PROGRAM-RELATED FATALITIES

MICHIGAN 2013

Management Information Systems Section
Technical Services Division
Michigan Department of Licensing & Regulatory Affairs
April 2014

CONTENTS

CONTENTS (CONT)

INTRODUCTION

In 2013, Michigan reported 27 Program-Related fatalities. Program-Related fatalities in Michigan are recorded and tabulated by the Management Information Systems Section (MISS), Michigan Occupational Safety and Health Administration (MIOSHA), Michigan Department of Licensing and Regulatory Affairs (LARA). The sources of data include the Basic Report of Injury – Form 100 and telephone reports of fatalities to MIOSHA. The conditions necessary for a fatal case to be Program-Related are defined in the NOTE ON PROGRAM RELATED CASES (see Page 8).

The intention of this report is to promote an understanding of what constitutes a Program-Related fatality and to assist in the continued effort of preventing and reducing fatal cases. Information presented in this report may be of special interest to employers, employees, safety professionals and consultants. Any inquiries regarding this report may be addressed to:

Management Information Systems Section
Technical Services Division
Michigan Occupational Safety and Health Administration (MIOSHA)
Michigan Department of Licensing & Regulatory Affairs
7150 Harris Drive, Box 30643
Lansing, Michigan 48909-8143
Telephone (517) 322-1851

HIGHLIGHTS OF PROGRAM-RELATED FATALITIES, MICHIGAN 2013

This Program-Related fatality information for Michigan was compiled from the "Employers Basic Report of Injury," Workers Disability Form 100s, and from direct telephone reports of fatalities to MIOSHA. Only fatal cases that are Program-Related, as defined by MIOSHA, are compiled. Therefore, the data does not include fatalities resulting from heart attacks, homicides, suicides, personal motor vehicle accidents, and aircraft accidents. The figures are shown in **Tables 1 through 8**.

PROGRAM-RELATED FATALITY TRENDS

A definition of Program-Related cases can be found on Page 8 of this report. Program-Related fatality trends for 1988 through 2013 are shown in **Table 1**, as well as data from 1989 through 2013 in **Chart 1**.

This report is an overview of how the fatalities were distributed across industry groups and occupations. Frequencies of fatalities by age group, gender, month of occurrence, and counties of occurrence are also provided.

PROGRAM-RELATED FATALITIES BY INDUSTRY

Table 2 shows the distribution of Program-Related fatalities by industry groups in 2013. This was determined by the job being performed by the employee at the time of the accident. Beginning in 2003, the industry group category is based on the Northern American Industry Classification System (NAICS), which groups establishments into industries based on the activities in which they are primarily engaged. Prior to 2003, the industry group category was based on the Standard Industrial Classification (SIC) of the employer. Due to the substantial differences between the current and previous classification system, the results by industry in 2003 and thereafter constitute a break in series and users are advised against making comparisons between the 2003 industry categories and the results for previous years.

During 2013, the largest number of Program-Related fatalities was reported in the Construction industry (NAICS 23) with 13 fatalities. Manufacturing (NAICS 31-33) had the second highest number with five fatalities. This was followed by Transportation and Warehousing (NAICS 48-49) and Administrative and Support and Waste Management and Remediation Services (NAICS 56) each reporting three fatalities.

PROGRAM-RELATED FATALITIES BY OCCUPATION

Program-Related fatalities by occupation are shown in **Table 3**. The most affected occupation group with 13 program-related fatalities was Construction and Extraction. This was followed by Transportation and Material Moving occupations with six fatalities and Production occupations with three fatalities.

PROGRAM-RELATED FATALITIES BY AGE AND GENDER

The distribution of Program-Related fatalities by age and gender are shown in **Tables 4 and 5**. The age groups of 31-35, 36-40 and 41-45 each reported five fatalities, the highest number during 2013. This was followed by the age category of 46-50 reporting four fatalities. Of the 27 victims, 26 were male employees**.**

PROGRAM-RELATED FATALITIES BY MONTH OF OCCURRENCE

Fatality data categorized by the month of occurrence is shown in **Table 6**. The months of January, February and May recorded the highest number of program-related fatalities with four each. Three fatalities each were reported for the months of March and November. The months of July and October did not record any reported fatalities.

PROGRAM-RELATED FATALITIES BY INDUSTRY GROUPS AND DAYS OF THE WEEK

Program-Related fatalities by industry groups and days of the week are shown in **Table 7**. The highest number of fatalities by day of the week shows Wednesday with 10, followed by Thursday with five fatalities and Monday and Friday reporting four fatalities each.

PROGRAM-RELATED FATALITIES BY COUNTY OF OCCURRENCE

The distribution of fatality cases by counties shows that Program-Related fatalities were reported as occurring in 15 counties during 2013. Six fatalities were reported in Wayne County, four in Oakland County, and two each were reported in Genesee, Jackson, Macomb, and Washtenaw counties. Sixty-eight Michigan counties had no program-related fatalities. A complete distribution of fatality cases by county of occurrence is shown in **Table 8.**

Even though Michigan's 2013 total Program-Related fatality cases are far less than the thousands of cases reported nationwide, the consequences of these on-the-job deaths in terms of human suffering, lost workdays, decreased production, and increased compensation rates are all too significant to be overlooked.

In order for Michigan to reduce the number of on-the-job fatality cases, it requires a conscious effort on the part of employers to recognize and comply with MIOSHA standards, develop and implement safe working procedures and assure that employees observe and practice these procedures. The MIOSHA program offers onsite consultation, and consultation, education and training (CET) opportunities to employers and employees alike to help them achieve this goal.

Those Michigan employers, who would like to request education and training services, as well as onsite consultation programs, may contact:

Consultation Education and Training (CET) Division
Michigan Occupational Safety and Health Administration (MIOSHA)
Michigan Department of Licensing & Regulatory Affairs
7150 Harris Drive, Box 30643, Lansing, Michigan 48909
Telephone (517) 322-1809

The Program-Related fatality data for Michigan are presented in the following series of **Tables 1 through 8**. A brief description of how the Program-Related fatalities occurred is also provided following the series of tables. The descriptions are listed by industry groups based on the North American Industry Classification System (NAICS), which is based on the activity in which the establishment is primarily engaged. Safety professionals may find this information useful for accident prevention.

NOTE ON PROGRAM-RELATED CASES

A fatality is recorded as “Program-Related” if the deceased party was employed in an occupation included in MIOSHA jurisdiction as defined in Public Act 154 of 1974, as amended, and the fatality appears to be related to one or more of the following conditions:

1. The incident was found to have resulted from violations of MIOSHA safety and health standards or the “general duty” clause.

2. The incident was considered to be the result of a failure to follow a good safety and health practice that would be the subject of a safety and health recommendation.

3. The information describing the incident is insufficient to make a clear distinction between a "Program-Related" and "non-Program-Related" incident, but the type and nature of the injury indicates that there is a high probability that the injury was the result of a failure to adhere to one or more MIOSHA standards, the “general duty” clause, or good safety and health practice.

Any inquiries may be addressed to:

Management Information Systems Section
Technical Services Division
Michigan Occupational Safety and Health Administration (MIOSHA)
Michigan Department of Licensing & Regulatory Affairs
7150 Harris Drive, Box 30643
Lansing, Michigan 48909-8143
(517) 322-1851

CHART 1
PROGRAM-RELATED FATALITY TRENDS, MICHIGAN 1989-2013

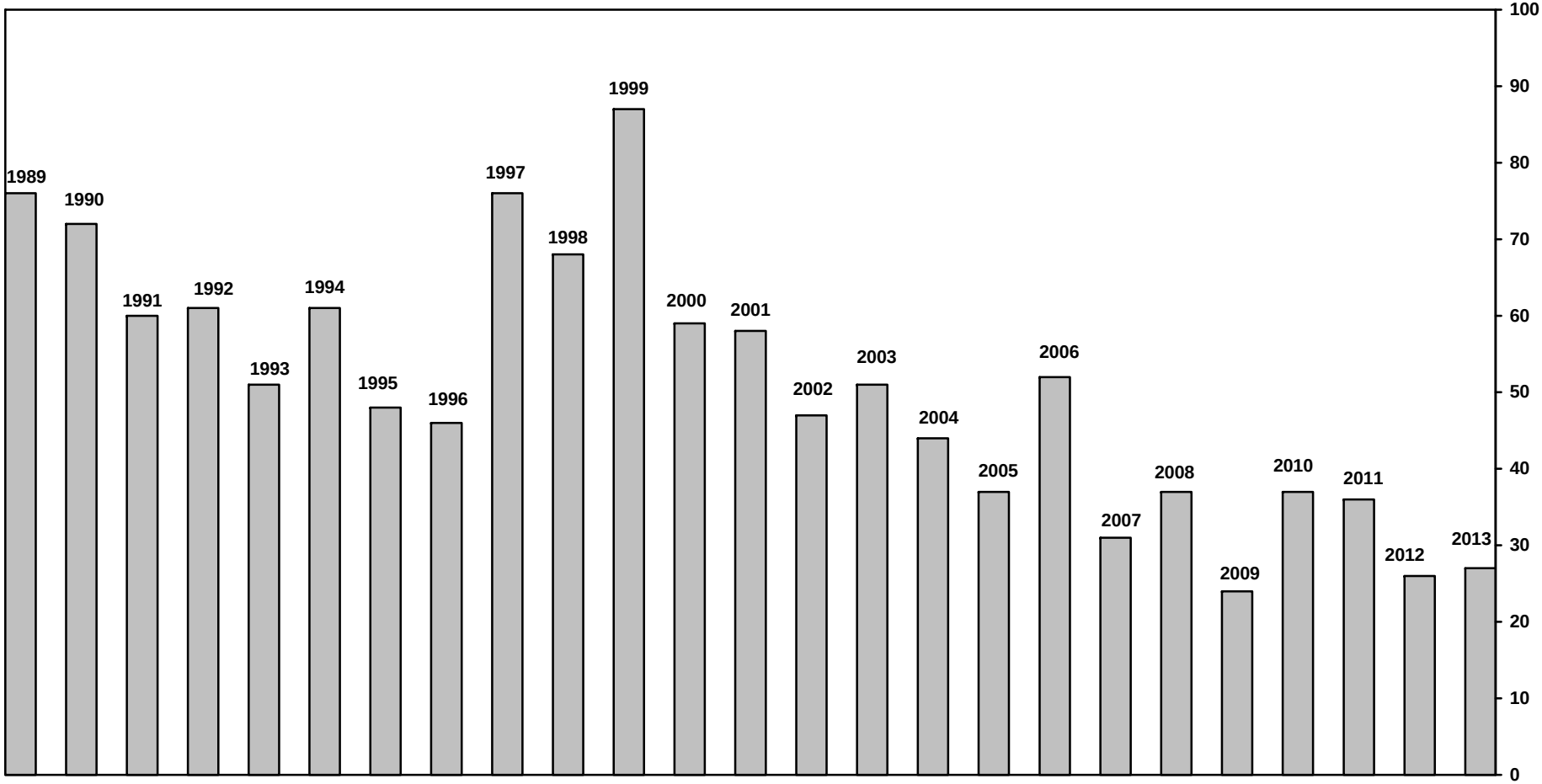

TABLE 1

PROGRAM-RELATED FATALITY TRENDS,
MICHIGAN 1987 – 2013

YEAR	NUMBER	PERCENT CHANGE FROM PREVIOUS YEAR	PERCENT CHANGE FROM 1987
1987	73	--	---
1988	64	-12.3	-12.3
1989	76	18.8	4.1
1990	72	-5.3	-1.4
1991	60	-16.7	-17.8
1992	61	1.7	-16.4
1993	51	-16.4	-30.1
1994	61	19.6	-16.4
1995	48	-21.3	-34.2
1996	46	-4.2	-37.0
1997	76	65.2	4.1
1998	68	-10.5	-6.8
1999	87	27.9	19.2
2000	59	-32.2	-19.2
2001	58	-1.7	-20.5
2002	47	-19.0	-35.6
2003	51	8.5	-30.1
2004	44	-13.7	-39.7
2005	37*	-15.9	-49.3
2006	52	40.5	-28.8
2007	31	-40.4	-57.5
2008	37	19.4	-49.4
2009	24	-35.1	-67.1
2010	38*	58.3	-47.9
2011	36	-5.3	-50.7
2012	26	-27.8	-64.4
2013	27	3.8	-63.0

Source: MISS/TSD/ MIOSHA/Michigan Department of Licensing & Regulatory Affairs

Note: An amendment has been made to both the 2005 and 2010 fatality counts. They previously were reported as 36 and 37 total fatalities respectively.

TABLE 2

PROGRAM-RELATED FATALITIES BY INDUSTRY GROUPS, MICHIGAN 2013

NAICS MAJOR SECTOR	INDUSTRY GROUP	TOTAL
11	AGRICULTURE, FORESTRY, FISHING AND HUNTING	0
21	MINING	0
22	UTILITIES	0
23	CONSTRUCTION	13
31-33	MANUFACTURING	5
42	WHOLESALE TRADE	1
44-45	RETAIL TRADE	0
48-49	TRANSPORTATION AND WAREHOUSING	3
51	INFORMATION	0
52	FINANCE AND INSURANCE	1
53	REAL ESTATE AND RENTAL AND LEASING	0
54	PROFESSIONAL, SCIENTIFIC AND TECHNICAL SERVICES	0
55	MANAGEMENT OF COMPANIES AND ENTERPRISES	0
56	ADMINISTRATIVE AND SUPPORT AND WASTE MANAGEMENT AND REMEDIATION SERVICES	3
61	EDUCATIONAL SERVICES	0
62	HEALTH CARE AND SOCIAL ASSISTANCE	0
71	ARTS, ENTERTAINMENT AND RECREATION	0
72	ACCOMMODATION AND FOOD SERVICES	0
81	OTHER SERVICES (EXCEPT PUBLIC ADMINISTRATION)	0
92	PUBLIC ADMINISTRATION	1
TOTAL		**27**

Note: The industry group categories are based on the Northern American Industrial Classification System (NAICS), which is based on the activities in which the establishments are primarily engaged.

Source: MISS/TSD/ MIOSHA/Michigan Department of Licensing & Regulatory Affairs

TABLE 3

PROGRAM-RELATED FATALITIES
BY OCCUPATION,
MICHIGAN 2013

STANDARD OCCUPATION CODE	OCCUPATION	NUMBER OF CASES
11-0000	MANAGEMENT OCCUPATIONS	2
13-0000	BUSINESS AND FINANCIAL OPERATIONS	1
15-0000	COMPUTER AND MATHEMATICAL	0
17-0000	ARCHITECTURE AND ENGINEERING	0
19-0000	LIFE, PHYSICAL AND SOCIAL SCIENCE	0
21-0000	COMMUNITY AND SOCIAL SERVICE	0
23-0000	LEGAL OCCUPATIONS	0
25-0000	EDUCATION, TRAINING AND LIBRARY	0
27-0000	ARTS, DESIGN, ENTERTAINMENT, SPORTS AND MEDIA	0
29-0000	HEALTHCARE PRACTIONERS AND TECHNICAL	0
31-0000	HEALTHCARE SUPPORT	0
33-0000	PROTECTIVE SERVICE	1
35-000	FOOD PREPARATION AND SERVING RELATED	0
37-0000	BUILDING AND GROUNDS CLEANING AND MAINTENANCE	1
39-0000	PERSONAL CARE AND SERVICE	0
41-0000	SALES AND RELATED	0
43-0000	OFFICE AND ADMINISTRATIVE SUPPORT	0
45-0000	FARMING, FISHING AND FORESTRY	0
47-0000	CONSTRUCTION AND EXTRACTION	13
49-0000	INSTALLATION, MAINTENANCE AND REPAIR	0
51-0000	PRODUCTION OCCUPATIONS	3
53-0000	TRANSPORTATION AND MATERIAL MOVING	6
55-0000	MILITARY SPECIFC OCCUPATIONS	0
TOTAL		**27**

Note: Occupations are based on the Standard Occupational Classification (SOC) coding manual.

Source: MISS/TSD/MIOSHA/Michigan Department of Licensing & Regulatory Affairs

TABLE 4

PROGRAM-RELATED FATALITIES BY AGE, MICHIGAN 2013

AGE	NUMBER OF CASES	PERCENT OF CASES
20 and Under	1	3.7
21 - 25	2	7.4
26 - 30	1	3.7
31 - 35	5	18.5
36 - 40	5	18.5
41 - 45	5	18.5
46 - 50	4	14.8
51 - 55	0	0.0
56 - 60	2	7.4
61 and Over	2	7.4
TOTAL	**27**	**100**

Source: MISS/TSD/MIOSHA/Michigan Department of Licensing & Regulatory Affairs

TABLE 5

PROGRAM-RELATED FATALITIES BY GENDER, MICHIGAN 2013

GENDER	NUMBER OF CASES	PERCENT OF CASES
MALE	26	96.3
FEMALE	1	3.7
TOTAL	**27**	**100**

Source: MISS/TSD/MIOSHA/Michigan Department of Licensing & Regulatory Affairs

TABLE 6

PROGRAM-RELATED FATALITIES
BY MONTH OF OCCURRENCE,
MICHIGAN 2013

MONTH OF OCCURRENCE	NUMBER OF CASES
JANUARY	4
FEBRUARY	4
MARCH	3
APRIL	2
MAY	4
JUNE	2
JULY	0
AUGUST	2
SEPTEMBER	2
OCTOBER	0
NOVEMBER	3
DECEMBER	1
TOTAL	**27**

Source: MISS/TSD/MIOSHA/Michigan Department of Licensing & Regulatory Affairs

TABLE 7

PROGRAM-RELATED FATALITIES
BY INDUSTRY GROUPS AND DAY OF THE WEEK,
MICHIGAN 2013

INDUSTRY GROUP	DAY OF THE WEEK							
	SUN	**MON**	**TUE**	**WED**	**THUR**	**FRI**	**SAT**	**TOTAL**
CONSTRUCTION	0	4	1	6	1	0	1	**13**
MANUFACTURING	2	0	0	0	2	1	0	**5**
WHOLESALE TRADE	0	0	0	0	0	1	0	**1**
TRANSPORTATION & WAREHOUSING	0	0	0	2	0	1	0	**3**
FINANCE AND INSURANCE	0	0	0	0	1	0	0	**1**
ADMNISTRATIVE AND SUPPORT AND WASTE MANAGEMENT AND REMEDIATION SERVICES	0	0	0	1	1	1	0	**3**
PUBLIC ADMINISTRATION	0	0	0	1	0	0	0	**1**
TOTAL	**2**	**4**	**1**	**10**	**5**	**4**	**1**	**27**

Source: MISS/TSD/MIOSHA/Michigan Department of Licensing & Regulatory Affairs

TABLE 8

PROGRAM-RELATED FATALITIES BY COUNTY OF OCCURRENCE, MICHIGAN 2013

COUNTY	NUMBER OF CASES
ARENAC	1
BRANCH	1
GENESEE	2
GRAND TRAVERSE	1
JACKSON	2
LIVINGSTON	1
MACOMB	2
MIDLAND	1
OAKLAND	4
OCEANA	1
OTTAWA	1
ST CLAIR	1
ST JOSEPH	1
WASHTENAW	2
WAYNE	6
TOTALS	**27**

Source: MISS/TSD/MIOSHA/Michigan Department of Licensing & Regulatory Affairs

PROGRAM-RELATED FATALITY INCIDENTS
BRIEF DESCRIPTIONS OF CASES BY INDUSTRY GROUPS

CONSTRUCTION:

1. A carpenter/roofer was working alone installing shingles on a dormer of a two-story house with a 10/12 pitch roof when he fell 9 to 15 feet to the frozen ground below. He was not wearing a personal arrest system and no slide guards were installed on the roof. A partially erected bracket scaffold was in place along the north eave but it did not extend to the end of the eave.

Violations Noted: **General Rules**
Fall Protection

2. Four (4) employees were assigned to repair a leaking water main. The soil on site was a combination of water saturated material including clay and backfill from being previously excavated. No shoring was installed and a pump was installed to control the water leaking into the excavation. Upon locating the water main, two (2) employees entered the excavation to clean and complete the repair. They discovered they did not have the appropriate clamp and exited the excavation. One of the employees informed the others he was going to get a larger clamp. The other employee asked to go back into the excavation to complete cleaning the main. The two remaining employees were informed to watch the sides of the excavation while the employee was cleaning the main. While he was in the excavation cleaning, a section of the side collapsed totally covering the employee. The other employees entered the excavation to try to rescue him. They were able to uncover his head and body and then extracted him out of the excavation with the aid of the first responders. The employee was treated and transported to medical facilities where he later died.

Violations Noted: **General Rules**
Personal Protective Equipment
Excavation, Trenching and Shoring

3. A roofing crew was installing roof insulation on a low sloped roof. A warning line system was in place. The foreman/safety monitor left the roof to check on materials on the ground. One employee was working outside the warning line system while wearing fall protection when his cell phone fell over the side of the roof to the ground below. He then exited the roof to retrieve his cell phone. Another employee had been working within the warning line system, but went to finish the other employee's work at the roof edge outside the warning line. He did not use any fall protection system beyond the warning line system and a safety monitor was not present on the roof. As he stood up, he took a step and fell approximately 25 feet to the frozen ground below.

Violations Noted: **Fall Protection**

4. Employees were performing residential framing activities. An employee was working in the garage area framing up a wall with a pneumatic nail gun equipped with a contact (bump) trigger.

The nail gun appeared to misfire/double-tap which caused the employee to lose his balance and the nail gun came in contact with his face. This caused an unintended discharge of the nail gun. The nail passed through the employee's eye socket and into his brain. Emergency medical service transported the employee to the hospital where he later died from his injuries.

Violations Noted: **Tools**
General Rules
Personal Protective Equipment
Fixed and Portable Ladders

5. Several employees were performing removal and repair on the roof of a large commercial storage building. There were deteriorated sections of metal decking in multiple locations of the roof that employees were walking and working from. While removing plywood from a section of the roof, an employee fell through the deteriorated deck to the concrete floor 22-feet below, receiving fatal injuries.

Violations Noted: **General Rules**
Fall Protection

6. Employees were attempting to install a large window on the second story of a residential dwelling. They were using a rough terrain forklift equipped with a non-compliant scaffold platform. A gust of wind knocked both an employee and a window off the scaffold platform to the frozen ground approximately 28-feet below. He died from the injuries sustained in the fall.

Violations Noted: **General Rules**
Scaffolds and Scaffold Platforms
Personal Protective Equipment

7. A laborer and pipefitter were removing the guide rails, floating lids and associated equipment from digester tanks in a sewage treatment facility. The workers were removing the guide rail on one of the digester tanks that was approximately one-third full of sewage using a cutting torch. The laborer started cutting the bolts on the center hub of the floating lid. The sparks and slag ignited the methane gas that had accumulated under the hub, propelling the lid 8-feet into the air. Both workers received serious injuries and were transported to the hospital where the pipefitter later died.

Violations Noted: **General Rules**
Welding and Cutting
Fire Protection and Prevention
Demolition

8. An employee was gathering information, taking measurements, and reviewing existing conditions on a roof for the future installation of a dust collection system at a foundry. While doing so, the employee fell through a skylight that had a thin plastic dome cover approximately 22-inches wide by 45-inches long. The employee fell approximately 30-feet to the factory floor below and was fatally injured.

Violations Noted: **General Rules**

9. Two (2) employees were painting the exterior of a building. They had installed plastic on the concrete sidewalks and parking lot to protect it from paint splatter. The employees were painting the eaves and were elevated 15-feet in a scissor style self-propelled work platform. They needed to relocate the lift and while doing so drove over a storm drain grate whose location was obstructed by the plastic. The rear tire of the lift fell into the opening, causing the lift to tip over. One (1) employee jumped from the lift as it was falling and received a broken arm and leg. The other employee struck the asphalt and received serious head injuries and died two days later.

Violations Noted: **Aerial Work Platforms**

10. An employee was fatally injured when a skid steer loader backed over and crushed him. The employee was verifying grade elevations for a work operation for the widening of an existing roadway and was working behind the skid steer loader when he was run over.

Violations Noted: **General Rules**

11. An employee was picking up tie down straps that had just been removed from a load on a flatbed truck. A steel I-beam with an attached guardrail became unsteady and fell, striking employee on the head and pinning him at the midsection. The employee was transported to the hospital where he later died from his injuries.

Violations Noted: **General Rules**
Personal Protective Equipment

12. After completing an off-site job, the employer and employee returned to the shop to eat lunch. The employee finished and returned to the garage area to install a new exhaust on a utility dump truck prior to installing a remanufactured engine. The employer later went to the garage area to find the employee pinned between the frame and dump bed of the truck. With no engine in the truck and no power to the hydraulics, the employer attempted to raise the bed using a skid steer, but was unsuccessful. The employee was extricated by rescue personnel but had succumbed to asphyxia. The employer stated he always required employees to use wood blocks to support the bed when working under it, but at the time the blocks had either been displaced or removed by the deceased. The wood blocks used did not have a positive means to keep them from being displaced by inadvertent movement of the dump bed.

Violations Noted: **Lockout/Tagout**

13. An employee was engaged in sheathing a roof of a single family residential structure when he fell approximately 30-feet to the ground below. The employee died of the injuries sustained. No fall protection measures were being used at the time of the fall.

Violations Noted: **None**

MANUFACTURING:

14. Employee had just dumped molten metal into a pot. A crane operator picked up the pot and moved it approximately 30-40 yards to the tilter table. After the crane had released the pot and moved, the ladle tipped over spilling approximately 195 tons of molten metal. The molten metal ran out of the building and hit the snow outside resulting in an explosion. The victim was in a warming shanty approximately 30 yards away that caught on fire.

    Violations Noted: **General Duty**

15. An employee was removing parts from a pit during the automatic operation of a transfer cart on the E-coat conveyor line and was caught between the horizontal beam and lower portion of the cart. The employee received crushing injuries from a portion of the cart.

    Violations Noted: **Lockout/Tagout**

16. Employee was using an overhead crane to move an injection die from the storage area using the wrong size lift bolt. The lift bolt failed and a 6,000 lb. suspended die fell, striking the employee between another stored die on the floor.

    Violations Noted: **Overhead and Gantry Cranes**
    Personal Protective Equipment
    Design Safety Standards for Electrical Systems

17. An employee was performing maintenance on the ragger unit over an open pulper tank with no fall protection when the employee fell 20-feet into the bottom of the pulper tank. The tank was partially filled with product and was in operation.

    Violations Noted: **General Duty**
    Portable Ladders

18. While repositioning a loader tractor that was being operated to assist in removing a rail of railroad track, the employee backed the tractor toward a ravine. The tractor slipped down into the ravine and rolled over, trapping the employee.

    Violations Noted: **Tractors**

WHOLESALE TRADE:

19. A crane operator was attempting to load and move 35-foot long I-beams weighing approximately 980 lbs. each. The operator was using a top running 25-ton radio controlled crane securing loads with a spreader bar and alloy steel chain slings. The operator was working alone and had the radio control attached to a harness around his neck. A co-worker heard a loud noise and turned to see the crane operator between stacks of I-beams and it appeared as though he was losing his balance. He observed the operator grab onto one of the beams as it fell. Co-workers rushed to

the scene but were not able to locate the radio control so they used a second crane to push the crane above out of the way and lift the beams off the deceased. Four (4) beams had fallen across the employee. He was transported to a local hospital where he died from his injuries.

Violations Noted: **General Provisions**
Overhead and Gantry Cranes

TRANSPORTATION AND WAREHOUSING:

20. An employee was reassigned by his supervisor to assist yard workers in placing required placards on the road transport trailers at a trucking freight terminal and warehouse. Upon reporting to the location, the employee was asked by the worker-in-charge to pull a tractor/trailer to the area for placarding. The employee had been issued master keys for the tractors but had left them in his personal vehicle as he had not previously been assigned duties that required them and therefore, had decided to return to his vehicle to retrieve the keys. Due to the heavy rains, he chose a path to the employee parking lot that crossed three (3) marked traffic lanes and was approximately 150-feet from a lighted and marked crosswalk. Another driver leaving the warehouse area turned into the marked traffic lanes and struck and dragged the employee approximately 50-feet. He later reported that he did not see the victim. The deceased was not wearing a reflective vest or other reflective clothing. A dock worker, who did not witness the incident, reported he had observed an individual standing in the traffic lanes attempting to light a cigarette minutes before learning someone had been struck. The employee died from fatal head injuries.

Violations Noted: **General Provisions**
Personal Protective Equipment

21. A truck driver was dispatched to an offsite oil and gas well by his employer to pick up a 50-foot flatbed trailer loaded with well drilling components. The front of the trailer was facing the wellhead. The driver attempted to make a 180-degree turn around the well. The soil around the area was muddy due to recent rains, except for compacted gravel in an approximate 20-foot radius surrounding the wellhead. While making the sharp turn, the trailer contacted and broke 2-inch gas lines. Vapors from the gas were ignited by the tractors' engine resulting in an explosion and engulfing the tractor and trailer in flames. The explosion shattered the tractor windows causing 2nd and 3rd degree burns. The employee exited the tractor and attempted to shut-off the flow of gas by closing the valves. Other employees working nearby ran to the site after hearing the explosion and found the injured employee walking away from the well. The employee later died from the injuries sustained.

Violations Noted: **Oil and Gas Drilling and Servicing Operations**

22. The bus driver left the bus to follow a customer. The bus began to move as closing of the doors released the parking brake safety feature. The driver then attempted to reenter the bus but was run over by the wheels.

Violations Noted: **None**

FINANCE AND INSURANCE:

23. An insurance claim adjuster was performing the routine task of assessing a claim from the owner of an automobile body shop. Needing to access the roof, and after determining his ladder was not tall enough, he observed a contractor doing siding work at the building next door and asked to borrow one of their ladders. The contractor agreed and carried the ladder over and set it up against the wall. The top of the ladder rails were placed against the exterior wall below the roof line. As the deceased was attempting to climb down, he missed the top rung and fell head first 18-feet to concrete below.

Violations Noted: **General Provisions**
Portable Ladders
Recording and Reporting of Occupational Injuries and Illnesses

ADMINISTRATIVE AND SUPPORT AND WASTE MANAGEMENT AND REMEDIATION SERVICES:

24. Two employees were assigned to trim trees due to the power lines being too close to the trees at a residential home. During the operation, one employee climbed the tree to trim the branches while the other employee remained on the ground. During the trimming operation, the employee made contact with a live power line resulting in the fatality.

Violations Noted: **Electric Power Generation, Transmission, and Distribution**

25. A truck driver who transports scrap metal from companies to recycling yards was operating a tilt-frame semi-truck. The employee had been in the process of dropping off a 40-yard scrap container. A co-worker later discovered the deceased pinned under the 40-yard container. The container was lifted and the deceased was removed from under the container.

Violations Noted: **General Provisions**

26. The owner and an employee were straightening and re-staking a 25-foot-tall pine tree. The owner was using a front frame skid steer loader. The bucket was raised with a 2-inch nylon ratchet strap attached to it and the tree. The owner was standing underneath the bucket with the equipment running. The employee was standing on the other side of the tree. When he came around the tree, he found the owner crushed between the cross member of the bucket lift arms and the front cab frame of the skid steer.

Violations Noted: **Tractors**

PUBLIC ADMINISTRATION:

27. The deceased was #2 firefighter of a three (3) man team assigned to interior duties in a business structural fire located in a strip mall. #1 FF was on the nozzle and #3 FF was a Captain. Entry was made crawling down an approximate 60-foot corridor with a half wall along both sides and limited visibility. FF #1 passed the nozzle to FF #2 and the team moved to the right, encountering furniture while continuing to maneuver and look for the fire. With one solid and one blinking light on his SCBA, the Captain ordered the team to depart and exchange bottles. Upon exit and discovering FF #2 was not accounted for, the Battalion Commander radioed FF #2 for his location. FF #2 responded that he was in the kitchen area. The Battalion Commander then asked who he was with. The transmission was stepped on and it was errantly believed FF #2 was with ladder 1. An aerial ladder team determined that the roof-mounted air handlers were about to collapse, at which time an evacuation order was given. An immediate head count found FF #2 unaccounted for. A mayday call was then initiated. A rescue team re-entered the building, following the hose used by FF #2. After they advanced approximately 60-feet, they found or heard nothing. FF #2 was later found approximately 6-feet from an exit door at the rear of the building and had succumbed to smoke inhalation after running out of air. The hose had looped over itself when the team encountered the wall and moved to the right. It is unknown if this led to FF #2 becoming disoriented and unable to follow the hose out of the structure.

Violations Noted: Fire Fighting