

North Carolina Department of Labor
Division of Occupational Safety and Health
Raleigh, North Carolina

Field Information System

Operational Procedure Notice 77

Subject: Occupational Safety and Health Response to Significant Events of Potentially Catastrophic Consequence

A. Purpose. It is the policy of the North Carolina Division of Occupational Safety and Health to respond as quickly as possible to significant events which may affect the health or safety of employees.

1. Response to a significant event requires the attention of top division officials as well as appropriate compliance personnel.
2. This policy has been established to ensure that each significant event is thoroughly and promptly investigated and that all necessary resources are devoted to such investigations.
3. The objective of an investigation conducted pursuant to this policy is to determine the likely cause(s) of the event.
4. For purposes of this policy, a "significant event" is defined as an occupationally related incident involving multiple fatalities, extensive injuries, massive toxic exposures, extensive property damage, or one which presents potential workers injury and generates widespread media interest.
5. This policy is responsive to OSHA Instruction CPL 2.94 and is as effective as comparable federal guidelines.

B. Scope. This policy applies to significant events of potentially catastrophic consequence under the jurisdiction of the state plan.

C. References.

1. Portions of the Operations Manual relating to Compliance activity.

2. OSHA Standard 1910.120, Hazardous Waste Operations and Emergency Response.

D. Background.

1. Investigation of workplace conditions which cause, or could cause, catastrophes resulting in multiple loss of life and significant property damage is the Division's highest enforcement priority. The Division must ensure that its efforts are well focused during these complex investigations.

2. Safety and health professionals have learned from recent investigations of such catastrophic events as the L'Ambiance Plaza building collapse and the fire at the Imperial Food Products Plant that there are common elements present in all such successful investigations that ensure their efficiency and effectiveness. This policy has been developed to assist field personnel in the orderly investigation of these unpredictable events.

3. The Division must be an active and forceful protector of employee safety and health during the clean-up, removal, storage, and investigation phases of these catastrophic events, while maintaining a visible, but limited role during the initial response phase. Catastrophic events are usually handled at the local level by the mayor with the local fire and police departments having site responsibilities. When a state presence is warranted, the preemption of local authorities may generate dissention or hostility which are counter-productive to the investigation. Communication and coordination among state and local agencies during their response to catastrophic events become crucial for operational considerations.

E. Procedures. In the investigation of significant events, the policies and procedures given in the Operations Manual, Chapter VIII, shall be followed, except as identified in this policy.

1. Preparation for Investigations of Significant Events.

a. Training.

(1) All Safety and Health Compliance Officers shall be trained in the basic elements of this policy within 90 days of its effective date. Refresher training on the procedures contained herein will be provided at least annually.

(a) It is anticipated that training provided pursuant to this policy will include a mock catastrophic accident investigation response and investigation plan development.

(b) Training shall also provide an overview of division's activities pursuant to local authorities and appropriate interagency coordination.

(2) The Director shall also ensure that Compliance Safety and Health Officers (Cashes) designated a specialist pursuant to 29 CFR 1910.120 receive training or demonstrate competence in the area of the specialization at least annually.

(3) Individuals with specialized skills or experience may expedite the investigative process. Therefore, the Director shall ensure that a skills/expertise profile of personnel be maintained as a reference for selecting staff for investigations of significant events. The list should include Compliance Officers with advanced training; such as, hazardous waste operations and emergency response, chemical industry emphasis program, and construction courses involving training on catastrophic potential.

b. Resources.

(1) The Director shall ensure that District Offices maintain the full complement of equipment necessary to investigate the hazards commonly found in the workplace. In addition, a contingency plan shall be developed to ensure that specialized technical equipment within the State can be provided on-site at a significant event within 24 hours.

(2) The Director shall ensure that adequate personal protective equipment for Compliance Officers is available.

(a) Each CSHO shall be trained in the proper care, use, and limitation of the personal protective equipment (PPE).

(b) If additional PPE is necessary, it must be obtained prior to exposure. Under no circumstances shall a CSHO be unprotected from any hazard encountered during the course of the investigation.

(3) North Carolina Division of Occupational Safety and Health personnel shall be the first choice as experts rather than outside experts. Any available Bureau of Consultation personnel shall be called upon as experts whenever appropriate.

(4) The Director shall determine the availability of qualified private sector consultants for the various types of anticipated events. A listing of private sector consultants and their specialties shall be maintained and updated annually. Preliminary contact with these consultants shall include discussion of items such as expertise, cost, availability, confidentiality, etc.

(5) Availability and expertise of testing laboratories shall be identified.

(6) The division's utilization of the expertise of Federal OSHA should be coordinated through the Director's Office. This includes requests for support from other off-site Federal agencies such as National Institute of Standards and Technology, National Institute for Occupational Safety and Health (NIOSH), Environmental Protection Agency (EPA), Mine Safety and Health Administration (MSHA), or other state agencies.

2. Initial Response/Verification.

a. The division's policy is to respond to significant events as quickly as possible; therefore, off duty telephone numbers for the following personnel shall be maintained and available for use by the Director 24 hours a day:

(1) Commissioner of Labor.

(2) Deputy Commissioner of Labor for Health and Safety.

(3) Bureau Chief of Compliance.

(4) Assistant Director.

(5) Assistant Bureau Chief of Compliance.

(6) District Supervisors.

b. Additionally, because equipment and supplies which may be necessary for an accident investigation are stored at the District Offices, District Supervisor shall ensure that CSHOs have access to the District Office during off duty hours.

c. Notices of significant events can be received from many sources. Regardless of the source of the notices, the following actions must be taken to ensure that an inspection team will be adequately prepared.

(1) If the initial report of an incident is received from the employer, the person receiving the report shall obtain all the information required to complete

the OSHA-36(s) Accident Report if appropriate. In addition to the information contained in the OSHA-36(s), the person receiving the report shall attempt to obtain the following information:

- (a) Current status of the situation (i.e., is a continuing hazard present);
- (b) What the company is doing to protect employees still on the site;
- (c) Area or location of incident in relation to neighboring plants, storage areas, or residential area; and
- (d) Other governmental agencies on the site including the identification of the "lead" agency, i.e., police, fire department, etc.).

(2) If the initial report is received from a source other than the employer, the person receiving the report shall attempt to obtain as much of the above information as possible:

- (a) If the Bureau Chief of Compliance feels that additional information is necessary to ascertain the occurrence of a significant event, the employer shall be contacted. Contacting the employer in this situation constitutes advance notice, and the Operations Manual, Chapter III, C., applies.
- (b) If the Bureau Chief of Compliance is unable to obtain all the information needed, other sources shall be contacted. This includes police and fire departments, hospitals, television or radio stations, newspapers, or other government agencies.
- (c) Immediately upon receipt of information from any reliable source that a significant event has occurred, the Bureau Chief of Compliance shall dispatch a CSHO and/or District Supervisor to the site to obtain information and establish an agency presence.

1 The person(s) dispatched shall have all appropriate PPE and, shall begin an investigation at this time and may not necessarily be assigned to any subsequent inspection.

2 This individual's primary function is to gather preliminary information regarding the incident which will be used to assess the need for further OSH involvement.

(d) The Bureau Chief of Compliance shall notify the Director as soon as possible of any indication of the occurrence of any catastrophic event after news of the event is received and confirmed imparting the following information:

- 1 Location of accident including county and Zip Code;
- 2 Company or companies involved and type of business;
- 3 Type of incident (structural collapse, chemical release, etc.);
- 4 Date and time of event;
- 5 Number of persons killed, injured, or unaccounted for;
- 6 Status of rescue operations;
- 7 Whether an agency representative is on-site, or inroute;
- 8 Person(s)/agency(ies) in control of site;
- 9 Other organizations/agencies on site;
- 10 Telephone numbers of all parties on site;
- 11 Other significant information and sources of such information.

(e) Notification of the Director or alternative will be attempted regardless of the time the Bureau Chief receives clear information concerning the incident. The Director's notification should not be delayed for details from the site if there is significant national news media coverage of the incident.

(f) The Director at the time of this initial report will advise the Bureau Chief of Compliance of the need to implement the procedures contained in this instruction.

(g) The Director is responsible for notifying federal OSHA of any significant event.

(h) The Director, upon verification of the magnitude of the event, shall assess the need for a team investigation of the incident. Procedures

outlined in paragraph e.8. of this policy shall be followed if a team approach is warranted.

3. Initial On-site Investigation Activities.

a. Upon arrival at the incident scene, the division representative (CSHO or District Supervisor) dispatched by the Director, or Bureau Chief of Compliance shall establish contact with the employer and the on-scene Incident Commander (as defined at 1910.120(q)(3)) as soon as possible. The opening conference may be delayed only if management is engaged in rescue or emergency response activity.

b. The division representative first on the scene should use a video camera to document all characteristics of the event. Continued extensive use of the video camera is recommended throughout the initial stages of the investigation since conditions can change rapidly in such emergency situations. This documentation may later prove invaluable in determining the cause of the accident. A team member shall provide a voice-over narrative to describe what is being taped as the videotape is recorded. Use of audio tape recorders early in the investigation is also encouraged. Audio tapes may be transcribed once the site is stabilized.

c. During emergency response activities the team leader shall be available to provide assistance to responders through consultation with the on scene Incident Commander or designee. There may be safety and/or health concerns about entry into the accident area, and therefore, changes in the accident scene may be necessary in order to make the area safe. Any changes shall be carefully documented.

d. If terrorist or criminal activity is suspected, the Director shall make every effort to ensure the security of division personnel. The Director shall contact the State Bureau of Investigation or local law enforcement officials as soon as possible.

4. Division's Role in Ensuring Protection of Emergency Responders.

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5. Coordination of OSH Activities with Other On-Site Authorities.

a. Response of OSH personnel to emergency situations require careful consideration due to the following factors:

(1) Other state and/or local authorities may have legislated roles in providing emergency response to ensure protection of lives and property.

(a) The importance of OSH's coordination and cooperation with and technical assistance to these authorities during the initial phases of OSH's on-site activity cannot be over-emphasized.

(b) The Division can often utilize reciprocal support from local and/or other state authorities to eliminate the necessity for initiating legal action in ensuring site and evidence control.

b. For certain significant events federal governmental agencies; namely, Environmental Protection Agency (EPA), Nuclear Regulatory Commission (NRC), U.S. Army corps of Engineers, or the Coast Guard may exercise management and control in emergency response and hazardous waste site activities. Where necessary, the Bureau Chief of Compliance shall consult with the Director to determine if the spill, accident, or emergency situation in question falls within the specific authority of a Federal Government agency.

c. The presence of on-site division personnel, if not properly managed, could complicate rescue operations, clean-up, or other emergency response activities.

d. OSH personnel are not, in general, specifically trained or experienced in directing emergency response or serving as the Incident Commander, therefore;

(1) Only those CSHOs who have received special training in emergency response including advanced respirator use may engage in on-site consultation activities regarding respiratory protection. Consultation shall be through the Incident Commander, normally through the safety officials.

(2) All inspection duties during this phase of the investigation must be performed by Compliance Officers who have successfully completed all OSHA required training courses or their equivalent as outlined in 29 CFR 1910.120(q) and 29 CFR 1910.134.

(3) If no trained Compliance Officers are available the District Supervisor shall consult with the OSH Director and/or the Bureau Chief of Compliance Personnel with appropriate training.

e. Under certain circumstances, a federal monitor may be sent to the emergency site to obtain information about the significant event, to provide additional technical assistance, or serve as a liaison with federal OSHA. This activity will be coordinated and approved through the Director's Office.

6. CSHO Protection During the Initial Phase of the Investigation.

a. The paramount concern addressed by this section is the protection of Compliance Officers. No enforcement action, or accident investigation activity is so important as to place the life or health of the Compliance Officer in danger.

b. During the initial phases of the division's response to a significant event, personnel may encounter hazardous conditions which present a significant risk to their safety and health. Among the potential hazardous conditions that may be encountered are: Highly toxic atmosphere and surface contamination, including carcinogens, the identity and concentration of which may not be known; explosive or corrosive atmospheres; confined spaces; and the potential for spontaneous generation of atmospheres immediately dangerous to life and health.

c. The team leader shall ensure that the following precautions are taken:

(1) Prior to entering a potentially hazardous area at the incident site, determine if any of the following prohibited entry categories may be encountered:

(a) Explosive substances are present or flammable substances are present in concentrations exceeding 10% of the lower explosion level (LEL).

(b) Site is on fire.

(c) Potentially hazardous unidentified substances are present, preventing an adequate determination of precautions for the safety and health of the CSHO.

(d) Hazardous equipment and/or mechanical devices are operating and cannot be shut off and locked out, or pipelines cannot be isolated and/or shut off.

(e) Adequate personal protective equipment (PPE) is not available for protection against the contaminant or biohazard present or CSHOs are not fully trained in use of the PPE.

(f) Ionizing or non-ionizing radiation is present at levels which would result in exposures of personnel exceeding permissible exposure levels.

(g) Entry of pressurized chambers where decompression facilities are not available on-site.

(h) Presence of, or high probability of rapid generation of, atmospheres immediately dangerous to life and health.

- (i) Structure or excavation is in danger of collapse or cave-in.
- (j) Decontamination equipment is not available.

(2) If any of the above conditions exist or is likely to occur during the course of an inspection, the Team Leader shall refer the particulars of the situation to the Bureau Chief of Compliance. Entry into the hazardous area is prohibited unless entry is essential to the investigation and approval is granted by the Bureau Chief of Compliance.

(3) Where necessary, the Bureau Chief of Compliance shall discuss the hazardous conditions reported by the Team Leader with the Assistant Bureau Chief of Compliance and an Industrial Hygienist Supervisor, prior to determining an appropriate course of action.

(4) No compliance officers shall enter any area where Level A (as defined in Appendix B of 1910.120) protection is required without the specific approval of the Director.

(5) Inspection activity must be carefully planned to minimize the on-site time required, thus reducing potential exposure time.

7. Team Inspection Procedures/District Office Contingencies.

a. As determined by the scope and magnitude of the event, it may be necessary for the Director to assemble an inspection team to provide a comprehensive approach to the investigation. Members of an inspection team shall be selected based upon their experience and abilities. Recommendations to the Bureau Chief of Compliance for team members from outside the affected District may be necessary. (See the Operations Manual, Chapter VIII.)

(1) It may be necessary to divide the inspection team into subgroups which address certain aspects of the investigation.

(a) For example, one group may investigate emergency response activity, a second group may address system safety while a third group addresses circumstances around the initial accident.

(b) The coordinator of the inspection team must keep notes on a daily basis concerning the investigation activity. The notes shall be placed in the case file.

(2) The function of an investigation team is to conduct the applicable phases of the safety and health investigation. The safety and health investigation can begin while the emergency response phase is on going as long as interference with the emergency response team is avoided. The team shall follow existing procedures as outlined in Chapter VIII of the Operations Manual. In addition, the team shall:

(a) Evaluate potential hazards at the site, if the Director determines a comprehensive inspection should be conducted.

(b) Contact family members of deceased or seriously injured according to division policy.

(c) Provide suitable progress reports to the Bureau Chief of Compliance or Director.

(d) Be present during physical evidence sampling or removal. Taking custody of evidence is authorized while maintaining chain of custody in writing as needed.

(e) Gather witness testimony and obtain written interview statements.

(f) Obtain and assemble copies of all needed reference documents.

(g) Complete the necessary OSHA forms.

(h) Compile the case file(s).

b. A District Supervisor or Compliance Officer II from the responsible District Office shall normally be designated as the Investigation Team Leader (ITL).

(1) The ITL is responsible for coordinating and directing the investigation and reporting findings to the Director on a daily basis or more often if critical information is obtained.

(2) The responsibility of this role cannot be overemphasized for it is the ITL who acts as spokesperson for the agency in meetings with company, union, insurance, consultant, and state and local agency officials.

(3) The ITL must be aware of the direction and findings of other investigators as well as those of the team. Thus, the ITL's direct investigative work must necessarily be limited since much time and effort must be spent in effectively managing these coordinating functions.

(4) The ITL must assimilate information from all sources and make prompt and accurate decisions regarding the utilization of resources which are at the leader's disposal and must promptly communicate needs and findings to superiors.

(5) A concise chronology is an invaluable asset to this process and is therefore required. It must include not only events related directly to the incident but also brief notes on meetings, telephone conversations, video and audio recordings, and decision processes, including dates and times.

(6) The ITL must also conduct daily planning sessions with the inspection team and other agencies as necessary in order to be apprised of findings as well as to plan strategy and clearly communicate future investigative activities. Other agency contact could include local authorities as well as the SBI and other state agencies.

c. The responsibilities of CSHOs and other team members are not dissimilar to those of any other team inspections. Specialized assignments, however, may be appropriate in some cases.

(1) A CSHO shall be designated as the OSH Site Safety Officer. This individual will be delegated the primary responsibility of advising the ITL on the safety and security of division personnel. This specialist CSHO may also function as the primary technical advisor to those engaged in dealing with controlling the significant event. This CSHO must be assured direct access to the Incident Commander's Safety Official at the scene. This CSHO shall report directly to the ITL.

(a) The ITL shall specify the required personal protective equipment after consultation with the OSH Site Safety Officer.

(b) After the existence of an emergency situation has been confirmed and the need for an investigation team established, no District Office shall leave for the scene without minimum protection and investigative equipment, as required by the OSH Site Safety Officer.

(2) The Investigative Team Leader shall provide information to the Bureau Chief of Compliance as conditions dictate.

(3) Personnel from outside the District Office may be assimilated into the team so as to conduct an effective investigation and to utilize their skills efficiently.

(4) Team members shall be reminded to refer media inquiries and questions on inspection policies and procedures to the Communications Division.

d. A "command post" must be established at or near the site to coordinate OSH activities.

(1) The command post must be established as soon as it is determined that significant event investigation procedures will be followed.

(2) A government office or a hotel room is ideal for meetings, briefings, storing extra personal protective equipment, telephoning, etc.

(3) In those special cases where there is no available space, it may be necessary to use a vehicle as the on-site command post. In such circumstances, the vehicle shall always be at a specified location and shall have an identifying flag or pennant either mounted on the roof or flown from the radio antenna.

e. On extensive investigations it may be necessary to provide adequate space on the site for compliance staff to review employer documents and diagrams and to conduct interviews.

(1) If the situation arises where a company will not or cannot provide space for Compliance Officers to work, the rental of a mobile office, motel room or other working quarters may be necessary.

(2) The District Supervisor shall investigate sources of temporary offices as part of their pre-disaster planning.

(3) Office equipment needs may include the following:

(a) Telephone services (wired and cellular).

(b) Copy Machine.

(c) Work Tables.

(d) PC with e-mail Capability and printer.

(e) Automated Telephone Answering Machine.

- (f) Fax Machine.
- (g) Locking File Cabinet.
- (h) Durable tags for identifying evidence.
- (i) Office Supplies.

8. Site Control/Coordination

a. Team leaders must get to the scene of the catastrophe as soon as possible after it has occurred, or during the occurrence if possible.

(1) The Bureau Chief of Compliance and the District Supervisor shall ensure that the following pre-inspection actions are accomplished:

- (a) Assess the extent of damage and personal injury;
- (b) Establish appropriate security and isolation of the area involved.

- (c) Obtain the confidence and cooperation of company and other response officials involved, especially the on scene Incident Commander, in order to proceed in an orderly and efficient manner.

- (d) Evaluate any remaining hazards.
- (e) Begin documenting (videotaping or sketching and photographing when a video camera is not available) the accident scene.
- (f) Develop protocol for conducting the investigation.
- (g) Identify all potential witnesses to the accident.
- (h) Evaluate operating conditions just prior to the accident.
- (i) Make a preliminary estimate of the accident cause.

(2) The team members' initial actions shall be carefully considered. Rather than rushing out and examining evidence immediately, they shall allow time for briefings by the senior officials of the operating organization. The investigators' main interest at this time is to establish a cooperative working relationship with the employer's representative(s).

b. It is most important to coordinate division activities with other responders to establish jurisdiction and ensure control of the site.

(1) The team leader shall make every effort to obtain information from these responders (and exchange information with them to the extent permitted by procedures).

(2) Other State and local agencies may also be involved in investigation, rescue or recovery, or clean-up activities. The OSH representative shall contact the principal representative and establish a cooperative arrangement. While the Division cannot abrogate its responsibility in favor of another agency, every effort shall be made to cooperate in obtaining and exchanging information.

(3) The team leader shall determine whether other state agencies or local government authorities are on site to investigate the accident. Contact with such authorities shall be made as quickly as possible by the team leader to arrange for control of the site.

c. On a large inspection site, one primary employer contact shall be identified to accompany the inspection team on walkaround activities. This person need not be the most knowledgeable person in plant operations but must be familiar with the area and able to contact appropriate company and union personnel as necessary. The primary employer contact must be available for investigation activities at all appropriate times, so as not to hinder the investigation.

d. If an employer refuses OSH access to the accident site, the CSHO shall inquire as to the reason. The CSHO and/or District Supervisor shall immediately contact the Bureau Chief of Compliance and give him all available information.

(1) The CSHO shall continue offsite inspection activity including gathering information from other agencies, taking photographs and videotaping the scene from a public area, and interviewing witnesses offsite while the warrant is being prepared.

(2) If entry is refused, the procedures for dealing with the refusal shall be followed, but every effort shall be made to speed the process; e.g., telephone communications shall replace written requests. (Any consultation projected to be used during the inspection shall be included in the warrant application.)

(3) If the employer or other parties refuse to give access to records, the CSHO shall carefully document what records are at issue, why they are needed, who has custody of the records, who refused access, and when the refusal occurred. This

information shall be immediately transmitted to the Bureau Chief of Compliance who shall determine if a warrant or an administrative subpoena is appropriate.

(4) It may be necessary to issue administrative subpoenas for records, documents, or other physical evidence. Due to the complexity of an emergency condition and the potential need for a fast response, the Director shall consider an expedited procedure for issuing subpoenas.

(5) If a witness refuses to be interviewed or to give a statement, the CSHO shall document the person's name, address, title, and information pertinent to the inspection which that person may have. This refusal, and the information obtained, shall be transmitted immediately to the Bureau Chief of Compliance in order that an administrative subpoena can be secured compelling the individual to appear and be deposed.

e. The Division presently has no regulations to require an employer or any other authority to limit access or prohibit removal or disturbance of materials which may constitute physical evidence at a worksite. The team leader shall decide, even in the presence of police security, whether it is necessary to place the site under 24-hour-a-day observation. Assistance of the on scene Incident Commander shall be obtained if possible. Such observation must continue until all necessary physical evidence is obtained.

(1) The need for this observation is twofold. It reduces the likelihood of further injuries to personnel and it prevents the removal of equipment and debris from the accident area, thereby ensuring that evidence is not tampered with or inadvertently destroyed.

(2) If it appears that either lack of site control, material alterations, or removal of materials will interfere with the OSH investigation, the team leader shall notify the Bureau Chief of Compliance who shall contact the Attorney General's Office to get an appropriate court order. In no case shall an OSH representative attempt to exert authority without such an order.

(3) The representatives of other agencies may have a need to remove material and/or to search for missing physical evidence. In addition, during rescue/recovery operations, much of the physical evidence may be removed, displaced, or destroyed. Therefore, it is imperative that every effort be made, as soon as possible, to establish site control and preserve the physical evidence by coordination with the agencies on the site, especially the on scene Incident Commander, as well as those who will be involved later.

f. OSH's jurisdiction may be preempted by another Federal agency under NCGS 95-128 of the Act. In such cases, the guidelines given in the FOM, Chapter III, D.5.a., shall be observed with the following special considerations:

(1) If it is reasonably possible that the Division has coverage, the Bureau Chief of Compliance shall start the investigation at once and not let potential NCGS 95-128 problems interfere with either notification of the Director or with the investigation. The Director, in consultation with the Commissioner of Labor and the Attorney General's Office, shall determine whether OSH has jurisdiction over the worksite in question as quickly as possible.

(2) Where it is likely that Division authority is preempted, such as coal mine accidents, no investigation shall be conducted. The Director shall be notified of these incidents.

g. Inevitably circumstances will arise that are not covered by the preceding sections of this policy. The OSH Director shall be alert to these unusual circumstances so that proper action can be taken and their occurrence will not hinder the investigation.

(1) NCAC T13:07B.0104(b) authorizes the agency to seek a warrant in advance of any attempted inspection if circumstances are such that "reinspection process is desirable or necessary." Issuance of the anticipatory warrants is addressed in the Operations Manual, Chapter III, B.3.

(2) In the event of a denial of entry occurring on a weekend, the Director shall determine if a warrant is needed prior to the following Monday. If so, the Director shall be informed of this need and shall in turn contact the Attorney General's Office.

(3) After approval from the Attorney General's Office, arrangements must be made to have a magistrate sign the warrant. To facilitate this process, the Bureau Chief of Compliance shall attempt to obtain the home telephone numbers of the magistrates with the jurisdiction in their areas for use by the Attorney General.

h. Use of Temporary Restraining Order.

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9. Evidence. 'The inspection team shall ensure, to the fullest extent possible, that all evidence at the event site remains undisturbed until the Division has had an opportunity to document, examine, and inspect it.

a. The Division, as a state agency, will claim precedence over other investigators and will assert the right to remove evidence or obtain samples first.

b. In the past, the employers and other public sector investigators have been cooperative in controlling the site by limiting access of personnel and prohibiting unauthorized removal of material from the site.

c. The inspection team leader shall attempt to negotiate an agreement with the employer or other controlling authority not to disturb any evidence involved in the significant event without OSH's consent and negotiate a written agreement regarding preservation of all evidence in the accident area. The following basic elements shall be addressed in the initial agreement:

(1) Designation of the specific area subject to the agreement;

(2) How the area will be secured; i.e., fenced with one gate to be secured with locks from all parties, 24-hour surveillance, etc.;

(3) Mutual agreement not to tamper, alter, move, remove or change any object within the designated area;

(4) Scope to be given to search and rescue operations;

(5) Provisions under which actions may be taken in the interest of safety and health and for notifying OSH of action taken;

(6) Preservation of any object already moved at time of agreement so that it is preserved in accordance with the agreement.

(7) Circumstances under which evidence may be disconnected, videotaped, photographed, marked, moved, repositioned, or removed from the site; and

(8) Timeframes by which all parties will submit proposals for testing, removal preserving equipment and other times.

d. Agreement shall also be sought with other investigators about the sampling order or removal/alteration order for physical evidence. There shall be agreement as to which agency or organization will remove evidence or take samples first and which agencies or organizations will accept the analysis of another or can use the same information as another.

e. A specific supplemental agreement shall be sought specifically dealing with the protocol for examining and/or testing equipment. The following items shall be addressed:

- (1) Prohibition against alteration or equipment in any manner until all significant items in the plant have been documented to each party's satisfaction;
- (2) Specific dates by which identifying and diagramming the location and condition of all pertinent equipment will start, and how equipment is to be identified;
- (3) Provisions for other parties to be present and observe the documentation process;
- (4) Specific dates and times within which the Division will identify equipment and other items to be removed, preserved and/or tested;
- (5) Circumstances under which the employer and other parties may conduct appropriate tests;
- (6) Circumstances under which results, data and information obtained as a result of testing will be shared with the employer, the union and other interested parties;
- (7) Circumstances under which items identified by OSH shall be removed, and once removed, how they will be stored and secured; e.g., within enclosed, covered area with one means of access; and
- (8) Access to the secured storage area.

f. Upon completion of the immediate firefighting or other damage suppression activity, the scene shall be left undisturbed to the maximum extent possible until the investigation team arrives.

- (1) Team members shall identify material and possible witnesses to the event during the earliest phases of the investigation. Plans must also be formulated at that time to identify further physical evidence needs.
- (2) Evidence must have a "chain of custody" to be admissible in court; also the site of the incident must remain as undisturbed as possible for causative factors to be established.

(a) Once the required evidence has been identified, the chain of custody must be established.

(b) The evidence must be physically identified by either describing identifying markings or characteristics, or by marking the item directly. Videotaping or photographing of physical evidence, prior to and after marking, is recommended.

(c) Whatever identifying method is used, it must be durable and must not alter the specimen.

(3) Where equipment has to be removed to eliminate remaining hazards, a record shall be made of such action taken.

NOTE: Photographs or video recordings will be useful both as a record and a basis for analysis. By including a good photographer with the first entry of the teams, the investigators ensure that a record is made of much valuable evidence. The investigation of the circumstances surrounding the accident is a methodical accumulation of small bits of information which eventually form a pattern of evidence which is necessary for the determination of the cause. It is recommended that another team member accompany the photographer to log, identify, and document the photographs as they are taken.

(4) Evidence shall be systematically collected. The following guidance in the collection of needed information/data is provided:

(a) What was the building or structure like before--materials of construction, floor plans, etc.? Does the employer have an "as built" drawing?

(b) What was the overall layout before the accident and after it? Aerial photographs of the site, before and after the incident, often provide very helpful information concerning the cause of an accident, especially explosions. After an explosion, pertinent information would include size and composition of material, distance traveled, where an object stopped and what stopped it. This generally will require immediate records of the accident site; photographs and measurements must be made before the site is disturbed. Particular attention should be given to the location of stray parts of equipment dislodged during the accident. Each item when correlated with other findings may lead to an explanation of the origin of the accident.

(c) What are the names and addresses of survivors, eyewitnesses, and persons familiar with the material or equipment involved? Of what assistance can they be in reconstructing the sequence of accidents/events? What was the position of

fatally injured employee(s) and survivor(s), both before and after the accident. What operations were they performing.

(d) What operations were being conducted at the time of the accident? Were they routine? Are there written procedures, drawings, checklists, and quality assurance monitors? Are there any drawings or photographs? Are chemicals involved and will any sampling or analysis be required?

(e) What had gone on before the accident? Were there any deviations or changes in procedures? Had anyone said there would be or had been a problem? Did anything unusual or strange occur? Had any piece of equipment in the area of the accident experienced frequent or abnormal mechanical problem as prior to the accident? Was an error made and then corrected or covered up? Had anyone complained about some event or condition related to or similar to the accident?

(f) Were materials in use at the time of the accident the same as those that had been used previously? Had there been a new shipment received? Were materials taken from an old container? Were new (or old) tools being used? Were the parts/materials used those specified in the procedure/drawings? Does the supplier need to be contacted? Will copies of contracts or specifications be necessary? Will material analysis or testing be required?

(g) Was there any advanced training? Were there any unusual conditions that might warrant special training? Was there a written standard operating procedure available? Was there a check or audit to ensure it was followed?

(5) The accumulation of useful evidence follows a random pattern, but the inter-relationships of various findings is often significant. A meeting at the end of a day, to review the results obtained by each team, is an effective means of exchanging information. The team leader and/or District Supervisor shall require a team meeting at the end of each day or more often if necessary to exchange information and discuss strategy for the next day.

(6) Each investigation has only limited resources that can be devoted to it. The expenditure of continued effort at each step of the investigation must be weighted against the anticipated results. If it appears that the key to an accident is dependent on the location of a particularly elusive component, extended efforts are warranted.

(7) The orderly documentation of evidence is a prime factor for a successful investigation. Although possible causes of the accident may be advanced during the on-site fact finding portion of the investigation, final analysis and

evaluation is best performed at the investigating team's office after all facts have been collected and analyzed.

(a) In the analysis of an accident, it may be helpful to outline a step-by-step sequence of each possible accident mechanism based on evidence found.

(b) If an "evidence gap" is found in one promising mechanism, then additional information is needed.

(8) Some time should also be devoted to evaluating the facility's emergency procedures for their effectiveness during the accident. It is possible several useful revisions may be recommended.

g. Photographs taken during the inspection shall be mounted and identified by the team member taking them as soon as they are received. If mounting is not possible, each photograph shall be identified on the back to indicate what it shows, and when, where, and by whom it was taken.

h. Photos of areas of interest taken prior to the incident shall be obtained if possible.

(1) EPA may take aerial photos to identify potential chemical spills; if so, EPA's aerial photos shall be obtained.

(2) Videotape news clips taken during the event showing actual footage of the fire or subsequent explosions shall also be obtained.

(3) The need for OSH contracted aerial photography shall be evaluated.

(4) Photos taken by local law enforcement agencies should be obtained.

10. Communications. Effective communication is especially important during these investigations.

a. The following communications equipment should be considered depending upon the circumstances which arises during the investigation.

(1) On a large site, walkie-talkies or similar instruments may need to be obtained. Compliance Officers conducting the catastrophe inspection may be able to coordinate walkie-talkie use with the police or other government agencies.

(2) Pagers for key personnel may need to be rented from commercial sources.

(3) Portable Telefax equipment can greatly assist off-site information dissemination.

(4) Portable copy units shall be available whenever necessary on site.

(5) A portable microcomputer with e-mail capability shall be available on site for use by the team in writing the accident investigation report as well as direct transmission of information.

(6) Access by telephone is imperative in order to communicate with the District Office and State Office. If the team is stationed in an office space on site, access to the employer's telephone may be sufficient. Use of the employer's telephone may however be affected by convenience and the concern for confidentiality.

(a) In the event that the OSH control site/room is a leased space, such as a trailer, it may be necessary to obtain telephone service through requisition.

(b) in addition to the items above, a cellular phone will prove most useful to maintain contact with on-site team members, the Raleigh office, and others as necessary.

b. A status report of the inspection shall be given to the Bureau Chief of Compliance daily, until the situation has stabilized. The reports may be sent, at the discretion of the team leader, directly from the team control room by fax machine or e-mail or by telephone so as to be up to the minute.

c. A representative of the inspection team shall initiate contact with family members of any accident victims. (See Operations Manual Chapter VIII B.2.d.) Circumstances may warrant a collective "group" meeting with family members in large catastrophe investigations as the investigation gets underway and when the safety and health investigation is concluded.

d. Periodic team progress meetings are important for the team leader and to provide a way of keeping each person up to date on the progress of the investigation. Team members shall meet daily to review findings, discuss possible theories of causation, and exchange information.

(1) All of the team members or as many representatives as possible shall meet once a week to provide an overview of each one's activities completed thus

far as well as planned. (Specific times for meetings should be designated to facilitate planning of other inspection activities.

(2) If inspection team members are divided into specialized areas (e.g., system safety, emergency response activity), a mechanism must be established so information can be exchanged. Each group shall review all requested documents and information which could be of importance to another and place a copy of the document in a folder kept for that purpose in the on-site command post. All other teams shall be made aware of the materials in the folders.

e. There are two aspects of media coverage that may be pertinent: providing information to the media, and obtaining information from the media. The Communications Division should be notified of the nature and extent of media contacts.

(1) It is reasonable to expect that reporters from radio, TV, and newspapers will make every effort to obtain all available information relative to an emergency situation.

(2) To coordinate OSH's response, only the Commissioner of Labor, Director or the Director's designee shall discuss the situation with reporters. Names of members of the investigation team shall not be given to the media.

(3) If reporters call or contact either the District Office or individual team members, the reporters shall be referred to the Communications Division, Director, the Commissioner of Labor or his designee; no attempt shall be made to answer any questions related to either the emergency, the investigation, or the individual team members.

(4) The Director shall periodically review media involvement with the Communications Division. The Director will normally be the Division's media contact, who may make the following statements:

(a) The Division is investigating or is on the way to the scene;

(b) The purpose in investigating is to determine the cause of the incident and to determine whether any standards have been violated;

(c) After citations, if any, have been delivered to the employer, the Division will announce and provide copies of its findings; and

(d) Additional inquiries should be addressed to the Communications Division.

(5) Newspapers and television may have photographs, video tapes or other visual representations of a site prior to or following an event that may be helpful to the investigation.

(6) Every effort (including purchase) shall be made to secure visual representations from the media. It is possible, however, that photographs or newsreel tapes will not be released without subpoenas. The Attorney General's Office can recommend approaches to obtaining information from the media and/or other sources.

11. Plan of Investigation. The investigation team leaders shall develop and submit to the Director a written plan for investigating the accident and to determine its cause.

a. The plan shall be submitted to the Director within one week. A written summary or synopsis of events to date and a description of the accident shall be included. Periodic updates shall be made to the plan as new information becomes available.

b. The following issues shall be considered when developing this plan, and in conducting the investigation:

- (1) Site safety.
- (2) Inspection team strategies.
- (3) Use of consultants.
- (4) Collection of physical evidence.
- (5) Equipment and evidence testing.
- (6) Review of employer documentation.
- (7) Document control.
- (8) Media exchange.

12. Extra-District Technical Assistance. It may be assumed that the Division will need experts to serve both in determining the cause of the accident and testifying at any subsequent legal proceedings.

a. Expert assistance is available from all District Offices or other Bureaus within the Division. In the case of other Bureaus, this assistance can be coordinated through the Director's Office.

b. Where the circumstances of the significant event warrants prompt action, the Director shall, at the request of the District Supervisor and with the concurrence of the Commissioner of Labor, contact a private sector consultant and request that a representative be sent to the accident site.

(1) The consultant and the Director, with concurrence of the Commissioner of Labor, shall agree on the scope of the contract which can be executed only after that agreement.

(2) If the preliminary identification of contacts (as outlined in E.1.b.(4) of this instruction) have been satisfactory, the companies will probably be willing to commit some time and resources based on verbal agreements.

(3) Written contracts can be completed at a later time when the scope of work has been defined and costs can be better estimated.

(4) The Director and consultants may only negotiate items such as cost, place, time, name, contact points, results expected, confidentiality, limitations on the availability of money, etc. The Director must be careful not to financially commit the Division without obtaining contract approval.

13. Witness Interview Procedures. Written witness statements shall be taken to obtain first hand knowledge of conditions at the time of the accident.

a. Witness will be identified as indicated in paragraph E.9.f.(1).

(1) All potential witnesses shall be identified as early as possible in the investigation, and interviews shall be conducted promptly as witnesses' ability to recall will diminish with time.

(2) If a union is actively involved in the inspection, it can serve as a valuable resource by assisting in determining employees who might have knowledge of facts relative to the accident, for example, operations and/or maintenance records or histories of the process of equipment.

1. The inspection will likely involve interviewing all available witnesses, so their names, addresses, telephone numbers, and how they can be contacted shall be carefully

noted. The results of the interviews shall be shared among all team members.

b. The primary employer contact, as outlined in paragraph E.8.c. of this policy, may be utilized to schedule employee interviews. The inspection team may have to contact and schedule employee interviews without assistance from the employer. In this case, a source other than the employer may be required to secure addresses and telephone numbers of potential witnesses.

(1) The union, if the company is unionized, can assist in determining employees' schedules so that interviews can be scheduled.

(2) Subdividing the inspection team will allow team members to conduct more initial interviews in a short time.

(3) If reinterviews of witnesses are to be conducted, they shall be coordinated with other team members so that everyone interested in key witnesses can participate at the same time.

c. The value of an interview often depends on the expertise of the interviewer and areas covered. Therefore, the following guidance is provided:

(1) All witness interviews shall be conducted by CSHOs with interviewing experience.

(2) CSHO shall exercise utmost discretion in conducting interviews of injured witnesses and family members.

(3) Witness interviews shall always be conducted in private unless the witness requests otherwise. If management is reluctant to permit private interviews of employees on the site, the procedures in the Operations Manual shall be followed.

(4) The CHSO shall carefully question witnesses to solicit as much information as possible related to the accident, including processes, procedures, practices, training, maintenance, materials, previous accidents, and any near accidents. Emphasis should be placed on events which led up to the accident and what occurred during the accident.

(5) Key witnesses may have to be reinterviewed as information is developed by the inspection team. During the initial phase of the investigation, it is more important to ask questions to determine general facts and to help identify key

witnesses--particularly those who may have information related to the cause of the accident.

(6) Prior to the interviews, the team leaders and members shall develop key, critical and screening questions to ask all witnesses. Such questions may be written down and provided to all interviewers.

(a) While a specific list of questions is highly desirable, it may be more practical in some cases to have only a list of the topics to be covered.

(b) This list shall be developed before any interviews are conducted and shall include, but not necessarily be limited to, the following:

1 What is your name, address, telephone number, job, and employer?

2 How long have you done your present job? Have you ever seen any problems like this before?

3 Where were you at the time of the accident? What were you doing? Is that your normal job? Did you notice anything unusual?

4 How did you discover the accident? Were you close enough to physically sense (see, hear, feel, smell) anything?

5 See also paragraph E.9.f.(4) of this instruction.

(7) If the inspection team is charged with evaluating emergency response, the CSHO shall interview employees about what they were instructed to do during an emergency in their building or on plant property to evaluate the employer's training and emergency procedures, and to determine whether employees were knowledgeable of those emergency procedures. Interviewers shall investigate how previous emergencies, if any were handled and if there were any significant problems?

d. Information developed in employee interviews must be documented for use in case file development.

(1) Interviews shall not be tape recorded as the only record of the interview. If a tape recorder is used, the Compliance Officer taking the statement shall also prepare a written statement and have the employee read and verify by signature the accuracy of the information.

(2) A summary of pertinent information from each witness shall be prepared and stored with each team.

14. Background Review. A review of establishment history and process information can be of great value to the Compliance Officer conducting the investigation. The team members should review appropriate materials as time permits.

a. An understanding of workplace terminology can be developed through a review of the safety and health policies and documents, operating manuals, standard operating procedures (SOPs), start-up/shut/down procedures, training manuals for operators and job safety analyses.

(1) Such a review will help in understanding what job each employee performs and how he/she is supposed to perform these tasks and will eliminate unnecessary reinterviewing of witnesses.

(2) This review will also be particularly helpful if the actual work practices do not conform to the established company policies or procedures.

b. Early in the investigation other workplaces with similar or identical operation shall be identified.

(1) If any of these establishments are participants in the Consultative Exemption Programs, an on-site visit and discussion shall be considered to further understand the process and operation as well as help identify common safety and health concerns to the industry.

(2) If the practices of the industry is of importance to document a possible general duty clause violation, other companies can be contacted by phone and asked to provide pertinent information.

(3) If these companies are reluctant to provide needed information, an administrative subpoena can be utilized to assist in obtaining the needed information.

(4) A search of state and federal case files should be conducted, if the company has several locations in other states, to determine the results of past inspections.

15. Document Control. During the inspection effort extensive documentation will be collected from the companies inspected. Control must be exercised from the onset to minimize confusion.

a. All document requests shall be confirmed in writing and shall be provided to the person representing the employer. A dated copy of the request shall be kept in the case file and notations made when the request was compiled with.

b. An inventory or log of the documents received shall be maintained. Each document shall be given a case file log number.

c. Once a document is reviewed, a short summary shall be prepared and placed in the file. The summary may be a single line or several paragraphs.

d. Periodically the documents request log shall be reviewed to ensure that the information is being provided in a timely manner. If critical documents have not been received and are needed, an administrative subpoena shall be issued if necessary.

e. If any written or visual information is identified as "Business Confidential - Trade Secret", a secure place shall be established for the material. A locked file cabinet shall be used with a sign-in/sign-out log to ensure all documents are accounted for.

16. Closing Conference. A closing conference shall not be conducted until the Director, in conjunction with the Commissioner of Labor, gives permission to do so.

a. The closing conference shall be conducted by the team leaders and offered to both the employer and employee representatives. Outside agencies, insurance companies, media, etc., shall not be allowed to attend the closing conference.

b. The team leader shall explain the findings of the investigation with emphasis placed on apparent violations which may have precipitated the significant event and recommendations on how to prevent a similar incident.

17. Final Report Preparation. With a team effort, it becomes important to organize the group's efforts so that once a majority of the inspection activities have been concluded, a single composite Case file can be developed.

a. Each team member shall maintain a journal of each day's activities covering things accomplished and notations of things to do.

(1) These journals, in a standard format, designated by the ITL, shall be provided to the team leader each week.

(2) These journals, with a little modification, can later be compiled into a chronological inspection narrative.

(3) The daily journal will also aid in citation write-up when the inspection is completed.

- a. As soon as the inspection team determines (based on interviews or observations) that a violation or potential violation exists, appropriate notations shall be entered in the journal and developed as the inspection progresses.
- c. The team leader shall designate the CSHO(s) responsible for writing and assembling the final case file. Although each team and/or team member develops a partial case file, they must be assembled by designated individuals into a complete product.

18. Disclosure. Division policy regarding disclosure of case file contents shall be adhered to.

- a. Any release of official case file information shall be conducted in accordance with division guidelines.
- b. If there is to be an official press release concerning the disaster investigation, the Communications Division in consultation with the Director shall draft the release for approval by the Commissioner of Labor.

H. Program Evaluation. It is division policy to evaluate the effectiveness of this policy each time its procedures are implemented. Therefore, the Bureau Chief of Compliance shall submit a critique of the procedures outlined in this instruction within 90 days of the completion of an investigation of a significant event. In addition, the District Supervisor conducting such investigations shall submit a proposed investigation scenario for industry specific conditions which are not fully covered by this instruction. These scenarios will be reviewed for incorporation into this policy, as appropriate.

12/10/92
Date

(Signed on Original)
Michael D. Ragland
Deputy Commissioner