ALASKA DEPARTMENT OF LABOR
DIVISION OF LABOR STANDARDS AND SAFETY

DOSH Program Directive 87-2

September 16, 1987

To: All DOSH Staff

Subject: Systems Safety Evaluations for Operations with Catastrophic Potential

A. Purpose: This Program Directive provides policy and procedural guidance for systems safety in workplaces with chemical-related operations which have catastrophic potential.

B. Directives Affected: DOSH Program Directive No. 86-4 is cancelled. Reference is also made to Chapter IV of the Compliance Manual for General Duty Clause citations; Chapter IX of the Compliance Manual for referrals and the IMIS Forms Manual.

C. Background

1. Catastrophic releases of chemicals abroad and in the United States alerted federal OSHA to the need for special measures to ensure the safety of workers in facilities where hazardous substances are made, used, stored or handled.

   Alaska participated in a national emphasis program in FY 86 to test policies and procedures for comprehensive safety and health systems inspections in such work places. The program demonstrated that Alaska's industrial hygienists were effective in identifying potential hazards during process safety reviews. Moreover, these inspections had an affect on other firms in the chemical industry.

2. Alaska OSH recognizes that potentially hazardous chemical releases are not limited to chemical manufacturing operations similar to those investigated in the FY 86 special emphasis programs. The precautions used there should also be implemented, as may be appropriate, in all operations in which hazardous chemicals are used, mixed, stored, or otherwise handled. Alaska OSH will pursue policies which will encourage employers to conduct systems safety audits and will incorporate system safety inspections into the Alaska OSH enforcement program.

3. By incorporating systems safety inspections into the regular Alaska OSH enforcement program, Alaska OSH adds flexibility to its policies for averting catastrophic chemical releases. While conventional inspections focus on potential violations of standards, these inspections focus on the comprehensiveness and integrity of the overall management of systems which manufacture, use or handle hazardous chemicals. Alaska OSH will also encourage employers to improve and to maintain the quality of safety and health systems management, and especially to implement valid self-audits of chemical-related systems.

D. Procedures. The following procedures apply to all comprehensive health inspections, including programmed health inspections and expanded unprogrammed health inspections. They shall also be considered when investigating chemical-related fatalities and catastrophes, complaints, alleged systems safety-related deficiencies hazards, or referrals from agencies and other sources. The procedures cover two phases of the enforcement process: first, identification of establishments which will receive systems safety inspections, and second, general procedures for conducting systems safety inspections.

1. Identification of Work Places for Systems Safety Inspections.

a. The screening procedures outlined below are based on regular Alaska OSH referral procedures except that the referral is made by the Chief or other reviewing management official. (See Compliance Manual, Chapter IX.) The Industrial Hygienist (IH) is obligated to alert the Chief, Industrial Hygienist to cases where the IH feels a referral is appropriate.

b. These screening procedures are to be integrated into the normal inspection process. They rely on information which should be gathered in any thorough industrial hygiene inspection. Thus, the screening guide, Appendix B of this notice, should be completed when the inspection is well underway, after conditions in the workplace have been observed and when information about safety management systems has been verified. This may not occur until the inspection is nearly complete.

c. Note, however, that an IMMEDIATE referral may be called for when conditions in the workplace are extremely hazardous and are likely to expose employees to immediate catastrophic risk. This is an area where professional judgment must be exercised.

d. The following procedures apply to all comprehensive health inspections and expanded unprogrammed health inspections:

(1) Early in the inspection, IHs shall compare the employer's inventory of chemicals prepared in compliance with the Hazard Communication Standard (29 CFR 1910.1200)) with the two lists of chemicals found in Appendix A.1/ In many cases, the MSDS will have to be reviewed since the required inventory may list chemicals by trade names and common names.

NOTE: This is likely to be a time consuming process since the lists will (may) contain many chemicals outside the IHs past experience.

(2) If no hazardous chemicals are found, the IH will continue with the planned inspection. A notation should be made in the file that no chemicals listed in Appendix A were found in the establishment in quantities.

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[1] SOURCE: EPA 40 CFR Part 300, November 17, 1986, pp. 41582-4192 Appendix D Emergency Planning and Community Right to Know Programs: Interim Final Rule and Proposed Rule Cross-Reference. Working Paper on Control of Major Hazards in Industry and Prevention of Major Accidents, pp. 30-34 Appendix II and Annex IV International Labor Office General 1985 NFPA 325M. The list of hazardous chemicals was compiled from several sources: Industry, EPA, ILO, and NFPA 325M.

(3) If the inventory shows that listed chemicals are present in the workplace in amounts greater than the threshold quantities for List 1 or greater than 660 gallons for chemicals on List 2 (refer to Appendix A), the IH shall continue with the inspection, and obtain the information listed in the screening guide.

(4) If the employer has not developed an inventory of chemicals for the purpose of complying with Subchapter 15--Hazard Communication, the IH will determine whether any of the chemicals found present in the workplace are listed in Appendix A.

(5) At the closing conference, the IH shall:

(a) Inform the employer of the potential referral,

(b) Explain the factors which will be used in evaluating the safety systems in the workplace, and

(c) Provide the employer with a copy of the Inspection Guide (Appendix C) and the list of hazardous chemicals (Appendix A). An employer letter has been supplied in Appendix E for use as a cover letter.

(d) The IH shall encourage the employer to take necessary steps to meet inspection guidelines.

(6) The IH shall provide the Chief, IH with written results of the screening and appropriate documentation from the record.

(7) The Chief IH shall determine whether a referral should be made, based on information provided in the screening survey, the inspection record (case file) and local knowledge (previous inspection history, chemical accidents or releases, etc.).

(8) If the referral will NOT be made, that decision should be explained briefly in

writing, and added to the case file. Consideration will be given to the appropriateness of issuing a letter of recommendation(s) based on the information available in the case file.

(9) If the Chief, IH decides that a referral is indicated, a comprehensive safety systems inspection will be scheduled. The basis for the decision shall be noted in writing and added to the case file.

2. Conducting the Systems Safety Evaluation. The systems evaluation will be conducted as follows:

a. Normal opening conference procedures shall be followed. The employer will be informed of the purpose of the inspection, its likely scope and potential duration, and the reasons that the workplace was selected.

b. The guidelines provided in Appendix C will be followed.

c. The inspection shall be conducted by a qualified compliance officer team, as specified in F. Inspection Personnel. (page 6)

d. The citation policy described in G. Citation Policy. (pages 6-7) will be applied. Thus, in addition to citations for violations of standards or of the general duty clause, employers may be given recommendations in writing that specify ways in which identified potential hazards can be eliminated.

3. Scope of the Systems Inspection.

a. Professional judgment will be the primary determinant of the scope of the inspection.

b. Inspection teams should review referral decision documentation to note items which identified the workplace as potentially hazardous--for example, a large quantity of a particular chemical, or absence of emergency plans, or lack of appropriate safety and health expertise. Such items shall be emphasized in the inspection.

c. In large establishments, it will not be possible to conduct systems evaluation of all operations or process units. IHs should focus on potentially critical elements in the system. They may restrict physical inspection to areas where specific chemicals are manufactured, used or handled.

d. Review of the process safety systems, emergency procedures and safety management should be comprehensive and not limited to only a single area of the establishment.

E. Trade Secrets. Particular attention shall be paid to trade secret considerations. Information requested shall be screened carefully to ensure that all potential trade secret materials are properly identified and marked. At the conclusion of the inspection all information that is not required for compliance purposes shall be returned to the company.

F. Inspection Personnel.

1. The Chief IH shall designate at least three journeymen IHs to conduct systems safety evaluations. During FY 1988, one of the three IHs will complete the OSHA Institute course entitled, "Safety and Health in the Chemical Industry." This IH will be the leader of the evaluation team. Other IHs will be provided, as resources become available, this training course.

2. Because it will be several months before the OSHA Institute course becomes available, the Chief IH may, if he determines that a systems safety evaluation is necessary, conduct such an inspection before an IH receives this training.

3. An evaluation team will consist of two journeymen IHs. If an evaluation of the screening data indicates a safety compliance officer is required, the Chief IH shall arrange to have a safety compliance officer assigned to the team.

G. Citation Policy. The provisions of the Compliance Manual shall be followed in issuing citations, including general duty clause citations.

1. Within the areas of primary concern, few standards have been promulgated. While some hazards may be citable under the general duty clause, other hazards shall be handled by a letter to the employer.

a. Whenever a hazardous condition not covered by a standard is found, and the decision is made not to cite the condition under the general duty clause in accordance with the provisions found in Chapter IV of the Compliance Manual, A.2.f.(2)(b), the appropriate letter shall be sent advising the employer and the employee representatives of the hazardous condition and suggesting corrective action.

b. Recommendations made to employers shall be noted for special attention in subsequent inspections.

H. Recording in the IMIS. The AK OSH-1, Inspection Report, will be completed consistent with current instructions provided in the IMIS Manual. In addition, the IH shall make an entry into "Optional Information" (Item 42) as follows:

1. For inspections in which the screening guide, Appendix B, is completed enter:

   Type = N, ID = 18, Value = SCREEN.

2. For systems safety inspections which are referrals generated from a supervisory review of a completed screening guide enter:

   Type = N, ID = 18, Value = SCRSYSTEM

3. For systems safety inspections generated from activity other than those presented in L.2. above enter:

   Type = N, ID = 18, Value = OTHSYSTEM.

I. Evaluation. Evaluation will focus on:

1. Resource requirements for systems evaluation.

2. Impacts of systems evaluations on systems safety in individual plants, firms and industries.

3. Reliability of targeting and screening mechanisms for systems evaluations.

J. Review and Coordination. Experience with systems evaluation indicates that it is useful to have a means of comparing classification of hazards (e.g., citations for violation of standards or general duty clause versus issuance of recommendations to the employer) across organizational lines. Further, it is necessary to facili-

tate sharing of technical information about chemical-related processes. To achieve these objectives, the Chief IH will:

1. Submit copies of the complete files to the Deputy Director who shall transmit them under the Commissioner's signature to the OSHA Regional Administration.

2. Conduct periodic reviews of citations to assure consistency.

K. IH Protection. Because of the targeting nature of systems safety inspections it is important that our IHs be familiar with a facility's existing emergency response plans. The IH must be able to properly identify the meaning and appropriate response to various emergency alarm systems which may exist at the site. Additionally, the IH must assess his/her personal protective equipment (PPE) needs (Technical support staff may be of assistance with this effort). The Chief, IH is responsible for ensuring that appropriate protective equipment is available for use by the inspectors.

Tom Stuart, Director

REVIEWED AND APPROVED

Jim Sampson, Commissioner