Development of a Coding System to Accurately Categorize the Causes of Construction Fatalities and Serious Injuries

by

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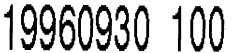
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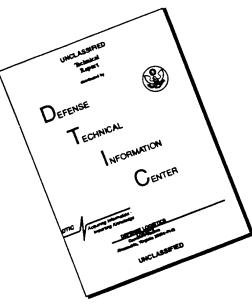
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CHAPTER 1

INTRODUCTION

There are approximately 910 construction worker fatalities in the United States each year (National Safety Council, 1995). Although construction workers constitute only 5.2% of the industrial workforce, they account for over 18.4% of the fatalities and 10.6% of the injuries (Gambatese 1996). The only industries that have higher fatality rates are mining and agriculture.

One of the functions of the Occupational Safety and Health Administration (OSHA) is to investigate and track occupational injuries and fatalities. OSHA's involvement is reduced in the state-plan states; however, these states are still encouraged to contribute such data to OSHA. This information is recorded in OSHA's Integrated Management Information System (IMIS). While various types of information are recorded, particular interest exists in the basic types of causes associated with fatalities and injuries. OSHA classifies all accidents into six event types: Falls, Struck by, Struck Against, Caught In or Between, Shock, and Other.

The accident classifications are designed to provide insight into causation. Despite this, it is felt that the current classification system has numerous shortcomings. The primary failure is that the six event types do not adequately categorize the actual accident causation. In fact, the category "other" historically has accounted for an exceptionally high percentage (about 10%) of incidents.

This thesis was undertaken to develop a system of cause codes to accurately categorize the primary causes of fatalities and related injuries in the construction industry. The information contained in the OSHA database can be extremely useful to contractors and safety professionals if it can be presented and summarized in a usable and detailed format. If the actual causes of injury can be targeted and tracked, it is felt that the current fatality rate can be decreased significantly. Accurate information on the causes of accidents is fundamental to the success of such efforts.

CHAPTER 2

BACKGROUND

2.1 INTRODUCTION

The Williams-Steiger Act, also known as the Occupational Safety and Health Act of 1970 (OSH Act), was passed by Congress to increase safety awareness in the United States, and contained special provisions for the construction industry due to the high proportion of fatalities occurring in construction. OSHA was formed and tasked with tracking accident statistics. OSHA created the Integrated Management Information System (IMIS) database to manage the information collected on accidents. This database is primarily used by OSHA to produce statistics. Considerable amounts of useful information can be generated from the database.

Currently, six categories (Falls, Struck By, Struck Against, Caught In or Between, Shock, and Other) exist for classifying the causes of accidents in the construction industry. These categories are very general and provide limited useful data since a wide range of accidents fit into each of the areas. The category "Struck Against" is essentially unused, while approximately 10% of the fatalities have been categorized as "Other". Accident classification information would be useful for safety managers and construction professionals if the information would be specific to their actual work classification and if the cause codes clearly defined the accident type.

In addition to the coded information related to injuries and fatalities, most OSHA accident investigation reports recorded in the OSHA IMIS database contain an abstract which summarizes the events surrounding the accident. These abstracts tend to consist of a single paragraph, written in a style comfortable to the individual investigating OSHA compliance officer.

2.2 LITERATURE REVIEW

Although extensive research has been conducted on how to reduce injury and fatality rates in the construction industry, very few have reviewed the OSHA coding system to determine if it contains clear and useful data.

Only a handful of literature sources were located which reference the OSHA coding system. The first of these was an "Analysis of Fatalities Recorded by OSHA" (Hinze and Russell 1995). In this paper, the authors used OSHA's IMIS to examine the causes of past injuries. It was felt that knowledge of past injury causation would help in preventing future injuries. The researchers used data from 1980, 1985, and 1990 to identify possible trends. While some trends were identified, the authors noted that the coding of event types appeared to be inconsistent and then provided numerous example cases. In their recommendations, they stated that the information contained in the database can only be helpful if it is clearly and consistently entered into the system. They further recommended that the coding system be examined to determine if a different coding system would be more appropriate. They felt that more accurately defined codes might allow for more consistency in the information entered into the database. This would make the resulting information more usable.

Several theses have identified the need for a revised coding system. In her thesis entitled "Investigation of Equipment Related Injuries and Fatalities in Construction", Bernandine I. Thomson (1996) recommended that the abstracts in the OSHA IMIS database be more clearly written and that the coding be more precise as to the primary cause of the accident.

David C. Bren (1995) analyzed construction fatalities and injuries due to powerline contacts in his thesis and recommended that more detail be included in the abstracts, as well as accuracy in data entry. He also noted the lack of accurate coding as a fault of the current system.

Katherine Bren (1996) completed her thesis on construction fatalities and injuries due to trench cave-ins. She strongly recommended a coding system which accurately reflects the primary cause of the accident. She found that "cave-ins" were placed in either "struck by", "caught in/between", or "falls" with no real consistency. She also recommended that the abstracts be more carefully written to eliminate the grammar and logic errors which were found in many abstracts. She felt that a standard form might eliminate some of the ambiguity the OSHA database currently contains as to the actual facts of each accident.

The final reference was a report prepared by OSHA (U.S. Department 1990). OSHA analyzed the causes of construction fatalities from 1985-1989 and made conclusions about the causes of fatalities in the construction industry (see Table 2.1).

Source of fatality	Percentage of all fatalities (%)		
(1)	(2)		
Falls	33		
Electrical Shock	17		
Struck by	22		
Caught in/between	18		
Other	10		
*From "Analysis of construction fatalities- the OSHA database 1985-1989", (U.S.			
Department 1990).			

Table 2.1 Construction Fatalities Investigated by OSHA from 1985-1989*

It is clear from Table 2.1 that the current coding system is extremely broad in nature since each code covers a wide range of accidents. For example, the code "Struck By" includes accidents involving equipment, handling of material, falling material, and cave-ins. The "Caught In/Between" classification includes numerous accidents involving equipment, material, cave-ins, and others. It becomes a "judgment call" for the investigating officer to place the accident into one of the event types. Additionally, the data is in such broad categories that it is of limited utility to the construction professional. Most of the references listed above recommended four common items: 1) all states should be required to report their accident data to OSHA; 2) abstracts should be more clearly written; 3) data entry should be performed with more attention to detail; and 4) the coding system should be specific in nature. The goal of this thesis was to focus on the coding deficiencies and develop a new coding system to accurately classify the causes of fatalities and related injuries in the construction industry.

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CHAPTER 3

RESEARCH METHODOLOGY

3.1 INTRODUCTION

The goal of this research was to develop a revised coding system to accurately categorize the causes of accidents and fatalities in the construction industry. The research was conducted in four stages: data acquisition from OSHA's IMIS, development of a new coding system, data compilation for the new codes, and data analysis. The development of the new coding system evolved into its final form during the data compilation stage and therefore, these two sections will be presented together.

3.2 DATA COLLECTION

OSHA maintains a database of fatalities and injuries occurring throughout the United States in various industries. The database used for this study was OSHA's IMIS which contains accident information on all industries. The database can present or sort various types of information. The data contains encoded information of various types, including victim age, craft, type of injury, amount of fine, amount of fine actually paid, etc. In addition, the database contains an abstract which is a narrative description of how the accident is presumed to have occurred. OSHA's Region 10 office isolated and sorted the data for all fatalities in standard industrial classification (SIC) codes 15, 16, and 17 (construction industry) for years 1994 and 1995. The data report included data from January, 1994 through December, 1995. The data provided by Region 10 included 894 pages of information which resulted in 954 incidents over the two year period. The following information was provided in the OSHA reports: location, date, SIC, type of citation, abatement status, amount of penalty, abstract of the incident, age and sex of the victim, event type, extent of injury, environmental factor, human factor, and hazardous factor. In addition, the database contained information of the violations, penalties and correctional actions required of the employer.

3.3 DEVELOPMENT OF THE NEW CODING SYSTEM AND DATA COMPILATION

The current OSHA construction injury event types include the following: (1) Falls; (2) Struck By; (3) Struck Against; (4) Caught In/Between; (5) Shock; and (6) Other. Since these codes were assumed to not adequately describe the various causes of injury and death, modifications were sought. Using the six OSHA categories as a baseline, refinements were made. The initial revised coding system was developed as shown in Table 3.1.

Cave-in	Confined Space
Drowning	Heavy/Earth Moving Equipment
Electrocution-	Falls-
OH power lines	Temporary Structures
Faulty Tools/Cords	Permanent Structures
Other	Other
Lockout/Tagout-	Material Handling Equipment-
Electrocution	Surface Equipment
Mechanical	Manual (Equipment not
Other	Responsible)
	Cranes/OH Equipment

Table 3.	1	Event	Types-	V	^r ersion	1
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Using these revised codes, the 1994 data began to be evaluated and the cause of death was described by assigning the new code categories to the fatality cause. After reviewing 30 cases, it was found that the codes in Table 3.1 did not adequately describe the causes of death for all cases. As a result, the checklist shown in Table 3.2 was developed. This checklist, as it evolved, contained 15 cause codes that could be viewed as primary, with additional information providing extra details that would further describe the circumstances at the time of the accident. This checklist was used to categorize the first 120 cases. A Microsoft Access database was used to contain the data generated for each case number.

Most information used to assign the proper cause codes was contained in the case abstracts. Unfortunately, some of the abstracts were so poorly written that the facts of the accident could not be deciphered from the text. In other instances, the abstract would be repeated verbatim for two different companies and incidents. These duplicated cases were discarded from the database.

Table 3.2 Checklist- Version 2

Event Types- Check one of the following:	
□ Asphyxiation (toxic gases)	
Caught in/between Equipment	□ Caught in/between Material
□ Cave-in (excavation/tunneling)	□ Cave-in (trench)
□ Electrocution (faulty existing wiring)	□ Electrocution (power lines)
□ Electrocution (faulty const. tool/wiring)	□ Other
□ Fall from elevation	□ Fall from ground level
□ Struck by equipment	□ Struck by falling Materials
□ Struck by material	
Respond to all of the following:	
Lockout/Tagout?	yes no unknown
Confined Space?	yes no unknown
Cause involved other crew members?	yes no unknown
Type of large equipment involved? (equip w/ a driver- scraper, dozer, etc)	
Type of tools or small equip.involved? (hammer, wrench, hand compactor, saw, etc)	
Number of workers injured and/or killed?	
Type of materials involved?	
Type of materials handling?	hoisting/lowering moving laterally altering
Temporary structure involved?	
Permanent structure involved?	
Type of project?	new constructionrepair renovationunknown

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After the first 120 cases had been encoded, "Explosion/Fire" and "Natural Causes" were added as event types. The secondary category "Other crew members involved" changed to "others involved". Further evaluation was conducted using the added cause code categories. At case number 185, three other secondary sections were added- "Fall height/Trench Depth", "Fall Protection/Shoring/Personal Protective Equipment (PPE) used", and "Caused by the subject". The last major changes to the checklist were made at case number 400. Under event types, an "Electrocution-Other" category was added for cases which were clearly electrocutions but did not fall into one of the other electrocution sections, and "Electrocution-building power" was added for those accidents which involved a building power system which was functioning properly. Secondary sections were also added: age and sex of the subject, SIC, number of workers injured separated from number of workers killed, natural factors such as weather, vehicle type (project vehicle or privately owned vehicle), and type of work performed by the subject at the time of the accident. A comments category was added for those cases where supplemental information was required to explain how the subject was killed or injured. The final checklist is shown in Chapter 4.

The resulting database contained 954 records which included 976 fatalities and 106 related injuries.

3.4 DATA ANALYSIS

The data from the Microsoft Access database was exported to Microsoft Excel for analysis. The data was examined to determine how the fatalities were distributed among the 19 cause codes. In addition, the revised coding system was checked or validated. This was done by first selecting (at random) thirty cases from the OSHA database. The information from these cases was given to two graduate students at the University of Washington who had no knowledge of either the current OSHA system or the revised system. The objective of having graduate students use the codes served as a means of validating the revised cause codes. Each student was asked to classify the causes of OSHA fatalities by using the revised coding system. Instructions for the checklist were provided as shown in Appendix A. The following chapter summarizes the findings of both the data analysis and audit.

CHAPTER 4

RESULTS

4.1 INTRODUCTION

The current OSHA coding system consists of six event types. This research was undertaken to develop a new coding system with more specific categories to more accurately classify the causes of accidents and fatalities in construction. The new coding system will be presented, followed by the findings from using this new coding system on OSHA's data for 1994-1995.

4.2 NEW CODING SYSTEM

The final version of the revised coding system consisted of a checklist of causes as shown in Table 4.1. There are nineteen primary causation factors which are used for classifying the event type which caused the accident. In addition, secondary causation and related factors are included to provide additional information surrounding the accident. These include information such as sex and age of the victim, the type of project, etc..

Table 4.1 Checklist, Final Version

∍

Primary Event Types- Check one of the following:			
□ Asphyxiation (toxic gases)	Drowning		
Caught in/between Equipment	□ Caught in/between Material		
Cave-in (excavation/tunneling)	□ Cave-in (trench)		
□ Electrocution (faulty existing wiring)	□ Electrocution (power lines)		
□ Electrocution (other)	Electrocution (faulty const. tool/wiring)		
□ Electrocution (building power)	□ Explosion/Fire		
□ Fall from elevation	□ Fall from ground level		
□ Struck by equipment	□ Struck by falling Materials		
□ Struck by material	□ Other		
□ Natural Causes			
Secondary Information- Respond to all of	the following:		
Lockout/Tagout? _yes _no _na	Confined Space? _yes _no _na		
Fall height: (feet)	Fall protection used?		
	yes no na		
Personal Protective Equipment used?	Trench shoring used?		
ves no na	yes no na		
Trench Length: (feet)	Trench Depth: (feet)		
Others involved? yes no unknown	Caused by the subject? yes no unknown		
Type of large equipment involved?	Type of tools or small equip.involved?		
(equip w/ a driver- scraper, dozer, etc)	(hammer, wrench, hand compactor, etc)		
Vehicle Type:projectprivatena	Number of workers killed?		
Number of workers injured?	Natural factors: (wind, rain, lightning,		
	heat, etc)		
Time of accident: AM/PM	Sex of subject:		
Age of subject:	Type of materials involved?		
Type of materials handling? hoist/lower	Type of Project: new construction		
lateral altering	repair renovation unknown		
Temporary structure involved?	Permanent structure involved:		
Work Type: (painter, electrician, etc)	SIC:		
Comments:	(if none, so state)		

Table 4.2 demonstrates how the original six event types relate to the new primary event types. As is shown, the new system contains nineteen event types and provides more specific codes for the actual accident. Electrical Shock translates into five different electrocution event types (building power, faulty construction tool/wiring, faulty existing wiring, power lines, and other). Falls divide into Falls from Elevation and Falls from Ground Level. The Struck by event type now consists of Struck by Equipment, Falling Material, and Material, while Caught in/between contains Caught in/between Equipment and Material. A completely new cause code was created, Cave-ins, which contains incidents which used to fall under either Struck by or Caught in/between. The event type Other shows the most diversity since it now contains miscellaneous codes such as Asphyxiation, Drowning, Explosion/Fire, Natural Causes, and Other. The event type Struck Against is never used by OSHA and has been included in the codes Struck by and Caught in/between.

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Original system	New system
Electrical Shock	Electrocution (building power)
	Electrocution (faulty const. tools/wiring)
	Electrocution (faulty existing wiring)
	Electrocution (power lines)
	Electrocution (other)
Falls	Falls from elevation
	Falls from ground level
Caught in/between	Caught in/between Equipment
	Caught in/between Material
	Cave-in (Excavation/Tunneling)
	Cave-in (Trench)
	(* Cave-ins may have also been coded as a
	Struck by Incident)
Struck by	Struck by Equipment
	Struck by Falling Material
	Struck by Material
Struck Against	Contained in above category
Other	Miscellaneous:
	Asphyxiation
	Drowning
	Explosion/Fire
	Natural Causes
	Other

Table 4.2 Relationship Between Original Event Types and New Coding System

4.3 FINDINGS USING THE NEW CODING SYSTEM- PRIMARY EVENT TYPES

With the use of the new coding system, the 1994-1995 data was analyzed by determining the primary causes of construction worker fatalities. The analysis was conducted independently for the 1994 data and the 1995 data. There were 691 fatalities and related injuries in 1994, and 391 in 1995.

Figure 4.1 depicts the results of using the new coding system on the data from 1994. Note that the causation factors have been consolidated into broader groupings for comparison with earlier data. The majority of the fatalities and related injuries were in the event type "Falls" (33%), followed by Electrocutions (18%), Struck by (18%), Miscellaneous (15%), Caught in/between (10%), and finally, Cave-ins (6%).

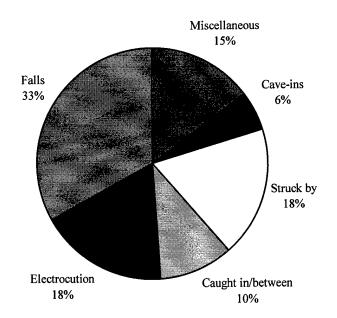


Figure 4.1 Construction Fatalities and Related Injuries, 1994

Figure 4.2 shows the results of using the revised coding system on the 1995 data. The percentages changed slightly, with Falls increasing to 35%, Electrocutions up to 23%, and Struck by incidents at 19%. Caught in/between remained constant at 10%, while Miscellaneous dropped to 9%, and Cave-ins fell to 4%.

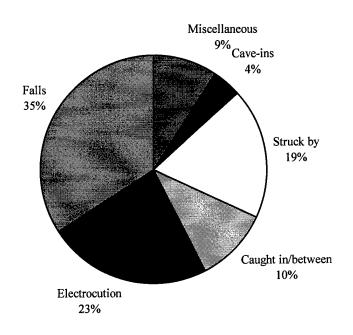


Figure 4.2 Construction Fatalities and Related Injuries, 1995

The total results for 1994-1995 in Figure 4.3 can be compared to the OSHA findings from 1985-1989 as shown in Figure 4.4. The percentage of accidents attributable to the event type "Falls" is slightly higher in this study when compared to the 1985-1989 analysis (34% vs 33%) as is "Electrocutions" (20% vs 17%). The event types Struck by, Caught in/between, and Other are lower (18% vs 20%, and 10% vs 20%, 1% vs 10%, respectively). These reductions can be assumed to be the result of using the new coding system. By expanding the primary event types from six to nineteen, the actual causation can be more accurately pinpointed. As a result, the new categories removed some of the accidents from the Struck by, Caught in/between, and Other categories and placed them in one of the Miscellaneous or Cave-in categories.

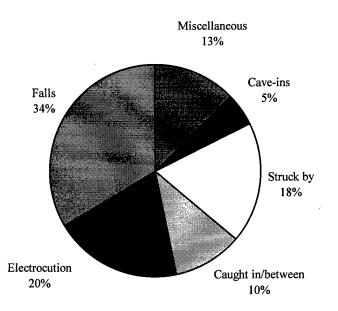


Figure 4.3 Total Construction Fatalities and Related Injuries, 1994-1995

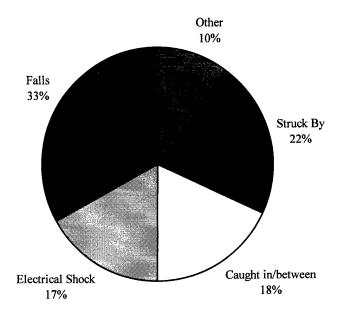


Figure 4.4 Construction Fatalities Investigated by OSHA 1985-1989 (From "Analysis of construction fatalities- the OSHA database 1985-1989", (U.S. Department 1990))

Each primary event type will be analyzed further in the following subsections.

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4.3.2 ELECTROCUTIONS

In 1994, 18% of the fatalities were attributable to electrocutions. In 1995, this number increased to 23%. The total percentage for both 1994 and 1995 was 20%, which is slightly higher than the figures obtained from the 1985-1989 OSHA statistics. Figure 4.6 depicts the percentage of electrocutions attributable to each of the specific event types.

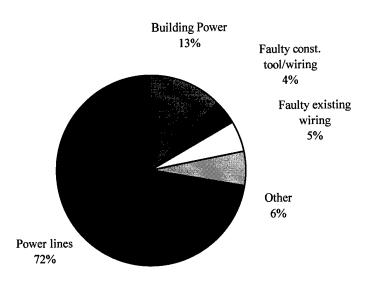


Figure 4.6 Electrocution Fatalities and Related Injuries, 1994-1995

Power line accidents accounted for the majority of the fatalities at 72%, followed by building power-related accidents at 13%. The category "Other" contained incidents which were obviously electrocutions but did not fall into any of the four specific areas, e.g. an electrician was working on an energized transformer and was electrocuted. This incident does not fall under power lines, building power, faulty existing wiring, or faulty construction tools/wiring, but is an electrocution. Therefore, it is classified as an

Electrocution-Other. Faulty existing wiring accounted for 5% and Faulty construction tools/wiring contained the remainder of the electrocutions at 4%.

4.3.3 STRUCK BY

Struck by was the third most prevalent event type. In 1994, 18% of the fatalities and related injuries were attributed to struck by accidents. This percentage increased slightly in 1995, to 19%. The total for both 1994 and 1995 was 18%. This figure is 3% lower than the statistics gathered by OSHA from 1985-1989. The new coding system is probably responsible for this change as the addition of the categories "cave-ins" and "explosion/fire" splits the data out into more specific categories. Figure 4.7 shows the results of the subcategories of the Struck by event type:

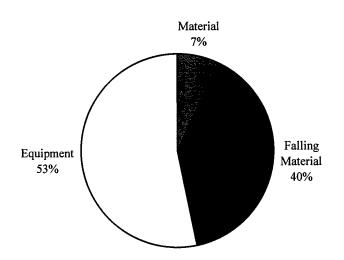


Figure 4.7 Struck by Fatalities and Related Injuries, 1994-1995

The majority (53%) of the accidents fall under the Struck by Equipment category, followed by Struck by Falling Material at 40%. Struck by Material contains the smallest percentage of incidents at 7%. A good example of Struck by Material is when a plug inserted into a pressurized pipe fails and strikes a worker. This subcategory of the Struck by event type is the one most subject to controversy. It is often difficult with some

abstracts to determine whether an accident was a Struck by Material or a Caught in/between Material.

4.3.4 CAUGHT IN/BETWEEN

The caught in/between event type contained 10% of the total fatalities and related injuries for 1994 and 1995. This was significantly lower than the data gathered from 1985-1989, and is most likely attributable to the new coding system which provides more specific codes to describe events which were previously categorized as Struck by, Caught in/between, and Other codes. Figure 4.8 shows the breakdown of this code.

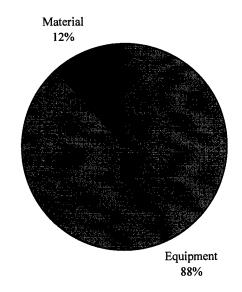


Figure 4.8 Caught in/between Fatalities and Related Injuries, 1994-1995

The vast majority of incidents fell into the Caught in/between Equipment category (88%) when compared to the Caught in/between Material subcategory (12%). As was previously mentioned, categorizing incidents into codes of Caught in/between Materials and Struck by Materials codes can be confusing. Instructions are provided in Appendix A for reference.

4.3.5 CAVE-INS

Cave-ins is a new code which is not currently used by OSHA, and therefore cannot be compared with previous data. However, 5% of all of the total fatalities and injuries for 1994-1995 can be attributed to this event type, which equates to nearly 50 fatalities each year. This fact alone is sufficient to justify the existence of the code. Figure 4.9 depicts the subcodes related to this event type.

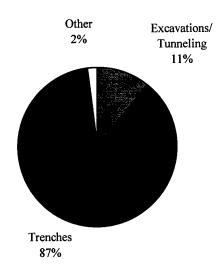


Figure 4.9 Cave-in Fatalities and Related Injuries, 1994-1995

As can be seen from the figure, most of the cave-in fatalities and injuries occurred in trenches (87%). In almost every instance, the trench was not properly supported by either sloped sides, trench boxes, or shoring. In some cases, a trench box was in place but the victim stepped out of the protected area and was caught by a cave-in.

4.3.6 MISCELLANEOUS

The code Miscellaneous is used to describe many of the event types which were previously contained under "Other" (Figures 4.10, 4.11, and 4.12).

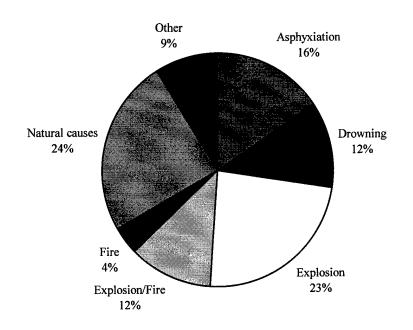


Figure 4.10 Miscellaneous Causes of Construction Fatalities and Related Injuries, 1994

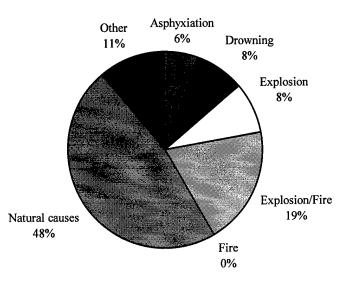


Figure 4.11 Miscellaneous Causes of Construction Fatalities and Related Injuries, 1995

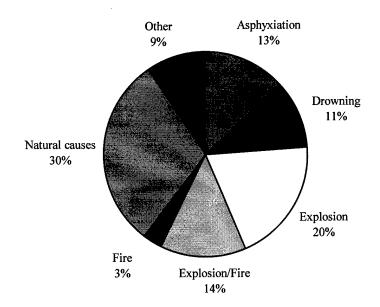


Figure 4.12 Total Miscellaneous Causes of Construction Fatalities and Related Injuries, 1994-1995

The Miscellaneous event types accounted for 13% of the total number of fatalities and related injuries for 1994 and 1995. When these numbers were broken down into their actual codes, the percentages occurring in each specific code were lower than the 5% attributed to Cave-ins. The most prevalent event type was Explosion/Fire which represented 37% of the miscellaneous causes and less than 5% (37% x 13%) of all fatalities and related injuries. It is shown as three separate event types (Explosion, Fire, and Explosion/Fire) for ease of coding but should be considered as one event type. This is followed by Natural Causes at 30%, Asphyxiation at 13%, Drowning at 11%, and finally, Other at 9% of the miscellaneous cases. In the 1985-1989 data, "Other" accounted for 10% of the total number of fatalities. The new coding system reduced this figure to 1.2% (9% x 13%) of the total number of accidents. The reduction of the

proportion of the fatalities categorized in the nondescriptive category of "Other" shows a significant improvement with the new coding system.

4.4 FINDINGS USING THE NEW CODING SYSTEM- SECONDARY FACTORS

The 1994-1995 data was evaluated using the final version of the checklist shown in Table 4.1. The checklist has two sections, the first for the primary event type, and the second to describe the events surrounding the accident. The secondary factors include such information as whether lockout/tagout was in effect, if a confined space was a factor, if PPE, shoring, or fall protection was used, the age and sex of the victim, how many people were killed or injured, the time of the accident, the occupation or work type, the SIC code of the employer, types of materials and materials handling, type of project, permanent and temporary structures, type of vehicle, large equipment, and small equipment, and a comments section if additional information is needed. Table 4.3 provides a summary of the secondary findings gathered from the database for 1994-1995. Note that in many instances, the abstract from OSHA did not contain the information required and therefore, data from that accident was not included in the results.

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Factor	Comments	
Lockout/Tagout	Used Properly: 3 cases (1.5%)	of lockout/tagout cases)
	Used Improperly: 3 cases (1.5%)	of lockout/tagout cases)
	Not Used: 193 cases (97%	6 of lockout/tagout cases)
Confined Space	21 cases considered confined space	ce
Fall Height	Average: Greater than 6 feet	
Trench Depth	Average: 11.5 feet (42 incidents))
Age	Average: 33.4 years (954 incident	ts)
Sex	Male: 947 cases (99	%)
Time	AM: 145 cases (50	%)
	PM: 144 cases (50%	%)
Others Involved	325 cases (34	%)
Subject caused	541 cases (57	%)
Equipment Type	Project: 354 cases (37	%)
	Private: 21 cases (2%	(0)
	None: 579 cases (61)	%)
Material Handling	Lateral: 256 cases (27	%)
	Altering: 93 cases (10	%)
	Hoisting: 93 cases (10)	%)
	None: 512 cases (54)	%)
Type of Project	New construction: 250 cases (26	0%)
	Repair: 138 cases (14	%)
	Demolition: 44 cases (5%	(0)
	Renovation: 9 cases (.9%	⁄0)
	Remodel: 2 cases (.29	⁄0)
	Unknown: 523 cases (55	%)

4.4.1 LOCKOUT/TAGOUT

Lockout/Tagout refers to situations in which the equipment or electrical supply should have been secured prior to working on the system. The database contained 199 incidents which involved lockout/tagout situations. In 193 of these accidents, lockout/tagout was not used when it should have been. In three incidents, lockout/tagout was used improperly and resulted in fatalities. In three other accidents, the lockout/tagout procedure was used properly but the work still resulted in a fatality. For example, one electrician properly locked out the electrical system but was killed by built up inductive current.

4.4.2 CONFINED SPACE

Confined spaces are loosely defined as those spaces which have or could have deficient oxygen content, and also those spaces with limited ingress and egress. In this study, trenches and other areas with limited ingress and egress were not considered confined spaces. Oxygen content was the only consideration, and it was found that 21 cases met these requirements for a confined space. Of these, ten were classified as Asphyxiations, eight were Explosion/Fires, one was a Drowning, and two were considered Others. In four incidents, confined space was not considered a factor in an Asphyxiation.

4.4.3 FALL HEIGHT AND FALL PROTECTION

The majority of falls had an elevation change of more than six feet. Only two falls occurred at the same level as they originated (falls from ground level), and 17 falls were from one to six feet. In 17 cases of Falls from Elevation, the height of the fall was not specified.

The database revealed that fall protection equipment was worn quite often; however, it appears that it failed more regularly than other PPE (15 incidents) and improper use accounted for a high percentage of accidents (24 incidents, or nearly 7% of all falls from elevation). New regulations concerning fall safety went into effect in 1995 and this might account for the common use of the fall protection systems. Due to the high percentage of failures and improper usage, employers may want to focus their attention in this area to prevent future injuries and fatalities.

4.4.4 OTHER PPE

PPE consists of fall protection systems, hardhats, steel-toed boots, breathing apparatus for confined spaces, reflective clothing, electrical rubber gloves, and others. Fall protection was discussed in the preceding paragraph. In analyzing the data from 1994-1995, five cases of Asphyxiation were attributable to the lack of PPE. PPE failed and resulted in fatalities in only one instance of Asphyxiation and one instance of Electrocution.

4.4.5 TRENCH DEPTH AND SHORING

In previous research (Bren, 1996), it was found that trench length and depth were the critical factors for cave-ins. Width was not a major factor influencing cave-in occurrences. Data in this research effort was collected on trench depth but not on length. Length has been added to the final checklist in Table 4.1 for future use. In analyzing the data from 1994-1995, the average trench depth for 42 Cave-in event types was 11.5 feet. Only one of these cave-ins was using a proper shoring system which failed. Out of the remaining 41 cases, six were either using an improperly constructed shoring system or the subject had left the protected area of the trench and was caught in a Cave-in.

4.4.6 AGE AND SEX OF THE SUBJECT

The average age for the victims in the database was 33.4 years of age. Out of the 954 fatalities in the database, only seven were women. Of these seven female fatalities, five were flaggers who were struck by either a private vehicle or a project dumptruck. In the remaining two cases, one involved an equipment operator in a rollover accident (Caught in/between Equipment) and the other involved the wife of a contractor who was helping stage electrical switchgear in his absence and was Caught in/between Material.

4.4.7 TIME OF THE ACCIDENT

An analysis of the database showed that only 285 incidents contained the time of the accident in the abstract. Figure 4.13 shows the distribution of fatalities at various times throughout the day. The highest number of injuries and fatalities occurred between the hours of 11:00 AM and 12:00 PM.

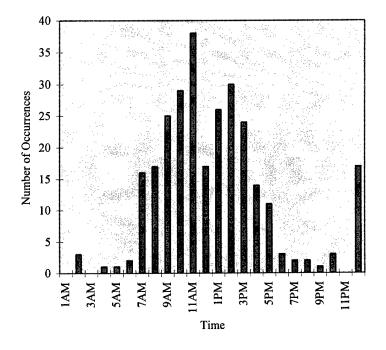


Figure 4.13 Time Distribution of Fatalities and Related Injuries

4.4.8 OTHERS INVOLVED

"Others involved" refers to those incidents where another person was involved in the events surrounding the fatality. Others were involved in 34% of the accidents included in the database.

4.4.9 CAUSED BY THE SUBJECT

In 57% of the fatalities in the database, the subject "caused" the accident. This factor was not intended to focus the blame for the accident on the individual but rather classify whether others caused the accident.

4.4.10 EQUIPMENT TYPE

An analysis of the equipment types shows that 94% of the accidents involving equipment were project related. The accidents which involved private vehicles were typically highway construction/repair projects.

4.4.11 MATERIAL HANDLING

Three types of material handling were entered into the database (lateral, hoisting, and altering). Lateral movement (58%) was responsible for the majority of the incidents involving material handling.

4.4.12 TYPE OF PROJECT

The type of project was known in 443 incidents. Of these, 56% were new construction projects. Repair projects followed with 31% of these cases.

4.4.13 ANALYSIS OF WORK TYPE AND EVENT TYPE

The database was sorted on work type and event type to determine which cause codes each trade was susceptible to in the construction industry. The major work types were carpenters, concrete workers, crane maintenance, welders/cutters, spotters (lifting operations), drywall installers, electricians, elevator repairers, equipment mechanics, equipment operators, flaggers, HVAC mechanics, masons, sheet metal workers, painters, plumber/pipefitters, roofers, and steel workers. It was often difficult and sometimes impossible to determine what the subject's occupation was at the time of death or injury and those cases were not included. Table 4.3 shows the breakdown of work type compared to event type.

Table 4.4	Analysis of	f Maior Event	Types for Large	Occupation Types
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Work Type	Event Type	(% of total)	Total # of Incidents
Carpenter	Fall from Elevation	(67.4)	46
	Struck by Falling Material	(17.4)	
Concrete worker	Struck by Equipment	(27.3)	11
	Struck by Falling Material	(18.2)	
	Fall from Elevation	(18.2)	
Crane Maintenance	Caught in/between Equipmen	t (100)	7
Welder/Cutter	Fall from Elevation	(32.1)	28
	Explosion/Fire	(25)	
	Natural Causes	(10.7)	
Spotter	Electrocution (power lines)	(48.6)	35
	Struck by Falling Material	(17.1)	
	Struck by Equipment	(11.4)	
Drywall Installer	Fall from Elevation	(76.9)	13
	Natural Causes	(15.4)	
Electrician	Electrocution	(63)	106
	Power lines	(40)	
	Building power	(13)	
	Other	(7)	
	Fall from Elevation	(26.4)	
Elevator Repairer	Fall from Elevation	(33)	12
	Struck by Falling Material	(33)	
Equipment	Caught in/between Equipmen	t (82)	17
Mechanic	Struck by Equipment	(11.7)	
Equipment Operator	Caught in/between Equipmen	t (50.5)	101
	Electrocution (power lines)	(9.9)	
	Struck by Equipment	(8.9)	

Work Type	Event Type	(% of total)	Total # of Incidents
Flagger	Struck by Equipment	(100)	14
HVAC Mechanic	Electrocution (building power	r) (33)	12
	Fall from Elevation	(33)	
Mason	Fall from Elevation	(76.5)	17
Sheet Metal Worker	Fall from Elevation	(58.3)	12
	Electrocution (power lines)	(16.7)	
Painter	Fall from Elevation	(50)	20
	Electrocution (power lines)	(25)	
Plumber/Pipefitter	Cave-in (trench)	(50)	52
	Electrocution (faulty exist win	ring) (9.6)	
	Fall from Elevation	(7.7)	
Roofer	Fall from Elevation	(82.4)	74
	Electrocution (power lines)	(10.8)	
Steel Worker	Fall from Elevation	(74.4)	39
	Struck by Falling Material	(12.8)	

Table 4.4 Analysis of Major Event Types for Large Occupation Types (Continued)

An analysis of Table 4.3 shows that the event type Falls from Elevation was the predominant cause of fatalities and injuries for carpenters (67.4%), welders/cutters (32.1%), drywall installers (76.9%), elevator repairers (33%), HVAC mechanics (33%), masons (76.5%), sheet metal workers (58.3%), painters (50%), roofers (82.4%), and steel workers (74.4%). The occupational types of carpenter, drywall installer, mason, sheet metal worker, painter, and roofer should pay particularly close attention to these statistics since they account for at least half of all fatalities and injuries in their fields.

The second leading cause of injuries and fatalities was Electrocutions. This event type accounted for 48.6% of the incidents involving spotters, 63% of the cases involving electricians, and 33% of the HVAC mechanic incidents. Of those cases involving electricians, the majority (40%) were due to power line contacts.

The event type "Struck by" accounted for the third highest percentage of incidents. Struck by Equipment was the leading cause of fatalities and injuries amongst concrete workers (27.3%) and flaggers (100%). Struck by Falling Material was responsible for 33% of the fatalities and injuries in the elevator repair occupation.

Caught in/between Equipment was the leading cause of injury and death amongst equipment mechanics (82%), equipment operators (50.5%), and crane maintenance workers (100%).

The final event type was Cave-ins. This event type accounted for 50% of the incidents involving plumbers and pipefitters.

The information contained in this section allows safety professionals and managers to focus their safety efforts on the primary causes of fatalities for certain trades in the construction industry.

4.5 AUDIT OF THE NEW CODING SYSTEM

Sixty total cases were given to two test participants to determine whether the results of the new coding system could be duplicated by others. Ideally, there should be considerable consistency between the coding allocations being made by different individuals. The participants coded their cases and these results were compared to the data collected and coded for this study. Collectively, 92% of the codings were the same. The differing codings primarily represented ambiguity between the Struck by and Caught in/between cause codes, which was expected since it is often difficult to distinguish between the two categories. When the ambiguity was noted, the instructions for the checklist were further clarified. For example, a speed of 5 miles per hour or higher was a descriptor that was added to define a Struck by Equipment event type; however, a rollover accident (regardless of speed) was nearly always a Caught in/between Equipment event type. Additionally, the definition for "Fall from Ground Level" (falling into a hole, etc.) was expanded due to some confusion on the part of one of the test participants.

CHAPTER 5

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 SUMMARY

This study focused on the development of a new coding system to classify the primary causes of fatalities and accidents in the construction industry. While OSHA uses a system with six event types; the revised coding system has nineteen primary event types, and twenty-three secondary factors which further define the events surrounding the accident.

5.2 CONCLUSIONS

The current OSHA coding system consists of six event types, Falls, Electrical Shock, Struck by, Struck Against, Caught in/between, and Other. This research developed a revised coding system consisting of 19 primary event types. The new coding system was tested against the OSHA data from 1994-1995, and then audited by two University of Washington graduate students. Based on this analysis, it can be concluded that the new system removes the ambiguity surrounding the actual cause of injury and death by expanding the causation event types. In addition, the secondary factors in the revised coding system clarify the events surrounding the accident and provide a level of detail that is missing from the current system. As a result, the data is more usable by construction and safety professionals and allows them to focus on the actual causes of injury and death on the job site.

5.3 **RECOMMENDATIONS**

The following recommendations are made:

• OSHA should implement the new coding system for classifying construction industry accidents involving fatalities and serious injuries. The information gathered under the new coding system should be distributed to the construction industry to assist in reducing fatality and injury rates.

• OSHA should provide training to all accident investigators who are responsible for data entry prior to implementing the new coding system. It is important that the event types be clearly understood, especially the Struck by and Caught in/between categories, and training will ensure consistency in data entry between the investigators.

• Further research should be conducted on the secondary factors of the new cause code checklist, especially the work type and SIC codes to identify risk groups. OSHA should sort the new database by work type or SIC and provide this information on a periodic basis to the construction industry. Awareness of the primary cause of death associated with each work type or SIC should provide the information by which managers and supervisors can reduce the number of serious injuries and fatalities in the construction industry. In addition, research could be conducted on equipment statistics such as whether the equipment was moving, being worked on, or hauling at the time of the accident, and whether the equipment was operating in the forward or reverse direction.

• Care should be taken in data entry to prevent typographical or informational errors in the new database. In order for the information to be used effectively, it must be entered accurately.

• All states should be required to submit their accident data to OSHA, and it should be in the form of the new checklist. The current database is incomplete since all states do not submit their accident data to OSHA.

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National Safety Council, Accident Facts, 1995 Edition.

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APPENDIX A

Instructions for Checklist

<u>Block 1</u>: ID number corresponding to case number.

<u>Block 2</u>: Fill in with one of the following event types to classify what **caused** the fatality/injury accident. In some instances, the cause of the accident might not be the actual cause of death; the cause may have triggered a chain of events which lead to the fatality.

Asphyxiation	Caught in/between Equipment
Caught in/between Materials	Cave-in (trench)
Cave-in (excavation)	Drowning
Electrocution (power lines)	Electrocution (faulty existing wiring)
Electrocution (building power)	Electrocution (other)
Explosion/Fire	Fall from Elevation
Fall from Ground Level	Natural Causes
Struck by Equipment	Struck by falling material
Struck by material	Other
Electrocution (Faulty construction tools/wir	ing)

Description of event types:

Asphyxiation: Fatality/injury caused by some gas or toxic material that prevents normal breathing. Example: Welders entered confined space with low oxygen levels without any personal protective equipment (PPE). Breathing ceased due to lack of oxygen.

Caught in/between Equipment: Fatality/injury caused by slow moving or nonmoving equipment. Includes accidents involving moving equipment parts, or accidents involving slow moving equipment and a nonmoving object such as the ground. Example: Employee tried to climb up into a moving dozer by stepping on the tracks. Worker was pulled underneath the equipment.

Caught in/between Material: Fatality/injury caused by slow or nonmoving materials. Example: Employee was blocking a job trailer. One of the supports shifted and the trailer crushed the employee who was working underneath.

Cave-in (trench): Fatality/injury caused by a collapsing trench. A trench is a long, narrow excavation which should have sloped walls or be supported by shoring across the trench or a trench box if it exceeds 4' in depth. Example: Pipefitter was laying pipe in a ten foot deep trench without shoring or cave-in protection. Walls gave way and buried the pipefitter under five feet of soil.

Cave-in (excavation): Fatality/injury caused by a collapsing excavation. An excavation is generally wide and therefore cannot be supported across the excavation. Example: Employee was pile-driving in an excavation. The wall collapsed, pinning the worker against the pile-driver.

Drowning: Self-explanatory. Example: Equipment operator was reinforcing the berm around a lake; ground gave way and the dozer and operator sank to the bottom of the lake.

Electrocution (power lines): Fatality/injury caused by contact with either overhead or buried power lines. Also includes contact with electrical lines when working on substations and transformers. Example: Painter moved a ladder from one side of the house to the other; contacted overhead power line in the process.

Electrocution (building power): Fatality/injury caused by contact with the building power. Example: HVAC mechanic was installing duct work; drilled into floor joist to secure the ductwork and made contact with the building power.

Electrocution (faulty construction tool/wiring): Fatality/injury caused by contact with a tool with exposed wiring or faulty ground system. Example: Worker took a light into a crawl space of a house knowing that the light had a faulty cord. The cord fell into standing water and electrocuted the worker.

Electrocution (faulty existing wiring): Fatality/injury caused by contact with existing wiring which has some fault. Example: A worker was pulling ductwork in the attic and was electrocuted due to ungrounded wiring in the house.

Electrocution (other): Fatality/injury caused by electrocution but it does not fall into any of the other electrocution categories. Example: Employee was working on a malfunctioning waterheater without locking/tagging it out. Water leaked from a pipe and flooded the electric spaces, electrocuting the employee.

Explosion/Fire: Fatality/injury caused by an explosion or fire. Example: Welder cut into a tank which had not been adequately purged of confined gases. The tank exploded and started a fire.

Fall from elevation: Fatality/injury caused by a fall which involves an elevation change, usually a fall from any height above ground level. Example: Roofer misjudged the edge of the roof and fell from an elevation of twenty feet. Example: Plumber misjudged the edge of the trench and fell into the excavation.

Fall from Ground Level: Fatality/injury caused by a fall from the ground. Can also include falls that take place on some structure above the ground but the fall does not leave that elevation. Example: Plumber was working on third floor of building and tripped while walking and impaled himself on third-floor slab rebar.

Natural Causes: Fatality/injury caused by natural causes and over which the employer would generally be assumed to have no control. In some cases, the employer might have taken steps to prevent the fatality, e.g., heat stroke. In those cases where preventative measures might have been utilized, a note is made in the "Natural factor" column to indicate heat, wind, etc. In addition, a note is made in the last block to indicated what caused the death. Examples: heart attack, heat stroke, stroke, etc...

Struck by Equipment: Fatality/injury caused by equipment traveling at speeds in excess of 5 mph. Example: Flagger was struck by a semitruck while controlling traffic for a construction project.

Struck by Material: Fatality/injury caused by material moving laterally. Example: A pipe plug under pressure released from the pipe and struck the employee.

Struck by Falling Material: Fatality/injury caused by falling material. Example: Wind blew a newly-placed concrete wall over and onto a carpenter passing by.

Other: Fatality/injury which does not fall into any of the other categories. Example: Plumber died mysteriously under crawl space; no toxic materials were detected and oxygen levels were sufficient. Since cause of death is unknown, it is classified as "other".

<u>Block 3</u>: Lockout/Tagout employed: If applicable, fill this block in as "yes" if locked out and tagged out, "no" if not properly locked out/tagged out, and "NA" if not applicable.

<u>Block 4</u>: Confined Space: Fill this block in as "yes" if it was a confined space, "no" if the space was not confined, and "NA" if not applicable.

<u>Block 5</u>: Fall height: Fill this block in with one of the following: ground, 1-6', >6', or "NA" if not applicable.

<u>Block 6</u>: Trench depth and length. Fill in the actual trench depth and length. If not applicable, fill in "NA".

<u>Block 7</u>: Fall Protection/Shoring/PPE utilized: Fill in "yes", "no", or "NA" if not applicable.

<u>Block 8</u>: Others involved in the Accident: This is to indicate if any persons, other than the victim, were involved in the accident. Fill in "yes" or "no". The other persons could include crew members or others as long as they were directly involved with the accident.

<u>Block 9</u>: Caused by Subject: This is to indicate if the victim contributed in a major way to the cause of the accident. Fill in "yes" or "no". This question is not intended to focus blame on the individual but classify whether others caused the accident. An example of an accident caused by the victim is when a roofer misjudges the edge of the roof and falls. An example of an accident not caused by the victim is when a flagger is acting within the scope of his/her duties and is struck by a passing vehicle.

<u>Block 10</u>: Type of Large Equipment involved: This block should be filled in with the appropriate type of large equipment involved with the accident. Large equipment includes equipment which requires a driver. Examples: bulldozer, excavator, vehicle, dumptruck, scraper, crane, forklift etc..

<u>Block 11</u>: Vehicle or Equipment Type: Fill in "project" or "private" if large equipment or a vehicle was involved in the accident. Project equipment/vehicles include any equipment used on or for the project discussed in the abstract. A private vehicle/equipment includes equipment which was not involved in the project in the abstract.

<u>Block 12</u>: Type of Tools/Small Equipment involved: List any tool or small type of equipment involved in the accident. Small equipment does not normally involve a driver.

Block 13: Number of workers killed: This is self explanatory and should include the victim.

<u>Block 14</u>: Number of workers injured: This is self explanatory and should include all injured persons, but not those that are fatally injured.

<u>Block 15</u>: Natural Factors: Any natural event that affects the accident, e.g., lightning, wind, heat, etc.. If none are involved, state "none".

Block 16: Time of accident: The actual time should be listed in this block

Block 17: Sex of the worker. The sex of the victim(s) is listed.

Block 18: Age of the worker. The age of the victim(s) is listed.

<u>Block 19</u>: Type of Materials Involved: List the materials directly involved with the accident, or state "none". Examples are wood, concrete, steel, toxic materials, etc..

<u>Block 20:</u> Type of Materials Handling: If a material was listed in block 18, the type of handling should be listed in this block. The following codes should be used: hoisting (also includes lowering), lateral, or altering. If there was no materials handling, state "NA".

<u>Block 21</u>: Temporary Structures Involved: Temporary structures include ladders, scaffolds, temporary platforms, etc. List the type or state "none".

<u>Block 22</u>: Permanent Structure Involved: Permanent structures include buildings, houses, warehouses, highways/roadways, etc. The permanent structure should be the one the project is centered around.

<u>Block 23</u>: Type of Project: Types of projects include new construction, repair, remodel, and demolition.

<u>Block 24</u>: Work Type: This block should be filled in with the type of work the individual is doing at the time of the accident. For example, a pipefitter can be working on a vehicle which falls off its jacks and lands on him/her. The work type would then be equipment maintenance. The following are common types of work: equipment operator, equipment mechanic, spotter (crane/lifting operations), roofer, painter, electrician, plumber/pipefitter, metal worker, welder/cutter, communication worker, HVAC mechanic, sheetmetal installer, laborer, supervisor, elevator repairer, demolisher, concrete worker, mason, carpenter, asbestos worker, sider, flagger, drywall installer, or insulator. If it is unclear what the worker was doing at the time of the accident, state "unknown".

<u>Block 25</u>: Standard Industrial Classification (SIC) code: List the SIC code for the work classification. It is a four number code corresponding to the type of company employing the worker.

<u>Block 26</u>: Comments: Any comments that will clarify the situation surrounding the accident. Examples are overturning equipment, fall protection that fails, equipment with faulty backup alarms, etc.

General Rules:

If more than one report is made on a fatality or injury incident because of multiple victims, a notation should be made to cross-reference the reports to each other. This should be properly coded so that a subsequent data analysis would not count fatalities or injuries more than once.

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APPENDIX B

Asphyxiation	na	yes	na	na	00	ycs	none	none	generator	0 1	none	unkno wn	ž	4	carbon monoxide	none	none	building	unknown	electrical	1731
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Caught in/between equipment	na	na		па па	оц	yes	front loader	project 1	none	1	none	A	M	11		lateral	Due	unknown	unknown		1111
Caught in/between equipment	na	na	na	113	Q	01	excavat or	project 1	none	1	none	1:50 PM	X	57	dirt	lateral	none	retention pond	repair	t	1629
Caught in/between equipment	na	na	ца	ца	ou	р	crane	project 1	boom	1 0	none	8:00 PM	Д	57	steel beams	ltering	altering none	unknown	new construction	sa Sa	1629
Caught in/between equipment	na	ц	na	na	ycs	Q	- <u>-</u>	project	none	1	none	unkno wn	×	6	barges	lateral	5	none	repair		1629
Caught in/between equipment	na	na	na	na	yes	2		project	none	1	none	unkno wn	۲ °	49		none	none	none	unknown		1629
Caught in/between equipment	na	na	Lia Lia	ia na	Q	yes	grader		none	1	none		۶	67	anon	none	none	road drainage ditch	repair		1629
Caught in/between equipment	na	na	na	na	P	yes	dumptru ck	project	none	1	none	unkno wn	Z.	20	none	поле	none	logging road	unknown	equipment operator	1629
Caught in/between equipment	na	na	Da	na na	yes	<u>е</u>	backhoe	project	none	0	none	unkno wn	× م	33	none	none	job trailer	none	unknown	ing	1711
Caught in/between equipment	na	na	na	na	yes	ou	rig; water truck	project	none	1 0	none		×	25	none	none	none	unknown	unkanown		1781
Caught in/between equipment	na	na	na	na	0 L	yes	crane	project	лопе	1) none	unkno wn	N.	61	boiler tubes	hoisting none		none	unknown	ient	1711
Caught in/between equipment	na	na na na no	na	na	ou	yes	backhoe: project	project	none	1 0) none	11:25 AM	M	43	none	none	none	unknown	unknown		1771

Caught in/between equipment	па	na	na	Ца	Acs	ŋo	crane; pickup]	project in	none	0	none 1	unkno wn 1	7 Z	20 1	none	none	none	unknown	unknown	equipment mechanic	1794
Caught in/between equipment	Па	Ла	· ·		8		: O		none	0	none 1	unkno wn 1						unknown	unknown	equipment operator	1795
Caught in/between cauipment	na	na		Ца	e e		excavat or	project inone	lone 1	0	1 DONC	unkno wn	Z 7	42 n	none	none	excavation	bridge	demolition	equipment operator	1795
Caught in/between equipment	na	na	< .	Па	e e	yes	dump truck	project hammer	ammer 1	0	onon	11:25 AM	۳ لا			none		unknown	unknown	equipment mechanic	1794
Caught in/between cquipment	na	na		1	р	yes	L	project s	binders/chain s	0	none	1:30 PM	M A	4 T		60	none	none	unknown	equipment operator	1794
Caught in/between equipment	Q	na	na	na	0	yes	dozer	project]	levering pipe	0	none	unkno wn	Z	35 I		none	none	none	unknown	equipment operator	1542
Caught in/between equipment	na	na			ĝ		H		none	0	none	7:30 AM	Σ				trench	none	шknown	ŧ	1794
Caught in/between equipment	B	na	8		2	yes		ç	none	0	none	5:00 PM	Z	30	soil	hoisting none	none	house	new construction	equipment operator	1794
Caught in/between	2	Ē			ç	Ves	loader		none 1	0	none	8:30 AM	ž	4	wous	lateral	none	parking area	snow removal	equipment operator	1542
cyarpureae (*aught in/between coninnent	8	L	E		2	Acc.	ų v	project	none	o	7	9	Σ	}	cam	altering r	none	unknown	unknown	equipment mechanic/op erator	1629
Caught in/between equipment	ца	13			ou	Yes	trailer	project	ramp 1	0	none	0	М	57	none	none	none	unknown	unknown	truck driver- equipment operator	1794
Caught in/between equipment	na	Ша	na		ŝ	Ves	dump truck	project	none 1	0	none	0	Z	24		none	none	none	nworn	equipment operator	171
Caught in/between	na	Па	Pa	1	<u>e</u>	2	ck; front end loader	project	tow chain 1	0	none	8:45 AM	Z	61	none	none	none	unknown	umknown	unknown- hooking tow chain	1794
Caught in/between	Ц	na	ET.	na ha yes	yes	оц	2 :	project none	none 1	0	0 none	unkno wn M 51	М	}	none	none	none	unknown	unknown	equipment mechanic	1794

Caught in/between equipment	na	na	na	ou.	ou	yes	dozer	project 1	none 1	0	none	unkno wn	Я	24	none	none	none	unknown	unknown	equipment operator	1794
Caught in/between equipment	1	na	na	na	ou	yes	- r		none 1	0	none	unkno wn	Z		none	none	none	unknown	unknown	equipment operator	1794
Caught in/between equipment	Па	na		DO DO	ou	Q	dozer; trailer	project 1	none	0	none	unkno wn	X	51	dozer	hoisting none		unknown	unknown	equipment operator	1794
Caught in/between equipment	na	na	na	na na	2			project 1	none 1	1	none	7:25 AM	М	50	ator	hoisting none		unknown	unknown	s H	1794
Caught in/bctween equipment	na	na	ла	na	yes		lowboy trailer	project 1	none 1	0	none	10:10 AM	M	55	dolly	hoisting none		none	unknown	. 3	16/1
Caught in/between equipment	na	na		na	:	<u>e</u>		project]	pile hammer 1	1	none	unkno wn	Z	2	none	none		none	unknown	equipment mechanic	1622
Caught in/between equipment	ou	па		na	:	yes	• • • •		none 1	1 0	none	9:15 AM			none	none		unknown	unknown	equipment mechanic/op erator	1629
Caught in/between equipment	na	na	na	La contra c	2	<u>e</u>	dozer, flatbed trailer	project	none	0	none	unkno wn	М	£	none	none	none	unknown	unknown		1794
Caught in/between equipment	na	na	na	па	:	yes	crane	project	hammer 1	1	none	unkno wn	Z	37	key pin (hinge for boom)	none	none	none	unknown	nce	1623
Caught in/between equipment	na	na	na	Ê	2	og	bulldoz er	project	none	0	e uou	11:00 AM	Z	56	none	none	trench	none	unknown	equipment operator	1623
Caught in/between equipment	na	IJa	na	ца	ycs		crane boom	project	sledge hammer	1	none	1:30 PM	И	19	pins	altering	none	none	unknown	crane maintenance	1629
Caught in/between equipment	na	na	na	na	ĝ	yes	crane	project	sledge hammer	0	none	unkno wn	Z	28	none	none	none	none	unknown	unknown	1623
Caught in/between equipment	na	na	na	Da	D	yes	bobcat	project	none	0	none	unkno wn	Z	27	none	none	none	none	unknown	equipment mechanic	1629
Caught in/between equipment	na	na		ца	па па по у	yes	forklift	project none	none	·	none	unkno wn	Σ	42	none	lateral	meat storage rack	unknown	unknown	equipment operator	1623

Caught in/between equipment	na	ра	na	na	ou	yes	loader	project	forklift attachment 1	0	none	11:30 AM	M Z	20 n	none	none	none	unknown	unknown	equipment operator	1622
Caught in/between equipment	Da	па	2	na	e		{	project 1	none 1	0	none	unkno wn	X		she	ы В		none	unknown		1622
Caught in/between equipment	na	Ца	•	na	2		tractor	project	none 1	0	none		Z S	56 e	earth	lateral		/ay	гераіг	ent	1611
Caught in/between equipment	na	Ца	Da	na	e	yes	trailer	project	jacks 1	0	none	unkno wn	Z	36 n	none	none	none	none	uwouyun	doį	1623
Caught in/between equipment	па	ца	e	na	Q				none 1	0	none	unkno wn	Z	26 n			tto ppoff 1	none	unknown	ic lic	1171
oetween	Па	na	na	na	ys.	ycs	forklift	project	none 1	1 0	none	unkno wn	M		none	none		mountain road	unknown	equipment operator- mason	1741
etween	na	na	g	na	g				skiploader 1	0	none		м М	~~~~~~~			ock	garage retaining wall	new construction	or/test er	1623
Caught in/between equipment	Pu	Па	na	g	2	ę	e speed swing (crane?) project		none	0	none	unkno wn	Я	4 د	none	none		none	unknown		1629
Caught in/between equipment	na	13	na	na	2	yes	high lift loader		none	0	none	•	X	*************	none	lateral	поле	none	unknown	Equipment operator	1521
Caught in/between equipment	na	13	na	Da	2		truck		none 1	1	none	unkno wn	Z		none	none	none	roadway	unknown	unknown (SIC 1731- electrical)	1731
Caught in/between equipment	na	na	па	na	<u>e</u>		e e		none 1	1	none	unkno wn	Z		none	none	none	road	new construction	telephone installers- 1731	1731
Caught in/between equipment	Па	Па	na	g	yes	2	trencher project		none	1 0	none	unkno wn	X		none	none		oil/gas well excavation	oil/gas well new excavation: construction	SIC 1731- electrical	1731
Caught in/between equipment	na	па	na	na	yes		forklift	project	none	0	none	11:30 AM	Z	43 I	people	hoisting	working hoisting platform	building	unknown	equipment operator	1743
octween	na	na na no no	na	2 2	g	yes	loader	project	none	1	none	unkno wn	Д			none	none	driveway	new construction		1794

Caught in/between							lowboy		ramps in raised											equipment	
equipment	na	na	na	na	D	yes	trailer	project	position 1	1	none	AM	Z	30	none	none	none	unknown	unknown	operator	1611
Caught in/between equipment	па	na	ria	na	Q	yes	backhoe 1	project	boom/outrigg er	0	none	unkno wn	N	27 1	none	none	none	none	unknown	equipment operator	1611
Caught in/between equipment	na	na	na	na	0	yes	dump truck	project	none 1	0	none	unkno wn	X	26 1	ulic	altering 1	none	none	repair	equipment operator	1771
Caught in/between equipment	ß	na	na	na	B V	yes	elevator	project	none 1	1	none	8:30 AM	Z	***********	None	none	none	building	repair	elevator repairer	1796
Caught in/bctween equipment	na	na	na	ца	yes	оц	fuel/ser vice vehicle	project	none 1	0	none	unkno wn	Z	1		none		none	unknown	equipment mechanic	1611
Caught in/between equipment	na	na	na	na	no V	yes	scraper	project	none 1	1 0	none	2:30 PM	N	57	carth	lateral	none	roadway	new construction	equipment operator	1611
Caught in/between equipment	Па	na	pa	IJa	ycs	DO	hi-lo, truck	project	none 1	1	none	unkno wn	N	24 I		none	none	unknown	unknown		1761
Caught in/between equipment	na	па	na	na	no J	yes	none	none	riding lawnmower	1	none	12:30 PM	, X	45 I	none	none	none		unknown	9	1629
Caught In/between equipment	na	na	na	na	, ycs	р	Flat bed truck project	project	none 1	1 0	none	0 1	Я	51 1	hay []	_}	лопе	road	unknown		1623
Caught in/between equipment	Ца	na	na	na	yes	рг	dumptru ck	project	none 1	0	none	unkno wn	Z	18 I	none	none	none	none	unknown	ic ent	1711
Caught in/between equipment	na	na	na	na	yes	оц	crane; flatbed truck	project	boom and headache ball 1	1 0	none		Z					none	unknown	: g	1622
Caught in/between equipment	na	na	na	na	no yes	yes	crane	project	boom; pins	1	none	unkno wn	Z	6		none	none	none	unknown	crane maintenance	1799
Caught in/between equipment	na	na	Па	na	no yes	yes	crane	project	none 1	1	none	unkno wn	X	57 s	steel plate	lateral	none	none	unknown		1791
Caught in/between equipment	na	na na		na	na na yes no		crane	project none	none 1	1	none	8:30 AM	× N	49 1 1 1 1 1		ateral	lateral timber mats unknown		unknown	t t	1623

Caught in/between							dumb					unkno								aduinment	
equipment	na	na	na	ы	o	yes	truck	project	jack :1		none	W	Σ	42	none	none	none	none	unknown		1623
Caught in/between equipment	na	na	13		ĝ	2	floating work platform: project	project	none	0	none	unkno wn	Z	4	none		Done	e ine	new construction	plumber/pipe fitter	171
Caught in/between equipment	na	na			g		forklift		none 1	0	:	0	Z	41	ater je tank	្ន	none	none	unknown	laborer	1711
Caught in/between equipment	na	na	na	g	Ê		đumptru ck	project 1	none 1	0	none	unkno wn	Z	51	none	none		none		equipment mechanic	1611
Caught in/between equipment	na	ла	na	g	g		none		overhead door	0			М				none	building	none	Caught under electrical o/h door	1731
Caught in/between equipment	2	na	па по		2	yes		project	boom connector pins 1	0	none	12:45 PM	Z	229	none	лопе	none	3	demolition	crane oiler	1796
Caught in/between equipment	Па	na	na Da	na	2		milling machine /trailer	project 1	none 1	0	none	2:45 AM	Ŋ			none	none	none	unknown		1611
Caught in/between equipment	na	па	na	g	ycs		backhoe project		none 1	0	rain	unkno wn	X	30	попе	none	none	unknown	new construction		1799
Caught in/between equipment	na	na	EL.	na	Q	yes	roller	project u	none 1	0	none	6:00 PM	 [म]	33	none	none	none	road	new construction	t	1611
Caught in/between equipment	na	ца	na	na	D	yes	dozer; low boy project		none 1	0	none	2:00 PM	X	4	none	none	loading ramps	none	unknown	equipment operator	1794
Caught in/between equipment	Па	ца	na	Па	2	yes	lifi	project 1	none 1	0	none	unkno wn	М	31	none	none	none	bridge	unknown	equipment operator	1611
Caught in/between equipment	o <u>n</u>	па	na	QL	ou	yes		project 1	none 1	0	none	unkno wn	X	38	лопе	none	none	uwounlau	repair		1796
Caught in/between equipment	na	na	na	na	ycs	оп	trailer	project	jack stand 1	0	none	unkno wn	¥	22	none	none	o, A	none	unknown		1799
Caught in/between equipment	na	na		na no	2	/es	utility trailer	project e	jack and cinder block 1	0	none	unkno wn M	Z	54	none	none	none	unknown unknown		mechanic	1799

Canoht in/hetween							roller compact					unkno								eauipment	
	na	na	na	ца	8	yes		project n	none	0	none	цм	Σ	56	none	none	none	unknown	unknown	operator	1611
Caught in/between equipment	na	na	na n	na	2	yes	compact or p	project n	none 1	0	none	unkno wn	X	56	none	none	none	highway	new construction	equipment operator	1611
Caught in/between equipment	na	па	יד שמ		, Ye		dumptru ck, dozer p		none 1	0	night	4:00 AM	Z	31	pnm	lateral	none	none	unknown	equipment operator	1611
c	na			na	ĝ		compact or/traile r F	project n	none 1	0	none	unkno wn	М	31	none	lateral	none	anone	unknown	equipment operator	1611
between	na		na T		2		loader F	project n	none 1	0	none	unkno wn	X	30		none	none	house	new construction		1521
Caught in/between equipment	na	na	na r	ца	о Ц	yes	dozer/tr ailer I	project n	none 1	0	none	unkno wn	X	21	none	none	none	none	unknown	equipment operator	1611
Caught in/between equipment	na	ua L	na T	na	ê				boom :1	0	попе	unkno wn	Z	4	none	none	none	none	umknown	crane operator	1611
Caught in/between equipment	na	na	na I	В	yes	yes	പെട	project n	none 1	-	none	3:00 PM	М,М	M,M 30,44	piston	hoisting none	none	unknown	unknown		1796
Caught in/between equipment	na	na	1 13	па	잍	yes	dumptru ck 1	project [†]	board :1	o	none	2:30 PM	M	54	concrete	lateral	none	none	umknown	Manual Matl Handling	1521
Caught in/between equipment	na	na	ET.		2	ycs	÷ +		none	0	none	unkno wn	Z	46	unknown	none	none	umknown	unknown		1611
Caught in/between equipment	na	na		ца	PI.	yes			none 1	0	none	unkno wn	X	31	trash	_	none	umknown	umknown	equipment operator	1799
Caught in/between equipment	na	Lia Lia	na 1	па	2		dozer/tr ailer	project r	none	0	none	unkno wn	X	27	none	none	none	none	unknown	equipment operator	1611
Caught in/between equipment	na	na	ца 1		ទួ			project i	battery cables 1	o 		unkno wn	Z	40	ропе	none	none	none	unknown	equipment operator	1611
tween		na	na L	na na yes	ycs	Q	personn el/mater ial hoist ; project none	project 1	none 1	o 	none	unkno wn M		52	oil	altering none	none	umknown	unknown		1799

Caught in/between equipment	0 L	El	na D	u eu	on N	S	elevator project		none 1	<u> </u>	none	unkno wn	м М	30 10	none	none	none	building	repair	elevator repairer	1796
etween	8	{	e E	1	ц С		none		none	0	none	umkno wn		{		none	trench/form work	none	new construction		1623
Caught in/between material	<u>Ba</u>			1	:			س ہ :	pipes 1	0	none	. Q	M 4	45 C P e	electrical panel box (3000 lb) 1		Ē	building	demolition	demolisher	1796
in/between			na	na y	yes n		backhoe: project		chain slings 1	0	none	9:20 AM	M S	56 P	pipe 1	oisting	hoisting excavation	pipe system	unknown	guiding lifting operations	1794
n/between			u B	:	e S		none		come-along 1	o	none	unkno wn		***********		none	******	Ę	unknown	<u>ې</u>	1622
v/between	na			na	1	21		project 6	crowbars 1	-	none	unkno wn	ч ММ	17,18 c	M.M. 47,18 concrete		none	uwounhu	new construction		1771
n/between	na			ц р			d	project 1	none 1	<u> </u>	none	<u> </u>	Z Z	4 °				concrete tank	unknown	spotter	1629
n/between	E .	{	u Ba	n V	H.		truck]		trailer 1		none	unkrio wn	- ۲	16 s	steel I-beam lateral		none	house	Moving	E	1799
in/between	EU.				ycs I		ا ہے		none 1	0	none	: o	F		electrical switchgear	: 60		none	unknown		1795
Caught in/between material	na		u Bu	na J		yes	попе	none	jacks 1	0	none	9:15 AM	ž			lateral	jacks	mobile home	new construction	ion	1799
Caught in/between material	na		ដ ខ្ល	I L				none	torch 1	0	none	3:00 PM	ž	50 T	metal	altering 1	lone	water tower	demolition	cutter	1795
Caught in/between material	na	na	na	na			none	none	none 1	0	none	unkno wn	Z	60 F	boiler	none	none	building	umknown	boiler installer	1711
Caught in/between material	па	eu	na				onor	none	jacks/support blocks	o	ропе	8:30 AM	ž	24 1	modular home	hoisting	попе	modular home	new construction	placing home in new location	1799
Cave-in (excavation/tunneling) na na	na	na	ove r 18 feet r			yes	backhoe: project none	project	none 1	o	none		Σ		dirt	none	excavation	none	new construction	equipment operator	1629

Cave-in (excavation/tunneling)	па	na	≥ ⊑ ∞	unkno wn	2	2 2	pile driver	project 1	none 1	0	none	1:45 PM	Z	35	carth	none	none	none	unknown	unknown	1622
		IJa	35- 40' n	Q	yes		tractor loader	project	none 2		none	3:50 PM	WW	44,53	dirt	lateral	excavation pit	unknown	unknown		1794
2		na	10' no		ñ	2 2	none		none 1	0	none	unkno wn	X	25	none	none	excavation/t rench	unknown	unknown	unknown	1623
	Па	na	n Na n Win n		ĝ		none	none	none 1	0	none	unkno wn	ž		none	none	excavation	попе	unknown	unknown	1622
		na	20' n		9 D		Ę	project	none 1	0	none	3:24 PM	M	61	soil	altering	caisson holes	none	F		1794
Cave-in (trench)	па	na	10' n	g	yes	2	none	none	none	0	none	3:30 PM	М	4	carth	none	trench	sewer line	unknown	plumber/pipe fitter	1623
Cave-in (trench)	па	na	4 9 E []	trench box; remov	e		1		none 1	0	none	8:40 AM	Z	4			trench	unknown	unknown	plumber/pipe fitter	1623
	na	EI.	п 200	8	2		none	none	gas torch	0	none	6:30 AM	Я	33	none	none	trench	steam pipe	demolition	welder/cutter 1711	1711
	na	na	·····		yes				shovel 1		none	unkno wn	М	52			trench	sanitary sewer system	new construction	pipelayer	1623
Cave-in (trench)	na	па	ы. бо		ycs		e	project	none	o	none	1:29 PM	M	28	dirt	lateral	trench	foundation: new wall cons	new construction	concrete	1771
	na	yes	۲ دک	оц	Q		none	Jone	none	0	none	unkno wn	Z	25	имои	none	trench	unknown	unknown	plumber/pipe fitter	1794
	na	na	9 fe et r	ğ	р	Q	none	none	none 1	0	none	unkno wn	Z	29	earth	none	trench	unknown	new construction	õ	1623
Cave-in (trench)	EL La	na	unk no wn no	оц	Ê		лопе	none	none 1	0	попе	unkno wn	Я	25	sewer pipe	lateral	trench	sewer line	new sewer line construction	utility construction	1629
Cave-in (trench) na na	IJa	na	۲	7 no no	엄	QL		none	none 1	0		unkno Wn M	Д	32		lateral	trench	drain tile line	new construction	plumber/pipe fitter	1711

······		_1			~	_;	~···		_	ŝ	-	m	ę
1711		11/1	1171	1794	1542	1171	1623	171	1711		- 1531	1623	1623
plumber/pipe fitter	plumber/pipe fitter	pipelayer	grade checker	laborer	plumber/pipe fitter	unknown	plumber/pipe fitters	plumber/pipe fitter	pipelayer	equipment operator/labo rer	plumber/pipe fitter	umknown	plumber/pipe fitter
unknown	new construction	unknown	new construction	new construction	unknown	repair	unknown	new construction	unknown	new construction	repair	unknown	unknown
pipe system	sanitary sewer system	unknown	septic system	storm water drain line	storm sewer system	sewer line	pipe system	sewer system	unknown	sewer system	house	unknown	unknown
trench	trench	trench	trench	trench	trench	trench	trench	trench	trench	trench	trench	trench	trench
none		lateral	none		none	lateral	lateral	lateral	lateral	lateral	none	none	altering trench
none	none	clay pipe	none	none	earth	earth	pipe, earth	dirt	pipe	pipe		earth	pipe
26	35	52,21	34	43	38	29	35,25	32	49	26	[54,7	28	49
Z	Z	M,M 52,21	Я	Z	X	X	M,M 35,25	М	Σ	Z	М,М	Z	Z
5:30 PM	11:30 AM	unkno wn	unkino wn	unkno wn		0	1:30 PM	: 0	unkno wn	3:30 PM	unkno wn	unkno wn	11:00 AM
none F	1 none	none Done	none 1		none 1	none	none	none	none	ропс	<u> </u>	none	none
ă O	ă O	5 -	ē o		ء 0	<u>г</u> 0	е 0	0	······	н 0	3	0	0
-	-		-	-	-	=	5					-	
none	none	none	none	surveyor rod	none	none	none	••••••••••••••••	none	none		none	none
none	none	none	backhoe; project	project		none	none	backhoe; project	none	backhoe: project	project	none	none
none	none	none	backhoe	backhoe	none	none	none	backho	none	backho	excavat	none	none
ou	02	ou	<u>e</u>	ou	ю	Q	e e	ĝ	ou	ou	ou	ou	e.
ou	e B	yes	ves	ves	Ê	ĥ	Å S	Ç.	, en	vcs	, Ac	g	2
of E	8	ê	Ê	ou	D	2	P	2	5.5' no	yes- partial ves	12' no	ou	10- 12' no
10'	13 feet no	12,	8- 12' no	9.5' no	11' no	1, Iç	14'	8 fe	5.5'	14	12'	٢	10- 12'
na	na	na	Ца	Da	na	na	na	na	na	Па	2	Па	na
na	na	na	na	na	Da	Ц	na	na	na	na	na	na	na
Cave-in (trench)	Cave-in (trench)	Cave-in (trench)	Cave-in (trench)	Tave-in (trench)	Cave-in (trench)	Cave-in (trench)	Cave-in (trench)	Cave-in (trench)	Cave-in (trench)	Cave-in (trench)	Cave-in (trench)	Cave-in (trench)	Cave-in (trench) na na

1171	1623	pipe 1623	pipe 1623	pipe 1623	1623	pipe 1521	nt 1794	1	pipe 1711	nt 1794		(pipe 1623	(pipe 1794
unknown	laborer	plumber/pipe fitter		plumber/pipe	unknown	plumber/pipe 1 fitter		***************************************	plumber/pipe fitter	equipment operator	·····;	plumber/pipe n fitter	plumber/pipe fitter
unknown	repair	unknown	new construction	new construction	unknown	new construction	new construction		unknown	гераи	new construction	new construction	unknown
sewer system	sewer system	sewer system	sewer system	residential new house cons	none	pipe system	water/sew new er line cons	unknown	sewer system	farm pond	drainage system	sewer system	unknown
sewer trench	trench	trench	trench	trench	trench	trench	trench	trench	trench shield; trench	trench	trench	trench	trench
sewer altering trench	none	lateral	lateral	lateral	none	none	none	none	lateral	lateral	none	lateral	none
soil	none	sewer pipe	pipe	pipe	earth	лопе	none	carth	pipe	dirt	none) pipe	unknown
M,M 36,26 soil	4	23	64	56	M,M 29,30	37	30	35	4	53	36	M,M 19,20 ,M	45
ММ	ž	Z		ž		Z	Z	<u>ک</u>	Σ	Z	<u> </u>		M M
9:30 AM	unkno wn	umkno wn	10:00 AM	unkno wn	unkno wn	4:00 PM	AM	unkno wn	11:45 AM	unkno wn	unkno wn	7:00 PM	unkno wn
none	none	none	попе	none	none	none	none	Done	none	none	none	none	none
	0	: 3	0	0	-	0	0	0	0	0	0		0
none 1	none 1	none 1	none 1	none 1	none 1	none 1	none 1	none 1	none 1	none 1	none	none	none
			none	none	none	none			none	project	лопе	none	none
trackhoe: project	backhoe: project	none	none	none	none		trackhoe project	none	none		none	none	
ũ	2	<u>و</u>	о Ц	р	yes	og.	{````	. H.	h	ę	} -		ou
yes	<u>e</u>	ê	2	ou	yes	<u>n</u>	2		e o	ŝ	Ê	yes	12' no no
Ê	8	ou	unk no wn no	ou	unkno wn	2	Ê	8	impro per 13' use	unk no wn no	Ê	Ê	<u>e</u>
12, 10-	F	5.5	Å 2 F	12 [°] 8	12'	10'	10'	17	13'	ynn N	14'	10	: :
па	Па	na	pa	na	na	na	Da	ца	na	na	na	na	na
na	3	na	na		eu.	Па	IJa	na	ET.	na	na	na	na
Cave-in (trench)	Cave-in (trench)	Cave-in (trench)	Cave-in (trench)	Cave-in (trench)	Cave-in (trench)	Cave-in (trench)	Cave-in (trench)	Cave-in (trench)	Cave-in (trench)	Cave-in (trench)	Cave-in (trench)	Cave-in (trench)	Cave-in (trench) na na

Cave-in (trench) na	na		.5. no	о <mark>г</mark>	ũ	none	none	shovel	-	none	3:30 PM	ž	47	dirt	lateral	trench	storm drain system	new construction	plumber/pipe fitter	1794
ла Па			yes- impro 22' per	3 a	<u>;</u>	none	none	none	1		0	Z	,	sump pump/disch arge hose	hoisting trench	trench	pipe system	new construction	laborer	1794
na			unk no wn no		÷~~~~	none	none	none	1 0	none	unkno wn	Z	54	:	lateral	trench	sewer system	renovation	plumber/pipe fitter	1623
u	na		9- impro 10' use	2 2	••••••••••••••••••••••••••••••••••••••	none	none	none	1 0	{	10:30 AM	Z	/		none	trench	none	unknown	plumber/pipe fitter?	1542
Ца			na na	yes		barge	project	winch	2	wind;h igh seas	unkno wn	M,M M	24,30 ,39	r and	hoisting none		none	repair	unknown	1629
па			na		ycs	none	none	none	1	none	unkno wn	Z	4	none	лопе	none	culvert	repair	F	1611
па			na na			skiff boat; barge	project	none	1 0	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	11:30 AM		ñ				none	repair	F	1629
na	na		na na	2	yes	dozer	project	none	1	none	4:00 PM	Z	5 5		lateral	berm	lake	new construction	equipment operator	1629
na	na		na na	2		dumptru ck	n project	none	- 0	none		Я	8		lateral	berm	unknown	unknown	equipment operator	1629
ua La		1	na na	<u>o</u>		none	none	riding lawnmower	1	none		Z		tation	altering none		drainage canal	unknown	D D C	1629
na	na	}	na na	yes	<u>8</u>	boat	project	welder	1	high seas	unkno wn	X	ន	none	none	none	none	unknown	welders	1629
na			na na	â		dozer	project	none	1 0	none		Z	6	riprap	lateral	causeway	bridge	repair	equipment operator	1622
na	na		na na	2 I	P	tractor	project	pump, agitator	1	none	unkno wn	Д	28	none	none	none	lagoon	repair	pumping out lagoon	1542
ца	гц		na na no	<u>e</u>	yes	none	none	none	- 0	none	12:30 PM	ĭ	31	water	none	none	puod	unknown	swimming on lunch break 1799	1799

Drowning	2	yes	na	na	or	DO	turbines project		air line	0	none	unkno wn	Z	27	none	none	none	hydroelect ric dam	unknown	diver	66/1
§	na	yes	na	ou	ycs		none		rubber bladders 1	0	none	7:00 AM	Z	48	none	none	bracing		new construction	laborers	1794
	na	na	Da	ца	ĝ			project 1	none	0	none	4:55 PM	Z	32		lateral			new construction	equipment operator	1611
ion (building	QL	ца	гu	Ê	e.	-	none		попе	0	none	unkno wn	Z	45		none	none	transforme r	unknown		1731
cution (building	ou	na		ou	ou			1	none 1	o 	none	unkno wn	X	20	lixture		none	building	unknown		1731
Electrocution (building power)	Q	na	ra Da	ĝ	Q	yes	none	none	drill	o 	none	unkno wn	X	33	sheet metal; wood	altering none		house	new construction	hvac mechanic	1711
cution (building	ou	ца	Ца	ou	ou				drill/router attachment 1	o 		unkno wn	Z	30		altering none					1171
ല	yes- impro per	ца	eL	2	인	yes	none	none	wood 2X4 1	o 	none	unkno wn	Z	25	breakers	altering none		building	repair	electrical	1731
Electrocution (building power)	on	na	ra La	Q	ou	yes	none	none	wire cutters 1	o 	none	unkno wn	Z	23	none	none	none	house	repair	electrical	1731
Electrocution (building power)	<u>و</u>	Ла	ца	ĝ	Q			none	wire stripper	o	none	unkno wn	Z	35	ballast/light fixture	altering	conveyor system; stepladder	hospital	repair	electrical	1731
tion (building	ũ	na	ца	оц	21			none	none 1	0	none	unkno wn	M	20	none	none	3	building	Ę	electrician	1711
cution (building	Q	na	Ца	ou	g	yes		project	metal bar and plate; level 1	-	none	unkno wn		M,M 25,32	none	none	none	house	repair	leveling crew	1799
ution (building	잍	па	na	2	yes	yes		none	drill	0 7	none	4:20 PM	MM	M.M 29,45	aluminum straps; wood joist	altering	none	house	new construction	hvac mechanics	1711
Electrocution (building power)	ding no	na no no	pa	Q	2		none	none	none 1	1	none	2:00 PM	X	18	fence post	lateral	scaffold	building	new construction	fence installer	1799

Pes- Electrocution (building impro per	yes- impro per	ра	na	Q	Q	yes	none	none	none 1	0	none	unkno wn	Z	23	cable 1	lateral	none	building	repair	asbestos worker	1799
Electrocution (building power)	e	na	n n	ĝ	Ê			o F	painting equipment 1		none	unkno wn	Z	41	paint	none	ladder		Ę	painter	1721
Electrocution (building power)	2	na	n na	2	2		none	none	none 1	0 	none	2:00P M	X	4	50	altering none		,	E	le	1731
	2	na	na n	ĝ	g	yes	none	none	none 1	o 	none	unkno wn	Z	32	ture	altering ladder	L		unknown	electrical	1731
Electrocution (building power)	ou	na	na	Ŋ	Q		1	none	none	o 	none	AM	M	39		altering none		automobil e plant	renovation	electrical	1731
Electrocution (building power)	no	Па	na	ou	g	yes	none	none	none 1	0 	none	unkno	M	35		altering none		building	renovation	carpenter	1751
ution (building	Q		na no		ñ				none 1	<u> </u>	none	unkno	×	38	wall switch	altering none			repair	electrician	1542
Electrocution (building power)	2		na n					u u u	none 1	o 	none	2:30P M	Z	29		lateral			repair	electrical	1731
Electrocution (building power)		na	u. Bu	Q	ę			none	drill 1		none	unkno wn	ž	43	sheet metal screws, wood	altering none		house	uction	hvac mechanic	1711
		Da	L L	2	ĝ		clevator	project I	paint brush	0 	none	unkno wn	ž	55	paint	altering none		building	repair	elevator repairer	1796
Electrocution (building power)	р Д	Ша	LI LI LI	Q	2		none	none	none 1	0	none	unkno wn	×	7		none	nonc) دید		electrical	1731
	g	na	na		ou		none	none	bolt cutters 1	0	none	unkno wn	X	34	wire	none	none	building	repair	asbestos worker	1799
Electrocution (building power)	8		n Da		2			none 1	handtools 1	0	ропе			25		none		building electrical service	remodel	al	1731
cution (buil	입	ding no na no no	na 1	2	g		попе		side cutters	1	none	,	Z	60	Overhead light feed wires	altering none		building	repair	electrical	1731

Electrocution (faulty const tool/wiring)	na	na	na	na	р	ŝ	none	none	unknown 1	0	water	unkno wn	Z	32	none	none	none	building	unknown	carpenter	1742
Electrocution (faulty const tool/wiring)	ou	na	na 1	Q	ou	yes	none	none	floor sanding machine	0	and humidi ty	and humidi unkno ty wn	У	3	poom	altering none		building	unknown	sanding floor	1752
Electrocution (faulty const tool/wiring)	Па	ла	La La	2	Q		none	none	drop light cord	<u>.</u>	none	12:00 PM	X	18	none	none	none	house	new construction	hvac mechanic	1711
Electrocution (faulty const tool/wiring)	ou	R.	па по		o	yes	none	none	portable light	0	none	unkno wn	Σ	6	none	лопе	none	house	unknown	8. i	1171
Electrocution (faulty const tool/wiring)	Q	na	19		ĝ	<u> </u>	none	none	electrical snake		none	unkno wn	Σ	27		none		drain line	repair	plumber/pipe fitter	1711
	оц Ц	na	e e	ê				none	pump	o	none	unkno wn	Z	3	none	none	none	pool	repair	draining swimming pool	1521
<u>ک</u>		na	na	ou	8		none	лолс	welder 1	o	water	4:15 PM	Z	29		none	none	laundry tub			1799
Electrocution (faulty const tool/wiring)	2	na	E L	g		2	seissor lift	project	nibbler 1	0	none	2:00 PM	Z	23	none	none	none	building	unknown	electrician	1542
Electrocution (faulty const tool/wiring)	Па	na	na	0E	2	ycs	none	none	electrical handrail 1	0	none	10:00 AM	Z	19	screws	altering	ladder	building	tunknown	steel worker	1799
Electrocution (faulty existing wiring)		na	Па		ę	ę	попе	none	none 1	0	none	8:30 AM	Z	30	none	none	none	building	unknown	plumber/pipe fitter	1171
Electrocution (faulty existing wiring)	na	ца	er.	Ê	<u>о</u>	Q	none	none	ventilation fan 1	0	none	unkno wn	Z	36	pipe	lateral	none	house	5	plumber/pipe fitter	1711
Electrocution (faulty existing wiring)	na	na	D.B	na	Q	01	none	none	none	0	none	unkno wn	Z	4	none	none	none	house	new construction	umknown	1711
Electrocution (faulty existing wiring)	ou	na	na	Q	ŝ	yes	none	none	none	0	none	unkno wn	M	37	conduit	none	formwork	vault	unknown	pres- checking work	1 <i>7</i> 71
Electrocution (faulty existing wiring)	2	ulty no na no no yes	Da	2	Q	yes	none		none	1	none		Z	32	sheetrock	lateral	scaffold	building	new construction	carpenter	1751

Electrocution (faulty existing wiring)	na	па	u Ba	e.	1 2	u Q	none	none	saw	1 0	none	unkno	M	31	none	none	none	house	addition	carpenter	1542
Electrocution (faulty existing wiring)	0 <u>1</u>	na	ц вц	ou u	C. DO		none	none	pipe wrench	0	none		M	17	water line	altering none		building	repair	plumber/pipe fitter	66/1
Electrocution (faulty existing wiring)	g	yes	na Ina	Q	0 10		none	none	none	0	none	unkno wn	X	29	none	none	none	building	repair	plumber/pipe fitter	1711
			u Ug	g			none	none	fan 1	0	none		Z	31	none	none	none	unknown	unknown	rical	1731
aulty	3	3	na n	ŝ	·····				none	0	e none	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	M	20		none	none	bank	unknown	electrical	1731
aulty		na	น. ยน	ŝ	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		none	none	water heater 1	1	none		X	17	pipe	lateral	none	house	new construction	plumber/pipe fitter	1171
her)	yes- impro per	Па	na y	yes				none	ohmmeter 1	1	none	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	Z	39				switchgear	unknown	electrical	1/31
	2	Га	u eu				none	none	electrical water heater	1 0	none	unkno wn	ž	2	none	none	none	имоплип			1731
Electrocution (other)	0	na	na Ina	о Ц				none	electrical test equipment	1	none	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	×	30		none	none	substation	repair	electrical	1731
Electrocution (other)		na	EU L	2 L					none []	1	none		Z	30	lightbulbs	altering none		marquee sign	repair	electrical	1731
Electrocution (other)	ŝ	na	r na	o B	2				none	1 0			Z	32		lateral		transforme: new r	new construction	electrical	1731
Electrocution (other)	ou	ца Па	na na		yes	имоц	<u>s</u>	none	unknown	7	попе		<u>Z</u>	53,48 ,57	umknown	unknow n	unknown	power generating station	unknown	electrical	1731
Electrocution (other)	Па	па	L E	į	2	yes	none	none	arc welder	1				51		none	none	metal duct	unknown	welder/cutter 1711	ш
Electrocution (other) no na na no no	оц	na	na	g		unknown none none	опе	:	none	1	none	unkno Wn M	X	55	pipe	none	none	house	new construction	plumber/pipe fitter	pe 1711

Electrocution (other)	엄	na	na no	0 <u>u</u> 0	0 Yes		none	none	none	0	none	unkno wn	Z	25	none	none	none	runway lighting system	unknown	electrical	1731
	1	1			¥		1	1	voltage meter 1	0	·;······	1:20 PM	Σ	29		none		Ę.	air		1731
Electrocution (other)	оц					unknown : none		none	none	0	none	unkno wn	М	32	ted	лопе	none	_	unknown	electrician	1623
Electrocution (power lines)	g			ة 2	*****)es Ino	none	n none	none 1	0	none	10:04 AM	Я	36	none	none	none	utility pole	umknown	electrical	1731
Electrocution (power lines)	e L			•			none none	й. ЭООС	none 1	0	none	unkno wn	Z	53	none	none	none	high voltage system	unknown	electrician	1623
Electrocution (power lines)	2		па по				none	none	none	<u>.</u>	none	unkno wn	Z	24	guy wires	altering	none		unknown	electrician	1623
Electrocution (power lines)	P	na	na no		no			u uoue	none 1	0 	none	unkno wn	Z	29	conduit	none	none	50	new construction	electrical	1731
Electrocution (power lines)	2	IJa	na na		······		H F	project n	none 1	0	none	5:43 PM	Σ	34	υ	hoisting none			new construction	utility construction	1623
Electrocution (power lines)	Q	Ла	D Da	ц оц	······	yes no	n none	none	none	o 	none	12:30 PM	Z	35		lateral	none		unknown	electrical	1731
Electrocution (power lines)	<u>e</u>		па па				F	project n	none 1	0	none	unkno wn	Z			lateral	none		unknown	spotter	1623
Electrocution (power lines)	ou	Па	na na		yes ye	yes	none	none	none 1	7	none	1:00 MA	М,М М	37,2,2	aluminum gutter pipe	scaffol boisting ladder	ŕ			tion	1761
Electrocution (power lines)	Q	B	n Ba	on V			none	none	none 1	o 	none	9:00 AM	Я	32		hoisting none		high voltage system	repair	electrician	1623
Electrocution (power lines)	<u>e</u>		na	u Bu			· · · · · · · · · · · · · · · · · · ·	none	none 1	0	wind	unkno wn	M	33		none	шмо	house		roofer/sheet metal worker	1521
Electrocution (power lines) no		па	Da v	unkno wn no			n none	none	none 1	0	none	unkno wn M 46	Z		transformer lateral	lateral	none		e repair	electrician	1623

Electrocution (power lines)	ou	Da Da	II II	ŝ	kc	<u>e</u>	crane	project is	outriggers and sling chain 1	o	none	unkno wn	X	6	none	none	uone 1	unknown	uwown	guiding equipment 1	66/1
ocution (power	ļ s	E E		1	ves			none	none 1	-		unkno	ММ	5	ladder	hoisting ladder		building	unknown	taking ladder down-roofing company	761
Electrocution (power lines)	2	en en	en en	na en	S S	Ves			none	0	•	unkno wn	М	28,24	wood light poles	hoisting none			5	electrical utility construction	131
Electrocution (power lines)	2	na	L I	na	<u>e</u>				none	0	none	3:45 PM	Z	24	none	none	Plo	unknown	unknown	electrocuted and then fell 27	1741
Electrocution (power lines)	or	na	ra La	or	р				none 1	0	none	unkno wn	Z	41				power poles	new construction	electrical	1731
Electrocution (power lines)	2 I	na	na	2 2	ŝ	ĝ	drill rig project		shovel 1	<u> </u>	none	unkno wn	X	50	none	none	none	none	unknown	drillers	6671
Electrocution (power lines)	e e	ц	na	2	on D	yes	none		crescent wrench 1	1	none	unkno wn	Z	28		none	none	unknown	umknown	electrician	1623
Electrocution (power lines)	<u>8</u>	na	na	PI	<u>e</u>	yes	none	none	none	0	wet unkr ground wn	unkno d wn	M	49	none	none		phone system	repair	telephone ktr 1731	1731
Electrocution (power lincs)	0 L	na	ц	ũ	Ê	yes	÷	project :	none	1	none	unkno wn	Z	38	power lines	altering none		power pole	repair	electrician	1623
Electrocution (power lines)	ou	Ша	Pa	2	ou	S,	none		none 1	1	none	11:15 MM	Σ	43		lateral	plc	building	E	placing siding	1751
Electrocution (power lines)	ou	EL C	na	ou	ou	yes	none	none	none	1			ž	36	Ð	altering none	none	unknown	uwouyun	al	1731
Electrocution (power lines)	ou	ş	па по	ou	<u>e</u>	ou	ed boom, hydrauli	project	none	1	none	2:00 PM	2	27		none	none	power poles	repair	electrical	1731
Electrocution (power lines)	0 <u>r</u>	na	na	ou ou	yes	ou	forklift	project	none	-	ропе	unkno wn	° MM	30,28	tower M,M 30,28 scaffold	lateral	none	none	unknown	steadying load for forklift	1741
Electrocution (power lines)	2	na	na no	o d	2	yes	truck	project	truck project 8' steel rod	1 0	none		unkno wn M	27	power line pole	hoisting none	none	power line system	unknown	- ¥	1731

Electrocution (power lines)	2	Pa	na	Q.	ę	yes	none	none	wire cutters	o	none	unkno wn	Z	26 I	none	none	none	house	new construction	electrical	1731
Electrocution (power lines)	ou				ĝ			none	none 1	o	none	unkno wn	Z				none	power lines	repair	electrical	1731
Electrocution (power lines)	ou		na		yes		backhoe project		none 1	0	none	2:00 PM	N N	30 s		_!	none	unknown	unknown	guiding equipment	1799
Electrocution (power lines)	e.		na	ou	ĝ		scissor lift	project a	awl 1	0	none	unkno wn	Z		ы		попе	departmen new t store cons	truction	:	1731
cution (power	ĝ		na r	01 L	Ê		ditch witch		none 1	o 	none	7:10 AM	7 X	24 6			trench	шknown	uwouryun	L.	1623
Electrocution (power lines)	ê		L BU		yes			л лопе	none		none	unkno wn	M,M 55,33			hoisting ladder		house	unknown		1521
ocution (power	Ê		н В		ĝ			÷.	none 1	o		unkno wn	Z	34 o	tor	enon none		power system	5	an	1623
Electrocution (power lines)	ĝ		L Da	2	2		boom bucket	project	jumper cables 1	0	none	unkno wn	X		попе	none	лопе	power system	гераіг	electrician	1623
Electrocution (power lines)	01 L		n. L		ş				none		none	unkno wn	X	******		ដ្ឋ	ladder	unknown	unknown		1761
Electrocution (power lines)	ĝ		ET T		g		none	none	none 1	o	none	unkno wn	Z		guy wires	lateral	none	high voltage system	unknown	electrician	1623
Electrocution (power lines)	ĝ				g		ų		none 1	o	none	8:00 AM	Σ		υ			utility pole system	repair		1623
Electrocution (power lines)	Pa	na	na. I	па Па	yes	2	crane	project i	tag line	0	none	unkno wn	Z	26 26		hoisting none	none	unknown	unknown	spotter	1623
Electrocution (power lines)	ou	3	na 1		ou		1	project 1	none 1	0	none	unkno wn	Z	******		none		unknown		ę	1623
ocution (p	or.	ower no na na no yes	na 1	2	yes	QL	bucket truck	project none	попе	0	none	umkno wn M			electrical lines	lateral	none		repair	electrician	1731

Electrocution (power lines)	yes	na	na	р	yes	ycs	manlift	project 1	none	0	попе	unkno Vn 1	Z	38	ground line r	none	none	high voltage system	unknown	electrician	1623
Electrocution (power lines)	입	na	r R	: :	ę	yes	none		power washer 1	o	none	unkno wn 1	X	н Б		none	scaffold	unknown	unknown	powerwasher	1721
Electrocution (power lines)	ou	na	na 1	na	yes	ро	crane]	project o	digger auger 1	0	none	unkno wn 1	Z	28 n	none	none	none	none	unknown	spotter	1623
Electrocution (power lines)	o L	na	u Bu	ou	안 안	N	none	none	none 1	0	none	unkno wn 1	ž	52 s	aluminum siding/fascia; lateral	~~~~~~	none	garage	new construction	roofer	1521
Electrocution (power lines)	o L	ца	na 1		Ş	0			saw 1	0	none	unkno wn 1	ž	27 P	power pole	<u>س</u>		utility pole system	demolition	Ę	1623
Electrocution (power lines)	ŝ	Па		2	2		none	чопе	none	o	none	umkno wn 1	Z	35 n		, Done	none	high voltage system	unknown	electrician	1623
Electrocution (power lines)	o D	na	na Na	na	yes	Q		project I	none 1	0	none		N N	20	steel pipe 1	hoisting none		none	umknown	laborer	1629
Electrocution (power lines)	0 L	na	ua I	§	yes	yes	manlift 1		none	o	none	unkno Wn 1	v Z	4 ⊽		altering 1	none	high voltage system	repair	F	1623
Electrocution (power lines)	2	ца	na		A A	ß			blasting cap and lead wires 1	0	none	e e				none	none	none	tion		1629
Electrocution (power lines)	<u>p</u>	ца	2		ycs	0		none	none 1	0	попе	unkno wn 1		*************	lines	altering none		high voltage system	umknown	electrician	1623
Electrocution (power lines)	Q	u		ŝ	. ,	рц	backhoe: project		none 1	0	none	unkno wn 1	Z	38 38		hoisting trench		water main system	new construction	spotter	1623
Electrocution (power lines)	g	па	ou			yes	aerial lift j	project 1	none 1	0	none	unkno Wn	Z	:	e	none		power pole	repair	æ	1623
Electrocution (power lines)	DO	na	r R		<u>ks</u>	ou	backhoe]	project 1	none 1		none	unkno wn 1	MM 35,7			hoisting none	none	none	unknown		1623
Electrocution (power lines)	<u>no</u>	wer Do na na yes no	na	Da	yes		crane project none	project 1	none 1	0	none	unkno wn M 25	Z		communicat ion tower i hoisting none	oisting		none	unknown		1623

Electrocution (power lines)	<u>e</u>	Па	na y	, ves	yes yes	yes	none	none	none	0	none	10:00 AM	M	38 1	rubber blanket r	none	Dore	high voltage system	repair		1623
ocution (power	<u>.</u>	\$	na L		no V		none	{	none 1	0	none	unkno wn	И	29	}	altering	none	power poles		electrical- utility construct	1731
	P		ũ B		yes		none	pone	pvc saw 1	0	none	unkno wn	Х	37 C	pvc pipe containing circuit	altering	excavation/t rench	Ш			1623
ocution (power	2		n na	р Г	yes y	S	none	p none	bolt cutters	-	none	unkno wn	М,М	23,35	wire	altering	scaffold	building	ction		1741
ocution (power	Ê		n n		yes	Q	crane	÷.	crane hook 1	0	none	unkno wn	X	26 r		hoisting none	none	none	new construction		1521
ocution (power	2		u. Bu	na	L D		bucket truck F	project n	none 1	o	попе	12:00 PM	Z	21	none	none	none	none	unknown	unknown	1623
Electrocution (power lines)	Ê				2 2				none	0	none		Z		r lines	പ്പ	none	high voltage system	repair		1623
Electrocution (power lines)	0 <u>1</u>	na	n na	2	с 21			none	none 1	0	none	unkno wn	Я	4		lateral	none	power system	unknown	utility construction	1623
ocution (power	он Н		n an	na	e P		none	o Done	climbing belt	0	none	unkno wn	Я	40 1	power line	hoisting none		power pole	repair	electrician	1623
ocution (power	2			na	ខ្ម		dumptru ck 1	project	fire extinguisher	0	none	0	Σ			lateral	trench	storm sewer system	iction		1623
Electrocution (power lines)	ou	na	n. Da	ог.	yes	yes	bucket truck 1	project I	none 1	0	none	0 3	X	32	none	none	none	Transform er	ı repair	electrician	1623
Electrocution (power lines)	Q		na no		ĝ	ycs	none	none 1	handline 1	0	none	9:30 AM	Σ	20	none	none	none	transmissi on tower	unknown		1623
Electrocution (power lines)	2		na r		yes		none	none	none 1		none	unkno wn	4	·····	scaffold	lateral	scaffold	unknown	unknown	unknown- moving scaffold	1742
ocution (po	QU	wer no na	na	na no yes	ycs			project kelly bar	celly bar	o	none	10:30 AM	X		none	none	none	utility system	unknown	electrician	1623

Electrocution (power lines)	0 L	na	ЦЦ	PL	<u>ло</u>	yes n	none	лопе	none	0	night conditi ons	2:00 AM	M 35	tree	hoisti	hoisting none	residential house	ntial repair		electrician	1623
Electrocution (power lines)	ou	na	r Ba	2	yes		H H	project n	none 1	0	- Done	unkno wn h		t ductile pipe	tipe lateral	l none	nwonan		Ę	spotter	1623
Electrocution (power lines)	<u>و</u>	na	E S	yes- partial 1	с Р		none		hi line spring stick 1	0	, j none	unkno wn	M 33	none	none	none	high voltage system	e unknown		electrician	1623
Electrocution (power lines)	р Ц	na	L E		L P		none	н н (р 19 19 19 19 19 19 19 19 19 19 19 19 19	gaffs, positioning belt 1	0	none /	10:30 AM	M 30	none	none	none	power	unknown		communicati ons worker	1623
Electrocution (power lines)	ou	na		2	yes 5		÷	h project s	hammer, screw driver []	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	none	3		******			power system	n unknown		electrician	1623
Electrocution (power lines)	ŝ	na	na	g	2 2	yes 1		project n	none 1	0	uone 1	unkno wn h	M 37	none	none	none	telephone pole	one repair		telephone repairer	1799
Electrocution (power lines)	Q	13	na r	2	yes I			project n	none 1	0	none 1	<u>o</u>	M 30	pole	hoisti	hoisting none	none	umknown			1623
Electrocution (power lines)	g	na	na	2	ou		none		wire strippers 1	0	none /	late AM	M 30		lateral	l none	building	nknown		-	1731
Electrocution (power lines)	ou	na	na	Q	yes 3	s S	ladder hoist I	project n	none 1	-	1 Done	0	M,M 40,20		hoisting	ng ladder	uwouyu	wn Junknown			1761
ocution (power	Do.	na	r R	2	e G	yes			none 1	0	none 1	0	M 30	n metal brace	ace lateral	l none	building		new construction r	roofer	1542
ocution (power	ũ	na	13 13	na	CI CI		Ē	project	none 1	0	none	0	M 23	dirt	lateral	1 none	unknown	unknown		equipment operator	1611
ocution (power	ខ្ម	Па		g	ycs J		concrete pump truck		remote control box 1	0	1 1011e	0			none	none	unknown	unknown		equipment operator	1771
ocution (power	Q	Da	na	IO	S Z		æ.	project r	none 1	0	none	umkno Wn	M 23	*************	lateral	l scaffold	d building	nwonzin gr		but Geel	1791
Electrocution (power lines)	ycs	na	2	unkno wn	U O	10	none	none	none	0	none	unkno wn	M 45		/e ateral	l scaffold		substation repair			1629

Electrocution (power lines)	Q	na	u ua	na	no yes	none	none	none	1	0 none	unkno wn	Х	20	ladder	lateral	none	building	umknown	painter	1721
Electrocution (power lincs)	Q		na Da		yes yes		none	none	0) none	unkno wn	Z	22	ladder	lateral	none	house	unknown	unknown- painting ktr	1721
ocution (power	ŋ						none	попе	1) none		Z		ladder 1	lateral	none	unknown	unknown	painter	1721
ocution (power	Q		па по			crane	project	none	-	0 none		Z	45	wire cable	lateral	none	none	umknown	unknown	1761
n (power	ou	3	na D	3	ði		3	none		none	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		ន	•••••	lateral	none	building	umknown	painter	1721
Electrocution (power lines)	na			na	o Ves	none	none	none	1) none	unkno wn	Z	31	ladder [lateral	none	unknown	unkmon	unknown	1721
ution (power	no				to Nex		project	none	1	none		46 M,M 6	33		none		none	umknown		1611
Electrocution (power lines)	2		n La		0U SS	crane		none	1	0 none	3:30 PM	Я	52	pipe 1	hoisting	none	none	unknown	spotter	1542
Electrocution (power lines)	ê	Па	n na	na ye	yes yes	crane	project	none	0) none	unkno wn	Z	32	traffic controls	lateral	none	highway	new construction	signalman	1611
ocution (power	na		na no			crane		none	0	0 none	unkno wn	Σ	50	ocams	hoisting	none	unknown	new construction		1611
cution (power	Q		na				8 1	none	- 1) water	unkno wn	M M N	M,M 33,25 ,M, ,31,2 M 1 1	steel well bipe	hoisting none		well	unknown		1799
Electrocution (power lines)	잍	gu	na no	Ň	yes no	excavat	at project	none	1	0 none	unkno wn	Я	24		none	trench	none	new construction	laborer	1771
Electrocution (power lines)	ខ្ម	na	na no		yes yes	none	none	none	2	0 none	mati	МF	25,20	flag pole	hoisting none	none	post office	new construction	flag pole installers	1799
Electrocution (power lines)	Do.	ter no na na no no yes	na	ā 0) yes		drill rig project none	none	1) none	unkno Wn M	Z	31	none	none	none	unknown	unknown		1799

Electrocution (power lines)	Ê	ha	L B	Q	yes	yes	crane	project	none	2 0	none	10:00 AM		19,27	M.M 19.27 metal roof	hoisting none	none	unknown	unknown	equip operator, unknown	1761
Electrocution (power lines)	Q	na	na	ро	yes	ou	drilling ng	project 1	none 1	0	none	unkno wn	Я	24	none	none	none	unknown	unknown	driller	1781
Electrocution (power lines)	ou	na	na	оц	g	оц	none	none	none	0	none	4:15 PM	Z	3	none	none	none	irrigation line	repair	plumber/pipe fitter	1629
ocution (power	Q	na	na	о В	ycs		<u>ы</u> ,	project 1	none 1	0	none	4:00 PM	Z	50	earth	altering none		storm drainage system	new construction	driller	1781
Electrocution (power lines)	ou		L III		<u>n</u>	yes	conveyo r boom truck	project	screwdriver 1	1 0	none	• • •	Z	1		none	none	umknown	unknown	unknown	1761
Electrocution (power lines)	ou	па	na	ou	ğ	yes	overhea d crane	project 1	none 1	0	none	unkno wn	Z	26	none	none	none	unknown	unknown	painter	1791
Electrocution (power lines)	Ê	Па	na na	2	yes	ycs	crane	project 1	none 1		none	unkno wn	М,М			none	none	junkyard	unkmown	ŧ,	1629
ocution (power	e		na n	ĝ	, K	2			slings	1 2	none		unkno M,M 29,35 wn ,M ,31	******************	spreader bar		none	modular home	new construction	guiding crane and spreader bar	1799
Electrocution (power lines)	р	na	na T	ou	yes	yes	none	none	none 2	0	none	unkno wn	M,M 47,29		scaffold	lateral	scaffold	building	unknown	steel workers- moving scaffold	1791
Electrocution (power lines)	:		na n		yes	Q	i	project 1	none 1	1	none	2:30 PM	Z	4	power poles hoisting none	hoisting	none	none	repair	electrical	1731
Electrocution (power lines)	P	na	na	ę	2	yes	none	none	none 1	1	none	0 3	X	33	wire rope	lateral	none	tank	nwonhn	level detection system	1799
Electrocution (power lines)	2	na	na	er.	2	yes	none	none	none 1	1	none	unkno wn	X	37	metal	lateral	none	unknown	unknown	metal worker 1761	1761
Electrocution (power lines)	ĝ	na	Da I	ou	8	yes		none	none 1	1	none	unkno wn	Я	41	siding	lateral	scaffold	house	unknown	roofer	1761
Electrocution (power lines)	er	na	Da L	na na yes	yes	Q	boom truck crane	project 1	none 1	1	none	unkno wn	Д		Ę	lateral	none	unknown	unknown	load guider 1791	1671

Electrocution (power lines)	ŝ	ца	E.	na	yes	o	crane	project 1	none		none	unkno wn	Z	22,29 rail		lateral	work platform	unknown	uwouyun	electrical KTR	1731
Electrocution (power lines)	õ	na	Da Da	01 Di	ğ	yes	- h0	project	none		none	unkno wn	Z	31	41	none	none	unknown	unknown	equipment operator	1799
Electrocution (power lines)	ទួ	na	• •	ខ្ព	ou	yes	dozer	project	none 1	0	попе	unkno wn	M	55				pump station houses	demolition	Ħ	1795
Electrocution (power lines)	0 L	Па	r Da	ĝ	yes	: 4;	crane	project	none	0	none	unkno wn	M	33		hoisting none		попе	unknown		1541
Electrocution (power lines)	입	na		ê	yes		-		none		none	1:00 PM	ŴŴ	[23,22	ladder	lateral	L	building	unknown		1761
Electrocution (power lines)	Q	na	na	na	ou	yes	aerial crane	project	none 1	o 	none	5:30 PM	М	53	none	none	none	none	unknown		1761
Electrocution (power lines)	ou	na	na	na	yes	D	}	project	none 2	0	попе	unkno wn	MM	[39,36	scaffold	hoisting none		none	unknown	spotter	1542
Electrocution (power lines)	ê	na	na	ŝ	8	yes	none	лопе	none	<u>с</u>	none	1:20P M	Z	35	none	none	none	unknown	uwouyun	e.	1731
Electrocution (power lines)	2	na	Ца	8	8	yes		none	none	0	попе	unkno wn	ž	25	os nment	altering	scaffold	building	demolition		1795
Electrocution (power lines)	<u>n</u>	na	na	na	Ŷ	yes	none	none	none 1	0	none	unkno wn	ž	37		altering	scaffold	unknown	unknown		1721
Electrocution (power lines)	yes- impro per	na	2	unkno wn	Ê	ycs			unknown 1	0	none	unkno wn	ž	40		altering	none		repair	electrician	66 <i>L</i> I
Electrocution (power lines)	e I	na	na	2	yes	yes	none	none	none 2	2	none	12:39 PM		M,M 40,22	2 ladder	lateral	ladder	50	unknown		1761
Electrocution (power lines)	<u>e</u>	ца	Da	20	g	yes	none	none	none	0	none	5:15 PM	Z	39	gutter	hoisting none		building	umknown	ctal	1761
		na	na	na no	Ê	yes	aerial lift	project	none 1	0	none	3:30 PM	Z	39		none	none	unknown	umknown	se	1793

Electrocution (power lines)	ou	na	Pa	о <mark>н</mark>	р	yes	none	none	none 1	1	wet 3:30 ground M	3:30P 1 M	М	29	none	none	none	advertisin g sign	repair	electrical	1731
ocution (power	0[]	na	na	na	2	ks	rock drill	project	none 1	0	none	unkno wn	Z	39	none	попе	none	none	unknown	equipment operator	1542
Electrocution (power lines)	Q	na	na	2	2	yes	none	none	none 1	1) none	10:00 AM	X	26	fascia	lateral	лопе	house	new construction	roofer	1761
Electrocution (power lines)		na	na T	ро	yes	<u> Acs</u>	none	none	none		none	5:40 PM	WМ	M,M 25,32	ladder	lateral	ladder	warehouse	repair	roofer	1761
loi	Па	yes	na	na	2	P	none	none	none 1	0	none	unkno wn	Z	35	grout	lateral	rubber plug sewer line repair	sewer line	repair	umknown	177
Explosion	ла	ou	na	na	엄	yes	tank truck	project	hose 1	0	none	unkno wn	X	65	gas propane	none	none	none	unknown	equipment operator	1795
			na	na	ycs	ycs	none	none	hotwork type equipment	و 1	none	unkno wn	м ^М М	,21,4 [0,41, 42,43	unknown gases and sludge	none	none	tank	unknown	welders/cutte rs	
			r. L	na	yes	yes	none	none	metal grinder 1		none	unkno wn	MМ	sodiun M,M 38,33 azide	c	none	none	building	remodel	sheetmetal duct installer [1711	1711
	па		D 2	na	ycs	S	none	поле	torch 1		none	unkno wn	WW	M,M 33,7	unknown- chemicals of some sort	none	none	chemical building	demolition	cutters	1795
		욈	na	gu	8	yes	dozer	project	none	0		unkno Wn	Z	61	river rock	lateral	none	natural gas line	repair	equipment operator	1629
		<u>e</u>	EC.	na	2	yes	asphalt tanker	project	propane torch 1	1	none	unkno wn	Z	37	asphalt	none	попе	tanker truck	unknown	unknown- roofers?	1761
		ê	na	па	yes	, Acc	none	none	metal band saw,pipe wrench 3	3 0	none	unkno wn	M,M M,		gasoline	none	none	unknown	unknown	welders/cutte rs	6671
	na	<u>.</u>	га	ла	P	yes	dozer	project	none 1	1	none	unkno wn	Z	41	Sta	none	none	gas line	unknown	equipment operator	1794
Explosion	Q	no yes na na no	na	na	â	yes	none	none	gasoline powered target saw 1	1	none	11:56 AM M			line	none	none	gasoline tank	unknown	cutting into tank- cutter	66/1

unkno wn yes na na yes	na	Ň	5	Q	none	none	none	4	none	M,M unkno,M, wn M,M			circuit breaker	altering none	*****	undergrou nd vault	unknown	electricians	1799
na na none na ser	na no yes none	no yes none	none		none		cutting torch 1	0		i unkno wn	Z	*****************	methane or hydrogen	none		sunken ship	demo	welder/cutter /diver	1629
no na none none	na no yes none none	no yes none none	none	none			propane heater 1	0		<u>0</u>	Z	57		none	none	្រា	e unknown	drywall installer	1742
на по по	no no yes none	no yes none	none		none		none	o 	none		Z		copper wire	lateral	none	3 phase breaker for bldg	unknown	electrical	1731
yes na pa yes n	na yes no none	none	none		none		none 4	0	none	10:15 AM	М М Ц М	45,30 ,36,2 9	ammonia	none	none	ammonia scrubber	repair	plumber/pipe fitters	1541
yes na na yes	na yes none	yes yes none	none		none		acetylene torch 1		none	unkno wn	MM 42,41	,	pipe	altering	excavation	sewage pumping plant	repair	plumber/pipe fitter	1623
no ha no yes no	no yes no none	yes no none	none		none		none 1	0	none	ġ.	X	55	the gas		none	house	unknown	unknown	1171
yes na no no	no no yes none	yes	none		none		propane torch 1	0	none	Q	М	£		none		confined space	unknown	welder/cutter 1629	1629
improp er method ha na yes yes none	ina yes yes none	yes	none		none		welding equipment 2	0	none		ž	60, 7	ē	none	none	gal steel storage tank	unknown	electrical ktr- welders	1731
	na yes none	yes	none		none		acetylene torch 1		none	12:00 PM	ММ	23,21	chemical vapors	none	none	2000 gal tank	repair	welders/cutte	
no na na yes l	na yes no none	none	none		none		none 1		none	0	X	32,34 ,19*, 34	32,34 ,19*, paint, paint 34 thinner	none		house	unknown	painters	1721
no na na yes	na yes yes Scraper	Dozer, yes Scraper	Dozer, Scraper		proje	#	ripper	0 7	none	unkno wn	MM	M,M 58,46 earth	earth	lateral		natural gas líne	unknown	equipment operators	1611
na na >6 no yes none none	no yes none	yes none	none	1	none	3	none 1	1	rain	7:30 AM	Z	35	tarps	lateral	none	building	new construction	unknown	1751
Pall from elevation na na >6 no ves none none	no yes none	no yes none	none	:	none		none	1 0	попе	unkno wn	Z	65	none	none	scaffold	pier	new construction	supervisor	1542

1521	1521	1731	1521	1731	1542	1541	1541	1623	1542	1541	1542	1521	<u>5</u>
	15	1	<u>5</u>	1		~~~~~							ie 15
roofer	roofer	electrical	roofer	electrical	carpenter	unknown	demolisher	electrician	unknown	roofer	unknown	roof work	steel worker 1542
unknown	new construction	new construction	uwouyun	uwouyun	new construction	umknown	demolition	unknown	umknown	new construction	unknown	umknown	new construction
house		Ę	building		•••••		building		UMC	building	§		building
scaffold		temp	scaffold		planks		·		r/scaff	none	ladder		none
none			s Done	ស្ន	lateral I		lateral	none		none	none	none	lateral 1
none		none	none	conduit	poom		roofing material			none	none		roof material
24	47	42	51	57	2	42	46	58	52	58	33	09	30
Z	Z	Z	Z	Σ	Z		Z		ž	Z	М	¥	Σ
9:49 AM	; 0 ;	0	unkno wn ⁻]	. o 3	~		9:45 AM	0	0		unkno wn		4:30 PM
vone	?~~~?	n none	uone 1	none 1	none I		7 Done	none v	none	v. 7	none 1	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	none
	3 :	й 0	й 0	й o	ŭ o	: 3	ř o	й o	й 0	й o		й O	ŭ
	-			-		-			-				
none	none	none	none	none	none	none	hone	поле	none	none	none	none	none
none	none	none	попе	none	ропе	none							
none	none	none	none	none	none	none	none	none	none	none	none	none	none
unknown	ka	yes	yes	yes	yes	ycs	yes	yes	yes	yes	yes	yes	yes
ou	2	o	2	ê	2	2	8	Q	о <mark>л</mark>	2	g	8	ĥ
g	impro per use	ou	잂	ŝ	2	8	ĝ	ĝ	Q	ខ	g	2	2
	vi 1 1 V	9<	-0 20	.9<	ou >0, 110	unk no wn no	1 9<	1 \%	- - -	-0 ²	oti >6'	91 >0	- 59 ×
na		2	Ца	EU.			2g	na	R.	na	: :	Шa	na
Part			na				na			na		na	Ia
		F.	<u>ជ</u>		د	<u>с</u>	<u>п</u>		Ę		Ħ.		······
Fall from elevation	Fall from elevation	Fall from elevation	Fall from elevation	Fall from elevation	Fall from elevation	Fall from elevation	Fall from elevation	Fall from elevation	Fall from elevation	Fall from elevation	Fall from elevation	Fall from elevation	Fall from elevation na na >6' no no

Fall from elevation	Па	na	1 _9<	ê	ou	n Yes	none	none	none	1) none	unkno wn	N.	38	none	none	none	building	unknown	unknown	1542
Fall from elevation	na	na	1. .9<	р	2		none	none	попе	1) Done	unkno wn	۲ °	46	none	none	ladder	house	new construction	painter	1521
	na	na	1 59 ×	Q	р	yes	none	none	none	1	none	unkno wn	۲ «	23	none	none	plank	hospital	renovation	ĸ	1542
	na	na	-26 ⁱ I	Đ	yes	5 0		project 1	none	2 0	none	<u>∞ ~</u>	X	39,37	7 none	none	personnel platform	Kingdome	repair	/đu	1721
		na	1 .9<		ĝ		: i		none		none	unkno wn	۲. ۲	37		none		telephone system	unknown	Ę	1731
Fall from elevation	na	na	ou >0,		ĝ			project 1	none	1	none	unkno wn	۶	39	sse	hoisting none		building	repair		1542
	na	na	1 %	S.	о Г		none	none	Puone	- 0	none	unkno	<u>ح</u>	226	none	none	platform	building	unknown	k.	1542
Fall from elevation		ца	1 _9<		ycs			project 1	none		Puon	unkno wn	ž	،	vent pipe	lateral		unknown	unknown	Б. ч	1731
	na		96' TIO	1			none	none	none	1	none	8:00A M	ž	46	gutters	lateral	ladder	house	repair	2	1721
Fall from elevation	na		1 -20 -				none	none	none	0	none	unkno wn	۲. v	4	electric cable	lateral	none	building	unknown	electrical	1731
Fall from elevation	na	na	>6' no		ou	yes	none	none	none	0	none	8:15 AM	Z	53	nailbox	lateral		garage	new construction	roofer	1521
Fall from elevation		na	20, 	QL	yes	uwou	none	попе	none	0 M	unkno wn	o 7:00P M	Z	21,28 ,18	8 none	none	none	tower	unknown	unknown173 1	1731
	na	na	1 9 	ou	yes	5 69 G Xcs	elevatin g work platform: project	,	none	0 7	none		му Му	M,M 37,36		none		building	unknown	electricians	1522
	Па	na	1-6' 1	Q	yes		pickup license truck d	n- license d n	none	- 1	none	unkno Wn M		24	none	none	none	none	umknown	electrical ktr [173]	1731

1522	1731	1731	1731	1731	1731	1731	1731	1522	1522	1522	<u>1</u> 4	1541	5
	·····	*******)	ыр Б	1	1	17	15	fer 15	15	
laborer	phone installers/rep air	electrical ktr	electrical	electrical	electrical	unknown- freeclimbing structure	electrical	elevator repair	carpenter	mason	roofer-sheet metal worker [54]	roofer	-
new construction	unknown	repair	demolition	unknown	new construction	new construction	umknown	umkmown	new construction	rehab	new construction	demolition	-
apartment building		building		electric power pole	ម្ព	C	ų	building		ස			
walkway	ladder	ladder			none	******	none	E		E			
lateral	none	lateral 1	hoisting none	none	none	~~~~~~~~~~~	none	none F	none	-	none	altering n	anna Shell
metal scaffold board		light fixture	pole	none	none		none			none	none	concrete	8 2 2
34	49	61	52	48	45	27	4	51	55	2	42	36	20
X	Я	Z	Z	X	Z	Z	Z	X	М	X	N	Z	Σ
unkno wn	1:15 PM	10:15 AM	9:18 AM	7:51 AM	7:30 AM	12:00 PM	2:09P M	<u>o</u>	g :	0 3	~ · · ·	1:00 PM	unkno
none	none	none	none	none	none	none	none	none	none	none	none	none	i
ē o	ē o	ē o	ë O	Ĕ O	ă o	ă o	ŭ O	й 0	******************	ŭ O	ŭ O	ŭ O	0
1	-	1	-1	-1	-	-	1		-1	-	-,		
лопе	none	none	none	none	none	none	none	none	попе	none	none	saw	e Duce
none	none	none	project	none	none	none	project	none	none	none	none	project	eror.
none	none	none	bucket truck	none	none	none	aerial lift bucket	none	попе	none	попе	mobile crane	anon
yes	yes	yes	yes	yes	ycs	yes	ou	Q	yes	yes	yes	yes	Nes
yes	2	iyes	2	2	g	<u>n</u>	<u>8</u>	ou	<u>e</u>	ou	<u>e</u>	2	
Ê	оц	P	ou	yes	g	оц	ĝ	ou	엄	ou	р Ц	ou	ou >6' no
92	.9¢	_9¢	\$ ×		\$ ×	>¢	>6'	.9¢	>6	, X	>6'	<u>\$</u>	
na	na	na	na	na	na	na	Ца	na	na	ua	na	na	na
ua	Ba	na	Па	na	na	na	na	na	na	na	na	na	Па
Fall from elevation	Fall from elevation	Fall from elevation	Fall from elevation	Fall from elevation	Fall from elevation	Fall from elevation	Fall from elevation	Fall from elevation	Fall from elevation	Fall from elevation	Fall from elevation	Fall from elevation	Fall from elevation

Ξ	Ξ	=	=	=	_			E	19	-	-		-
1541	e 1541	1731	1731	1531	1731	ا 1541	1541	1541	1522	.1154	 1521	1521	13
roofer	elevator installation/re pair	electrical	cable tv Ktr	roofer	electrical	roofers/metal workers	carpenter	metal workers	awning removal	metal worker 1541	Manual Matl Handling-no fall protect	carpenters	electrical Ktr 1731
new construction	unknown	unknown	repair	new construction	renovation	new construction	new construction		demolition	unknown	new construction	new construction	unknown
building	building	unknown	power pole	house	fuel oil tank	building	building	manufactu new ring plant cons	house	unknown	house	house	building
none	, none	electrical pole	none	none	none	none	ladder	skylight- roof opening	ladder	platform	floor opening	scaffold	none
none	попе	none	попе	лопе	лопе	lateral	lateral	lateral	lateral	none	lateral	hoisting	lateral
roof material	none	none	none	none	none	metal	poom	roofing material	side awning	metal duct	exterior sheeting	poom	unknown
16	37	23	39	31	52	38	33	32	29	24	38	41	
М	Σ	Z	X	М	X	Z	Я	Z	Z	X	X	Z	Z
unkno wn	unkno wn	unkno wn) n :	unkno wn	unkno wn	unkno wn	unkno wn	: 0	unkno wn	<u> </u>	; o ;	unkno wn	unkno
none	none	none	none	none	none	none	none	none	none	none	none	none	none
0	o	0	0	0	0	0	0	0	0	;	0	0	
none 1	come- along/handwi nch 1	none	none 1	none	none 1	hone 1	none 1	none	none	saw 1	none 1	none 1	none
none	project	none	none	none	none	none	none	none	none	none	none	none	none
none	elevator	попе	none	none	none	none	none	none	none	none	none	none	none
yes	yes	ycs	or	yes	yes	yes	yes	yes	yes	yes Yes	yes	yes	yes
â	ou	ĝ	Ê	<u>e</u>	ê	yes	Ê	о Ц	ĝ	2	о Ц	ycs	or D
â	ou	impro per use	Ê	ĝ	ĝ	2	Ê	ĝ	2	2	21	ou	>6' no
.9¢ 	>6'	^9	1 9<	>6'	>6' no	>6' no	-6' >6'	.9¢ 	unk no wn no	>6' no	>6' no	>6	
вп	ла	na	ца	ŋ	na	па	ец	na	па	па	eu	na	na
ца	na		na		na	ца	na					na	ца
Fall from elevation	Fall from elevation		Fall from elevation		Fall from elevation	Fall from elevation	Fall from elevation		Fall from elevation	Fall from elevation	Fall from elevation	Fall from elevation	Fall from clevation ina na

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1623	1542	21	1731	1721	1721	21	1721	1623	1721	1711	1711	1622	1542
		1721	17		11	1721	17	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		12	• • • • •	3	1
electrician	supervisor	uwouryun	unknown (electrical KTR)	painter/glazie r	painter	painter	unknown	communicati ons workers	unknown	unknown	hvac worker	carpenter	carpenter
repair	unknown	umknown	unknown	unknown	unknown	unknown	unknown	unknown	unknown	unknown	unkmoun	new construction	rchab
high voltage system r		Ex	unknown	building 1	building	building	building			building	powerplan t	bridge	04
hone s	scaffold r	scaffold	ladder	scaffold	попе	none	none		caffold	lone	none	none	胆
				hoisting s				hoisting none	hoisting s			lateral r	lateral o
none	none	lateral	none	hoi	none	none	o lateral	hoi.		none	none		
none	ропе	poom	none	paint and tools	38,39 none	none	air net/tarp	M.M 38,18 gin pole	tarp shroud	none	none	plywood	roof material
36	31	33	58	41	38,39	57	5	[38,18	26		4	36	
Z	Z	Σ	X	Z	Z	X	M	M,M	Z	ž	ž	Z	11:30 AM M
10:00 AM	unkrio Mri	1:30 PM	9:20A M	2:00 PM	11:15 AM	unkno wn	5:45 PM	9:00 AM	unkno Wn	unkno wn	unkno wn	unkno wn	11:30 AM
none	none	none	none	rain	none	none	none	none	none	none	none	none	0
e o	۹ 0	п 0	(i				н 0			С	- 0		
	-								 .				
spacer buggy	none	none	none	none	none	paint brush	none	none	none	none	none	none	none
none	none	none	none	none	project	none	none	none	unknow unknow n	none	none	none	none
none	none	none	none	none	manlift	none	none	none	unknow	none	none	none	none
g	Do	yes	yes	Q	Q	Yes	Ycs	yes	e.	yes	yes	S.	, Xes
ĝ	yes	ê	2	Ê	yes	8	<u>e</u>	~~~~~~~~~~~		ou	ou		Ê
yes- failed	2	e E	8	8	6	2	2	na	impro per use	2	P	impro per use	ŝ
yes- >6' failed	1 9<	unk no wn no	ou >6'	on >6'	on '8<	ou >6'	9 	¢	>9	unk no wn no	×	<u>\$</u>	>6' no
na					13	eu	na	па	Da	na	La	Ц	IJa
Па	na	na	LI3	na	na	ца	na	na	na	Па	na	na	па
Fall from elevation						Fall from elevation	Fall from elevation	Fall from elevation	Fall from elevation	Fall from elevation	Fall from elevation	Fall from elevation	Fall from elevation

>6′ no	ц од	bucket truck	project	none 1	0	none	unkno wn N	M 33	none	none	none	utility pole system	unknown	electrician	1623
yes Ves	ō	none	none	come-along 1		5, 7 none	9:00 AM	M 22	tower	hoisting none		communic ation tower	new construction	unknown	1623
	Q	попе	none	none 1	o	v r none	unkno Wn	M 49	concrete forms	lateral	Хел	bridge	new construction	carpenter	1622
no	ŝ	none	none	pry bar	0	none 1	unkno wn N	31 M	none	none	none	building		working on roof parapet wall	1741
	ō	pickup truck	project	none		v r none	0					condomini um complex	unknown	ing in 26 tions	1711
•••••	S	flatbed truck	project	none 1	0	none	unkno wn N	وا M	containers	lateral	none	none	unknown	securing load [171]	1711
		anone		none 1	ō	v 1 none	·····	M 33	none	none		bridge deck	unknown	unknown	1611
		scissorli ft	project	none 1	-	Done 2	9:00 AM	M,? 54,?	,? none	none	catwalk	theater	uwouyun	unknown	1711
yes		none		none 1		none 1	7:48 AM N	M 23	poom	lateral	뛽	building	new construction		1542
yes		none	none	none 1	0	none	9:30 AM	M 48		none	ladder	building	repair	N	1171
no yes		none	none	hammer 1	0	none	unkno Wn N	M 54	poom	none	none	building	new construction	nter	1542
yes		anone	none	none 1	0	none 1	unkno wn N		none	none	ladder	house	repair	hvac mechanic	1711
		none	none	none 1	0	wind 1	0			none	Ð	unknown	new construction	carpenter?	1611
>6' no Nes		none	none	none 1	0	none	•	M 22	none	unknow	none	warehouse; repair	repair	roof work	1542

1542	1622	1542	1542	1731	1542	1542	1542	1542	1623	1521	1542	1731	1542
welding fire watch	ironworker	carpenter	metal worker		uwoun		carpenter	ker	communicati ons worker	******	unknown	ŧ.	drowaller
unknown v	new construction i	new construction c	uwouyun	Ę	rehab	uction	new construction c	truction	c unknown o	new d construction ii	unknown u		new construction
unknown	steel bridge	50	:		·····		erypt	ation		house	unknown u		
step ladder	floating scaffold	none	roof opening		none	none	scaffold	ס	none		pld		e
none	lateral	none	lateral	lateral	uone Tione	~~~~~~	none	none	none	ម្នា	none		none
none	corner plate	none	poom	ন্থ				none		E	ac duct	попе	
26	25	55	51	59	32		99	28 28		19	55	54	M.Mi 48,41 none
M	Z	Х	Σ	Z	Z	Z	Z	Z	Z	Z	Σ	Я	WW
unkno	unkno wn	8:37 AM	2:50 PM	10:30 AM	. 9 :	unkno wn	unkno wn	unkno	. 9 :	unkno wn	unkno wn	11:30 AM	8:00 AM
none	none	none	none	none	none	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	none	j	υ	none	попе	none	none
0				0			- 0		о			- 0	
none 1	none 1	none 1	none 1	none 1	none 1	none 1	none 1	none 1	none 1	sander 1	none	none	
	1	1	Ĭ									••••••	ect none
none	none	none	none	none	none	none	none	none	none	none	none	n Tr	project
none	none	none	none	none	none	none	none	none	none	none	none	elevatin g aerial platform: project	aerial lift
yes	ycs	yes	yes	ycs	yes	N S	yes	yes	yes	ycs	yes	yes	2
<u>e</u>	2	2	ou	no		ou.	yes	yes	Do Do	ou L	Ê	<u>n</u>	Yes
ŋ	ou	8	2	Ê	yes- impro Per	율	엄	, V	8	>6' no	ĝ	ê	no
1-6' no	-9¢	92 >0,	-6 ⁶ no	^0	>9 >	92 >¢ 	ou >6	\$9 ×	>6 	?¢	şç ×	¢	, ^
na	na	na	na	na	na	na	EL .	na	na	na	па	na	na
na	ца	na	na	na	na	na	na	na	ца	na	na	LIA C	na
Fall from elevation	Fall from elevation	Fall from elevation	Fall from elevation	Fall from elevation	Fall from elevation	Fall from elevation	Fall from elevation	Fall from elevation	Fall from elevation	Fall from elevation	Fall from elevation	Fall from elevation	Fall from elevation na na >6' no yes

M 41 roof trusses	unkno wn M 41	M 41	none none 1 0 none wn M 41	yes none none 1 0 none wn M 41	no yes none none none 1 0 none wn M 41	yes none none 1 0 none Wn 41
X	unkno none wn M	unkno wn	none paint brush 1 0 none wn	yes none none paint brush 1 0 none wn	no yes none none paint brush 1 0 none wn	yes none none paint brush 1 0 none wn
Z	2:30 PM	2:30 PM	none none 1 0 none PM	none 1 0 none PM	none none none 1 0 none PM	no no none none none 1 0 none PM
•	none AM		none none 1 0 none	yes none none none 1 0 none	yes yes none none 100 1000	ro yes yes none none none 1 0 none
	none AM	1 1 0 none	none trowel 1 0 none	yes none none trowel 1 0 none	Do no yes nome nome trowel 1 0 none	>6 no yes none trowel 1 0 none
	unkno none wn		none none 1 0 none	none none none 1 0 none	no yes none none 1 0 none	yes none none none 1 0 none
	unkno none wn	1 0 none	none none 1 0 none	none none none 1 0 none	no no yes none none 1 0 none	>6' no no yes none none 1 0 none
	unkno none wn		none none 1 0 none	none none 1 0 none	no no yes none none 1 0 none	no yes none none 1 0 none
: # :	8:20P M	1	none none 1 0 none	none none 1 0 none	impro Per per 10 yes none none 10 0 none	Impro Impro per per >6f use no 10 none none
	unkno none wn		spray paint one equipment 1 0 none	yes none none equipment 1 0 none	no yes none none aquipment 1 0 none	>6 no no yes none cquipment 1 0 none
	unkno none wn	1 0 none	none none 1 0 none	no none none 1 0 none	no no none none 1 0 none	yes- >6 failed ino no inone inone 1 0 none
; _	11:00 AM	none 1 0 none	project none 1 0 none	aerial lift bucket project none 1 0 none	aerial lift no yes bucket project none 1 0 none	aerial lift no yes bucket project none 1 0 none
	unkno none wn	none 1 0 none	none none 1 0 none	yes none none 1 0 none	impro per use yes yes none none 1 0 none	impro per >6' use yes yes none none 1 0 none
;		1 0 none AM M	none none 1 0 none	yes none none none 1 0 none	ino vvs none none 1 0 none	Ves none none 1 0 none

			Š	yes-					hoisting	ļ		unkno		<u>9</u> , 8	communicat			communic ation		communicati	
Fall from elevation	na	na	80' failed		no I	u DO	none	none	system 1	0	none	EM	M 31	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	cable/person hoisting none	hoisting		tower	unknown	ons worker	1623
Fall from elevation	na	na	й У9 Х	r e	er Pr				none 1		none	unkno wn	ž N	<u>н</u> Э	none	none	none	80	unknown	unknown	1721
			huk Po				- 1				:					1	1	:	new		00,
Fall from elevation	na	ina (u uw		ou		, barge	project i	none il	2	none	EM .	า 2	5	none	none	plauorm	dock	consuruction	unknown	6701
Fall from elevation	na	па	ељн. ~ ^		u I	2	none	none	none	o	none		ă X	ъ Зб	paint	fall restrair altering system	ing	radio tower	unknown	painters	1721
Fall from elevation	er.	Па	ou >9,		yes	ycs	none	uone 1016	screw gun,caulk gun 1		sleet	unkno wn	Z		p.	hoisting /altering:ladder	adder	townhouse	new construction	둰	1761
Fall from elevation	Па	na	оц >6'		, Ycs		i c	project 1	none 1	o	none	12:00 PM	я Ж	۲ 38 38		none		building	new construction	roofer	1761
Fall from elevation	Ца	па	>6' no		, Yes		ing boom forklift]	project i	none	<u> </u>	none	umkno wn	M 2	50 70		ропе	none	unknown	unknown	steel worker	1791
Toll from elevation			\$ }	,, c	5					c	ļ		N V	57 70		e	a	huilding	amortau	5	1761
	9							1		, 			1					9		9	
Fall from elevation	na	na	>6' no		e E	yes	none	none	none 1	0	nonc	10:00 AM	Д 4	64 M	none	попе	попе	house	unknown	roofer	1761
Fall from elevation	ua	na	ч .9<	e e	2 2	yes	none	none	none	0	none	10:30 AM	Х 4	4 ĕ	лопе	none	ропе	building	гераіг	roofing	1761
Fall from elevation	na	ц	۳ >وز >	2	2 L			none	none 1	0	none		Z 4	41 n	none	none	ladder	building	unknown	roofer?	1761
Fall from elevation	na	ш	ч -9 ~	2	2		none	none	none	0	none	11:45 AM	ς Σ	а 33	none	none	лопе	building	repair	roofer	1761
Fall from elevation	Па	na	л >6'	2	ខួ			none	none 1	0	none	• • •	М	25 D	none	none		house	new construction	roofer	1761
Fall from elevation. na na >6 no no	na	na	u 9<	Q	e		none none	none	none 1	0	none	unkno wn M	M 32		none	none	none	building	new construction roofer		1761

Fall from elevation	na	na	۳ /9<	U	no V	yes no	none	none	none 1	o 	none	unkno wn	X	35	none	none	none	building (skylight)	unknown	roofer?	1761
Fall from elevation	na	na	ч 50 ~	ou	yes		none	none	none 1		none	unkno wn	M,M 48,7	48,7	none	none	scaffold	house	unknown	v trim)	1761
Fall from elevation	na	na	ч % ~	u D		ou Du	n none	none	none 1	0	frost	unkno wn	Z	34	window dormer a	altering none		building	new construction		1751
Fall from elevation	na	Па	ч У Х	2	no V			none	none	0	none	0	Σ	23	insulation 1	lateral	none	building	umknown	roofer	1761
Fall from elevation		Па	ч .9<	2 D			hoisting equipm ent p	H)	none 1	0	none	9 3	X			loisting	russes	building	new construction	steel worker	16/1
Fall from elevation	na	na		u ou	no V	yes no	none	none	none 1	o 	none	unkno wn	X	55	skylight 1	lateral	Done	building	renovation	steel worker	1791
Fall from elevation	па	na	-0 -0		e S			none	none	o 	none	unkno wn	Z	26	none	none	none	house	repair	gutter cleaning	1761
Fall from elevation	na	na		0 <u>1</u>	on V		none	none	none 1	0	none	unkno wn	Z	19	none	none		building skylight	unknown	unknown (roofer?)	1761
Fall from elevation	na	na		0 D	ycs V		none	none	none 1	o 	none	unkno wn	Z	6		lateral		building	unknown	roofer	1761
Fall from elevation	na	Па		1 22	Do V			none	none 1	0	none	g :	Z	25		lateral		building	unknown	ker	1791
Fall from elevation	Pa	na	>6' no		on V	yes	none	none	none	0	none	unkno wn	Z	53	r. none	none	none	building	unknown		1761
Fall from elevation	na	na	ou >0;					none	none	0	none	0	Z		none	none		building	repair	roofer	1761
	na	Па	n Na n Ma		2 2			none	none 1	0	none	: <u>o</u> (Z	76		none	ladder	building	unknown	y Y	1761
Fall from elevation na na	13		u 19~	>6' no yes	~~~~~		none	none	power hoist 1	o	none	······	Z	1	equipment hoisting none	noisting		building	unknown		1761

Fall from elevation	na	па	59 	â	ê	yes	none	none	none 1	0	none	unkno wn	Z	45	corrugated roof deck	lateral	none	building	unknown	steel worker- roofer	1761
Fall from elevation	na	na	0 <u>1</u> >6'	입	QU		none	none	none	o 	none	5:00 PM	Ŋ	52	none	none	rain barrier over openings in	building	new construction	roofer	1761
Fall from elevation	na	na	19	ou	2		1	none	none	o 	none	unkno wn	z	21	none	лопс		building	umknown	roofer	1761
Fall from elevation	na	na	>6' no	잂	입	yes	none	none	leverage board	o 	none	9:45 AM	Z	24	poom	altering none		building	new construction	carpenter	1751
Fall from elevation	na	na	>6	â	Q			H	none	0	лопе	unkno wn	ž	47	concrete	altering s	caffold	el e vator shaft/build new ing cons	truction	concrete	1771
Fall from elevation	na	na	.9¢	no	Q		anon	none	none	o	none	2:30 PM	¥	53	metal roofing materials	lateral	006	building	new construction	roofer	1542
Fall from elevation	Pa	na	\$¢ ^	impro Per use;	g				none 1	0		1:43 PM	Z	56		none	stepladder	building	unknown	carpenter	1771
Fall from elevation	na	na	-9¢	8	yes		none	none	none	0	pone	unkno wn	Z	35	steel grating lateral	ateral		2 1		unknown(ste el worker?)	1791
Fall from elevation	na	pa	\$?	or F	2		none	none	prybar 1	0	none	1:30 PM	Z	35	poow	3	none	building	R	carpenter	1751
Fall from elevation	na	PI	^0	01	g	yes		:	none 1	0	none	unkno wn	Z	¥		none	ladder	house	new construction	unknown- carpenter?	1751
Fall from elevation	па	na	01 >0,	1	yes	Q	none	none	none 1		none	unkno wn	WW	M,M 36,21	none	лопе	scaffold	barn			1751
Fall from elevation	na	гц	>6' no	2	Ś	ŝ	none	none	none 1	0	none	unkno wn	X	21	poom	altering none		house	new construction	carpenter	1751
Fall from elevation	na	na	01 >0; >0;	2	e .	yes	none	none	none 1	0	none	unkno wn	Х	34	-	lateral		building		g	16/1
Fall from elevation na na	na	na	59 ×	0E	>6' no no y	es	none	none	none 1	0	none	:	Z	18		altering none		house	new construction carpenter		1751

yes yes forklift project pneumatic	project	·····	ressor, rator foi matic	1 0	none	unkno wn M	39	plywood, person, equipment h	hoisting none	ione	building	new construction	unknown- carpenter?	1751
no yes no	ы Ц	none no	none none	1	none	unkno wn M	35	none	none	none	house	new construction	carpenter	1751
yes no forklift	fork		project none	1 0	none	10:30 AM M	22	bar joists h	hoisting none	one	building	new construction	steel worker	1791
no no	none	1	none none	1	none	unkno Wn M	36	shingles	hoisting toeboard	oeboard	house	repair	roofer	1761
yes no none	none		none	0	none	unkno wn M	28	steel roof decking n	none	none	departmen: new t store cons	new construction	steel worker	1791
yes none	none		none none	1 0	none	3:30 PM M	6		lateral I		building	new construction	carpenter installing a roof	1751
ycs none	none	<u> </u>	none none	1 0	none	unkno Wn M	37		lateral 1		house	unknown	carpenter	1751
no yes none	none	<u> </u>	none	1 0	none	umkno M	28		lateral I	work platform	house	unknown	carpenter	1751
no yes none	none	8	none none	1	none	unkno wn M 34	34	scaffold h	hoisting scaffold	caffold	silo	unknown	unknown	1791
yes none	none	2	none none	0	none	umkno M	24	поле	none	попе	steel structure	unknown	steel worker	1791
yes	none	Ê	none powe	power saw 1 0	попе	unkno Wn M	53	wood	altering ladder	adder	umknom	unknown	carpenter	1751
	hoisting equipm ent	Ĕ.	project none	2 0	none	unkno W. M.M	37,53	<u>ы</u>	hoisting none		building	new construction	steel workers 1791	16/1
yes none	none	<u> </u>	none circu	circular saw 1 0	none	unkno Wn M	19	wooda	ltering 1	altering unknown	building	new construction	carpenter	1751
semitrai no yes ler	semitra					unkno					truck	new	putting tape on steel to	ę.

1751	1751	171	16	1791	1761	16/1	1761	1761	16/1	1761	191	1791	16/
17	17	17		ş	17		17	17		*************	***************	5	iq 17
carpenter	unknown	carpenter	steel worker	steel worker (roofing)	roofer	equipment operator	roofers	roofer	welder	roofer	construction trades, steel worker?	connecting trusses- steel worker?	structural metal worker [1791
new construction	unknown	new construction	new construction	new construction	unknown	umknown	repair	uwoun		unknown	new construction	new construction	new construction
house	building	building	building	building	building	unknown	house	building	warehouse	building	bridge	building	building
none	none	gu	none	none	none		ladder	none	temporary grated platform	none	none	none	roof opening
altering	hoisting none	none	altering	lateral	lateral		none	none		lateral	lateral	none	lateral
роом	people	none	bolts	metal decking	skylights	none	none	none	none	roof tiles	bridge forms	truss	metal decking
64	MM 48,25	47	26	31	34	20	39	4	57	30	33	26	3
M	ММ	Z	Z	Z	Z		Z	Z		Z	М	Z	Z
11:50 AM	unkno wn	unkno wn	3:57 PM	5:15 PM	umkno wn	g	9:00 AM	unkno wn		0	unkno wn	3:00 PM	10:00 AM
/ none	u uone		none	none	none	none	none	none	none	none	none	none	none
0		~ O	0	0	0	0	0	<u>.</u>			0	0	o
none	none 1	none	none	none	none 1		none 1	none	none	none	none	none	none
none	project	none	none	none	none	project	none	none	none	none	none	none	none
none	Iul	none	none	none	none	tower boom	none	none	none	попе	none	none	none
yes	<u>e</u>	S X	yes	yes	yes	k	ycs	yes	yes	yes	yes	yes	, Ke
6	yes	ê	************************************	ou	ĝ	2	2	<u>e</u>	<u>e</u>	<u>e</u>	ŝ	e e	2
2	2	Ê	yes- impro per	2 D	8	2	Q	미	ŝ	е Р	ou	0 L	>6' no
or >6	20 1	\$¢ ^	59 ~	\$ ×	20	unk no wn	%	\$º ^	>6'	>6' no	-9¢	.9 6	ý.
na	na	na	EL L	na		ца	na	ца	na	na	na	Па	na
Ца	P	Ца	B	na	па	n Da	na	n	na	E	E E	na	na
Fall from elevation			Fall from elevation		Fall from elevation		Fall from elevation		Fall from elevation			Fall from elevation	Fall from elevation

no yes	\$
no yes none none none	none none
no yes none none	none none
yes yes none none none	none
10 no none none hone	none
no yes none none none	none none
to none none none	none none
no yes none none none	none
no yes none none none	none none
	none none
pickup no truck project	pickup truck project
no yes none none none	none none
reach boom yes truck	boom
none	truck project

ou	yes	2	none	попе	activated driver and electric	1	none	8:00 AM	Д 4	44 none	none	suspension scaffold	silo	unknown	waterproofin g the bin
>6' no jes none	yes			none	none	1	none	9:40 AM	Z Z	roof 28 shingles		hoisting ladder	building	unknown	roofing
no yes none	yes none		⊞.}	none	none	1	none	11:00 AM	M 25	5 steel	lateral	none	store	new construction	steel worker
>6 no no yes none n	yes none		d :	none	none	1	none	unkno wn 1	Д 4	41 insulation		altering none	building	repair	roofer
yes none	yes none		ä	none	none	1	none	unkno wn 1	Z Z	23 shingles	lateral	trash chute	building	repair	roofer
yes	yes		8	none	none	1 0	none		M 23	3 none	none	roof opening covers	warehouse; unknown	unknown	roofer 1761
≻6 no ho yes none no	yes		<u>e</u>	none	none	1 0	L DOLE	unkno wn 1	X Z	roofing 29 material	lateral	none	building	unknown	
none	yes none		ĥ	none	drill	1 0	none	10:22 AM 1	M 14	l none	none	scaffold	monorail system for new dam cons	new construction	steel worker [179]
no unknown none	unknown none	none	<u>e</u>	none	none	1 0	none	9:20 AM	7 Z	22 none	none	none	warehouse	new warehouse construction	roofer
no no yes none no	yes none		,	none	none	1 0	none	· · ·	Х 4		8	cross braces	clock tower	unknown	unknown
none	yes none	1	Ê	none	none	1	none		M 5	56 siding	lateral	none	house	unknown	sider
>6 no no yes none no	yes none	·····	<u> </u>	none	none	1	none	unkno wn 1	M 2	welding 25 leads	lateral	none	building	new construction	steel worker- welder
no no yes none no	yes none	-	Ĕ	none	none	1 0	none	2:30 PM 1	M 48	metal 8 decking		altering none	building	repair	roofing/sheet metal work
none	none		ŭ	none	none	0 4	wind		М,М Д М 1 9	20,18 ,19,1 steel 9 columns			steel structure	new construction	steel workers 1791

1761	1761	16/1	1761	1761	1761	1761	1761	1761	1761	1761	1761	1761	1761
roofing	sheet metal worker- roofer	steel worker	roof-snow removal	roofer	roofer	sheet metal worker-roof	roofer	unknown- sheet metal?	roofer	roofing-sheet metal worker	roofer	roofer	Line
new construction	new construction	new construction	repair	new construction	repair	гераіг	unknown	unknown	unknown	new warehouse;construction	unknown	nwonn	
building	building	building	building roof	building	building	building	building	building	building	warehouse	building	house	
none	none	none	попе	skylight opening	none	light openings	none	ladder	skylight cover	none	fall protection system	none	
hoisting none	lateral	none	lateral	lateral	lateral	none	lateral	lateral	lateral	lateral	lateral	lateral	
roof shingles	sheet metal decking	welding lead	wous	plastic	concrete	none	roof shingles	a/c vents	gravel	metal roof sheets	roof	roof shingles	t J
34	45	38	33	62	36	42	19	33	53	26	56	47	20
Z	Я	M	М	Z	Z	X	Z	R	X	Σ	Z	Z	200
7:00 AM	unkno wn	unkno wn	10:45 AM	5:00 PM	unkno	unkno wn	unkno Wi	unkeno wn	unkno	unkno wn	unkno wn	unkno wn	unkno
wet surface.	none	none	wous	none	none	none	попе	none	none	none	лопе	none	ļ
<u>s a</u> 0	u 0	e o	0	ہ 0	<u>п</u> о	 о	 С	;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;		<u>ج</u>	н 0	н 0	t
	-												
motorized conveyor	none	none	none	none	none	none	none	none	shovel	none	none	none	
none	none	none	none	none	none	none	none	none	none	none	none	none	
none	попе	none	none	none	none	none	none	none	none	none	none	none	
yes	yes	yes	ou	yes	, Xo	ks	, X	ycs	yes	yes	yes	yes	
<u>n</u>	8	ĝ	g	ŝ	â	2	2	Q	Ê	<u>2</u>	Ê	Ê	
ou	Ê	ខ្ម	ខ្ម	Ê	Ê	Ê	ខ្ម	Ê	ou	ŝ	yes- failed	-6 [′]	
<u>\$</u>	.9<	>0	ې ^	Š.	59 >	>6' no	94 20,	^	-9 <u>-</u>	\$ ^	 	>6'	ý.
па	ed	na	Pa	na	ца	na	na	na	na	na	па	na	EL.
na	na	na	eu.	Па	na	na	Па	na	na	na	na	na	
Fall from elevation			Fall from elevation		Fall from elevation		Fall from elevation	Fall from elevation	Fall from elevation	Fall from elevation	Fall from elevation	Fall from elevation	La II ferene alemetican La II ferene alemetican na na na

Fall from elevation	na	Da		impro per use	yes	2	none	none	circular abrasive saw	0	none	unkno wn]	Z Z	33 33	none	none	singe point suspension scaffold	building	unknown	unknown	16/1
Fall from elevation	na	na	- 	оц	ý		(none	none	***************	none	2:35 PM 1	7 X	29 br	brick	lateral	none	parking garage	repair	mason	1741
Fall from elevation	g	na	- 96	ĝ	2)	none 1		none	unkno wn]	۲ د	55 <u>n</u> c		none	Ę	unknown	unknown	Ę	1742
Fall from elevation	na	na			ĝ	yes		anone	none 1		none	1:45 PM]	Σ	37 nc	none	none	none	building	new construction	hvac mechanic	1771
Fall from elevation	па	гu	unk Do Wn To		ĝ	ខ្ព		project	none 0		попе	unkno wn	لا د	57 00	concrete	lateral	none	concrete retaining wall	repair	equipment operator	1629
Fall from elevation	na		1-6' no		ß		flatbed truck	project	none 0	-	none			48 ha	hay	lateral	none	road	unknown	:	1623
Fall from elevation	na	na	 \$	e	ŝ			none	none 1	0	none	0		42 E	. <u>o</u>		säun	building	new construction	ker	1799
Fall from elevation	na	ца	\$ ^	•	yes		truck	project	pulley, rope 1	-	none	unkno wn	M,M 36,?		people	hoisting none		building	unknown	umknown	66/1
Fall from elevation	na	na	- % ^	2	<u>e</u>		none	none	none 1	<u> </u>	none	·····	л Х	33 33	none	none	none	· · · · · · · · · · · · · · · · · · ·	unknown	H	1799
Fall from elevation	na	na	- - - - - - - - - - - - - - - - - - -	2	Q	yes	none	none	none 1	0	none	9:00 MM	Z Z	й 39	none	none	scaffold		new construction	mason	1741
Fall from elevation	па	eu	 \$9 ^		<u>e</u>		апопе	лопе	none 1	0	none	•				lateral	scaffold	building	unknown	building work platform	1741
Fall from elevation	na	па	\$¢ X	yes- impro per	2			попе	none 1	0	none	<u> </u>		л 28		none	scaffold	unknown	unknown	scaffold erector	66/1
Fall from elevation	na	na	>6' no		Q			5	none 1	0	none	Q {	E N	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	SI	_;	}	civic center	unknown	hanging banners from ceiling	1799
Fall from elevation na	na	na	, 26' no		yes	ou	forklift	project none	none	-	none	unkno wn	, М,М	M,M 40,45 none		none	personnel basket	unknown	unknown	e	1542

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0	-	7	6	3	7	3	7	6	7	-	7	7	-
r none	1741	e 174	66/1	1742	1742	1742	1742	1742	1742	1741	1742	1542	1741
photographer	chimney work- mason?	drywall- checking site 1742	unknown	drywall- installing metal studs	drywall	unknown- plaster company	drywall	plasterer	insulation worker	mason	insulators	unknown	carpenter
uwoundrun	unknown	unknown	unkonan	new construction	new construction	unknown	new construction	unknown	unknown	new construction	unknown	unknown	new construction carpenter
mountain road	building	unknown	communic ations tower	building	building	unknown	house	house	power plant	house	tank	building	unknown
none	ladder	scaffold	none	scaffold	scaffold	elevated work platform	scaffold	scaffold	none	none	scaffold	none	altering formwork
none	1	none	none	lateral	lateral		lateral	lateral	lateral	hoisting none	lateral	lateral	altering
none	none	none	none	metal studs	end caps		drywall		insulation/ro of siding	block and mortar	metal straps	concrete panels	pood
unkn own	38	38 38	27	45	35	32,44 ,45	21	65	26	39	23	46	27
Z	Z	Z	Z	۲	X	M,M M,M	Ŋ	Z		Z	Z	Σ	Σ
unkn own	11:00 AM	onshnu	unkno wn	unkno wn 1	0	<u> </u>	unkno wn	unkno wn	7:45 AM	2:30 PM	unkno wn	unkno wn	unkno wn
none	7	none	none	none	none		none	none	none	Mous	ропе	попе	none
	1	с о	н О	я 0	<u>г</u> о		с о	г о		0 0	я О	е 0	
		-				<u></u>							
camera	none	none	none	none	none	none	hammer	none	none	none	none	crowbar, nylon slings	none
project	none	none	none	none	none	none	none	none	none	none	none	none	none
forklift	none	none	none	none	none	none	none	none	none	none	none	none	
ou	yes	2 2	yes	S.	2	Q	kc	ដ	yes	<u>و</u>	Ê	no	ę
yes	Ê	о <mark>л</mark>	ŝ	ĝ	ĝ	yes	2	g	yes	ê		р	yes
õ	8	ê	ŝ	2	2	unkno wn	Ê	2	2	2	yes- failed	. OII	2
-6' -6'	-9¢	-9 ²		1-6' no	>6' no	unk vn		-6' II0	unk Do W	^9	\$ ^	оц >6' по	unk no wn no
na	na	na	na	na	na	ua.	na	na	na	13	па	ла	na
na		na	na		na		Ца	na	Da	Па	EI.	na	na
Fall from elevation					Fall from elevation		Fall from elevation				Fall from elevation		Fall from clevation na na

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1751	1731	1731	1761	1622	1741	1741	1741	1741	1743	1711	1741	1741	1741
carpenter	electrical	electrical	siding installers	spotter	mason	parapet repair on roof	building restoration	scaffold dismantling	unknown			mason	unknown
new construction	unknown	repair	unknown	new construction	new construction	repair	renovation	unknown	unknown	new construction	new construction	unknown	unknown
garage	air plenum unknown	electric building	building; exterior light	building	building	building	building	unknown	building	building	building	building	building
work platform	none	hoisting stepladder	ladders	vertical wall form	Plo	suspension scaffold	suspension scaffold	scaffold	roof opening	none	scaffold	scaffold	none
none	altering	hoisting	lateral	vertic hoisting form	lateral	none	none	hoisting scaffold	лопе	lateral	lateral	lateral	none
soffits	wire	light bulbs		work platform	mortar	none		scaffold frame	none	copper tubing	concrete block	concrete block	none
38	22	84	26	61	31	48	26,7,7	53	29	52	52	57	45
X	Z	X	X	Z	z	М	M,M M	Z	Z	Σ	Z	X	ž
unkno wn	unkno	2:00 PM	unkrio wn	unkno wn		unkno wn	unkno M,M wn ,M	1:00 PM	11:30 AM	unkno wn	unkno wn	unkno Wn	unkno Wn M
none	none	none	лопе	none	none	none	none	none	Done	none	none	none	none
	и 0	- -	- С	н о	0	н о	7 7	О	0		\$ 3	0	0
			-								-		
none	none	none	none	none	none	none	none	none	screw gun	none	none	none	none
none	none	none	none	project	none	none	none	none	none	none	none	none	none
none	none	none	попе	crane	none	none	none	none	none	none	none	none	none
2	yes	yes	P	2	Acs	<u>B</u>	ou	yes	yes	<u>ye</u> s	yes	, AG	, AG
yes	2	ĝ	e	<u>ye</u>	Ê		<u>ې</u>	Ê	ĝ	2	ê	8	8
0 L	Q	잍	8	>6' failed	ya Ya		impro per use	Ê	2	g	2	ũ	2 E
	>6' no	l-6 no	<u>\$</u>	9 2 	şç X	,0 _	¢.	Şo A	<u>9</u> ×	\$9 ^	>6' no	-9 2	-9
na	{ 		ua	Da	ца	na	na	na	па	na	na	na	na
	na		na	ца	na		na	na	na	ца	na	Da	na
	Fall from elevation				Fall from elevation			Fall from elevation	Fall from elevation	Fall from elevation	Fall from elevation	Fall from elevation	Pall from clevation ina ha >6 no no

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1742	1741	; 1741	1541	1741	1731	1741	1741	1741	1741	1795	1751	1741	e 1711
drywall	mason	insulating chimney open air parts 1741	unknown	mason	electrician	electrician helper lost balance	mason	roofer	painting	supervisor	carpenter	roof repairs	plumber/pipe fitter
new construction	unknown	unknown	pre- engineere new d building construction	new construction	repair	unknown	unknown	unknown	unknown	unknown	unknown	repair	ç
movie theater	building	chimney	pre- engineere d building	house	building	building	building	building	dock canopy	building	none	building	fiberglass storage tank
none	scaffold	boatswain chair	none	scaffold	none	dder	scaffold	none	scaffold attached to ladders	none	none	ladder	ladder
lateral	lateral	none	none	lateral	none		lateral	lateral	s altering 1	none	8	50	none
sheetrock	brick	none	none	poom	none	none	mortar	insulated paneling	paint	none	load; person; lateral	roofing caulk	none
M,M 48,41	4	53	25	21	21	28	28	35	M,M 42,40	4	8	83	14
MМ	Z	Z	X	Z		Z	X	X	М,М	X	Z	Z	X
8:00 AM	6:30 AM	unkno wn	unkno wn			unkno Wi	unkno wn	unkno wn	unkno wn	unkno wn	unkno wn	11:00 AM	umkmo wn
none	none	none	none	none	none	none	none	none	none	none	onor	none	none
-	е 0	н о							· · · · · · · · · · · · · · · · · · ·	0		0	e
-		-											Ξ
none	none	boatswain chair/rigging	none	none	попе	screw gun	none	none	none	none	none	knife	none
project	none	none	none	none	none	none	none	neon	none	none	project	none	none
acrial lift	none	none	none	none	none	none	none	none	none	none	forklift	none	none
ycs	e	Q	yes	yes	2	ycs Y	ycs	yc.	u	잍	2	, Xes	yes
yes	ê	Ê	ĝ	2	8	о В	ê	g	yes	8	<u>s</u>		yes
Ê	0 II	yes	0	ĝ	e L	ĝ	e	ou D	e B	Ê	8	ou U	impro per use
	 م	×	>6' no	1-6' no	- - 29	1-6' no	>6' no	ī9	\$¢ >	\$	1-6' no	,9¢	ş. X
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Па	}	na	na	na	na	na	La La	na	na	na	na	na	na
Fall from elevation	Fall from elevation				Fall from elevation		Fall from elevation	Fall from elevation	Fall from elevation	Fall from elevation	Fall from elevation		Fall from elevation ha ha >6

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1742		1711	1711	1711	1793	1793	1671	1171	1671	1711	11711		1795
unknown	farm worker	carpenter	unknown	equipment operator	window work 1793	window casing installer	steel worker	welder/cutter 1711	unknown- steel company	hvac mechanic	unknown	steel worker	laborer
unknown	demolition	new construction	unknown		repair	unknown	new construction	new construction	new construction	repair	new construction	unknown	demolition
шкломл	silo	store	none	undergrou nd pipe	building	building	building	building	building	building	building	building	steam boiler
scaffold	ladder	roof altering openings	hole in ground	none	step ladder	altering scaffold	none	ladder	roof opening	none	ladder	roof openings	landing
none	hoisting /loweri ng	altering	none	lateral	altering	altering	hoisting none	none	lateral	none	none	lateral	lateral
none	sections of silo	wood; extension cord	none	įį	window	window casing	decking, bolts, people	лопе	roof tie down devices	none	none	metal roof panel	debris
59	17	37	52	45	59	64	36,30	30	27	33	99	35	23
Z	X	Z	X	Z	Z	Z	М,М	Я	X	Z	Z	Z	Z
unkno wn	unkno wn N	0	unkno wn	0	0	umkmo wn	unkno wn	2:00 PM	0	0	unkno wn	unkno wn	11:25 AM M
none	none	none	none	none	none	none	none	none	none	none	none	none	none
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none 1	none	saw 1	none 1	none 1	none 1	none 1	none 1	welder 1	none 1	none 1	none 1	none 1	none 1
попе	none	none	project		none	none	project		none	none	none	none	none
none	none	none	scissor lift	compact	none	none	forklift	none	none	none	none	none	none none
yes	yes	yes	ycs	yes	yes	yes	Ê	yes	yes	yes	yes	yes	yes
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Fall from elevation	Fall from elevation		Fall from elevation		Fall from elevation	Fall from elevation	Fall from elevation	Fall from elevation	Fall from elevation	Fall from elevation	Fall from elevation		Fall from elevation na na >6' no no

unknown unknown 1721	unknown unknown 1721	insulator/stee	Ξ.	l worker? steel worker	own I worker? own steel worker structural truction metal worker	l worker? steel worker n metal worker steel worker	own I worker? own steel worker structural truction metal worker own steel worker truction welder	l worker? steel worker structural metal worker steel worker n welder	l worker? steel worker m metal worker ateel worker m welder m welder	l worker? steel worker m metal worker steel worker m welder m welder steel worker	l worker? steel worker stuctural m metal worker steel worker m welder steel worker steel worker steel vorker	l worker? steel worker n metal worker steel worker n welder n welder n mson n mson n worker steel worker steel vorker n worker n steel vorker	l worker? steel worker n metal worker steel worker n welder n welder n welder n worker instelling n steel worker n steel vorker n steel vorker
water tank unknown	unknown unkno	building tunkno	č				; · · · · · · · · · · · · · · · · · · ·	: U?	÷ • • • • • • • • • • • • • • • • • • •	out tank building building warchouse building building building	out tank building building warchouse building building building building	oulding building building warchouse building building building building	offnery tank building warehouse building building building building building
scaffold	platform	none			none none	none none	none none none roof openings	nome nome roof openings scatfold	none none openings seaffold seaffold	none none roof openings scaffold none none old	nome nome roof openings scaffold ladder,scaff old nome nome	none none roof openings seaffold adder,scaff old none none seaffold seaffold	none none nor prof scaffold scaffold old none none none none
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26,43 none	none	insulation and tape		steel sheet	steel sheet L-beams	steel sheet I-beams none	steel sheet I-beams none welding lead	treel sheet I-beams none welding lead none	I-beams I-beams welding lead none none steel brace	I-beams I-beams welding lead none steel brace	I-beams I-beams welding lead none steel brace steel brace	I-beams I-beams welding welding lead none steel brace steel brace chicken	I-beams I-beams welding welding lead none steel brace steel brace ticken wire metal floor decking
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1742	1742	66/1	1742	1742	1799	1743	1751	1799	1796	1796	1711	1795	
drywaller	unknown	painter	drywall?	drywall	electrician		ç	. 1	inspector	elevator repairer	boilermaker	roof- demolition	demolisher/la
unknown d	unknown u	repair	truction	unknown	demolition	n nknom M	unknown	demolition	new construction	repair	repair	demolition	
building u	building u	building	supermark new et	building	unknown 6				o	ម្ព	powerplan t	warehouse demolition	
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altering n	none	none s	lateral s	altering n	hoisting none	h v none	lateral 1	none	none	lateral 1	lateral	oisting	
tape/drywall al		none	t-bar		light pole h		al boow	л none		oil	welding lead	roof materials h	
31	4 9	60		59	36	M.M 52,32	40	21	3	51	48	31	******
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ь 0		л О	0	0		•	0		0	0	0	0	
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yes	yes	yes	yes	yes	Vcs	od	yes	kes	, Ac	yes	ou	yes	
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Fall from elevation	Fall from elevation	Fall from elevation	Fall from elevation	Fall from elevation	Rall from elevation	Eall from elevation	Fall from elevation	Fall from elevation	Fall from elevation	Fall from elevation	Fall from elevation	Fall from elevation	

Ê	<u>, yc</u>	on v	none	none	none 0		none //	10:40 AM M	A 31	debris	lateral	none	building	demolition	laborer	1795
personn no el lift	personn no el lift			project	none 1	0	none	unkno M	1	none	hone	none	building	unknown	sheetmetal duct installer	1171
yes- failed no no clevator project	UO	elevator pr	죠)	•••••••	dallas hoist machine 1	0	none	unkno M	A 31	elevator	hoisting	hoisting car-sling	building	repair	elevator repairer	1796
>6 no no no nome n	none		Ĕ:	none	none	0	none	unkno Wn M	A 31	roofing material	altering none		building	demolition	asbestos worker	1795
yes none	yes none	1	Ĕ	3	power washer 1		none I	10:00 PM M	1	none	none	plo	building	unknown	washing ceiling	1799
>6 no no unknown none nc	unknown none	none	Ĕ	none	torch 1	0	none none	unkno Wn M	A 36	rebar/roof trusses	altering none		building	demolition	cutter	1795
no no cranc	no crane	cranc	E.	project t	torch 1	0	n none none	0 8	M 58	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	altering/ hoisting none	none	building	demolition	cutter	1795
yes	yes		2		torch		v r none	unkno wn M	А 37		altering none		building	demolition	cutter	1795
Ê	yes none		Ō		none 1		none 1	10:00 AM	M 37		lateral	ដ្ឋា	Building	new construction	structural metal workers	1629
8	yes		<u>e</u>		none 1	0	v none	<u> </u>			none		Clarifier Tank	unknown	plumber	1629
ino no yes none none	yes		2	}	torch 1	0	v 1 none	0	M 36	metal	altering none		building	unknown	cutter	1795
yes	yes		Ĕ	none	wheelbarrow 1	0	none	<u> </u>			lateral		building	new construction	concrete finisher	1771
na yes no none nc	none	1	Ĕ	none	none 0	1	wind 1	3:20 PM N	M 26	steel columns	none	none	steel structure	new construction	steel workers 1791	16/1
yes none	yes none		F ;	none	pneumatic chipping hammer 2	0	none //	11:10 AM	4,M 32,	M,M 32,37 gas/vapors	none	none	sewage effluent channel	repair	plumber/pipe fitter	1629

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T.re	na	na	na	2	<u>ye</u>	ou	bucket truck	project	none 0		none	9:15 AM	n N	32 B	guy wire, bolts 1	lateral	none	power system	unknown	electrician	1623
Fire	Па	оц Ц			o D	2	bulldoz er	project	hydraulic line 1	0	Done	unkno wn	~~~~~~			none	unknown	none	unknown	:	1611
Natural causes	na	na		na	on Di	Q	none		none	0	попе	12:30 PM	Д 4	48 1	· · · · · · · · · · · · · · · · · · ·	none			unknown		1629
Natural causes	na	na	ца П	na	8	P	none	none	none 1	0	heat	unkno wn	Z Z	53 53	50		none	building	unknown	roof laborer	1761
Natural causes	na	na	ца	na	or	2	none	none	none	0	none	8:00 AM	Z Z	50 T		none	none	none	unknown	unknown	1623
Natural causes	EC.	na	Па	na	2	ou		project	none 1	0	1016 1011	0	ž	55 I	none	none	none	none	unknown	unknown	1752
Natural causes	na	па	B	na	ŝ	e		none	none 1	0	none	0	X			none		none	unknown	unknown	1623
Natural causes	na	na	13		<u>6</u>	e.	none	none	none	0	none	2	Z			none	none	none	unknown		1629
Natural causes	na	ца	>0<	yes	ou	e E	none	none	none				Z				none	tower	new construction		16/1
Natural causes	na	EU.	yn aw	unk no wn no	8	9	none	none	none	0	none	unkno wn	Z	54 1	none	none	ladder	wall	unknown	unknown	1761
Natural causes	na	ца	na	na	ê	<u>o</u>	none	none	none	0	попе	unkno wn	Z	52	none	none	none	house	unknown	sheetmetal duct installer	1711
Natural Causes	na	8L	g	na na	ĝ	g	none	none	none 1	0	none	3:30 PM	z		none	none		house	unknown	carpenter	1521
Natural causes	na	na	13	ងង	ê	Ŷ	none	none	hand-held grinder 1	<u> </u>	heat	3:50 PM	Z	20	попе	none	none	water tower	unknown	unknown	1791
Natural causes na na	na	na	д s k	ĝ	<u>2</u>	<u>e</u>	none	none	none 1	0	none	8:50 AM	М	42		лопе	ladder	unknown	unknown	unknown	1761

Natural Causes	Da	na	_9 >6	ទួ	g	2 2	none	none	none 1	0	none	unkno wn 1	<u>з</u>	37 II	none	none	none	building	unknown		1542
Natural causes	na	na	na	Pa	1		1	3		{ 	none	g)	umo		none	landscape	unknown	unknown- trimming brush	1742
Natural causes	Da	na	па		ou.	e E		none	none	0	none	umkrio wn	M A		none		none	fence	repair	ь	1542
Natural causes	na	na		na	}	Q	none		none	0	none	2:45 PM		51 1	none	none	none	none	unknown	F	1629
Natural causes	Ba	na	na	Pa	yes	g			none 1		none	0	******			unknow	none	anon	unknown	owner	1542
Natural causes	na	na		Ю	ks		backhoe: project		none		none		, Z		none	none	trench	sewer system	new construction	equipment operator	1623
Natural causes	na	ца	ou >6'		â	20	none						r Z		bolts	lateral	der	steel structure	new construction	cer?	1671
Natural causes	na	IJa	na	na	2	2	none	лопе	none	0	none		Z	58	none	none	none	none	unknown	unknown	1623
Natural causes	па	Па	ца		ខ្ម			none	none	0	none		Z	38	none	none	none	none	unknown		1629
Natural causes	na	na	Da	ra	<u>o</u>			none	none	o	попе	,		8	none	попе	PI	ដ្ឋ	new construction		1741
Natural causes	na	na	2 2	na	<u>e</u>		none	none	none 1	0	heat		Z	2 -	none	none	попе	tank	гераіг	laborer	1629
Natural causes	na	'na	B	na na	8		none	none	none 1	<u>_</u>	heat	_	z		none	none	none	unknown	new construction	mason	1741
Natural causes	Ца	па	па	na	ê	Q	none	none	none	0	лопе	2:30 PM	Z	62	none	none	none	house	new construction	electrical	1731
Natural causes na yes na na no	na	ycs	ца	na	ĝ	91		none	cutting torch 1	0	none	unkno wn	Z	32	none	none	none	culvert	repair	welder/cutter 1629	1629

1622	er [1791	1742	1731	1799	ipe 1711		1171		11611	1611	t 1611	1711 (1611
laborer	steel worker	drywaller	electrical	painter	plumber/pipe fitter	plumber/pipe fitter	hvac mechanic	carpenter	equipment operator	unknown	equipment operator	laborer (pipelayer)	unknown 1611
new construction	unknown	unknown	unknown	unknown	none	unknown	unknown	unknown	ропе	unknown	unknown	unknown	unknown
piping system	building	umknown	unknown	umknown	none	umknown	various	поле	none	none	none	water line system	none
none	scaffold	none	none	none	none	altering stepladder	none	none	none	none	none	none	
none	lateral	none	lateral	none	none	altering	none	lateral	none	none	lateral	none	
none	metal shecting	none	cable trays	none	none	piping	none	cabinets	none	none	cedar lumber	none	none
21	52	19	29	28	53	.	45	5	55	8	52	57	23
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2:00 PM	unkno wn	unkno wn	umkno wn	unkno wn	unkno Wn	unkno wn	unkmo	8:50 PM	umkno wn	unkno wn	11:30 AM	PM	2:45 PM
heat	none	none	heart attack	none	none	none	none	none	none	none	попе	heat	попе
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na .1	none	none 1	none	none 1	none 1	none 1	none 1	dolly 1	none 1	none 1	none 1	none 1	none
none			project 1		none		none	none			project	none	none
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ou	압	Q	2	2	2	잍	94	or	<u>e</u>	ou	ou	2	оц
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Ra La La La La La La La La La La La La La	yes	na	Da	E E	na	8	na	na	2	na	na	na	na
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1761	1751	1794	1799	1761	1794	1794	171	1611	1542	1611	1794	1794	1611
roofer	drywall	equipment operator	unknown	roofer	truck driver	equipment operator	plumber/pipe fitter	equipment operator	demolisher		compacting soil	laborer	traffic controller
repair	new construction	unknown	repair	unknown	new construction	шknown	repair	new construction	demolítion	new construction	unknown	unknown	unknown
house	unknown	guardrails and culvert	reactor	building	highway	none	building	golf course	parking garage	highway	unknown	unknown	highway
none	none	none	попе	none	none	none	none	debris pile of trees	none	none	excavation	none	none
none	lateral	puor	none	ម្ព	lateral	none	none	lateral	none	lateral	попе	lateral	lateral
none	drywall	none	nitrogen	poom	water	none	unknown	sand	none	traffic controls	none	debris	traffic controls
35	35	53	4	21	29	30	34	42	36	32	18	60	33
R	Z	X	Д	X	Д	Z	X	Х	Z	Z	Z	Z	بتأ
5.20 PM	unkno wn	Q	unkno wn	0 5	11:00 AM		unkno wn	oralm		unkno	unkno wn	unkno wn	umkno wn
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- 0		0	0		0	0	0	0		0	0	0	
none 1	none 1	none	unknown 1	circular saw	none 1	none 1	none 1	none 1	wrecking ball 1	none 1	outrigger 1	none	none 1
none	none			попс	project	project	none	project	project	private	backhoe project	trackhoe: project	private none
none	none	front end loader	none	none	tanker truck	scraper	none	dumptru ck	crane	truck	backhoe	trackho	tractor- trailer
ог.	ou	on	yes	yes	9	yes	unknown	yes	QI.	ou Du	- OL	yes	*************
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or	na	Па	Da	na	na	La La	ou	na	na	na	eu	na	na
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Natural causes		Other							by equipment		}		

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16		161	161	13	*******	161		161	161	175		1623
equipment mechanic	plumber/piț fitter	equipment operator	equipment mechanic	laborer	passenger or roller	laborer	plumber/pip fitter	laborer	unknown	elevator repairer	motor transportatio occupations	**************
unknown	unknown	new construction	unknown	new construction	uwouxhuu	unknown	repair	repair	new construction	repair	unknown	new construction
		•	none	road	3	: :	drainage pipe			building	none	
none	none	none	none						none			
	{	1				lateral				none		lateral trench
none			none			rock		concrete	ţi	elevator	none	earth
23	35	1	57			61	51	41	55	39	4	8
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nkno	nkno	1:00 M	nkno 	;	nkno	nkno M		nkno	nkno r	nkno vi	nkno vn	11:34 AM M
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pipe wrench	none	none	none	eye level	none	none	bucket	none	none	none	none	none
project					project	project	project	project	project	project	project	project
drill	backhoe	scraper	loader	scraper	roller compact or	E I	e e e		dumptru ck	elevator	flatbed truck	dumptru ck
ou	Q	yes	ou	2	2	ũ	Q	yes	P	ê	2	Q
yes	yes	yes	yes	ycs	yes	ŝ	ye	yes	ye.	yes	yes	yes
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ick by equipment	ıck by equipment	ick by equipment	Struck by equipment	ick by equipment	tck by equipment	ick by equipment	ick by equipment	ıck by equipment	Struck by equipment	ack by equipment	uck by equipment	Struck by Equipment na na na na ves
	no na na yes no drill project pipe wrench 1 0 none wn M 23 none none none mone mknown unknown mechanic	no na na ve ve no drill project pipe vrench 1 0 none wind 23 none none none micrown unknown na na na ve no hackhoe project none 1 0 none M 35 none none unknown unknown	no na na yes no drill project pipe wrench 1 0 none mone none mone mone mone mone meknown meknown meknown   na na na yes no backhoe project none 1 0 none M 23 none none mknown mknown meknown meknown   na na na yes no backhoe project none 1 0 none none none none none mknown mknown mknown mknown   na na na na na N 35 none none none none none mknown mknown mknown mknown   na na na yes yes yes yes yes yes yes none 1 none none none none none none	no na na yes no drill project pipe wrench 1 0 none wn M 23 none none unknown mknown mchanic   na na yes no backhoe project none 1 0 none wn M 23 none none unknown mchanic   na na yes no backhoe project none 1 0 none wn M 35 none none unknown mcknown mcknown mcknown mcknown   na na na no yes yes scraper project none 11.00 AM 37 none none none mcknown mcknown mcknown potentor   na na no yes yes scraper project none 1 0 none M 37 none </td <td>no na na yes no drill project pipe wranch 1 0 none mone none mone unknown unkno unkno</td> <td>no iai iai<td></td><td>No     In     In     Yes     In     Yes     In     Yes     In     Yes     In     Yes     In     In     Yes     In     In     Yes     In     In     In     Yes     Yes</td><td>$\begin{array}{cccccccccccccccccccccccccccccccccccc$</td><td>$\begin{array}{cccccccccccccccccccccccccccccccccccc$</td><td></td><td></td></td>	no na na yes no drill project pipe wranch 1 0 none mone none mone unknown unkno unkno	no iai <td></td> <td>No     In     In     Yes     In     Yes     In     Yes     In     Yes     In     Yes     In     In     Yes     In     In     Yes     In     In     In     Yes     Yes</td> <td>$\begin{array}{cccccccccccccccccccccccccccccccccccc$</td> <td>$\begin{array}{cccccccccccccccccccccccccccccccccccc$</td> <td></td> <td></td>		No     In     In     Yes     In     Yes     In     Yes     In     Yes     In     Yes     In     In     Yes     In     In     Yes     In     In     In     Yes     Yes	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$		

own 1611	<del>г</del> 1611		оwп 1623	j gas 1799	<del>и</del> 1611	unknown- backed over [161]	ment tor 1611	: oller 1611	r 1611			oller 1611	
vn unknown	flagger				vn flagger				grader	Ę		traffic controller	
n junknown	repair	/ unknown	n unknown	on unknown	/ unknown	unknown	umknown	/ :repair			unknown	v repair	
unknown	pipe system	highway	unknown	gas station	roadway	none	none	roadway	roadway	roadway	อนอน	highway	highway
none	none	none	none	none	none	none	none	none	none	none	none	none	none
none	none	none	lateral	none	none	lateral	anone	lateral	none	none	none	lateral	lateral
blueprints	none	**************	pipe	none	anon	dirt	none	traffic controls	none	none	none	traffic controls	vegetation
43	67	M,M 30,31	57	62	57	33	33	42	17	35	37	31	6
× م	ž	M.N M.N	×	Z		Z	X p	Z	Z g	D D	۲ و	N	g
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none 1	none	none 2	none	none	none 1		none 1	none	handgrader 1	none	wire rope chókar	PIDITE	
project none	unknow	project	project nome	private	vehicle private		project	l private	u project	project	project	vehicle private	private inone
asphalt truck	tractor- trailer	or, two pickup trucks	front end vn loader	vehicle	vehicle	dumptru ck	flatbed truck	semitru ck	dumptru ck	asphalt truck	loader	vehicle	semi truck
yes	<u>n</u>	ou	unknow	ê	8	8	Âc	Ê	<u>9</u>	2	2		*****
ycs	, Ke	ycs	yes	yes	<u>y</u> s	<u>ş</u>	2	, Ka	Š.	ι. Σ	yc.	S.	k
na	<u>, yc</u>		na	13	yes		na	Ца	na	2	ti Ta	na	na na
na	na	5	IJa			na	ца			a.	na L	113	na
na	na	na	na	na	na	na	na	na	En contraction de la contracti	EU.	Pa	ца	
па	na	na	na	na	ца	Па	na			Ша		na	na
Struck by equipment	Struck by equipment	Struck by equipment	Struck by equipment	Struck by equipment	Struck by equipment	Struck by equipment	Struck by equipment	Struck by equipment	Struck by equipment	Struck by equipment	Struck by equipment	Struck by equipment	Struck by equipment na

Struck by equipment	ц	na	na na		yes	<u> </u>	dumptru ck p	project n	none	0	none	unkno wn ]	Z	л 30	none	none	none	unknown	unknown	electrical	1742
Struck by equipment	na	ar sta	5-7 feet na		ycs		backhoe project		none 1	,	none	2:15 PM 1	M 4	6 1	none	none	trench	nd electrical lines	renovation	laborer	1623
Struck by equipment	na	na	na	Da	yes		vehicle p		none 1	7	none	unkno wn	Z S	53 c	slo Slo	lateral	none	highway	repair	traffic controllers	1611
Struck by equipment	na	na	Lla L	Q	, Acs		vehicle p	private .r	none 1	0	none	unkno wn	9 X	1 09	none	none	none	bridge	umknown	5	1611
Struck by equipment	Da	na			ĝ			project r	rebar 1			0						none	unknown		1191
	na	na	D3	na	yes	2	crane F	project s	shackle/lines 1	0	none	9	m X		none	none	barge	none	unknown		1629
:	па	na	4		yes		ackhoe r	roject I	none 1			<u> </u>			iping	_		none	new construction	r/pipe	1629
Struck by equipment	Da	na	na	IJa	yes	ycs Ycs	widenin g equip ment project		none	0	none	unkno wn	z Z	45 I	?····	попе	none	roadway	unknown	paving worker	1611
Struck by equipment	па	ца	23 D	na	yes		ല		none	0	попе			19 I	none	none	none	none	unknown	/orker	1541
Struck by equipment	na	па		na	ycs		tractor- trailer	a private o	air compressor 1	10	попе			~~~~	10	_		bridge	unknown		1611
Struck by equipment	na	EL.	na	ца	ş		dumptru ck I		none 1	0	none	0	Z	39	rock			roadway	repair	<u>ب</u>	1611
<u> </u>	Da	na	na r	na	ycs		sweeper project and and vehicle private	project and private 1	none 1	0	none	e e	Z	43 I	none	lateral	none	roadway	unknown	{	1611
Struck by equipment	na	na	L1a	na	yes			***********	load block/overha ul ball	0	none		X	45 1		;		baghouse			1796 or 1711
Struck by equipment na na na ves	na	па	na	г	yes		truck	private none	none 1	0	none	umkmo wn M	Z	6 <del>4</del>	none	попе	попе		unknown	giri Biring	171

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13		mmmini	162	162	162	179	162	162		~~~~~~~~~~~~		1629
floor man operating aerial lift	under platform when failed	construction trade	flagger	demolisher	flagger		unknown	uwouyun	highway construction	painter	concrete finisher and mason	for equipment operators
new construction	unknown	repair	new construction	demolition	unknown	erection/high way repair ktrs	unknown	unknown	repair	unknown	unknown	unknown
building	aircraft maintenan ce stand	highway	roadway	bridge	roadway	limited access highway	none	roadway	highway	oilfield production facility	road	bridge
none	none	none	none	none	none	none	none	concrete barriers	none	none	none	none
		;				one					none	nt lateral
						none	none	none				soil cement
17	80			55	36	20	<b>5</b>	<b>S</b> 3	50	46	22,28	6
				Σ			X	Z	Z	M	WW	M
nkno	mkno vn	inkno vn	mkno vn	2			nkno Vn	mkno wn	unkno wn	unkno wn	unkno wn	2:10 PM
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none	none	none	none	bucket	none	none	none	none	лопе	painting equipment	none	none
project	project	project	project	project	project	by 2 differen t contra	project	unknow n	private	none	project	project none
acrial lift platform	automat ed work platform	dump truck	dumptru ck		5		dumptru ck	truck	vehicle	head oilfield pump;		: E
ou	р	2	о Ц	<u>و</u>	ğ	ß	ę	엄	2	yes	yes	yes
yc.	yes	yes	yes	yes	<u>v</u>	ŝ	yes	yes	yes	<u>e</u>	yes	yes
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	na na ma yes no platform.project none 1 0 none wn M 17 none none houilding construction	na <	na na na na ves no platform none 17 none none building construction   na na na na ves no platform project none 1 0 none none building construction   na na na na na ves no platform project none 1 0 none none none untono   na na na na na yes no platform project none 1 0 none none none ce stand untono   na na na na yes no truck project none 1 0 none none introown	na na na yes no platform nonc n none none none none none pulding construction aeral lift   na na yes no platform point 1 0 none winch poerating   na na yes no platform project none 1 0 none winch poerating   na na na yes no platform winch N 38 none none building construction aerial lift   na na na yes no platform M 38 none none building construction   na na yes no platform M 38 none none construction when failed   na na yes no platform M 35 asphalt lateral none none platform   na na na yes no publed none none none none none platform   na na yes no twin M	nanananananananananananananananananananananananananananananananananananananananananananananananananananananananananananananananananananananananananananananananananananananananananananananananananananananananananananananananananananananananananananananananananananananananananananananananananananananananananananananananananananananananananananananananananananananananana <td>na na &lt;</td> <td>Int   Int   Int   Net   N</td> <td></td> <td>In In &lt;</td> <td></td> <td></td> <td></td>	na <	Int   Int   Int   Net   N		In <			

truck: bucket private: truck project none 1 0 none PM M 41
vehicle private none 1 0 none wn M 48
material hoist project none 1 0 none wn M 42
personnel project carrier M
e private none 1 0 none
dumptru ck project none 1 0 none wn M
grader project marker 1 0 none wn M
private none 1 0 none
1 none A
none 1 10 none
compan y vehici private; e project none 1 0 none wn M
9.35 p.000 p.35 p.35 p.35 p.35 p.35 p.35 p.35 p.35
dumptru ck project none 11 0 none AM M
wood hood to 4:30 chipper project chipper 1 0 none PM M

1623	1799	29	1611	1611	16/1	191	1611	1791	1191	1622	1799	1629	1542
16	1	ars 16	16				16	1	16		1	2	11
unknown	grinder	sod installers 1629	garbage collector	traffic controller	rigging load when crane tipped	drill/boring machine onerator	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		concrete cutter	flagger	unknown	spotter	flagger
unknown	unknown	unknown	uwouyun	unknown	new construction	unknown	new construction	unknown	repair	unknown	uwouyun	repair	new construction
unknown	pipe system	roadway	none	bridge	building	roadwav	highway	:				concrete retaining wall	ail t
excavation	none	traffic control devices	none	none			none	none	traffic controls	none	none	cribbing/foo ting for crane	none
none	none	none	lateral 1	lateral	hoisting none		1	none	altering	none	none	_	none
none	grinding wheel	none	garbage bags	<u>v</u> _	metal roof decking				concrete	none	none	concrete	none
43	30	58,45 26	31	3	20		1	<del>5</del>	47	17	38	23	52
, Z	Z	M,M 68,45 ,M ,26	X	Z	۲	Z	1	Z	Z		¥	М	jı,
unkno wn	unkno wn	1:00 PM	unkno wn	~	umkno wn	- o	) <u>g</u>	unkno	7:30 AM	0	; g	unkno wn	10:32 AM
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coring machine	grinder	pone	none	none	none	e	none	dund duns	none	none	none	none	none
	none		project	unknow	project	nrivate	unknow	project		project	city owned	project	private
backhoe project	none	vehicle private	trash compact or unit	tractor- trailer	crane	wahicle	vehicle	roller compact or	semitrac tor/trail er	truck	trash truck	crane	vehicle
2	ycs	оц	2	ĝ	2	unouqui	ŝ	ou	р.	yes	Q	2	2
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Struck by equipment	Struck by equipment	Struck by equipment	Struck by equipment	Struck by equipment	Struck by equipment		Struck by equipment	Struck by equipment	Struck by equipment	Struck by equipment	Struck by equipment	Struck by equipment	Struck by equipment na na

Struck hv equipment	E.		u eu		,es		dumptru ck	project n	l I	0	none	1:25 PM M	[ 58	unknown	lateral	none	unknown	unknown	equipment operator	1629
		ц	· · · · · · · · · · · · · · · · · · ·		Acs .	2	ę ż			{ 	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	0	3	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	lateral		unknown	new construction		1629
	1	:	••••••••••••••••		, Jes		1		попе 1	0	none	unkno wn M	:		e lateral	: ol zone	traffic signal light	repair	-	1731
	{	ş		en .	yes		H	project in	none		none	unkno W	[ 28	conduit	lateral	none	unknown	unknown		1731
	÷		na		kes Ves		gradall; dozer		none 1	o	none	~			lateral		unknown	umknown	equipment operator	1629
-		ļ		E.	yes	0E	vehicle	public n	none 1	0	anone	unkno wn M	1 52	sealer for pavement	lateral	none	traffic signal	new construction	, trol	1731
		Па	1 5		ycs		crane		boom 1	. o	none	unkno wn M				hoisting excavation	water main	unknown		1542
< 1 C	na	na	1 19	E LI	yes	рг I	backhoe project	,	none 1	0	none	11:15 AM M	1 19		Done Done	trench	unknown	unknown	mason	1711
	na	na	r r R	unkno wn	yes		pickup truck	private :n	none	0	none	0	f 52		none	none	highway	umknown	flagger	1611
Struck by falling Material	na	na	na	D	yes		. 9	§••••••	none 1	0	none	; o	f 60	tree	none	none	none	new construction	,	1799
falling	na	na	E.	eu	ŝ	yes	none		none 1	o	none				ck none	protective magazine	none	new construction		1611
falling	ET.	na	Ē	E	Ś		none	none	none 0	5	<u>.</u>	unkno Wn N	M,M 25	25,34 none	none	ladder and platform	power generation new tower cons	n new construction		1542
Struck by falling Material	na	Па	na	na	P			none	none 1	0		unkno wn M	A 45		3	scaffold	building	unknown	riding scaffold up to 18 floor	
/ falling	na	na na na yes	pa	pa	yes	2	snorkel boom	project 1	none 1	0	none	7:30 AM M	A 28	concrete		hoisting formwork	block wall	block wall construction		1741

			) 																	precast	
Struck by falling Material	na	na	 11	na	o	20	none	none	none 1	<u> </u>	none	wn W	<u></u>	52	concrete	hoisting none		unknown	new construction	concrete beam	1741
Struck by falling Material	na	na	na	1	0 I	3 D	1	project 1	prybar and sledge hammer 1	0	none	PM	Z	33	go	hoisting none		none	unknown	Matl handling	1521
Struck by falling Material	na	Па			yes	:	none	1006	none 1	0	none		X	28	l beam	hoisting none		none	unknown		1521
Struck by falling Material	na	na	na	na na	no yes	yes	none	Done	acetylene/oxy gen cutting torch 1	0	none	7:00 AM	Z	39	metal drums	altering none		none	unknown	welder/cutter	1611
Struck by falling Material	Ца	E	na na	B	Ś	ycs			none	0	none	unkno wn	Z	62	roof beam	none		mobile home	demolition	supervisor of demolition crew	66/1
Struck by falling Material	EL.	na	ba Ba	na	yes	Q.	none	none	none	0	none	unkno	X	35	poom	altering	altering formwork	unknown	new construction	carpenter	1741
Struck by falling Material	na	na	EU.	na	ŝ	Q	none	none	shovel 1	0	none	unkno	<u></u>	35	stone	none	excavation	stone wall	demolition	carpenter	1799
Struck by falling Material	na	E	гц	Па	2	ycs	semitrai ler	project	chains/binder s	1 0	none		X	23	concrete	попе	none	unknown	unknown	unknown- equipment operator?	1671
Struck by falling Material	na	na	IJa	na	0 II	o	попе	none	none	0	none	unkno wn	Z	5	perlins	none	none	building	new construction	steel worker	1671
Struck by falling Material	na	na	Ш	13	2	2	unknow n-truck?	unknow	unknow unknow emulsion n-truck? n sprayer	-	none	12:45 PM	Z	20	dual tire and axle	none	traffic controls	roadway	repair	emulsion sprayer operator	1611
Struck by falling Material	na	IJ	na	Па	2	yes	backhoe: project	project	none	1	none	unkno wn	<u> </u>	59	trees	lateral	none	none	unknown	r	1623
Struck by falling Material	na	na	na	na	yes	yes	none		none	1 0	none	Ĩ	۲ «	34	power pole sections	hoisting none	none	utility pole system	demolition	c	1623
Struck by falling Material	na	ша	ЦЗ	unkno wn	e	ou	лопе	none	none	1	none	11:00 AM	X	39	scaffold rod	none	scaffold system	building	unknown	unknown	1799
Struck by falling Material	na	na na		na na no	o I	yes	none	none	none	1	none		M	47	steel	none	none	guard house	demolition	demolisher	1542

Struck by falling Material	na	IIa	E	na	yes	o E	crane	project h	vibrating hammer	0	none	11:00 AM	M	33	sheet piling hoisting none	hoisting	none	unknown	new construction	pile driving operations/cr ane ops	1542
Struck by falling Material	na	na	na L	na	yes	e 2	none	none	none 1	o 	wind; rain	unkno wn	Z	urkn own	cinder blocks	none	none	cínder block wall	new construction	unknown	1542
Struck by falling Material	na		Г Ц	na	yes			v project s	wire rope slings	o 	none	unkno wn	X	4	concrete pilings	hoisting none	none	unknown	unknown	equipment operator	1629
Struck by falling Material		Ina	na na		ß	e G	none	none	none 0	-	none	unkno wn	¥	30		none	none	house	new construction	carpenter	1751
Struck by falling Material	\$	ş	13	na	2		····· }	none	none 1	o 	none	unkno Wn	Z	50	concrete	}		building	new construction		1751
Struck by falling Material	ца	na	\$9 	па	Q	оц оц	none	none	none 1	o 	wind	unkno	Я	21	masonry wall	none	wall braces	wall	new construction	plumber/pipe fitter	1711
falling	e.	113	R L	unkno wn	2			one	chainsaw 1	0	none	unkno wn	Z	20	trees	altering none		dam	new construction	clearing/grub bing new site	1629
Struck by falling Material	E.	eu.	na L	na	yes			none	none		попе	AM	,M, ,29,2 M,M 5,35, ,M 23		rebar walls	none		building	new construction	steel worker	1791
Struck by falling Material	ра	na	na	na	엵		tractor- trailer	project s	safety chain 1	0	none	unkmo wn	Z	23	precast concrete	lateral	none	unknown	uworayun	truck driver- equipment operator	1752
Struck by falling Material	ги		ц г		unkn own		none	none	none 1	o	none	12:15 PM	Z	15	роом	none	none	building	unknown	roofing contractor-?	1761
Struck by falling Material	na	Ua	na	na	ycs	2	none	none	попе	<u></u>	wind	3.20 PM			steel columns	none	none	steel structure	new construction	steel workers 1791	1791
Struck by falling Material	na	:	eu	Pa	yes		none	none	none		none	unkno wn	М,М	37,31 1	concrete	hoisting none	попе	stairway	new construction	concrete work	1791
Struck by falling Material	EU.	IJa	Ę,	ца	yes		hoisting equipm ent	project	nylon slings 1	1	none		Z	31		hoisting	ĝ	building	new construction	steel worker? 1791	1791
Struck by falling Material	па	na	na	na na no	8	yes	none	none	none	0	none	unkno W M	X	09		none	G.	storage area	unknown	unknown	1622

Struck by falling Material	na	na	na	na	yes	g	none	none	bullfloat		none	unkno wn		43,25	M,M 43,25 concrete	lateral	none	garage basement floor	new construction	concrete finishers	1771
Struck by falling Material	Па	na	1	na	Q		crane	project 1	none	; i	) none	unkno wn	N.	24	nuts	lateral	concrete sound barrier	none	demolition	laborer	1611
Struck by falling Material	па	na	na	na	yes		3	project 1	none	1	) none	unkno wn	ž	84	heat exchanger	hoisting none	лопе	building	unknown	spotter	171
Struck by falling Material	na	na	IJa	Da Da	g				попе	1	) none	unkno wn	ž	3	soil	lateral	concrete wall panel	parking garage	repair	equipment operator	1771
Struck by falling Material	na	na		na	2 <u>2</u>	Q	none		none	1	) none	unkno wn	N	24	concrete pole	none	none	none	unknown	laborer	1771
Struck by falling Material	2	па	na	na	yes	ou	Done	none	none	0	) none	unkno	×	33	sand	none	none	bin	unknown	unknown	1611
Struck by falling material	па	na	na	па	ou				none	0 1	) none		Z	41		none	none	building	new construction	carpenter	1751
Struck by falling Material	ua	па	Da Da		ĝ		попе	DOLE	saw	-	0 Done	11:00 AM	×	33	poom	altering	none	none	new construction	clearing site	1629
Struck by falling Material	na	па	па	na	yes	р	forklift	project	slings	1 0	) none		Z	55	2 ton oven	lateral	none	unknown	umknown	directing lift	1796
Struck by falling Material	na	na	E L	na	yes	ou	crane		попе	1	) none		×	59	top cross section member	hoisting F	platform	asphalt storage silo	demolition		1796
Struck by falling Material	na	na	La La	г	<u>ye</u>		none		torch	1	) none		ž	41		altering	none	building	demolition	6	1796
Struck by falling Material	na	ца	na	na	ζ.	р Ц	elevator	project	welding machine	1 0	) none	(	M	24	welding machine and leads	none	none	building	repair	elevator repairer	1796
Struck by falling Material	na	na	na	na	ou	yes	truck	project	none		0 none		M	8	pipe	lateral	none	none	unknown	laborer	1623
Struck by falling Material	па	na	na	na	na na yes	Q	none	none	none	-	l none	unkno wn	M.N.	645,43	M,M 45,43 debris	none	none	building	demolition	demolisher	1531

Struck by falling Material	na	na	na Da	na	ê	<u>e</u>	none	none	none	1	none	unkno	×	45	wreckage	none	none	water pumping station	demolition	unknown- demolisher	1795
Struck by falling Material	na	па	unk n	unk no wn no	yes	Q	chain hoist	project	eyebolt to assist in hoisting	1	none	2:40 PM	Z	25	7	hoisting none		building	unknown	spotter	1711
Struck by falling Material	na	na	na	na	ŝ	yes	none	none	torch	1	none	unkno wn	N	8	steel pipe	altering none		unknown	demolition	cutter	1795
Struck by falling Material	na	na	:	na na	yes	ou	crane	project	none	0	none	unkno wn	×	34	concrete beam	hoisting none		building	new construction	carpenter	1542
Struck by falling Material	Па	па	Da	na	yes	ou	none	none	none		wind	unkno wn	o MM 22,	1 22,7	wooden beams	none	none	railroad trestle	demolition	demolisher	1795
Struck by falling Material	ша	Ца	na	па	Q	р	попе	none	поле	1	wind	unkno wn	<u>م</u>	33	concrete	none	none	building	new construction	carpenter	1541
Struck by falling Material	na	na	na	na	unkn own	Q	none	none	none	1	none	unkno	N	42	steel beam	unknow	none	unknown	umknown	cleanup	1795
Struck by falling Material	na	na	na	na	â	Q	none	none	none	1	попе	unkno wn	×	69	tie beam	none	none	building	demolition	unknown	1795
Struck by falling Material	na	na		na na	<u>X</u> e	ou	none	none	chain saw	1 0	none	unkno wn	<u>م</u>	<u> </u>	shelter	none	none	block walls	new construction	uwouyun	1795
Struck by falling Material	na	ша	:	na	Xes	ou	crane	project	none	1	none	unkno wn	<u>ک</u>	30	steel column	hoisting none	none	house	new construction	carpenter	1541
Struck by falling Material	na	па	na	na	ou	yes	none	none	saw	1	none	2:20 PM	Z	45	trec	altering none		unknown	unknown	cutting trees	1794
Struck by falling Material	na	па	Па	na	인	ou	none	none	none	1	none	unkno wn	<u>ک</u>	59	debris	none	none	building	demolition	demolisher/la borer	1795
Struck by falling Material	EU.	na	lia	na	yes	QU	dozer	project	none	1	none	2:00 PM	Z		Irees	altering none			unknown	directing equipment operations	1629
Struck by falling Material	na	na	па па	Па	yes	no	none	none	none	1 0	none	wn wn	M	20	poom	none	formwork	unknown	new construction	unknown	1542

Struck by falling Material	Па	Па	na na		yes n	P. P	none	none	none 1	7	none	10:40 AM	MM 19,21 ,M ,31		debris 1	lateral	none	building	demolition	laborers	1795
Struck by falling Material	na	na	n h Mu n		ිර දු			none	none 1	o	none	unkno wn	y Z	62 n e s	sand/water/c ement mixture 1	none	cantilever brace	building	unknown	unknown- excavator	1794
Struck by falling Material	na	ца Ц	na	, Ja	yes		loader lift, semi	project r	none 1	0	none	unkno	X	45 P		lateral	none	1	unknown	unknown	1623
Struck by material	73	Da Da	L E	Ла	yes yes		boring machine project	project A	wrench 1	0	none	unkno wn	Z	32 n		none	none	none	unknown	laborer	1623
Struck by material	Da	na		na I	2 2		none		rope 1	0	none	unkno wn	Z		r sr/plug	none		electric power plant	unknown	umknown	1796
Struck by material	na	na	1 0 ^	Do Do	yes r		crane	project r	none	o 	none	unkno wn	v X	49 s	steel beam	lateral	ропе	building	new construction	steel worker	1791
Struck by material	na	Па	na	na y	yes T			project s	slings	0	none	<u> </u>	X	}	concrete 1	lateral		bridge	new construction	unloading concrete pallets	1771
Struck by Material	па	na	na L	na J	yes		backhoe project		turning bar	0	none	<u> </u>	Z	25 ti		none	none	none	unknown	Mechanic	1521
Struck by Material	na	na	LI LI LI LI	La La	no V	ន	forklift		air compressor 1	o 			X	·····	••••••	altering none			unknown		1522
Struck by material	<b>D</b> 3	ца	1 9<	2	2 2	ន	none	none	none	0	none	unkmo wn	Σ	~~~~~	lumber	lateral	pic	.80 .01	new construction		1799
Struck by material	na	na	L L U B	ла	yes	Q	crane	project 1	none 1	0	none	0 5	Я	59 59 59	pd el	hoisting none		uwoun	demolition	H	1795
Struck by material	Ba	EU.	na	na	en en		truck	project 1	none 1	0	none		X	33 b 33	н	none	none	попе	unknown	н	1799
Struck by material	na	na	na	na	yes	yes	pile driver	project 1	none 1	0 	none	unkno wn	X	4 ч	pile	hoisting none		anone	unknown	spotter	1629
Struck by material na		na	⁵ 0	impro per use	e e	yes	1	none	none 1	0	none	unkno wn	Σ		panels	lateral	catwalk	advertisin g sign	unknown	Ę	1721

													roof							
Struck by material	na L		na na		ou		project none	none		none	3:50 PM M	ک 4	8 k wa	3:50     sections/bric       none     PM     M     48     k wall     hoisting none	oisting	none	building	demolition	building demolition demolisher 1795	1795
		{·····									unkno		steel	_	·····	steel			removing column from	
Struck by material na na	na	•••••	>6' no		no yes	forklift	forklift project none	none	0	none	wn M 39	ž.			lateral	none	building		structure	1791
										·····	unkno	**********							concrete	
Struck by material	na	na	na na	<u>8</u>	yes	none	none	tire inflator		0 none wn M 27	mn	<u>7</u>	7 tire	59	altering none	none	unknown	unknown unknown	finisher	1771