipment.
- Ensure that the facility maintains copies of completed hazardous waste manifests, pre-shipment confirmations, exception reports and training records for at least three years.
- Coordinate with Bureau EHS regarding the facility's EPA ID number(s), generator name(s), address(es), and phone number(s) to be included on each hazardous waste manifest.

DEP employees may not sign or prepare hazardous waste manifests unless properly trained.

3 General Rules for the Hazardous Waste Manifest

Although a Conditionally Exempt Small Quantity Generator (CESQG) is not required to complete a manifest, appropriate shipping documentation must be obtained from the transporter. If a hazardous waste manifest is used, all rules and regulations must be followed.

4 Using Hazardous Waste Manifests

When using a hazardous waste manifest, the following tasks must be performed:

- Provide pre-shipment confirmation and pre-shipment instructions.
- Prepare and sign a hazardous waste manifest for all off-site shipments.
- Distribute and maintain copies of the hazardous waste manifest.
- Prepare and submit exception reports as necessary.

DEP facilities must keep applicable copies of the multi-part manifest following signature. Copies must be sent to the generator state and destination state, and one copy maintained at the facility. If the facility does not receive a signed copy from the Transfer, Storage and Disposal Facility (TSDF) within 35 days of shipment, the DEP facility is responsible for verbally contacting the TSDF as well as for submitting an exception report to the TSDF and the NYSDEC.

5 For further information, see the following standard operating procedures:

- Hazardous Waste Identification
- Hazardous Waste Management
- Universal Waste Management
- Used Oil


NEW YORK CITY DEPARTMENT OF
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Environmental	PCB Management	November 2004

1 Purpose

The purpose of this guide is to define how employees will manage Polychlorinated Biphenyls (PCB) regulated items in order to prevent employee exposure and release to the environment.

2 Key Responsibilities

The Responsible Manager must:

- Identify all known and potential PCB items present in the facility for an inventory to be maintained by BEHS.
- Perform visual inspections for leaks of all PCB transformers at least once every three months.
- Forward copies of all PCB transformer inspection results and maintenance records to BEHS.
- Coordinate with BEHS concerning registration and spill response activities associated with PCB transformers.
- Properly manage and dispose of PCB items and other PCB hazardous waste in accordance with TSCA and NYS DEC requirements.
- Ensure that appropriate PCB items meet marking requirements.

3 Spill or Fire/Explosion Response

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- Upon discovery of a leaking PCB transformer or other PCB item, Responsible Personnel shall report the leak in accordance with DEP 'Environmental Incident Investigation and Reporting Procedure' to DEC, National Response Center and DEP Hazmat (if in NYC).
- Cleanup of the released transformer PCBs must be initiated as soon as possible, but in no case later than 24 hours after discovery of the release.
- Until appropriate action is completed, an active leak of PCBs must be contained to prevent exposure of humans or release to the environment, and must be inspected daily to verify containment of the leak.

4 Recordkeeping

All required records shall be maintained by BEHS and Responsible Manager for 3 years after a PCB regulated item is disposed of or after the last PCB-regulated item is removed from a facility.

5 For further information, see the following standard operating procedures:

- PCB Management
- Environmental Incident Investigation and Reporting

Environmental	Pesticide Management	November 2004

1 Purpose

The purpose of this guide is to provide information concerning how pesticides must be used at NYCDEP facilities in order to protect employees and the drinking water supply, and to comply with applicable environmental regulations.

2 Key Responsibilities

No DEP employee may apply pesticides without a New York State Pesticide Applicator Certification.

The Responsible Manager must:

- Identify and certify pesticide applicators and technicians as needed (DEP or contractor).
- Ensure all pesticides are properly and safely stored at the facility.

Certified Commercial Pesticide Applicator must:

- Obtain training and NYS certification appropriate to pesticide to be applied and the manner in which it is to be applied (e.g., aquatic/land application).
- Supervise all applications by certified technicians or commercial pesticide apprentices.

3 Personal Protection

- Any DEP employee may apply insect repellent to his person (but not to anyone else) to protect against insect bites.
- An employee performing outdoor work may carry a can of pesticide for emergency use when nesting stinging insects represent an immediate hazard. (Spray must be directed only to the nest.)

4 General Use Requirements

- Only employees supervised by a Certified Commercial Pesticide Applicator may apply pesticides while on the job.
- Pesticides must be used in accordance with label instructions and with plans approved by BEHS or DWQC (BWS).
- Pesticides must be used in a manner so as to prevent contamination of people, wildlife, structures, lands and waters adjacent to the area of use.

5 Management of Containers

When label instructions allow it, empty pesticide aerosol cans and spray bottles may be disposed in the facility's regular trash. No pesticide container shall be sold or used for any other purpose. Cleansing/rinsing and disposal of large-volume pesticide containers (i.e., plastic jugs) shall be performed in accordance with State Regulations.

6 Recordkeeping

All facilities where pesticides are applied shall maintain records for at least three years, including:

- The kind and quantity of each pesticide used;
- The dosage rate (i.e., lb/acre) of each pesticide used;
- The method(s) of application for each pesticide used;
- The target organism(s) for each pesticide used;
- The date and place of application for each pesticide used; and
- Applicable permits, registrations and annual reports.

7 For further information, see the following standard operating procedures:

- Pesticides Management
- Hazard Communication/Right to Know (RTK) Program


NEW YORK CITY DEPARTMENT OF
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Environmental	Petroleum Bulk Storage Tank and Container Management	November 2004

1 Purpose

The purpose of this guide is to provide information to prevent spills of petroleum substances from Petroleum Bulk Storage (PBS) tanks which may include:

- Aboveground storage tanks (AST) containing petroleum products, such as gasoline, diesel fuel or lubricating oils.
- Underground storage tanks (UST) containing petroleum products.

2 AST/UST Regulation

State or federal regulations cover:

- Storage of petroleum products where total facility capacity is greater than 1100 gallons (not including 55-gallon drums).
- Any single UST with a capacity greater than 110 gallons not used for on-premise heating.
- ASTs with a combined storage capacity above 1,320 gallons, (including 55-gallon drums).

3 Key Responsibilities

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A special group of employees called the PBS Tank Oversight Group, comprised of Bureau EH&S and/or Operations/Facilities personnel, is responsible for:

- Tank Registration: making sure any facility with a total petroleum storage capacity greater than 1,100 gallons OR any underground storage in excess of 110 gallons registers the tanks with NYSDEC. This includes any out-of-service tank that has not been permanently closed. Registration must be renewed every five (5) years. Original registration forms and 5-year renewals must be kept indefinitely. Copies of current registrations must be kept and displayed at the facility at all times.
- Properly closing any tank *temporarily* out of service for thirty or more days: storage tanks "temporarily" out of service are STILL subject to all tank management requirements (testing, inspection, registration, etc.). Any tank taken *permanently* out-of-service must be closed. NYSDEC must be notified thirty days prior to permanent closure.
- Making sure that the operator of a UST keeps daily inventory records for detecting leaks. If the tank is un-metered, the operator may detect inventory leakage using an alternative NYSDEC-approved method. Inventory records must be maintained for five (5) years.
- Reporting inventory losses or gains: if the cause of any loss or gain in petroleum product cannot be explained, NYSDEC must be notified within 48 hours and the tank must be taken out of service until inspection and/or tightness testing can be performed.
- Conducting tank tightness testing and completing tightness testing reports in accordance with the following:
    - USTs that are not corrosion-resistant must have an initial tightness test performed at ten (10) years of age and must be retested every five (5) years until permanent closure.

- USTs that are corrosion-resistant must have a tightness test at 15 years of age.
- New tanks do not need tightness testing, but must be monitored by other means.

- Performing monthly inspections for all regulated ASTs. Monthly inspection reports must be kept for ten years.
- Performing ten-year inspections for ASTs that hold 10,000 gallons or more and/or can be "reasonably expected to discharge petroleum to the waters of the state." (Any AST that is entirely aboveground is exempt from this requirement.) Ten-year inspection reports must be maintained for ten years.

4 Spill Prevention, Control, and Countermeasures (SPCC) Plan

SPCC Plans are required for any location that contains *aboveground* storage of petroleum with a combined storage capacity over **1,320 gallons**, including 55-gallon drums. Facility-specific SPCC Plans must be reviewed, at a minimum, every five (5) years. The SPCC should be filed on the premises at all times.

5 Container Management

The Responsible Manager must ensure that all liquid petroleum products at quantities above a five (5) gallon container capacity are stored and dispensed within suitable secondary containment. Indoor storage of containers is preferred, but if outdoor storage is necessary, allowances must be made for rainfall, weather-related issues and storm events.

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6 For further information, see the following standard operating procedures:

- Petroleum Bulk Storage Tank and Container Management
- Emergency Planning
- Environmental Incident Reporting and Investigation

Environmental	Pollution Prevention	November 2004

1 Purpose

The purpose of this guide is to provide information about pollution prevention. Pollution Prevention (P2) activities are voluntary (non-regulatory) pollution control measures designed to reduce hazardous and solid waste and pollutants from environmental sources (e.g., air emissions, wastewater, etc.).

2 Pollution Prevention Goals

Establishment of P2 goals and metrics will be coordinated by OEHSC, with the consensus of the Bureaus and the Executive EHS Oversight Committee, after all regulatory compliance goals have been met.

3 Pollution Prevention Measures

Pollution prevention measures include source reduction, resource/energy conservation, waste minimization and application of new technologies. Each of these measures is described below:

- Source reduction – use of products, equipment and services that reduce pollution.
- Resource/energy conservation including a switch to alternative energy sources (non-petroleum).
- Waste minimization, recycling and reuse.
- Application of new technologies that reflect “state of the art” P2 practices including the most effective methods for the treatment or disposal of unavoidable wastes created.

4 Key Responsibilities

The Responsible Manager must**:**

- Endeavor to obtain and provide equipment and training necessary to implement P2 goals.
- Track the pollution generated by the facility.
- Communicate the goals and P2 guidance to all employees.

All DEP Employees must follow all P2 guidance.

5 Recordkeeping

Bureau EHS will compile bureau-wide performance records and report to OEHSC and the Oversight Committee.

6 For further information, see the following standard operating procedures:

- Pollution Prevention
- Hazardous Waste Management
- Stormwater and Wastewater Management
- Used Oil Management

Environmental	Real Property Acquisition & Due Diligence	November 2004

1 Purpose

The purpose of this guide is to provide information to ensure evaluation of properties for environmental contamination in order to help staff understand and minimize any environmental liability associated with the purchase of real property by the City of New York.

2 Key Responsibilities

- **DEP Employees** may not purchase land on behalf of DEP unless appropriately authorized.
- **Land Acquisition Personnel** will coordinate completion and documentation of all environmental assessment requirements including due diligence activities.
- **Office of Environmental Planning and Assessment (OEPA)** will provide technical support to Land Acquisition Personnel including review of assessment reports and development of contract specifications for assessment services.
- **Bureau of Water Supply (BWS) Division of Regulatory Compliance and Facilities Remediation** (RCFR) will provide technical support to BWS Land Acquisition Personnel in the review of MOA acquisitions.

3 Site Assessments

- In most instances, prior to the purchase of land, buildings or other real property, an environmental assessment must be conducted to identify and/or determine whether any environmental contamination or environmental conditions exist at the purchase site. Typically, this assessment includes conducting a Phase I environmental site assessment and other site evaluation studies.
- Phase I Assessment consists of review of any historical records available for the property. In addition, state and local review requirements under the State and City Environmental Quality Review Acts (SEQRA and CEQRA) must be performed.
- A modified level of assessment may be performed where there is no history of industrial use or there has been executive approval to proceed with the purchase of the property with its environmental liabilities.
- If Phase I results indicate that Phase II Assessment is appropriate, the purchase may not proceed until the Phase II is completed.
- Phase II Assessment consists of site sampling and testing and recommendations for corrective action. Phase II results will be evaluated to determine the effects of contamination and the fair market value of the property.
- Based on the results of the Phase I and Phase II assessments, the decision will be made to rescind the purchase contract or to require the seller to clean up/not clean up the site prior to closing.

4 Recordkeeping

After purchase of the real property, assessment reports will be provided to and kept for the life of the Agency by Bureau EHS compliance staff. Any reports that indicate presence of known contamination remaining on the property shall be provided to the Responsible Manager assuming control of the site.

5 For further information, see the following standard operating procedure:

- Real Property Acquisition and Due Diligence


NEW YORK CITY DEPARTMENT OF
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ENVIRONMENTAL PROTECTION

Environmental	Remediation Management	November 2004

1 Purpose

The purpose of this guide is to summarize the procedures and responsibilities for managing environmental contamination from historical releases or from new spills that require long-term management or remedial action.

2 Key Responsibilities

All DEP Employees must**:**

- Be aware of the hazards of environmental contamination as communicated in their HazCom/ RTK training or other information sessions.
- Not work in identified areas of contaminated soil, water, waste or equipment unless authorized by the Responsible Manager and properly trained in site hazards and applicable procedures.
- Follow all protective measures identified in the exposure assessment, written safe work procedures and/or HASP (Health and Safety Plans) when authorized to perform work involving contaminated soil, water, waste or equipment.
- Notify Supervisor, Responsible Manager and/or Bureau EHS when previously unknown petroleum or hazardous substances contamination is discovered, or when they believe the condition of these substances or work activities has changed and could result in exposure to facility personnel.

The Responsible Manager must**:**

- Coordinate with Bureau EHS and Project Engineer/Contract Supervisor on environmental investigation and remediation activities to ensure that all remediation work is performed by qualified contractors in accordance with regulations.
- Notify Bureau EHS when previously unknown contamination from a hazardous substance or petroleum product spill is discovered (in accordance with the DEP Policy for Environmental Release Reporting and Investigation), when the condition of these substances requires remediation or when work activities change.
- Maintain copies of exposure assessments, site Health and Safety Plans (HASPs).
- Ensure that employees and contractors are informed of site contamination hazards and use any applicable HASP or safe work practices developed to prevent exposure to hazardous substances above the exposure limits.
- Provide all employees with the opportunity for medical monitoring if site is contaminated (above regulatory or DEP employee exposure limits).

3 Recordkeeping

Bureau EHS will maintain a database of current information on the presence of contamination at DEP facilities and the status of ongoing remediation projects.

4 For further information, see the following standard operating procedures:

- Remediation Management
- Environmental Release Reporting and Investigation
- Emergency Planning
- Hazard Communication/RTK
- Asbestos, Lead, Mercury and PCB Management


NEW YORK CITY DEPARTMENT OF
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ENVIRONMENTAL PROTECTION

Environmental	Stormwater and Wastewater	November 2004

1 Purpose

The purpose of this guide is to provide information to prevent discharges of wastewater and/or stormwater containing pollutants to ground and surface waters.

2 Stormwater and Wastewater Management Requirements

No DEP facility will cause a discharge of a pollutant to groundwater or surface waters, either directly or through stormwater collection systems such as catch-basins, storm sewers, sumps, dry-wells, etc., without an appropriate discharge permit. There are many activities conducted or performed at DEP facilities that may require SPDES or other types of discharge permits. One such activity is treatment of oily wastewater with an oil/water separator prior to discharge of the water to a stream, lake, pond or river.

3 Key Responsibilities

The Responsible Manager must**:**

- Comply with the terms and conditions of facility discharge permits (e.g. sampling, reporting, recordkeeping).

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- Complete necessary corrective actions (spill cleanups and/or reporting) associated with non-compliance conditions.
- Have on site, or the ability to bring on site, equipment, training, and contractors necessary to perform required compliance activities.

All DEP employees must:

- Never allow stormwater or wastewater to be discharged before determining if an appropriate permit (e.g., SPDES, DEP BWT) is required.
- Never discharge sump water before determining if a SPDES permit is required.

4 For further information, see the following standard operating procedure:

- Stormwater and Wastewater Management

Environmental	Universal Waste Management	November 2004

1 Purpose

The purpose of this guide is to define how universal waste generated at DEP facilities should be handled and disposed. Universal waste includes:

- Batteries, excluding automotive.
- Lamps or light tubes, including fluorescent, high intensity discharge, neon, mercury vapor, high pressure sodium and metal halide.
- Pesticides that are recalled by the manufacturer.
- Thermostats, including thermometers, thermostat switches or ampoules containing mercury.

2 Key Responsibilities

All DEP employees must**:**

- Receive awareness training regarding appropriate handling and emergency response procedures for universal waste.

The Responsible Manager must:

- Have, at the facility the equipment such as containers and labels necessary to manage the facility's universal waste in designated universal waste storage areas.
- Maintain and regularly inspect universal waste storage areas.
- Arrange for training of employees on handling universal wastes.
- Coordinate with Bureau EHS regarding universal waste identification, sampling, testing, and disposal.
- Use Bureau EHS approved contractors to transport and dispose of universal waste.
- Sign shipping papers (e.g., Bills of Lading) for off-site transportation of universal waste.
- Maintain copies of universal waste sampling results, waste stream testing results, shipping documents, storage area inspection records and training records.
- Ensure that facilities never accumulate over 11,000 lbs of universal waste.

3 Storing Universal Waste

- No more than 11,000 lbs of total universal waste can be stored at a facility at one time;
- Universal waste must be stored in containers that are structurally sound, compatible with the specific universal waste placed inside them, and designed to prevent releases of universal waste to the environment;
- Universal waste storage areas must be located inside of buildings or other structures and not exposed to rain, snow or other similar weather conditions;

- All containers used to store universal waste must be kept closed except to add or remove waste; and
- Universal waste can only be stored for up to one year from the date that it is generated or received from another facility.
- DEP facilities must label universal waste items or storage containers with a specific description of the Universal Waste (e.g., "Universal Waste – Batteries", "Universal Waste – Pesticides", "Universal Waste – Lamps", or "Universal Waste – Mercury Thermometers") and the date it became a waste or was received.

4 Shipping Universal Waste

DEP facilities that perform off-site transportation of universal waste must:

- Use a DEP vehicle, abide by all Department of Transportation (DOT) requirements, and transport less than 500 lbs of universal waste to another handler or destination facility.

All DEP contractors transporting universal waste must:

- Be registered with the US EPA and have an EPA identification number
- Prepare and submit to the Responsible Manager a bill of lading or equivalent shipping document (hazardous waste manifest is not required for shipments of universal waste) with the following information:
    - Transporter's EPA identification number.
    - Transporter's company name, mailing address, telephone number, and point of contact.
    - Quantity of universal waste being shipped.
    - Final destination of the universal waste.

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5 For further information, see the following standard operating procedures:

- Universal Waste Management
- Hazardous Waste Management
- Hazardous Waste Identification
- Hazardous Waste Manifest
- Used Oil Management.

Environmental	Used Oil Management	November 2004

1 Purpose

The purpose of this guide is to define how personnel manage used oil generated at DEP facilities.

2 Key Responsibilities

The Responsible Manager must:

- Have, at the facility, the equipment (such as drums, labels, funnels, etc.) necessary to manage the facility's used oil waste streams.
- Arrange for the training of Responsible Personnel.
- Use Bureau EHS approved contractors and processing centers for transportation and energy recovery or recycling of Used Oil.
- Maintain copies of Used Oil sampling results and shipping documents.
- Maintain and regularly inspect used oil storage areas, and transfer used oil into and out of used oil storage areas.
- Coordinate with Bureau EHS and Responsible Manager regarding used oil identification and characterization.

- Sign shipping papers (e.g., Bills of Lading) for off-site transportation of used oil waste streams.
- Receive notification of new used oil waste streams.

All DEP employees must:

- Store and dispose of used oil appropriately.

3 Used Oil Management

- All used oil waste streams must be identified by knowledge of how the used oil was generated, such as from equipment, automobiles, etc. (if used oil is not mixed with hazardous waste or exposed to PCBs) or by sampling and testing.
- Usually used oil can be managed using the following procedure, but if used oil is mixed with other substances it will require special handling.

4 Used Oil Storage Areas

Used oil storage areas may be located near hazardous waste storage areas, but each area must be clearly marked and separated.

- All tanks, drums, containers and associated piping labeled as “USED OIL”, must be kept closed unless adding or removing oil, and must be in good condition, not visibly leaking, and compatible with the used oil.

- Some used oil storage areas must be located inside of buildings (or other structures), not be exposed to precipitation/weather conditions, and be equipped with devices that can hold a volume in excess of 110 percent of the largest container stored in the area.
- No open floor drains, catch basins, or other off-site drainage structures may exist within the used oil storage area.

5 Used Oil Waste Shipments

- DEP facilities that also perform off-site transportation of used oil must abide by all Department of Transportation (DOT) requirements and transport less than 55 gallons of used oil to a used oil collection center or aggregation point.
- All DEP contractors that transport used oil must be registered with the USEPA and possess an EPA identification number.
- Used Oil shipping contractors must prepare and submit a bill of lading or equivalent shipping document.
- A hazardous waste manifest is not required for shipments of non-hazardous used oil, but the shipping document must include the transporter's EPA identification number, company name, mailing address, telephone number, and point of contact; the quantity of used oil being shipped; and the final destination of the used oil.

6 Training

- DEP employees who handle used oil should receive awareness training.

- If the facility is subject to an SPCC plan, used oil management personnel must receive SPCC plan training specific to petroleum management.

7 Recordkeeping

Copies of waste stream characterizations, shipping documents, used oil storage area inspection records, off-spec burner certifications, applicable regulations, and training records should be kept on-site.

8 For further information, see the following standard operating procedures:

- Used Oil Management
- Hazardous Waste Management
- Hazardous Waste Identification
- Hazardous Waste Manifest
- Petroleum Bulk Storage Tank and Container Management