

OSHA Instruction 2.77
Dec. 30, 1986
Directorate of Field Operations

SUBJECT: Critical Fatality/Catastrophe Investigation Factors

- A. Purpose. This instruction makes mandatory the address of critical fatality/catastrophe investigation factors.
- B. Scope. This instruction applies OSHA-wide.
- C. Action. Regional Administrators and Area Directors shall ensure:
 - 1. The development and implementation of systems and procedures as will ensure that each accident/fatality investigation file generated within his/her Region appropriately addresses each of the critical accident/fatality investigation factors in accordance with Appendixes A and B of this instruction.
 - 2. No CSHO shall be assigned to lead or conduct a fatality/catastrophe investigation without first having completed the OSHA Training Institute course on accident investigations, or upon the showing of equivalent training to the satisfaction of the Area Director with the concurrence of the Regional Administrator.
 - 3. The use of other (untrained) CSHOs to assist in fatality/catastrophe investigations is encouraged in the interest of resource utilization and for the purpose of giving such CSHOs the experience which, until they can complete the OSHA Training Institute course, will enhance the CSHO's capacity to be of assistance in future fatality/catastrophe investigations.
- D. Federal Program Change. This instruction describes a Federal program change which affects State programs. Each Regional Administrator shall:
 - 1. Ensure that this instruction is promptly forwarded to each State designee, and the content is explained.
 - 2. Ensure that State designees are asked to acknowledge receipt of this Federal program change in writing to the Regional Administrator, within 30 days of notification. This acknowledgment should include a description either of the State's plan to implement the change or of the reasons why the change should not apply to that State.
 - a. If the State plans to follow the procedures for assigning CSHO's to fatality/catastrophe investigations and use the investigatory aids set out in this instruction, it should indicate this in the letter of acknowledgment.
 - b. If the State does not plan to follow the procedures contained in this instruction, an alternative system must be submitted as a State plan supplement within 6 months.
 - 3. Notify the State designee that the requirements in paragraph E will not be applied to State fatality/catastrophe investigation files.
- E. Procedures. The following procedures will be implemented to evaluate compliance with, and effectiveness of this instruction:
 - 1. In accordance with this instruction, the Regional Offices will incorporate the review and analysis of fatality/catastrophe files into their audit functions and include such review and analysis into their regular audit reports to the National Office, Directorate of Field Operations.

2. The National Office Audit Team, Office of Field Coordination, will incorporate the review and analysis of fatality/catastrophe files into their regular audit functions and incorporate their findings into their normal audit reports.
3. The Office of Field Coordination will periodically call in approximately 50 pre-identified files for review and analysis and report the findings with recommendations for programmatic action to the Director, Directorate of Field Operations.
4. The Director of the Office of Field Coordination will, based upon the review of the Regional Offices' Audit Reports, the National Office's Audit Team Reports and the Office of Field Coordination's review and analysis of selected fatality/catastrophe files, submit a unified report and analysis of the effectiveness of this instruction, together with recommendations, to the Director, Directorate of Field Operations, within 1 year of the effective date of this instruction.

F. Background. OSHA produces some 1600 fatality investigation files per year. To maximize the utility of these files requires identification, accurate reporting and professional analysis of critical factors related to safety and health conditions and practices. While the scope and amount of detail in an inspection may vary from case to case, there must be sufficient information in the file to support the enforcement aspects of OSHA as well as an identification, whenever possible, of causal factors so that the causal factors can be dealt with in the interest of preventing recurrences.

1. Appendixes A and B itemize many of the critical investigatory factors covered in the Field Operations Manual (FOM), Chapter III. This instruction places these factors into organized structures for easy reference by the CSHO. Appendix A is a simple enumeration of investigatory factors under major group headings. Appendix B repeats the major group headings, amplifies some factors, refers to appropriate OSHA forms for entries and provides page references to the FOM where that item is discussed.
2. The "address of critical fatality/catastrophe investigation factors" means that where a factor is applicable, that factor is discussed and made a part of the file. Where a factor is not applicable, a notation to that effect is inserted into the file.

John A. Pendergrass
Assistant Secretary
(signed on original)

DISTRIBUTION:
National, Regional and Area Offices
All Compliance officers
State Plan Designees
7(c)(1) Consultation Project Managers
NIOSH Regional-Program Directors

Appendix A

FATALITY/CATASTROPHE INVESTIGATION FACTORS

NOTE: This is NOT an OSHA Checklist Form to be inserted into a fatality/catastrophe investigation file. It is strictly intended as an investigatory aid to the CSHO.

I. Personal Data--Victim.

Name
Address
Telephone
Age
Sex
Job Title
Date of Employment
Time in Present Position
Training for Present Job
Condition of Employee--Deceased/Injured
Nature of Injury--Fracture, Amputation

II. Accident Data.

Physical Layout:
Sketches/Drawings
Measurements
Photos

Equipment Involved or Process:

Machine Type
Manufacturer
Model
Manufacturer's Instructions
Kind of Process
Condition
Misuse
Maintenance Program
Equipment Inspection (Logs, Reports)
Warning Devices (Detectors)
Tasks Performed

Witness Statements:

Public
Fellow Employees
Management

III. Other

Employer's safety and health program
Employer's training and education program
Competent or Designated safety/health person
Safety Precautions
Signs, Signals, Barricades
Special Instructions
Emergency/Evacuation Plans

Human Factors

History (Related to Present Accident)

Other Employers Involved

Accident Description

IV. Accident Reports.

Coroner

Fire

Police

Medical

Employer Insurance Investigator

V. Test Data of Physical Evidence Obtained.

OSHA Laboratory Tests

Contracted for Tests

VI. Information for the Case File.

Complete Narrative, (WHO, WHERE, WHAT, WHEN and WHY)

Appendix B

I.	<u>Personal Data.</u> WHO--Personal data of victim.	
	NAME:	OSHA-170, Item 5. Give the full name; e.g., Robert T. Browne-not "Brown". Do not use nicknames except in signed statements where a witness identifies Robert T. Browne as "Buzz", or whatever. In that case, tie the two together, Robert "Buzz" T. Browne.
	ADDRESS:	Supplement to OSHA-170, Item 5. Give the complete address; e.g., 1234 Maude Place, Apt. #203, Kennott, Wisconsin 53210.
	PHONE NUMBER:	Supplement to OSHA-170, Item 5. Full telephone number (202) 523-8095-
	AGE:	OSHA-170, Item 8
	SEX	OSHA-170, Item 7
	JOB TITLE AT TIME OF ACCIDENT:	Supplement to OSHA-170, Item 20.
	JOB DESCRIPTION:	Supplement to OSHA-170, Item 20
	DATE OF EMPLOYMENT:	Supplement to OSHA-170, Item 20. This will normally be obtained from the employer.
	TIME IN PRESENT POSITION:	Supplement to OSHA-170, Item 20. This will normally be obtained from the employer.
	TRAINING FOR PRESENT JOB:	See FOM, Chapter III, pages III-44 and III-50. Recorded on OSHA-1A and OSHA-94, if needed. Refer to FOM, Chapter III Appendix.

	HUMAN FACTORS:	Item 15 of OSHA-170 calls for human factor information. (See IMIS Chapter XXVIII and Appendix G, Table G-6 to that chapter.) Great caution must be observed here to report <u>supportable fact</u> , especially in Codes 07-Malfunction of Neuromuscular system, and Code 08-Malfunction of Perception System with Respect to Task Environment. Human Factors shall also be noted in OSHA-170, Item 20.
II.	<u>Accident Data.</u>	
	WHERE--At the worksite.	
	PLACE OF EMPLOYMENT:	OSHA-1, Items 8 and 10; OSHA-1A, Item 1.
	PLACE OF ACCIDENT:	<u>Physical Layout</u> --Worksheet and supplement to OSHA-1A, Item 20. In this section, the CSHO shall go from the general to the specific; e.g., Wet Processing Department, Bay 1, Toros Pulp Press #5, lower roll. These shall be shown by:
		<u>Sketches/Drawings</u> --FOM, Chapter III, page III-45, clear drafting, definition and identification are important.
		<u>Measurements</u> --FOM Chapter III, pages III-47, D.8.a.(3)(b)1h.
		<u>Photos</u> --FOM, Chapter III, pages III-53, D.8.c., III-93, OSHA-89 Form.
	WHAT--Type of accident. In this category the file should show the nature of the accident; e.g., boom collapse, electrocution, cave-in, toxic exposure, etc. Here, the CSHO shall address, as appropriate, the following:	Photos--FOM, Chapter III, pages III-53, D.8.c., and III-93, OSHA-89 Form.
		<u>Description of Equipment or Process</u> --On the Worksheet <ul style="list-style-type: none"> • Machine Type • Manufacturer • Model • Manufacturer's instructions • Kind of process.

		<p><u>Statements/Interviews</u>--FOM, Chapter III, pages III-47, D.8.a.(3)(b) 1 i, and 111-54, D.8.d.(5). Attach to the Worksheet and summarize on the OSHA-170, Item 20. Some things to remember:</p> <ul style="list-style-type: none"> • Write legibly. • Identify the witness. • Use the words of the witness, as said. • Control the interview to facts as much as possible. • Witness' opinions as to distances, etc., are acceptable. • Do not leave any empty spaces in the body of the statement. • Corrections to the statement should be initialed by the witness. • After the last line of the statement, use a phrase like "I have read this statement (approximately 231 pages), and it is true and correct to the best of my knowledge." • Insert the date. • Have the witness sign. • At the end of the statement, draw a diagonal line across all unused portion of the page, after the signature of the witness.
	WHEN--Time of accident	<u>Date and Time</u> --OSHA-36(f), Items 24 and 25. OSHA-170, Item 20.
		<u>Weather Conditions</u> --As reported by the U.S. Weather Bureau, media, Sheriff, Fire, etc., Departments, and persons on the scene at the time of the accident. Copies of official weather reports shall be obtained, if appropriate. Weather observations of individuals on the scene shall take the form of a signed statement. These reports will be supplements to the Worksheet and addressed on the OSHA-170, Item 20.
	WHY--Cause of accident.	<u>Deductive Reasoning</u> --Using all the information gathered in an investigation, deductive reasoning is used to determine the cause(s) or, at least, the probable cause(s) of an accident. The OSHA-170 is used for the investigation summary and shall address the issue of cause. The complexity and extent of an accident investigation will govern the amount of information that is put into the summary. However, the five W's (WHO, WHERE WHAT, WHEN and WHY) shall be addressed.
III.	<u>Accident Reports.</u> This is supplemental information. The following will be appended to the	<u>Specific Reports.</u> <ul style="list-style-type: none"> • Coroner. • Fire Department. • Police Department. • Medical Report.

	Worksheet and summarized on the OSHA-170, Item 20:	
IV.	<u>Other.</u>	<ul style="list-style-type: none"> Employer's safety and health program. FOM, Chapter III, Page III-43, D.8.a(2). Employer's training and education program. Fom, Chapter III, page III-44, D.8.a(2)(b) <u>d</u>. Competent or Designated safety/health person. Did the employer have a person responsible for identifying safety/health hazards and taking or recommending corrective action? Maintenance Program. Equipment Inspection (Logs, Reports) Safety Precautions. Signs, Signals, Barricades. Special Instructions/Emergency Plans.
V.	<u>Test Data</u>	<ul style="list-style-type: none"> OSHA Laboratory Tests data. Contracted for Tests data.
VI.	<u>Information for the-Case File.</u>	Narrative--Complete the narrative (WHO, WHERE WHAT, WHEN and WHY).
VII.	<u>Recommendations.</u>	For the elimination of causal factors found.