ALASKA DEPARTMENT OF LABOR

DIVISION OF LABOR STANDARDS AND SAFETY

DOSH Program Directive 86-7

October 8, 1986

To: All OSH Personnel

Subject: Technical Assistance and Enforcement Guidelines for Hazardous Waste Site Activities.

1. Purpose: This program directive provides direction to OSH staff who may be called upon to provide technical assistance or conduct enforcement activities at toxic and hazardous waste sites. Some of these sites may be covered under Environmental Protection Agency's (EPA) "Superfund" program. Superfund is the common name for the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (sometimes also called CERCLA), the law passed to provide for removal or remedial actions at hazardous waste sites which pose a threat to the public.

2. Directives Affected: DOSH PD 85-2 is cancelled.

3. Background: EPA is the lead Superfund and Resource Conservation and Recovery Act (RCRA) agency. OSHA and EPA have agreed that OSHA has the lead role in providing for the safety and health of workers at hazardous waste sites. In Alaska, the state's Occupational Safety and Health Section (OSH) of the Alaska Department of Labor has jurisdiction over such hazardous waste sites.

   a. Under the National Emphasis Program (NEP) for the inspection of hazardous waste sites, OSH will be targeting enforcement activities at Superfund and RCRA sites. At this time no site in Alaska has been designated as a Superfund site.

   b. Technical assistance may be provided by OSH at some hazardous waste sites at the request of EPA, the Alaska Department of Environmental Conservation (DEC), or another lead agency, such as the U.S. Coast Guard.

   c. OSH actions shall, at all times, be closely coordinated with EPA.

      (1) Because of the hazards involved at each of the sites (not only to workers involved in cleanup but also to the public), OSH recognizes the need for expeditiousness in the cleanup process.

      (2) OSH activites, therefore, shall not unnecessarily hinder removal or remedial actions. At the same time, they shall ensure that workers' safety and health are not compromised.

4. Enforcement Activities: Normal OSH inspection procedures shall be followed when handling NEP inspections, referrals, complaints or accident reports at Superfund sites, RCRA sites, or other hazardous waste sites, except that only trained personnel are to be sent to these sites. (See 5 of this instruction.)

a. Preinspection Planning: The Chief IH, upon scheduling a hazardous waste site for inspection and prior to initiating the inspection, shall contact the local EPA official to discuss appropriate levels of personal protective equipment for IHs and workers, the site's history and current status (whether the site is active), and whether workers are at the site prior to initiating the inspection.

(1) If workers are at an RCRA site, a copy of the drawing of the facility from EPA's RCRA permit application and other material which may be helpful in planning the inspection shall be obtained.

(2) If workers are at a Superfund site, a copy of the site safety plan and any other information considered pertinent shall be obtained for review before going onsite.

b. Complaints: IHs shall immediately notify the Chief IH whenever a hazardous waste site is discovered during a routine inspection or when complaints are received on such subject areas.

c. On-Site Coordination: IHs shall coordinate activities with EPA, Corps of Engineers, DEC, or other agency representatives, if present.

d. Applicable Standards: Depending on the activities occurring at the site, the general duty clause or the general industry and/or construction standards may be applicable.

e. Examples of Health Standards: The nature of hazardous waste site environments dictates that the following items must be specifically evaluated for their effectiveness in addition to ensuring compliance with all other applicable standards:

(1) Respirators. This includes the use of respirators during emergency evacuations as well as routine work activity (e.g., 01.0403, GSC; 05.050(d), Construction Code).

(a) Policy. When an overexposure cannot be documented through full-shift or ceiling sampling but a realistic potential for a sudden or intermittent overexposure is reasonably foreseeable, violations of 01.0403 GSC or, if applicable, 05.050(d), Construction Code, shall be classified as serious when serious physical harm or death could result from the overexposure.

(b) Policy Rationale. The air quality at hazardous waste sites is subject to sudden, dramatic changes due to the often highly toxic materials present and the nature of activities

carried out. Frequently the identity and quantity of particular chemical species are not known to personnel at a site. Reactions between materials at a site may even create new air contaminants. Hazardous waste sites may present situations where 8-hour sampling is not feasible due to practical limitations or because IHs may be unacceptably endangered.

(c) Documentation. Documentation for violations where overexposures are not established through sampling must include consideration of all of the elements normally required for citations of the general duty clause, as follows:

1 Substances present:

a The extent to which specific chemicals can be identified.

b Warning properties.

c Eye irritation potential.

d The potential for interaction between substances present to create new airborne contaminants.

e Cartridge/cannister break-through potential.

f Toxicity.

2 The potential for sudden releases of airborne concentrations of contaminant(s).

3 Adequacy of any existing respirator programs.

4 The extent and results of any employer-conducted environmental monitoring.

5 The extent and results of any medical surveillance/biological monitoring.

6 Actual employer knowledge.

7 Industry practice.

(2) Protective Clothing and Equipment. Examples include 01.0401, GSC; 01.0402, GSC; 1910.1003(c)(5); 04.0302(h), IA; and, 05.050, Construction Code. Among the considerations for such potential citations are the following:

(a) Industry practice.

(b) Suitability for hazards likely to be encountered (e.g., permeability, durability, flammability, ease of decontamination).

(c) Availability and capacity of emergency eyewash and shower facilities.

(3) Decontamination Procedures. Examples include 01.0401(a), 02.100, 1910.003(c)(5), 1910.1003(d)(3), 04.0302(k) and AS 18.60.075(a)(4) of the Alaska Statutes. In addition to workers' clothing and equipment, contaminated heavy equipment, such as trucks and earth moving vehicles, may also be a source of employee exposure and must be considered when addressing the issue of decontamination. Documentation of violations must include the following considerations:

(a) Industry practice.

(b) Existence and appropriateness of any standard operating procedures.

(c) Quantitative data such as water samples, soil samples, wipe samples and discarded clothing samples.

(4) Heat Stress. At the present time, violations relating to heat stress shall be cited under the general duty clause. Employees shall be interviewed to determine if they have experienced any signs or symptoms of heat stress. In addition, IHs shall evaluate the potential for heat stress hazards. Criteria include:

(a) Employee training in the recognition of the symptoms of heat stress.

(b) Existence and use of appropriate work-rest regimens.

(c) Availability of proper first aid treatment and personnel who are trained and able to administer such treatment.

(d) Cool rest areas located in "clean zones."

(e) Environmental conditions.

(f) Whether or not heat stress monitoring is conducted; i.e., heart rate, body temperature, body water loss.

f. OSHA Form 175. The hazardous waste site activity worksheet shall be completed according to DOSH Program Directive 86-8.

5. Technical Assistance.

a. The State OSH will work in conjunction with the OSHA Regional Office technical staff and members of the OSHA Health Response Team (HRT)

to provide services of onsite health and safety advice and consultation.

b. The OSHA Regional Administrator will be contacted by the Director, if the Chief IH decides that the State requires technical assistance. OSHA CPL 2-2.37A indicates that OSHA, to the extent possible, will provide onsite technical assistance on request of State plan States.

c. Whenever EPA or another agency, such as the U.S. Coast Guard, requests OSH's safety and health assistance, the following procedures will be followed:

(1) The Chief IH will coordinate onsite technical assistance with the requesting agency.

(a) The extent of onsite technical assistance shall be determined on a case-by-case basis.

(b) If the Chief IH determines that an onsite evaluation will not be required, the request may be referred to the Consultative and Training section for handling under its program.

6. Training and Protection of IHs. Because hazardous waste sites may be significantly different from other industrial sites, IHs must be properly trained and have adequate equipment before being assigned to conduct inspections of such sites.

a. Training. The following courses must have been completed before any hazardous waste site inspection activites may be undertaken:

(1) EPA's "Hazardous Materials Incident Response Operations" course (#165.5) held at the EPA training facility in Edison, New Jersey, or other locations designated by EPA or an equivalent course.

(2) OSHA Training Institute "Respirator Training" course (#100-57) or an equivalent course.

(3) An in-house training program including refamiliarization in the maintenance, use, and limitations of the equipment whenever an IH may be required to wear self-contained breathing apparatus.

b. Trained Personnel List. A list of the names of trained personnel will be maintained by the Chief IH, and the Deputy Director will be informed of any changes in the names of trained personnel for hazardous waste response activities.

c. Decontamination Facilities. When decontamination facilities exist at the inspection site, the IHs shall utilize them if, in their professional judgment, they are adequate. In the event that adequate decontamination facilities are not available, IHs shall adopt the prescribed methods outlined in the "EPA Hazardous Materials Incident Response

Operations Training Manual" (course #165.5). If a lead agency such as the EPA or U.S. Coast Guard is involved, IHs shall coordinate all decontamination activities with them.

d. Personal Protective Equipment for IHs. There are four levels of protection (A, B, C and D) described in the EPA Hazardous Materials Incident Response Operations Training Manual.

(1) Because of the extreme hazards normally involved when Level A protection is prescribed, IHs will not be assigned to conduct inspections at sites requiring such protection and will not be equipped for entering any areas where this level of protection is required.

(2) IHs must, however, be equipped for entering areas requiring Levels B, C or D protection.

NOTE: Whenever an IH wears self-contained breathing apparatus (SCBA), a "buddy system" shall be implemented wherein three IHs, identically equipped, shall be required--two IH personnel are to make entry and a third IH is to remain in a safe location as a standby and to assist in emergency rescue and decontamination, if necessary. Appropriately equipped and trained personnel other than Industrial Hygienists (e.g., on-scene EPA personnel) may be substituted for the required number of Industrial Hygienists under the "buddy system".

(3) At a minimum, the following equipment must be available for each IH who will be conducting hazardous waste site inspections:

(a) Clothing.

1 Nomex jumpsuit.

2 Chemical splashsuit, hooded, Saranex/Tyvek.

3 Raingear, 2-piece suit.

4 Hardhat, adjustable.

(b) Footwear.

1 Leather safety boots.

2 Chemically resistant boots, non-sparking, nonconductive material, 12-inch safety toes and steel shank.

3 Single use overboots.

(c) Eye Protection.

1 Safety glasses, prescription if necessary.

2 Safety glasses, prescription if necessary for regular use under SCBA (short leg or adapter kit).

3 Chemical splash goggles.

b Respiratory Protection.

1 SCBA, pressure demand, 30 min., with extra tank.

2 Full-face, air purifying combination canister approved for organic vapors, dust, mists and fumes, with extra canisters.

3 Half-face, air purifying, combination cartridges or organic vapor with dust, mist, fume pre-filter.

4 SCBA, emergency escape, 5 minutes.

c Gloves.

1 Cotton inner gloves (for wicking moisture under other gloves).

2 Neoprene/Latex, lightweight inner gloves.

3 Chemical, outer glove, 14-inch length, 22 ml thickness (nitrile rubber).

4 Working gloves, leather.

d Miscellaneous Equipment.

1 Small explosion-proof flashlight with batteries.

2 PVC bags, 8 mil.

3 Sample bottles.

4 Plastic bags for samples, ziplock type.

5 Wipe test - Whatman 41 filter paper.

6 Knife - pocket-type, folding.

7 Scissors.

8 Qualitative fit test equipment.

9 PVC bags - for decontamination.

10 First aid kit.

11 Tape, high tack adhesive, duct.

(4) The following equipment may be useful on a case-by-case basis when conducting hazardous waste site inspections:

a Underwear, cotton (100%), lightweight thermal.

b Socks, cotton.

c PVC plastic drop tarps and tiedowns.

d Warning signs.

e Long-handled stiff bristled brush.

f Cold water detergent.

g Plastic buckets, 5-gallon.

h Water proof log book, pencils, and chemical resistant pens.

i Fire extinguisher, small.

j Wooden mallet.

k Polyproplylene/nylon barrier rope.

l Tape, barrier.

m Pop-up tent.

n Binoculars.

o Face shield.

p Walkie-talkie.

(5) For a more thorough description of precautions IHs should take, see Appendix B.

Robert J. Bacolas, Director

Reviewed and Approved

Jim Robison, Commissioner