

Appendix D

Emergency Procedures in Public Secondary Schools in the Event of a Chemical Spill

There are five major sources of regulations that are potentially applicable to emergencies involving a chemical spill. These sources are:

- 29 CFR 1910.38 "Emergency Action Plans" (OSHA regulations adopted by PEOSH Program);
- 29 CFR 1910.39 "Fire Prevention Plans" (OSHA regulations adopted by PEOSH Program);
- Subpart C - Preparedness and Prevention (40 CFR 265.30 to 265.37) (EPA regulations adopted by NJDEP);
- Subpart D - Contingency Plans and Emergency Procedures (40 CFR 265.50 to 265.56) (EPA regulations adopted by NJDEP); and
- 29 CFR 1910.120 "Hazardous Waste Operations & Emergency Response" (OSHA regulations adopted by PEOSH Program).

What follows is a brief overview of the major requirements of these regulations.

Emergency Action Plans (29 CFR 1910.38)

This regulation requires a written plan necessary for the effective evacuation and accounting for individuals should a fire, chemical spill or other situation occur requiring evacuation. This plan must be kept in the workplace and be available for review. The written evacuation plan must address, at a minimum, the following;

- procedures for reporting a fire or other emergency;
- procedures for emergency evacuation, including type of evacuation and exit route assignments;
- procedures to be followed by individuals who remain to operate critical operations before they evacuate;

Safe Schools: A Health and Safety Check

- procedures for accounting for all individuals after evacuation;
- procedures to be followed by individuals performing rescue and medical duties;
- the name or job title of each individual who can be contacted for more information about the plan.

All individuals who assist in the evacuation must be trained on how to implement their function. In addition, emergency telephone numbers must be posted near telephones, or employee notice boards, and in other conspicuous locations (see OSHA 29 CFR 1910.165). All employees who are affected by the evacuation plan must be trained in its contents and how to implement it. The plan and training must be updated as procedures and or evacuation routes change.

Fire Prevention Plans (29 CFR 1910.39)

This regulation requires a written plan necessary for the prevention of fire hazards. This plan must be kept in the workplace and be available for review. The written fire prevention plan must address, at a minimum, the following;

- a list of all major fire hazards, proper handling and storage procedures for hazardous materials, potential ignition sources and their control, and type of fire protection equipment, necessary to control each major hazard;
- 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 each individual responsible for maintaining equipment to prevent or control sources of ignition or fires; and

Safe Schools: A Health and Safety Check

- the name or job title of each individual responsible for the control of fuel source hazards.

All individuals exposed to potential fire hazards must be trained on the hazards and how to take protective action. In addition, emergency telephone numbers must be posted near telephones, or employee notice boards, and in other conspicuous locations (see OSHA 29 CFR 1910.165).

Subpart C - Preparedness and Prevention and Subpart D – Contingency Plans and Emergency Procedures

The EPA regulations (40 CFR 265.30 to 265.56) establish procedures to ensure that potential and actual emergencies are planned for and minimized for the protection of the environment and surrounding community (see the Hazardous Waste checklist). To minimize hazards from sudden or non-sudden releases of hazardous materials to air, soil or surface water, the written plan must:

- describe arrangements with local authorities and contractors to assist in spill cleanup and notification activities;
- list the name(s) of the emergency coordinator(s) for the school;
- list emergency equipment and corresponding locations of fire extinguishers, spill control equipment, etc.;
- list decontamination equipment available; and
- describe evacuation procedures and routes, and notification signals.

This plan must be kept up-to-date and submitted to local police, fire and rescue departments and to the local emergency planning committee and any emergency response teams who may respond to such an event.

Specific required steps for handling emergencies include:

- identify the source, character and extent of the release;

Safe Schools: A Health and Safety Check

- activate internal alarms;
- notify state and local agencies for assistance (if necessary);
- assess hazards to humans and the environment;
- notify authorities if spill poses hazards to the environment or the community;
- monitor for leaks, pressure buildup etc.;
- following cleanup, arrange for treatment, storage and disposal of wastes;
- decontaminate all equipment; and
- forward a written summary report to NJDEP within 15 days.

Hazardous Waste Operations and Emergency Response (29 CFR 1910.120)

The OSHA Hazardous Waste Operations and Emergency Response standard covers procedures for handling a chemical spill by designated responders and employees who respond from outside the immediate release area. Responses to incidental releases of hazardous substances where the substance can be absorbed, neutralized, or otherwise controlled at the time of release by employees in the immediate release area, or by maintenance personnel, are not considered to be emergency responses within the scope of the standard. It is not recommended that students or teachers respond to significant spills because of the extensive training requirements and equipment needed. Trained state, county or municipal hazardous materials response teams should be brought in if such a spill occurs. These teams will be following the requirements of the Hazardous Waste Operations and Emergency Response standard which ensures that emergency responders work safely during spill cleanup activities. They will have a written plan which covers:

- pre-emergency planning;
- personnel roles, lines of authority, training and communications;

Safe Schools: A Health and Safety Check

- emergency recognition and prevention;
- safe distances, places of refuge;
- site security and control;
- evacuation routes and procedures;
- decontamination procedures;
- emergency medical treatment and first aid;
- emergency alerting and response procedures;
- personal protective equipment and emergency equipment; and
- critique of response and follow-up.

This regulation also requires that an Emergency Coordinator be designated and that an Incident Command System be followed. Positive pressure supplied air respirators are required until air monitoring indicates that a reduced level of protection is safe. Training requirements for responders vary depending on the level of activity in the emergency response. Personnel responsible for actually stopping leaks and cleaning spills must be trained to the Hazardous Materials Technician Level (minimum 24 hours training annually). Medical surveillance is also required for these responders.

If teachers or maintenance employees respond to minor spills, they must have had training covering the hazards of the spilled material and the correct response actions to take. They also must have the appropriate personal protective equipment along with training on how to use it. In addition, they must know how to dispose of the spilled material following all New Jersey State regulations. The regulations listed below may apply to staff with these responsibilities:

- N.J.A.C. 8:59 "Worker and Community Right to Know Act Rules" (NJDOH regulations);

Safe Schools: A Health and Safety Check

- 29 CFR 1910.132 "General Requirements for Personal Protective Equipment" (OSHA regulations adopted by PEOSH Program);
- 29 CFR 1910.133 "Eye and Face Protection" (OSHA regulations adopted by PEOSH Program);
- 29 CFR 1910.134 "Respiratory Protection" (OSHA regulations adopted by PEOSH Program);
- 29 CFR 1910.135 "Occupational Head Protection" (OSHA regulations adopted by PEOSH Program);
- 29 CFR 1910.136 "Occupational Foot Protection" (OSHA regulations adopted by PEOSH Program); and
- N.J.A.C. 6A:26-12.5 "Eye Protection in Schools" (NJDOE regulations).

Compliance with all of these regulations is essential to ensure the safe and effective resolution of hazardous materials spills. The planning regulations can be met by preparing separate plans or by developing an evacuation plan that integrates the requirements of all regulations into a single coordinated plan. Schools should also establish communication with the nearest hazardous materials response team to facilitate prompt action if the need arises.

A sample emergency response procedure consistent with the above regulations is given below to assist schools in formulating their compliance plans.

Safe Schools: A Health and Safety Check

Sample Procedure for Handling Chemical Spills at Secondary Schools with Career-Technical-Vocational Programs and Courses

Each classroom should be reviewed to identify potential spill hazards. All teachers and students should be trained to recognize hazardous materials spills and what procedures to follow. This instruction should include information on the effects of hazardous materials on humans and the environment. In the event of a spill which is beyond the clean-up capability of the person who created the spill or custodial staff, the following procedure will be followed:

1. The student or other witness will notify the classroom teacher of the spill. Information provided will include the name of the material, location of the spill, and approximate volume of spilled material (to the best of his/her ability). No student or faculty member should approach or enter a spill area without protective equipment and training.
2. The classroom teacher will evacuate all students from the classroom using the steps contained in the evacuation procedure (this is a separate document). The teacher will then dial extension XXXX and report the above information to the principal or other designated individual. If the classroom teacher is not available, the person witnessing the incident will evacuate the classroom using the steps contained in the evacuation procedure and will dial ext. XXXX to report the information.
3. If the spread of contamination is sufficiently large such that adjacent classrooms are potentially exposed to vapors, gases or fumes from the incident, then all such affected classrooms will be evacuated.
4. The teacher in the spill area may take defensive steps to prevent spilled materials from entering drains or spreading to other environmentally sensitive areas. These defensive steps may include placement of absorbent materials (stored in classrooms with a high likelihood of a spill) around the perimeter of the spill, or blocking drains. At no time shall instructors enter the spill zone, come into contact with the spilled material, or place themselves at risk.

5. The principal or other designated individual, once notified of a spill by the classroom teacher or witness, shall notify a Hazardous Materials Emergency Response Team (HAZMAT) capable of handling the spill. The HAZMAT Incident Commander is the most senior person responsible for directing all activities throughout the clean-up effort.
6. Trained emergency responders will dispatch to the scene, bringing appropriate personal protective clothing including supplied air respirators, chemical resistant gloves and suits, and boots. Other equipment brought to the scene will include communications devices, air monitoring equipment (if available), and first aid equipment. Salvage drums, sorbents and decontamination equipment are stored in strategic locations where there is a high probability of a spill occurring (list types and locations of equipment). This equipment will be brought to the scene.
7. The Incident Commander shall establish external communication channels between the school and outside parties using the school dispatcher or any other appropriate means of external communication.
8. The Incident Commander will contact any outside agencies necessary to assist in the response including any of the fire, police, emergency medical, health or emergency management departments, to provide essential services.
9. The Incident Commander will contact the NJDEP 24 hour hotline 1-877-WARN-DEP if he/she believes at any time during the response that the spill or release represents a potential or actual hazard to the environment or community.
10. The Incident Commander shall determine when it is safe to re-occupy the classroom or building. In making this determination, the Incident Commander will consider air monitoring results and will check all potentially affected classroom equipment for evidence of pressure build-up or leaks, etc.
11. After the completion of the emergency response, the Incident Commander will convene all responders, the classroom instructor, and the appropriate school administrators to critique the handling of the response, to determine the root cause of the incident, and to identify future preventative measures.

Safe Schools: A Health and Safety Check