



OKLAHOMA DEPARTMENT OF TRANSPORTATION

# **AGENCY SAFETY PLAN (ASP)**

*CITY OF NORMAN*

September 2020

Oklahoma Department of Transportation  
200 NE 21st Street  
Oklahoma City, OK 73105

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### Revision History

Date	Revision	Description of Revision
September 2020	0	Initial issuance of ASP

## Agency Safety Plan Development, Approvals, & Certification<sup>1</sup>

<b>Certification of Compliance</b>	<p>“The Oklahoma Department of Transportation (ODOT) certifies that this Agency Safety Plan meets the requirements of 49 CFR Part 673. This ASP has been developed by ODOT to include public transportation operations managed by the City of Edmond, OK, and the City of Norman, OK.”</p>	
	<p>Tim J. Gatz, Secretary of Transportation &amp; Director of Oklahoma Department of Transportation</p>	Date Signed
	<p>Ernestine Mbroh, ODOT Office of Mobility &amp; Public Transit Division Manager</p>	Date Signed
<b>Signature of the Accountable Executive</b>	Refer to the Transit Agency Addenda for signature from each agency’s Accountable Executive.	
<b>Signature of the Chief Safety Officer</b>	Refer to the Transit Agency Addenda for signature from each agency’s Chief Safety Officer.	
<b>Approval by the Board of Directors</b>	Refer to the Transit Agency Addenda for approval from each agency’s Board of Directors or equivalent.	
<b>Entity that Drafted this Agency Safety Plan</b>	Oklahoma Department of Transportation	

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<sup>1</sup> This signatures page provides State (ODOT) approval of the ASP and all addenda. Refer the Transit Agency Addenda for each agency’s approval of the ASP and their agency-specific addenda.

# TABLE OF CONTENTS

	SAFETY MANAGEMENT POLICY STATEMENT.....	5
1	GENERAL .....	6
	1.1 Safety Management System Overview.....	6
	1.2 Plan Applicability & Scope.....	6
	1.2.1 Applicability.....	6
	1.2.2 Scope.....	7
	1.3 Plan Goals, Objectives, & Purpose .....	7
	1.3.1 Goals.....	7
	1.3.2 Objectives.....	7
	1.3.3 Purpose .....	8
	1.4 Plan Review & Update.....	8
	1.5 System Overview.....	8
2	SAFETY MANAGEMENT POLICY .....	9
	2.1 Safety Accountability & Responsibilities .....	9
	2.1.1 All Employees .....	9
	2.1.2 Accountable Executive.....	9
	2.1.3 Chief Safety Officer.....	9
	2.1.4 Agency Leadership & Executive Management .....	9
	2.1.5 Key SMS Staff .....	10
	2.1.6 Safety Committees.....	10
	2.2 Employee Safety Reporting.....	10
	2.3 Integration with Public Safety and Emergency Management	10
	2.4 Safety Performance Targets.....	11
	2.5 SMS Documentation & Records .....	11
3	SAFETY RISK MANAGEMENT.....	12
	3.1 Safety Hazard Identification .....	12
	3.1.1 Safety Risk Assessment .....	13
	3.1.2 Hazard Severity.....	13
	3.1.3 Hazard Probability .....	14
	3.2 Risk Analysis .....	15
	3.3 Safety Risk Mitigation.....	16
4	SAFETY ASSURANCE .....	18
	4.1 Safety Performance Monitoring & Measurement .....	18
	4.2 Management of Change .....	18
	4.3 Continuous Improvement .....	19
5	SAFETY PROMOTION .....	20
	5.1 Safety Communication & Culture .....	20
	5.2 Competencies & Training.....	20
	5.3 Procurement Safety Program .....	21
	TABLES	
	Table 1. Definitions of Terms Used in ASP .....	1
	Table 2. Definition of Acronyms & Abbreviations Used in ASP.....	4
	Table 3. City of Edmond Safety Roles & Responsibilities Matrix .....	<b>Error!</b>
	<b>Bookmark not defined.</b>	
	Table 4. City of Edmond Safety Performance Targets (2020) .....	<b>Error!</b>
	<b>Bookmark not defined.</b>	
	Table 5. City of Norman Safety Roles & Responsibilities Matrix.....	3
	Table 6. City of Norman Safety Performance Targets (2020).....	5

# TABLE OF CONTENTS

## FIGURES

Figure 1. Safety Risk Management Process .....	12
Figure 2. Hazard Severity Definition .....	14
Figure 3. Hazard Probability Categories .....	15
Figure 4. Hazard Risk Index .....	16

## ADDENDA

Addendum 1 City of Edmond	
Addendum 2 City of Norman	

## Terms, Acronyms, & Abbreviations

**Table 1. Definitions of Terms Used in ASP**

Term	Definition
Accident	An Event that involves any of the following: A loss of life; a report of a serious injury to a person; a collision of public transportation vehicles; a runaway train; an evacuation for life safety reasons; or any derailment of a rail transit vehicle, at any location, at any time, whatever the cause.
Accountable Executive	A single, identifiable person who has ultimate responsibility for carrying out the Public Transportation Agency Safety Plan of a public transportation agency; responsibility for carrying out the agency's Safety Management System, Transit Asset Management Plan; and control or direction over the human and capital resources needed to develop and maintain both the agency's Public Transportation Agency Safety Plan, in accordance with 49 U.S.C. 5329(d), and the agency's Transit Asset Management Plan in accordance with 49 U.S.C. 5326.
Agency Safety Plan (ASP)	The documented comprehensive agency safety plan for a transit agency that is required by 49 U.S.C. 5329 and 49 CFR 673.
Chief Safety Officer (CSO)	An adequately trained individual who has responsibility for safety and reports directly to a transit agency's chief executive officer, general manager, president, or equivalent officer. A Chief Safety Officer may not serve in other operational or maintenance capacities, unless the Chief Safety Officer is employed by a transit agency that is a small public transportation provider as defined in 49 CFR 673, or a public transportation provider that does not operate a rail fixed guideway public transportation system.
Collision	A vehicle accident in which there is an impact of a transit vehicle with: <ul style="list-style-type: none"> <li>• Another transit vehicle</li> <li>• A non-transit vehicle</li> <li>• A fixed object</li> <li>• A person(s) (suicide/attempted suicide included)</li> <li>• An animal</li> <li>• A rail vehicle</li> </ul>
Consultants/ Contractors	An individual who is compensated by the transit agency for directly operated services, the labor expense for the individual is reported in object class 501 labor, or for purchased transportation service, the labor expense for the individual meets the same criteria as object class 501 labor.
Demand Response	A transit mode comprised of passenger cars, vans or small buses operating in response to calls from passengers or their agents to the transit operator, who then dispatches a vehicle to pick up the passengers and transport them to their destinations. A demand response operation is characterized by the following: <ol style="list-style-type: none"> <li>a) The vehicles do not operate over a fixed-route or on a fixed schedule except, perhaps, on a temporary basis to satisfy a special need, and</li> <li>b) Typically, the vehicle may be dispatched to pick up several passengers at different pick-up points before taking them to their respective destinations and may even be interrupted en route to these destinations to pick up other passengers. The following types of operations fall under the above definitions provided they are not on a scheduled fixed-route basis:                         <ul style="list-style-type: none"> <li>• Many origins - many destinations</li> <li>• Many origins - one destination</li> <li>• One origin - many destinations</li> <li>• One origin - one destination</li> </ul> </li> </ol>

Term	Definition
Event	Any Accident, Incident, or Occurrence.
Fatality	A death or suicide confirmed within 30 days of a reported event. Does not include deaths in or on transit property that are a result of illness or other natural causes.
Federal Transit Administration (FTA)	Federal Transit Administration (FTA) is an operating administration within the United States Department of Transportation.
Fire	Uncontrolled combustion made evident by flame that requires suppression by equipment or personnel or removal of the fuel source or removal of oxygen.
Fixed-Route	Services provided on a repetitive, fixed schedule basis along a specific route with vehicles stopping to pick up and deliver passengers to specific locations; each fixed-route trip serves the same origins and destinations, such as rail and bus; unlike demand responsive and vanpool services.
Hazard	Any real or potential condition that can cause injury, illness, or death; damage to or loss of the facilities, equipment, rolling stock, or infrastructure of a public transportation system; or damage to the environment.
Incident	An event that involves any of the following: A personal injury that is not a serious injury; one or more injuries requiring medical transport; or damage to facilities, equipment, rolling stock, or infrastructure that disrupts the operations of a transit agency.
Injury	Any damage or harm to persons as a result of an event that requires immediate medical attention away from the scene.
Investigation	The process of determining the causal and contributing factors of an accident, incident, or hazard, for the purpose of preventing recurrence and mitigating risk.
National Transit Database (NTD)	The National Transit Database (NTD) is a reporting system that collects public transportation financial and operating information.
Occurrence	An Event without any personal injury in which any damage to facilities, equipment, rolling stock, or infrastructure does not disrupt the operations of a transit agency.
Oklahoma Department of Transportation (ODOT)	The Oklahoma Department of Transportation (ODOT) is a multi-modal transportation agency whose mission "is to provide a safe, economical and effective transportation network for the people, commerce and communities of Oklahoma." ODOT is the Governor's designee for the administration of state and federal public transportation financial assistance programs for areas under 50,000 population.
OSONOC	Other Safety Occurrences Not Otherwise Classified (OSONOC) and not specifically listed as a Reportable Event, but which meet a reportable threshold. Includes (but not limited to): <ul style="list-style-type: none"> <li>• Slips</li> <li>• Trips</li> <li>• Falls</li> <li>• Electric shock</li> <li>• Smoke or the odor of smoke/chemicals noticed in a transit vehicle or facility</li> </ul>



Term	Definition
Public Transportation Agency Safety Plan (PTASP) Final Rule	The Public Transportation Agency Safety Plan (PTASP) Final Rule (49 CFR Part 673) requires certain operators of public transportation systems that are recipients or subrecipients of FTA grant funds to develop safety plans that include the processes and procedures necessary for implementing Safety Management Systems (SMS).
Reportable Events	<p>A safety or security event occurring on transit right-of-way or infrastructure, at a transit revenue facility, at a transit maintenance facility, during a transit related maintenance activity or involving a transit revenue vehicle that results in one or more of the following conditions:</p> <p><u>Non-Rail Modes:</u></p> <ul style="list-style-type: none"> <li>• A fatality confirmed within 30 days of the event</li> <li>• An injury requiring immediate medical attention away from the scene for one or more person</li> <li>• Property damage equal to or exceeding \$25,000</li> <li>• Collisions involving transit revenue vehicles that require towing away from the scene for a transit roadway vehicle or other non-transit roadway vehicle</li> <li>• An evacuation for life safety reasons</li> </ul>
Risk	The composite of predicted severity and likelihood of the potential effect of a hazard
Safety Assurance	Processes within a transit agency's Safety Management System that functions to ensure the implementation and effectiveness of safety risk mitigation, and to ensure that the transit agency meets or exceeds its safety objectives through the collection, analysis, and assessment of information.
Safety Event	A collision, fire, hazardous material spill, act of nature (Act of God), evacuation, or OSONOC occurring on transit right-of-way, in a transit revenue facility, in a transit maintenance facility, or involving a transit revenue vehicle and meeting established NTD thresholds
Safety Management Policy	A transit agency's documented commitment to safety, which defines the transit agency's safety objectives and the accountabilities and responsibilities of its employees in regard to safety.
Safety Management System (SMS)	The formal, top-down, organization-wide approach to managing safety risk and assuring the effectiveness of a transit agency's safety risk mitigation. SMS includes systematic procedures, practices, and policies for managing risks and hazards.
Safety Promotion	A combination of training and communication of safety information to support SMS as applied to the transit agency's public transportation system.
Safety Risk Management	A process within a transit agency's Public Transportation Agency Safety Plan for identifying hazards and analyzing, assessing, and mitigating safety risk.
Serious Injury	<p>Any injury which:</p> <ol style="list-style-type: none"> <li>(1) Requires hospitalization for more than 48 hours, commencing within 7 days from the date the injury was received;</li> <li>(2) Results in a fracture of any bone (except simple fractures of fingers, toes, or noses);</li> <li>(3) Causes severe hemorrhages, nerve, muscle, or tendon damage;</li> <li>(4) Involves any internal organ; or</li> <li>(5) Involves second- or third-degree burns, or any burns affecting more than 5 percent of the body surface</li> </ol>

<b>Term</b>	<b>Definition</b>
System Reliability	The safety performance measure System Reliability means the distance in miles between major mechanical failures. A reportable major mechanical failure is defined in the National Transit Database Glossary as “a failure of some mechanical element of the revenue vehicle that prevents the vehicle from completing a scheduled revenue trip or from starting the next scheduled revenue trip because actual movement is limited or because of safety concerns.” System Reliability is determined by dividing the number of annual vehicle revenue miles by the number of major mechanical failures, by mode.
Transit Asset Management Plan	The strategic and systematic practice of procuring, operating, inspecting, maintaining, rehabilitating, and replacing transit capital assets to manage their performance, risks, and costs over their life cycles, for the purpose of providing safe, cost-effective, and reliable public transportation, as required by 49 U.S.C. 5326 and 49 CFR part 625

**Table 2. Definition of Acronyms & Abbreviations Used in ASP**

<b>Acronym/Abbreviation</b>	<b>Definition</b>
ACOG	Association of Central Oklahoma Governments
ADA	Americans with Disabilities Act of 1990
ASP	Agency Safety Plan
CSO	Chief Safety Officer
FTA	Federal Transit Administration
MPO	Metropolitan Planning Organization
NTD	National Transit Database
ODOT	Oklahoma Department of Transportation
OSONOC	Other Safety Occurrences Not Otherwise Classified
PTASP	Public Transportation Agency Safety Plan Final Rule (49 CFR Part 673)
SMS	Safety Management Systems
TAM	Transit Asset Management
Transit Agency/Agencies	The City of Edmond and the City of Norman

## **SAFETY MANAGEMENT POLICY STATEMENT**

The Transit Agencies covered by this Agency Safety Plan (ASP), City of Edmond and City of Norman, Oklahoma, recognize management of safety as a core agency function. The Transit Agencies are dedicated to planning, designing, constructing, operating and maintaining transportation systems that optimize the safety of passengers, employees, consultants, contractors, emergency responders, and the public.

Accountability for safety begins with the Accountable Executive and permeates all levels of employees, including consultants and contractors. The following safety objectives reflect the Transit Agencies' overarching safety goals and demonstrate commitment to establishing, implementing, and continually improving Safety Management Systems (SMS):

- Integrate safety management into the primary responsibilities of all employees;
- Support SMS through allocation of resources and promotion of a safety culture that facilitates safe practices and effective employee safety reporting and communication;
- Define roles and responsibilities for all employees that contribute to safety performance and SMS;
- Implement risk-based hazard management consistent with risk acceptance levels;
- Operate an employee safety reporting program that ensures no action will be taken against any employee who discloses a safety concern unless disclosure indicates beyond reasonable doubt an illegal act, gross negligence, or a deliberate disregard of regulations or procedures;
- Comply with or exceed legislative and regulatory requirements and industry standards;
- Ensure systems and services that support operations meet or exceed agency safety standards;
- Require safety information and training to ensure all employees are competent in safety management for tasks allocated to them;
- Establish and measure safety performance against data-driven safety performance targets; and
- Continually improve safety performance and implementation of SMS.

By applying SMS as outlined above and detailed in this ASP, the Transit Agencies commit to making safety the top priority of all operations and to achieving an optimum level of safety through a cooperative effort in compliance of this ASP.

Refer to the Transit Agency Addenda for signature from each agency's Accountable Executive in approval of this Safety Management Policy Statement, this ASP, and each agency's respective addenda.

# 1 GENERAL

## 1.1 Safety Management System Overview

Safety Management Systems (SMS) is a formal, top-down, organization-wide approach to managing safety risk and assuring the effectiveness of safety risk mitigation. SMS includes systematic and proactive procedures, practices, and policies for managing risks and hazards. By bringing employees and contractors together from all levels of the agency to manage risk, SMS helps agencies detect and address safety problems earlier, share and analyze data more effectively, and measure safety performance more precisely.

Four main components comprise SMS:

- **Safety Management Policy** (Section 2) is a transit agency’s documented commitment to safety. The policy defines the transit agency’s safety objectives and the safety accountabilities and responsibilities of its employees.
- **Safety Risk Management** (Section 3) is the process for identifying hazards and analyzing, assessing, and mitigating safety risk.
- **Safety Assurance** (Section 4) is the processes that ensures the implementation and effectiveness of safety risk mitigation, and ensures that the agency meets or exceeds its safety objectives through the collection, analysis, and assessment of safety data.
- **Safety Promotion** (Section 5) is a combination of safety training and communication applied to the agency’s transportation system to support SMS.

## 1.2 Plan Applicability & Scope

### 1.2.1 Applicability

The Public Transportation Agency Safety Plan (PTASP) Final Rule<sup>2</sup> (49 CFR Part 673) requires compliance by recipients and sub-recipients of FTA Urbanized Area Formula Grant Program funds under 49 USC § 5307. The Oklahoma Department of Transportation (ODOT) sponsored this ODOT group Agency Safety Plan (ASP) to fulfill the requirements for the Tier 2 state group plan, and includes the City of Edmond and the City of Norman (hereinafter collectively referred to as each “Transit Agency” or the “Transit Agencies”). ODOT and the Transit Agencies meet their requirements under 49 CFR Part 673 through participation in this ODOT ASP.

Refer to the Transit Agency Addenda for agency-specific information that supplements this ODOT ASP.

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<sup>2</sup> FTA deferred the applicability of the PTASP requirements for small operators who only receive funds through FTA’s Formula Grants for the Enhanced Mobility of Seniors and Individuals with Disabilities Program under 49 USC § 5310 and for Formula Grants for Rural Areas Program under 49 USC § 5311.

## 1.2.2 Scope

This ODOT ASP meets all the requirements under 49 CFR part 673 and encompasses the equipment, facilities, plans, procedures, operations, and maintenance as they relate to each Transit Agency bus systems. The ODOT ASP is scaled to the size, scope, and complexity of the covered Transit Agencies, both of whom are small public transportation providers as defined by 49 CFR part 673.

## 1.3 Plan Goals, Objectives, & Purpose

### 1.3.1 Goals

The overarching goal of this ASP is to enhance all aspects of safety within the Transit Agencies by guiding effective and proactive management of safety risks in the system and prioritizing capital investments using performance-based planning.

### 1.3.2 Objectives

The overarching objective of this ASP is to establish processes and procedures to support the implementation of SMS that meets Federal Transit Administration (FTA)-mandated requirements under the PTASP Final Rule (49 CFR Part 673).

As outlined in the Safety Management Policy Statement, specific safety objectives of this ASP and its established SMS include the following:

- Integrate safety management into the primary responsibilities of all employees;
- Support SMS through allocation of resources and promotion of a safety culture that facilitates safe practices and effective employee safety reporting and communication;
- Define roles and responsibilities for all employees that contribute to safety performance and SMS;
- Implement risk-based hazard management consistent with risk acceptance levels;
- Operate an employee safety reporting program that ensures no action will be taken against any employee who discloses a safety concern unless disclosure indicates beyond reasonable doubt an illegal act, gross negligence, or a deliberate disregard of regulations or procedures;
- Comply with or exceed legislative and regulatory requirements and industry standards;
- Ensure systems and services that support operations meet or exceed agency safety standards;
- Require safety information and training to ensure all employees are competent in safety management for tasks allocated to them;
- Establish and measure safety performance against data-driven safety performance targets; and
- Continually improve safety performance and implementation of SMS.

### 1.3.3 Purpose

This ASP formalizes the SMS principles and strategies for demonstrating Safety Management Policy, Safety Risk Management, Safety Assurance, and Safety Promotion through all operations and maintenance activities of the Transit Agencies. The ASP defines the process for identifying, evaluating, and resolving hazards associated with operations of a bus system involved in revenue service. This process helps achieve the highest practical level of operational safety for the riding public, employees, and anyone encountering each Transit Agency system.

## 1.4 Plan Review & Update

The ODOT ASP will be reviewed at least annually and updated as necessary to ensure that it remains current and consistent with FTA guidance and industry best practice. ODOT will coordinate with each Transit Agency Chief Safety Officer (CSO) to initiate this review and will include all relevant staff in this process. Additionally, when a significant change occurs within either Transit Agency, ODOT and the Transit Agencies will update the ASP with applicable changes.

The ASP will also be updated as necessary following any ASP audit to address any findings and recommendations and to improve the SMS program. If revised, the ASP will be re-issued to all ASP recipients, including ODOT and each Transit Agency. ODOT is responsible for the annual ASP update and coordinating with the Transit Agencies to initiate, carry out, and communicate the update.

## 1.5 System Overview

Refer to the Transit Agency Addenda for a description of each system.

## **2 SAFETY MANAGEMENT POLICY**

ODOT and the Transit Agencies covered by this ASP recognize management of safety as a core agency function and are dedicated to planning, designing, constructing, operating and maintaining transportation systems that optimize the safety of passengers, employees, consultants, contractors, emergency responders, and the public. This commitment is established in the Safety Management Policy Statement provided at the beginning of this ASP and signed by each Transit Agency's Accountable Executive in each respective Transit Agency Addenda.

### **2.1 Safety Accountability & Responsibilities**

Under SMS, identified positions have specific safety responsibilities and authority. Refer to the Transit Agency Addenda for a matrix that names the specific agency position(s) and committee(s) responsible for each of the SMS roles and responsibilities described below.

#### **2.1.1 All Employees**

All Transit Agency employees and contractors, including agency leadership, executive management, and key staff, are responsible for safety. Each employee is required to work safely, correct unsafe behavior, identify and report safety hazards, and abstain from performing any task that the person feels could injure themselves or others.

#### **2.1.2 Accountable Executive**

The Accountable Executive is a single, identifiable person who has ultimate responsibility and accountability for implementing and maintaining the Transit Agency's SMS and this ASP. This is the same person responsible for carrying out the Transit Agency's Transit Asset Management (TAM) Plan. The Accountable Executive has control or direction over the human and capital resources needed to develop and maintain both the ASP and TAM. The Accountable Executive is also responsible for ensuring action is taken, as necessary, to address substandard performance in the SMS. This individual is the primary decision-maker who is ultimately responsible for both safety and TAM.

#### **2.1.3 Chief Safety Officer**

The CSO has the authority and responsibility for day-to-day implementation and operation of the Transit Agency's SMS. The CSO must have adequate training to take responsibility for safety and must have a direct line of reporting to their Accountable Executive. Small public transportation providers may designate a CSO who also manages other functions, and may be a full-time or part-time employee of the transit system, or a contracted employee.

#### **2.1.4 Agency Leadership & Executive Management**

Agency leadership and executive management is responsible for confirming the SMS is carried out at their respective Transit Agency through incorporation of safety management practices into the agency's operational areas. Responsibilities include

designating representatives from operations, maintenance, and other revenue service support functions to serve as Key SMS Staff. Agency leadership and executive management is also responsible for encouraging SMS training for staff and taking ownership of the safety management processes and activities as they are implemented.

### 2.1.5 Key SMS Staff

In addition to the above positions, the Transit Agencies have subject matter experts who serve as Key SMS Staff and represent their departments to support SMS implementation. Key SMS Staff provide expertise on how to adapt existing departmental practices to SMS, identify data departmental data and information resources to support SMS decision making, and meet with and update the CSO as necessary.

### 2.1.6 Safety Committees

Safety committees—whether standalone committees or incorporated into other committees—support SMS by informing and assuring agency management of safety issues affecting the agency and addressing safety issues assigned to it by the agency's executive management.

Refer to the Transit Agency Addenda for details on each Transit Agency's safety committees.

## 2.2 Employee Safety Reporting

The Transit Agencies support their SMS through the allocation of resources and promotion of a safety culture that facilitates safe practices and effective employee safety reporting and communication. Each Transit Agency has established an employee safety reporting program that allows employees and contractors to report safety conditions or hazards to senior management. The employee safety reporting program meets the following baseline components:

- Allows employees to report safety conditions to senior management
- Provides for anonymous reporting at the discretion of the employee
- Is accessible to all employees
- Ensures no action will be taken against any employee who discloses a safety concern unless disclosure indicates beyond reasonable doubt an illegal act, gross negligence, or a deliberate disregard of regulations or procedures

Refer to the Transit Agency Addenda for details on each Transit Agency's employee safety reporting program.

## 2.3 Integration with Public Safety and Emergency Management

The Transit Agencies receive support from their local police departments if a law enforcement presence is necessary. They also coordinate emergency management activities with local emergency responders, and hold emergency drills for employees to address fire and other types of emergencies. Lessons gathered from these drills are to



be communicated to employees and to ODOT, and incorporated in training resources, as applicable. Refer to the Transit Agency Addenda for agency-specific coordination and integration with public safety and emergency management.

## 2.4 Safety Performance Targets

The Transit Agencies have established targets that represent a quantifiable, measurable safety performance or condition. The Transit Agencies will regularly monitor the performance of their systems to ensure they are meeting the targets and improving safety outcomes. At least annually, when the reviewing and updating this ASP, ODOT will coordinate with the Transit Agencies to evaluate whether changes to their respective safety performance targets are warranted. Safety performance targets are categorized by the following safety performance measures:

- **Performance Measure: Fatalities** – Total number of reportable<sup>3</sup> fatalities and rate per total unlinked passenger trips, by mode.
- **Performance Measure: Injuries** – Total number of reportable injuries and rate per total unlinked passenger trips, by mode.
- **Performance Measure: Safety Events** – Total number of reportable events<sup>4</sup> and rate per total vehicle miles, by mode.
- **Performance Measure: System Reliability** – Mean distance between failures, by mode.

Refer to the Transit Agency Addenda for the agency-specific annual safety performance targets for each of the above measures.

When requested, the Transit Agencies will provide their safety performance targets to ODOT and to their region's Metropolitan Planning Organization (MPO), the Association of Central Oklahoma Governments (ACOG), to aid in the State and MPO planning processes, as applicable. Additionally, to the maximum extent practicable, the Transit Agencies will coordinate with ODOT and ACOG in the selection of State and MPO safety performance targets.

## 2.5 SMS Documentation & Records

The Transit Agencies will maintain and require documentation related to the implementation of this ASP and their SMS. This includes documents included in whole, or by reference, that describe the programs, policies, and procedures used to carry out this ASP. These documents will be made available upon request by the FTA or other federal entity and will be maintained for a minimum of three years after they are created.

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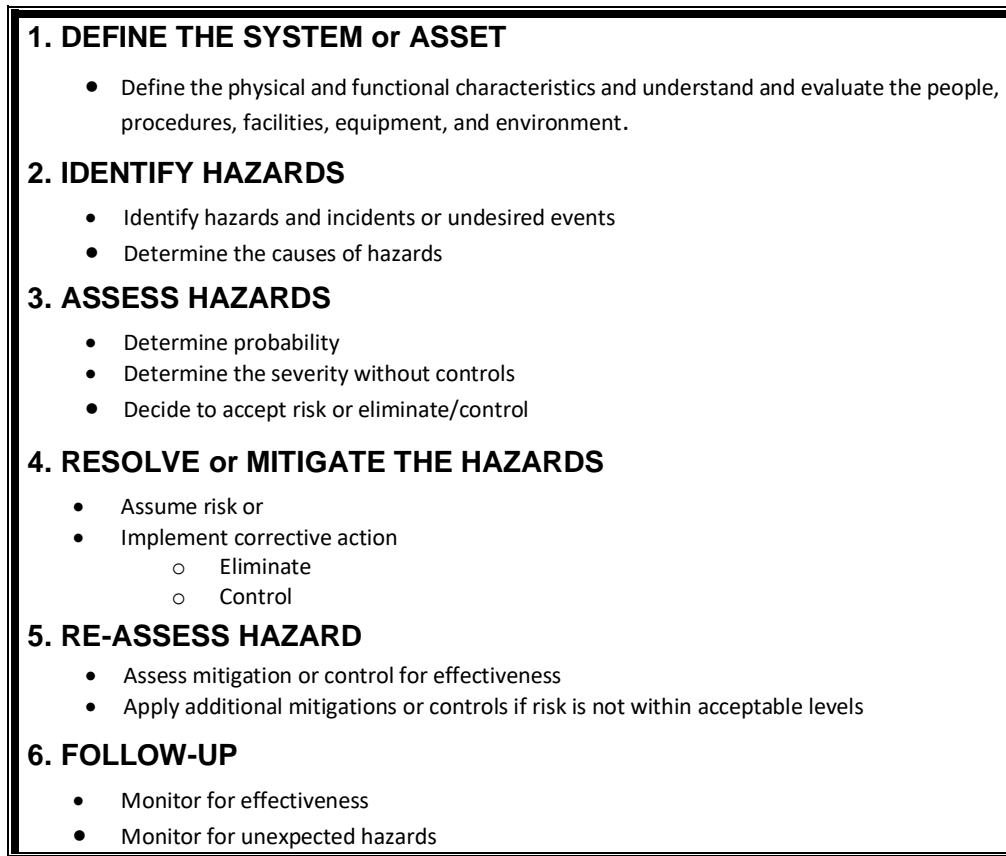
<sup>3</sup> The thresholds for "reportable" fatalities, injuries, and events are defined in the National Transit Database Safety and Security Reporting Manual, available at <https://www.transit.dot.gov/ntd/2019-ntd-safety-and-security-policy-manual>.

<sup>4</sup> Event as defined in CFR Part 673.5. Refer to Table 1. Definitions of Terms Used in ASP.

### 3 SAFETY RISK MANAGEMENT

This section provides detail on safety risk management. Safety risk management includes the activities that a public transportation agency undertakes to control the probability or severity of the potential consequence of hazards. Major safety risk management sub-components include Hazard Identification and Analysis and Safety Risk Evaluation and Mitigation. Figure 1 below summarizes the six basic steps of safety risk management.

**Figure 1. Safety Risk Management Process**



#### 3.1 Safety Hazard Identification

The first step in a hazard analysis is defining the systems and sub-systems subject to hazards, followed by identifying specific physical and procedural hazards related to the identified systems and subsystems. A safety hazard is:

- Any real or potential condition that can cause personal injury or death or damage to or loss of equipment or property,
- A condition that may be a prerequisite to an accident, or
- Is a situation that has the potential to do harm.

Hazards are identified through a variety of sources, including those listed below. In addition, SMS enables every employee to identify hazards through Safety Promotion efforts and non-punitive hazard reporting, described further in Section 5.

- FTA’s Hazard Analysis Guideline for Transit Projects (January 2000)
- Accident/incident data and experience
- Accident/incident data from other bus systems with similar characteristics
- Hazard scenarios
- Applicable industry standards
- Field assessments and surveys
- Project-specific design data and drawings, reviews, testing, and start-up activities

The following tools and techniques may be used for hazard identification and analysis:

- Preliminary Hazard Analysis
- Operational Hazard Assessment
- Accident/Incident Analysis
- Job Hazard Analysis

### 3.1.1 Safety Risk Assessment

After identifying system-specific hazards, safety risk management assesses safety risk by first identifying the potential to do harm in the system and then analyzing options to mitigate the hazard to an acceptable level. The process seeks to identify and define as many hazardous conditions as possible and initiate the safety risk mitigation process before those conditions or associated activities cause an accident.

The methodology for analyzing safety risk has two elements: evaluating hazard severity and evaluating hazard probability. The US Department of Defense’s Standard Practice for System Safety, MIL-STD-882E, establishes system safety criteria guidelines for determining hazard severity and probability. This ASP adapts the MIL-STD-882E Risk Assessment and Hazard Risk Index matrixes to the transit environment for use in the Transit Agency safety risk assessment process.

### 3.1.2 Hazard Severity

Hazards are rated in terms of their effect on transit customers, employees, the public, and the operating system. Hazard severity is a subjective measure of the worst credible case consequence that results from design inadequacies, component failure or malfunction, human error, environmental conditions, or operating or maintenance practice, and procedure deficiencies. Figure 2 illustrates these ratings. The categorization of hazards is consistent with risk-based criteria for severity and reflects the principle that not all hazards pose an equal amount of risk.

**Figure 2. Hazard Severity Definition**

SEVERITY	CHARACTERISTICS			
	People	Equipment/Services	Financial	Reputational
<b>Catastrophic</b>	Several deaths and/or numerous serious* injuries (per event)	Total loss of equipment or system interruption, requiring months to repair	Estimated loss from the incident in excess of \$500,000	Ongoing media coverage, irreparable reputational damage, government intervention (weeks – months)
<b>Critical</b>	Low number of deaths and/or serious injury* (per event)	Significant loss of equipment or system interruption, requiring weeks to repair	Estimated loss from the incident in excess of \$100,000-\$499,999	Prolonged media campaign, serious reputational damage, sustained government involvement (days - weeks)
<b>Moderate</b>	Minor injury and possible serious injury* (per event)	Some loss of equipment or system interruption, requiring seven or less days to repair	Estimated loss from the incident in excess of \$10,000-\$99,999	Adverse media coverage, reputational damage, government involvement
<b>Minor</b>	Possible minor injury (per event)	Some loss of equipment, no system interruption, less than 24 hours to repair	Estimated loss from the incident in excess of \$1,000-\$9,999	Local media coverage and some reputational damage
<b>Insignificant</b>	No injury	Minor damage to equipment no system interruption, no immediate repair necessary	Estimated loss from the incident is likely less than \$1,000	No adverse media coverage or reputational damage

\*Per 49 CFR 673, serious injury: 1) Requires hospitalization for more than 48 hours, commencing within 7 days from the date of the injury was received; 2) Results in a fracture of any bone (except simple fractures of fingers, toes, or noses); 3) Causes severe hemorrhages, nerve, muscle, or tendon damage; 4) Involves any internal organ; or 5) Involves second or third-degree burns, or any burns affecting more than 5 percent of the body surface.

### 3.1.3 Hazard Probability

The probability that a hazard will occur during the planned life expectancy of the system element, sub-system or component is described qualitatively, in potential occurrences per unit of time, events, population, items, or activity. A qualitative hazard probability is derived from research, analysis, evaluation of safety data from the operating experience of the agency or historical safety data from similar bus systems, and from expert opinion. Figure 3 summarizes the hazard probability categories.

**Figure 3. Hazard Probability Categories**

<b>Probability Level</b>	<b>Specific Individual Item</b>	<b>Fleet or Inventory</b>	<b>Frequency</b>
<b>Frequent A</b>	Likely to occur frequently in the life of a system	Continuously experienced	> 1 event / month
<b>Probable B</b>	Will occur often in the life of a system	Will occur frequently in the system	> 1 event / year
<b>Occasional C</b>	Likely to occur sometime in the life of an item	Will occur several times	>1 event / 10 year
<b>Remote D</b>	Unlikely, but possible to occur in the life of an item	Unlikely, but can be expected to occur	> 1 event / 20 years
<b>Improbable E</b>	So unlikely, it can be assumed occurrence may not be expected	Unlikely to occur, but possible	< 1 event during 30 years
<b>Eliminated F</b>	Incapable of occurrence (hazard was initially identified and later eliminated)		

### 3.2 Risk Analysis

Together, hazard severity and probability measure a hazard’s magnitude and priority for applying the control measures. Hazards are then examined, qualified, addressed, and resolved based on the severity of a potential outcome and the likelihood that such an outcome will occur. The value derived by considering a hazard’s severity and probability is the Hazard Risk Index. The resulting risk index is a measure of the acceptability or undesirability of the hazard and is applied to the Risk Assessment Index.

Assignment of a Hazard Risk Index enables Transit Agency management to properly understand the amount of risk involved by accepting the hazard relative to what it would cost (schedule, dollars, operations, etc.) to reduce the hazard to an acceptable level.






Figure 4 identifies the Hazard Risk Index, based upon hazard severity and probability, and outlines the criteria for further action and decision authority based on each index category. The Hazard Risk Index is used to assist the decision-making process in determining whether a safety risk should be eliminated, controlled, or accepted. This helps prioritize hazardous conditions and focus available resources on the most serious hazards requiring resolution while effectively managing available resources.

For example, if the potential for an accident/incident reveals a Category 1 (catastrophic) occurrence with a Level A (frequent) probability, the assessed level of risk is Unacceptable and the system safety effort is directed toward eliminating the hazard or at the very least to implementing redundant hazard control measures. A Category 1 (catastrophic) or Category 2 (critical) safety risk may be tolerable if it can be demonstrated that its occurrence is highly improbable. This approach provides a basis for logical management decision-making that considers the hazard’s severity and probability.

**Figure 4. Hazard Risk Index**

HAZARD RISK INDICES					
Frequency Or Probability	Severity Category				
	1 Catastrophic	2 Critical	3 Moderate	4 Minor	5 Insignificant
(A) Frequent	1A	2A	3A	4A	5A
(B) Probable	1B	2B	3B	4B	5B
(C) Occasional	1C	2C	3C	4C	5C
(D) Remote	1D	2D	3D	4D	5D
(E) Improbable	1E	2E	3E	4E	5E
(F) Eliminated					

**LEGEND**

-  **Unacceptable** - Cannot be accepted as is, **must** be mitigated
-  **Undesirable** - Acceptable with Executive-level signoff
-  **Acceptable w/ Review** - Acceptable Operational-level signoff
-  **Acceptable** - Can be accepted as is
-  **Eliminated** - Incapable of Occurrence

### 3.3 Safety Risk Mitigation

As safety risks are identified, whether through a formal risk assessment or informally such as through employee reporting mechanisms, hazards can be resolved by deciding to either assume the risk associated with the hazard or to eliminate or control the risk. Mitigation to bring a hazard to an acceptable level of risk is applied in the following order of precedence, listed from most effective at the top of the list to least effective mitigations at the bottom:

- Avoidance
- Elimination
- Substitution
- Engineering Controls
- Warnings
- Administrative Controls such as Operations and Maintenance Procedures
- Personal Protective Equipment and Guards

Refer to the Transit Agency Addenda for details on how hazards are captured and tracked by each Transit Agency. Hazard tracking may done through reports, logs,

and/or worksheets that allow for updating if changes occur that impact the findings of the safety analysis.

## 4 SAFETY ASSURANCE

Safety assurance includes safety reviews, evaluations, audits, and inspections, as well as data tracking and analysis and investigations. Safety assurance provides for the implementation and effectiveness of safety risk management, and confirms that the Transit Agency meets or exceeds its safety objectives through the collection, analysis, and assessment of information. The Transit Agencies will continually assess the effectiveness of their safety risk mitigations through their safety assurance efforts.

### 4.1 Safety Performance Monitoring & Measurement

SMS generates data and information that senior management need to evaluate whether implemented safety risk mitigations are appropriate and effective, and how well an agency's safety performance fits with their established safety objectives and safety performance targets. Safety performance monitoring will occur through routine monitoring of operations and maintenance activities. It also includes risk monitoring to track implementation and success of mitigations and controls put in place to manage risk.

At a minimum, the Transit Agencies will implement an annual audit that evaluates safety in compliance with this ASP and SMS. The audit program will consider how successfully and consistently the performance monitoring activities listed below are being performed by the Transit Agencies. The annual audit report will be made available to each Transit Agency's Accountable Executive and considered a foundation document for the annual ASP review and update process.

Monitoring and measurement activities that will be included in the internal audit will include at least the following:

- Monitor compliance and sufficiency of procedures for operations and maintenance
- Monitor operations to identify ineffective, inappropriate, or unimplemented safety risk mitigations
- Monitor effectiveness of mitigations implemented as a result of investigations of safety events and identification of causal factors
- Monitor information from safety reporting systems
- Document audit outcomes
- Collect and track safety data

### 4.2 Management of Change

The Transit Agencies will evaluate significant changes that occur within the agency for safety impacts. These changes will be discussed as part of the Transit Agency's safety committee activities and may include, but are not limited to:

- New procurements
- New buses, equipment, and/or facilities



- New or changed routes
- Other changes that might have a safety impact

If the change has a safety impact, risk associated with the change will be evaluated, treated, and documented following the processes outlined in the ASP. If the change does not have a safety impact, no further steps will be taken.

### 4.3 Continuous Improvement

The Transit Agencies will evaluate their SMS program periodically to identify areas of improvement. Evaluation of the SMS programs ensures that they effectively and efficiently allow the Transit Agency to meet safety objectives and performance targets. The Transit Agencies will use the data and information gathered while conducting safety performance monitoring to address any identified weaknesses in organizational structures, processes, and resources in a timely manner.

## **5 SAFETY PROMOTION**

The Transit Agencies use Safety Promotion to communicate and disseminate safety information to strengthen the safety culture. Safety promotion includes safety lessons learned, reporting systems, recommendations based on safety metrics, and safety training. The goal is to foster a positive safety culture where employees receive ongoing training and updates of safety progress; feel comfortable reporting safety issues or concerns; and understand why safety is important and how they impact safety.

### **5.1 Safety Communication & Culture**

The Transit Agencies will communicate safety messaging to employees, contractors and customers through placards, message boards, reader boards, social media communication, etc.

The Transit Agencies will communicate safety performance goals, objectives and targets to their employees and contractors. The Safety Management Policy Statement of this ODOT ASP will be communicated to all Transit Agency employees and contractors through multiple methods, including the methods outlined above.

The Transit Agencies are also responsible for communicating operational or maintenance safety hazards and their mitigations to their employees and contractors relevant to those employees' and contractors' roles and responsibilities. Additionally, the response to any hazard reported through the employee safety reporting program will be communicated to employees and contractors by the Transit Agency's CSO.

The Transit Agencies will review lessons learned from incidents, accidents and reported hazards and provide feedback to their employees and contractors regarding findings. This communication is an important step in letting employees know that they are important to the organization.

### **5.2 Competencies & Training**

The Transit Agencies will establish and implement a safety training program that includes refresher training, as appropriate, for all employees directly responsible for safety and will require compliant safety training programs from their contractors. The Accountable Executive and CSO will be adequately trained and demonstrate competence in safety management. The CSO will also establish and implement training at all levels of the organization to support SMS implementation. This training will be consistent with FTA requirements under the PTASP Final Rule, and the CSO will monitor and document training competencies for all employees.

The Transit Agencies maintain and document their training program, and monitor and document training competencies for all employees. Refer to the Transit Agency Addenda for agency-specific training program information.

### 5.3 Procurement Safety Program

Transit Agency procurement departments will evaluate all procurements for safety impacts and include safety-related procurement language and specification requirements, as applicable. All procurement recipients and contractors will demonstrate job-appropriate training and competencies that meet or exceed the requirements of the Transit Agency.

# **TRANSIT AGENCY ADDENDA**

These Transit Agency Addenda provide additional agency-specific information to supplement the ODOT ASP, including system descriptions, safety roles and responsibilities, employee safety reporting programs, integration with public safety and emergency management, safety performance targets, hazard identification and tracking, safety training programs, safety training programs, and safety-related agency documents, as applicable.

Each addendum and its contents applies only to the agency for which it is written and approved.

# Addendum 1

## City of Edmond

**NOT INCLUDED IN CITY OF NORMAN'S ASP**

# Addendum 2

## City of Norman

City of Norman  
201 W Gray St.  
Norman, OK 73069

## ASP and Addendum 2 Approvals

<b>Signature of the Accountable Executive</b>		
	Shawn O'Leary, Director of Public Works	Date Signed
<b>Signature of the Chief Safety Officer</b>		
	Taylor Johnson, Public Transit Coordinator	Date Signed
<b>Approval by the Board of Directors or an Equivalent Authority</b>	This Agency Safety Plan was approved by the City of Norman City Council.	
	Breea Clark, Mayor	Date Approved
	<i>NOTE: Attach approval documentation as an appendix to ASP Addenda (e.g., meeting minutes, approval resolution, etc.)</i>	
<b>Transit Sub Contractor Concurrence</b>		
	Jason Ferbrache, COTPA Administrator	Date Signed

### ASP and Addendum 2 Approvals

<b>Signature of the Accountable Executive</b>	 Shawn O'Leary, Director of Public Works	10/5/2020 Date Signed
<b>Signature of the Chief Safety Officer</b>	 Taylor Johnson, Public Transit Coordinator	10-5-20 Date Signed
<b>Approval by the Board of Directors or an Equivalent Authority</b>	This Agency Safety Plan was approved by the City of Norman City Council.  Brea Clark, Mayor	Date Approved  <i>NOTE: Attach approval documentation as an appendix to ASP Addenda (e.g., meeting minutes, approval resolution, etc.)</i>
<b>Transit Sub Contractor Concurrence</b>	 Jason Ferbrache, COTPA Administrator	10-2-2020 Date Signed



## System Description

The City of Norman provides its bus services through a transit sub contractor, currently Oklahoma City’s EMBARK. The two types of bus service provided by the City, fixed-route and paratransit, are described below. The bus service operates using 13 motor buses and 13 paratransit vehicles. Currently, the City of Norman transit service is operating fare-free. A fare analysis is planned as part of the City’s Long Range Plan Update, which anticipated to be completed by the end of fiscal year 2021.

### Fixed-Route Service (EMBARK Norman)

The City of Norman has seven fixed-route bus lines. Five local routes serve various destinations in the community. A commuter route to Oklahoma City is offered six times a day Monday through Friday. A route to the Moore Social Security Office is provided twice a week.

### Paratransit Service (EMBARK Plus)

Paratransit service complements the fixed-route transit system by providing lift-equipped transportation to people who are functionally unable to use local fixed-route service. The paratransit service provides shared-ride public transportation and requires an application and eligibility determination prior to use.

## Safety Roles & Responsibilities

Table 3 below describes the positions responsible for safety at the City of Norman and its transit sub contractor. The City will inform ODOT of changes to personnel listed in the matrix to allow for appropriate notifications related to safety responsibilities.

**Table 3. City of Norman Safety Roles & Responsibilities Matrix**

<b>Roles &amp; Responsibilities</b>	<b>Shawn O’Leary, Director of Public Works/ Accountable Executive</b>	<b>Taylor Johnson, Public Transit Coordinator/ Chief Safety Officer</b>	<b>Jason Ferbrache, COTPA Administrator /Transit Sub Contractor Executive</b>	<b>Brandon McClendon, Safety Manager</b>	<b>Key SMS Staff (Transit Safety Council)</b>
Safety Management Policy	A	P	S	S	
Safety Resource Allocation	P	S	S		
Safety Reporting & Follow-up		P	S		
Safety Performance Targets & Measurement	A	P	S		S
ASP Review & Update	A	P	S		
Hazard Identification & Mitigation		O	P		S
Safety Risk Management	A	P	S		S
Safety Assurance, Audits	A	P	S		S
Safety Assurance, Inspections		O	P		S

<b>Roles &amp; Responsibilities</b>	<b>Shawn O'Leary, Director of Public Works/ Accountable Executive</b>	<b>Taylor Johnson, Public Transit Coordinator/ Chief Safety Officer</b>	<b>Jason Ferbrache, COTPA Administrator /Transit Sub Contractor Executive</b>	<b>Brandon McClendon, Safety Manager</b>	<b>Key SMS Staff (Transit Safety Council)</b>
Accident Investigation		O	P	P	S
Safety Promotion, Communication		P	P	S	S
Safety Promotion, Training		O	P	S	S
SMS Implementation		P	S		S
<b>Key:</b> A = Approval. O = Oversight. P = Primary role. S = Secondary role/Support.					

The City of Norman’s Transit Safety Council meets monthly to review safety data, discuss safety-related topics, confirm that the contractor and City are collectively meeting safety objectives and goals, and determine course corrections, additions or improvements to the contractor’s SMS program. Safety topics include, but are not limited to, safety initiatives, hazards elevated through the safety risk management process, implementation of identified mitigations, safety audits, and employee-reported safety concerns. These meetings support SMS by informing and assuring the City of safety issues affecting the transit sub contractor and addressing safety issues assigned by executive management.

Additional safety coordination occurs at the transit sub contractor level where safety is incorporated into their other committees and activities to ensure that the system is operated and maintained in a safe manner.

### **Employee Safety Reporting Program**

The City of Norman requires its transit sub contractor to implement and maintain an employee safety reporting program that meets the requirements outlined in Section 2.2 of this ASP. The City will provide oversight to ensure the transit sub contractor is meeting these requirements by discussing their program at the regularly scheduled coordination meetings.

The City’s current transit sub contractor, EMBARK, has an employee safety reporting program that encourages all employees to self-report and report any safety issues, concerns, or hazards. The program includes an open-door policy, the ability to schedule a meeting to meet with a Human Resources representative, and an online portal for safety reporting that can be done anonymously. EMBARK uses unintentional safety violations reported through the program to inform future training and instruction in order to prevent their recurrence. EMBARK further ensures no action will be taken against any employee who discloses a safety concern unless disclosure indicates beyond reasonable doubt an illegal act, gross negligence, or a deliberate disregard of regulations or procedures.

## Integration with Public Safety and Emergency Management

The City of Norman Police Department manages the radio frequencies used by the City’s transit program and responds to incidents as necessary. The City of Norman conducts safety training annually to cover Emergency Management procedures. In addition, the Director of Public Works, who oversees the transit program, is a part of the Emergency Operations Committee when it is convened. The City of Norman is also collaborating with the Emergency Management Department to develop a plan for an integrated response to safety and security incidents and to hold training such as drills and exercises.

The City of Norman will provide oversight to ensure its transit sub contractor is participating in the coordination efforts described in Section 2.3 of this ASP.

## Safety Performance Targets

Table 4 below provides the City of Norman’s safety performance targets for the current year. These targets will be review annually and updated as necessary as part of the annual ODOT ASP review process.

**Table 4. City of Norman Safety Performance Targets (2020)**

Performance Measurement	Performance Target (2020)
Est. Annual Vehicle Revenue Miles (VRM)	500,000
No. of Fatalities	0
Rate of Fatalities per 100K VRM	0
Number of Injuries	1
Rate of Injuries per 100K VRM	0.2
Number of Safety Events	1
Rate of Safety Events per 100K VRM	0.2
Total Major Mechanical Failures	0
Miles Between Major Mechanical Failures (System Reliability)	N/A

## Hazard Identification & Tracking

The City of Norman’s Safety Manual establishes its hazard assessment process and policy. The City will audit and provide oversight to ensure its transit sub contractor is either applying the City’s hazard assessment process or is applying its own process that meets or exceeds that of the City. With either approach, the City requires that its transit sub contractor manages safety risk at a level acceptable to the City.

As such, the City of Norman requires its transit sub contractor to communicate where identified elevated risk could potentially impact the City. As the owner of the transit system’s safety risk, the City must review elevated risk and proposed mitigations. When mitigations are agreed upon by the City and transit sub contractor for identified hazards, mitigations are tracked through the safety assessment program to ensure all concerns raised have been addressed, mitigated, and implemented.

Refer to Policy 100-1 in the City of Norman Safety Manual, attached for reference, for a description of the City's risk assessment process.

## **Safety Training Program**

The City of Norman requires its employees and contractors with direct safety responsibilities to be adequately trained and demonstrate competency in the aspects of safety management applicable to their roles and responsibilities. The City's Safety Policy provides minimum safety requirements by job function for its employees and contractors. The City will provide oversight to ensure its transit sub contractor is implementing a safety training program that meets the requirements described in Section 5.2 of this ASP and in the City's Safety Policy. The City also requires the following:

- All operators are trained, certified or licensed to operate assigned vehicles and equipment, including both in-service and classroom training.
- Supervisors are appropriately trained in safety, accident prevention and investigation.

Refer to policy 001-3 in the City of Norman Safety Manual for the City's safety training policy and additional detail on safety training requirements.

## **Safety-Related Agency Documents**

The City of Norman and its transit sub contractor maintain the following safety-related documents:

- City of Norman Drug-Free Workplace Policy, 300-25 in Personnel Manual
- City of Norman Emergency Management Plan, 500-1, December 2015
- City of Norman Hazard Assessment Policy, Policy 100-1, November 2014
- City of Norman Safety Manual, August 2013, which includes the following:
  - City of Norman Safety Training Curriculum, Updated Continuously
  - City of Norman Security Policy, (No policy number) April 2019
  - City of Norman Vehicle Safety Policy, Policy 001-4, December 2018

## **Appendix 1: Documentation of City Council's Approval of ASP**

## **Appendix 2: City of Norman Safety Manual**



# City of Norman



# Safety Manual

August 2013

## TABLE OF CONTENTS

Policy Number	Topic
001-1	City of Norman Safety Policy
001-2	General Safety
001-3	Safety Training
001-4	Vehicle Operations and Accident Policy
100-1	Hazard Assessment
200-1	Personal Protective Equipment
300-1	Hazard Communications
400-1	Lab Safety Plan and Chemical Hygiene Plan
500-1	Emergency Management
600-1	Bloodborne Pathogens
600-2	Tuberculosis
600-3	First Aid
700-1	Confined Space Program
800-1	Cranes, chain hoists and tackle inspections
900-1	Hearing Conservation Program
1000-1	Hazardous Energy Isolation Procedures (Lock Out / Tag Out)
1100-1	Respiratory Protection Program
1200-1	Excavations /Trenching and Shoring Operations
1300-1	Traffic Safety



<b>EFFECTIVE DATE:</b> 6/30/03	<b>POLICY NUMBER:</b> 001-2	<b>POLICY TITLE:</b> General Safety Policy
<b>TOPICS:</b> General Safety Policy	<b>REFERENCE:</b> 29 CFR Part 1910 29 CFR Part 1926 40 OS Section 401-424 Hazard Assessment Policy 100-1	<b>NUMBER OF PAGES:</b> 3
<b>AUTHORIZED BY:</b> <b>BRANDON MCLENDON</b> Safety Manager	<b>SPECIAL INSTRUCTIONS</b>	<b>LAST REVIEW DATE:</b> 12/03/15

**PURPOSE:**

The purpose of this policy is to convey those general principals of safe working habits to the employees of the City of Norman that may not be specifically stated in policies because of their broad nature. It is also to satisfy the intent of the OSHA General Duty Clause (29 CFR 1910.5(a)1, Public Law 91-596), and the State of Oklahoma OSH Act of 1970 general duty clause (O.S. 40-403 A).

**POLICY:**

The City of Norman is committed to furnishing to each of its employees a place of employment which is free from recognized hazards that are causing or are likely to cause death or serious physical harm to it’s employees, commensurate with the Occupational Health and Safety Act of 1970. The City encourages employee involvement in the structure and operation of the Safety Program. The employees are empowered to commit their insight, education and energy to achieving the Safety Program’s goals and objectives without the fear of repercussion for their input.

Departmental Superintendents and Supervisors shall be responsible for ensuring that their employees work in conditions that comply with published standards and that their employees comply with the provisions of this policy.

**DEFINITIONS:**

Unsafe Condition – As defined in the texts contained in 29 CFR 1910 or 1926, and their interpretations as published in the Federal Record, other reliable source or interpreted by the State of Oklahoma, PEOSH Division.

29 CFR 1910 – OSHA General Industry Standards, as amended and current

29 CFR 1926 – OSHA Construction Industry Standards, as amended and current

## **PROCEDURE:**

1. Any employee who believes that they are working in unsafe conditions must immediately report the problem to their Supervisor. If the unsafe condition / situation is not changed to a safe condition/ situation within a reasonable amount of time, then the employee is to report the condition / situation to the Safety Manager. The Safety Manager must investigate the allegation of an unsafe condition using the Hazard Assessment Policy or other appropriate procedure and make known the findings of his/ her investigation to both the employee and the affected Supervisor.
2. The use of, or being under the influence of alcohol, illegal drugs and some prescription drugs while on the job is prohibited. Employees who use prescription medicine that is not prescribed for them are illegally using those prescription medicines. Persons using prescription drugs under a medical doctor's supervision, or are taking over the counter remedies that may impair their judgment or ability to operate machinery, must inform their Supervisor that they are taking that medication prior to operating equipment or engaging in work. This is emphatically the case when the medication container is marked *Do not operate machinery* or any other warning label that has a similar meaning. Confidentiality about taking the medication must be maintained between the Supervisor and the employee. If the prescribed medication causes the employee to be drowsy or act in a manner that causes the employee to be unsafe, then the Supervisor is to immediately restrict the employee from under taking any work activity that endangers him/ her or other employees. A hazard assessment of the situation (the employee under medication becomes the workplace hazard in this case) must be conducted and appropriate action taken to protect the employee, other employees, and the City of Norman from the workplace hazard.
3. No employee shall willfully remove, displace, damage, destroy or carry off any safety device or safeguard, furnished or provided for use in any employment or place of employment, or interfere in any way with the use thereof by any other person. (O.S. §40-404. Removal or damage of safeguards - Failure to obey safety orders.)
4. No employee or agent of employees shall interfere with the use of any method or process adopted for the protection of any employee in such employment or place of employment, or of any other person lawfully within such place of employment, or fail to follow and obey orders necessary to protect the life, health and safety of such employees and any other person lawfully within such place of employment. (§40-404. Removal or damage of safeguards - Failure to obey safety orders.) This is to include the failure to wear or use the appropriate, issued Personal Protective Equipment for the situation or failure to follow safety procedures such as Lockout –Tagout, Confined Space Entry or any City of Norman Safety Policy.
5. Any and all injuries, exposures, work-related illnesses, and near miss accidents are to be reported to the supervisor immediately using an official incident report form.

6. Smoking and food/drink is allowed only in designated areas. Smoking is prohibited in ignition-source areas.
7. Equipment shall not be operated unless all guards and safety devices are in place and in proper operating condition.
8. Defective tools and equipment shall not be used, and are to be taken out of service and reported to the Supervisor at once.
9. Maintenance and adjustments to equipment shall be made only when energy sources have been properly isolated. Only properly trained persons shall perform work on equipment.
10. Aisles, walkways, stairways, and exits shall be kept free of debris, storage or obstructions.
11. Good housekeeping shall be practiced at all times.
12. All Federal, State and City safety and health rules must be reasonably followed. Nonetheless, these standards are not the terminal objective. The terminal objective of the Safety Program is to prevent illnesses and injuries, whether or not compliance is at issue.
13. The City shall permit only those employees qualified by training or experience to operate equipment of machinery. Therefore training on equipment is required prior to unsupervised operation. (CFR 29 1926.21 (b) (4))
14. Horseplay, practical jokes and the like are prohibited on the job site.

Violations of Safety rules are subject to the progressive disciplinary policy and will result in the appropriate disciplinary action taken to correct unsafe behaviors. Examples of these violations are, but are not limited to: failure or refusal to comply with safety procedures/ policies, deliberate misuse of City owned equipment, repeatedly operating equipment or motor vehicles in an unsafe manner, etc. (per O.S. 40-404, or CFR 1926.28 (a) as appropriate).

The Safety Manager shall be responsible for overseeing the general safety training for City of Norman employees. He/ she will provide training materials to the Departmental Supervisors or Safety Observers for their use or provide the training as determined appropriate.

**CITY OF NORMAN****SAFETY MANUAL**

<b>EFFECTIVE DATE:</b>  6/30/03	<b>POLICY NUMBER:</b>  001-3	<b>POLICY TITLE:</b>  Safety Training
<b>TOPICS:</b> Safety Training Safety Committees	<b>REFERENCE:</b> 29CFR 1926 29CFR 1910 O.S. 40 § 40-403 etc.	<b>NUMBER OF PAGES:</b>  3
<b>AUTHORIZED BY:</b> Brandon McLendon Safety Manager	<b>SPECIAL INSTRUCTIONS</b>	<b>LAST REVIEW DATE:</b> 12/03/15

**PURPOSE:**

It is the purpose of this policy and of the City of Norman to prevent injury or death to employees caused by a lack of pertinent training. It is also the purpose to comply with the OSHA standard and applicable Oklahoma State Law.

**POLICY:**

No employee of the City of Norman may operate any machinery, chemical system, apply any compound or participate in a process without prior training. In addition they may not participate in any technical activities such as Confined Space Entry, Trenching and Shoring or Lock Out/ Tag Out procedures or working on pressure piping, electrical wiring, applying herbicides/ pesticides or other potentially hazardous activities without documented training. Training is also to be given whenever the employee is assigned new work tasks, tools, equipment, machines or vehicles, and/ or whenever an employee demonstrates unsafe job performance. The training does not have to be formal in every case, but it must be formally documented. Using relevant experience as current training is discouraged but not prohibited. If the Supervisor relies on training conducted prior to the employee's hiring or completed prior to the effective date of this section, the certification record shall indicate the date the employer determined the prior training was adequate. Training, as applicable to this policy, is always given at no cost to the employee.

All employees must receive a Safety Orientation Brief prior to starting the duties of the position for which they were hired on their initial day of work. Temporary/ Seasonal employees can be given the orientation by the work center Supervisor, but a record of the content of the training, signed by the employee and the orientation presenter must be given to the Safety Manager.

Per O.S. 40 §403(E) the City is to ensure that quarterly safety classes are conducted for all employees and documentation of attendance is retained on file for review. Divisions may choose to hold monthly safety meetings to comply with this requirement. The Division Superintendent/ Manager / Coordinator / Supervisor is to ensure that meetings are scheduled and that the topics are applicable to the Division's tasking, that the quality of the classes or meetings ensures that the attendees are trained to avoid illness or injury, and that those mandated topics (Bloodborne Pathogens, Hazard Communications, etc.), are presented to the Division's employees. A matrix of required training is included in this document.

The work center Supervisor is also to ensure that those activities that require State or Federal licensing (Pesticide / Herbicide, CDL, Waste Water and Water Licenses etc.) are current and appropriate to the level of tasking for each of their employees.

**DEFINITIONS:** Work Center Supervisor – the Superintendent-Supervisor-Coordinator-Manager, (as appropriate) who is responsible for a budgetary unit of the City of Norman. This is normally the person who annually evaluates the individual performance for employees in a defined budget unit.

**PROCEDURE:**

Content of Training

At a minimum, training shall consist of the following elements:

- ❑ Safe performance of assigned work tasks;
- ❑ Safe use, operation and maintenance of tools, machines and vehicles the employee uses or operates, including emphasis on understanding and following the manufacturer's operating and maintenance instructions, warnings, and precautions.
- ❑ Recognition of safety and health hazards associated with the employee's specific work tasks, including the use of measures and work practices to prevent or control those hazards.
- ❑ Recognition, prevention, and control of other related safety and health hazards.
- ❑ Procedures, practices, and requirements of the employer's work site.

The training of an employee due to unsafe job performance or assignment of new work tasks, tools, equipment, machines, or vehicles, may be limited to those mentioned above which are relevant to the circumstances giving rise to the need for training.

Prior or Related Experience and the need for additional training

- ❑ Each current employee who has received training in the particular elements specified in the “Content of Training” section shall not be required to be retrained in those elements.
- ❑ Each new employee who has received training in the particular elements specified in the “Content of Training” section shall not be required to be retrained in those elements prior to initial assignment.
- ❑ The work center Supervisor shall train each current and new employee in those elements for which the employee has not received training.
- ❑ The work center Supervisor is responsible for ensuring that each current and new employee can properly and safely perform the work tasks and operate the tools, equipment, machines, and vehicles used in their job.
- ❑ Each new employee and each employee who requires training as specified in the “Content of Training” section shall work under the close supervision of a designated, experienced person until the employee demonstrates to the work center Supervisor the ability to safely perform their new duties independently.

First-aid Training – Not mandatory but strongly encouraged

The work center Supervisor shall assure that each employee, particularly lead workers, receives or has received first-aid and CPR training.

The work center Supervisor shall assure that each employee's first-aid and CPR training and/or certificate of training remain current.

Presentation of Employee Training

<b>Job functions that require formal training programs</b>		
<b>Job Function</b>	<b>Required Training</b>	<b>How often</b>
Employees who may be reasonably anticipated to come into contact with blood or other potentially infectious material during the normal performance of their duties.	Blood borne pathogens	Annual
Employees who are required to wear respiratory protection by the MSDS sheets and /or product label for the substance to which they may be exposed.	Respirator Training and Fit test	Annual
Employees working in areas where portable fire extinguishers are available for emergency use.	Fire Safety / Fire Prevention	Annual
Non-laboratory employees who may be exposed to chemical substances	Hazard Communications	Annual
Laboratory employees who may be exposed to hazardous chemicals while performing their duties	Laboratory Safety	Annual
Employees who enter confined spaces	Confined Space Entry	3 yrs
Employees who participate in excavation operations	Trenching and Shoring	3 yrs
Employees who must isolate hazardous energy to repair or maintain equipment or facilities.	Lock out / Tag out	Annual
Employees who operate powered industrial trucks	Forklift Operator	3 yrs
Equipment Operators	As determined by the operating manual to be safe operation	Initial use and as necessary thereafter

The work center Supervisor shall assure that all training required by this section is presented in a manner that the employee is able to understand. The employer shall assure that all training materials used are appropriate in content and vocabulary to the educational level, literacy, and language skills of the employees being trained.

## VEHICLE SAFETY POLICY

<b>EFFECTIVE DATE</b>	<b>POLICY NUMBER</b>	<b>POLICY TITLE</b>
1/1/16	001-4	Vehicle Safety Policy
<b>TOPICS</b> Operation of City Vehicles and Equipment Vehicle Accidents Accident Investigations Accident Review Boards	<b>REFERENCE</b> City of Norman Personnel Manual  AFSCME Contract	<b>NUMBER OF PAGES</b>   8
<b>POLICY CONTACT</b>  Brandon McLendon Safety Manager	<b>LOCATION OF DOCUMENT</b>  <b>PUBLIC DRIVE:</b> Safety Manual\Updated Safety Policies\CON Vehicle Safety Policy	<b>LAST REVIEW DATE</b>  1/1/16

### **PURPOSE**

The purpose of this policy is to promote safe driving practices and prevent vehicle and equipment accidents while ensuring all vehicles are maintained and in proper operating condition. This objective will be accomplished by ensuring that all operators are trained, certified, or licensed to operate assigned vehicles and equipment. Investigations will be performed whenever there is a vehicle or an equipment accident to help determine the root cause of the accident which is essential to accident prevention.

### **POLICY**

Employees are expected to operate vehicles and equipment in a safe and courteous manner within accordance to City policy. It is the responsibility of the City of Norman to provide a safe working environment that protects our employees and our citizens from injury and property loss. The City considers the use of vehicles and any driver-operated equipment as part of the working environment. The City is committed to safe responsible employee driving behavior that helps minimize the risk of personal injury and property loss.

This Vehicle Safety Policy applies to all employees (except commissioned Police personnel). Department Directors, with the approval of the City Manager, may issue other policies governing the use of the vehicles and equipment which are assigned to their respective divisions.

This Vehicle Safety Policy serves as the uniform best practice standard governing the responsibility of operating City of Norman vehicles and equipment within the scope of employment. Failure to comply with this policy shall lead to disciplinary action in accordance with the City Personnel Manual and/or the applicable collective bargaining agreement.

## **Definitions**

- Vehicle – Any passenger vehicle
- Equipment – Any driver operated equipment, i.e. backhoe, front-end loader, tractor, etc.
- Accident – The unintended collision of a City vehicle or City equipment with another, a stationary object, or person, resulting in injuries, death, and/or loss of property
- Vehicle & Equipment Damage – Any significant damage not resulting from an accident

## **RESPONSIBILITIES**

### **I. DEPARTMENT DIRECTORS**

Department Directors have the responsibility to implement the adopted Vehicle Safety Policy and overall safety program by:

1. Directing all supervisors and employees to endorse and comply with the adopted policy and program components.
2. Providing appropriate safety and financial resources.
3. Providing support and interest in the vehicle safety program.

### **II. SUPERVISORY PERSONNEL**

All supervisory personnel have the responsibility to:

1. Provide and/or arrange training for employees to become qualified to drive and maintain vehicles and equipment.
2. Enforce the established Vehicle Safety Policy's driving work rules, procedures, policies and best practices.
3. Report all vehicle accidents and equipment damage while making recommendations to avoid future occurrences.
4. Correct, or have corrected promptly, unsafe conditions which have come to their attention.
5. Welcome and utilize, as far as practical, the safety suggestions which may be made by the employees.
6. Thoroughly instruct new personnel on safety and carefully observe them at their work.
7. Take part in work place safety program activities and contribute to their success.

### **III. EMPLOYEES**

Employees have the responsibility to:

1. Adhere to directives and procedures of the Vehicle Safety Policy and overall vehicle safety program.
2. Become properly trained, licensed, or certified to operate assigned vehicles and equipment.
3. Maintain a satisfactory driving record both on and off the job.



4. Participate with in-service training and apply education and training to the safe operation of assigned vehicle(s) and equipment.
5. Report any change in driver's license status within twenty-four (24) hours to the supervisor, Department Director or Safety Manager.
6. Report any unsafe conditions and mechanical defects concerning vehicle(s) or equipment to supervisor immediately. Employees should never operate any vehicle or equipment if they are in an unsafe condition.
7. Report all accidents to supervisor immediately and then complete the Vehicle Accident/Damage Report accurately and concisely.
8. Report all equipment damage to supervisor immediately.
9. Obey all Federal DOT, Oklahoma DOT, local and City of Norman traffic regulations.
10. Request information and instructions on the proper operating procedures from immediate supervisor if unfamiliar with any operation or maintenance of a vehicle or piece of equipment.

#### IV. SAFETY MANAGER

The Safety Manager has the responsibility to:

1. Provide appropriate safety, accident prevention and investigation training for supervisors.
2. Assist supervisors and superintendents in investigating accidents while gathering data and verifying findings to determine if accident is chargeable/non-chargeable which will then make recommendations to department.
3. Track accidents and analyzes data to help mitigate reoccurrence and improve working conditions.
4. Implement programs to improve accident statistics.

### **DRIVING LICENSE REQUIREMENTS**

As a condition of initial and continued employment, all City employees who operate City vehicles and equipment are required to have a current and valid Oklahoma driver's license with all appropriate endorsements as described in their classification specification. Upon request, employees will be required to submit evidence of the validity of their driver's license. The City reserves the right to prohibit any employee with, but not limited to, an unsatisfactory driving record from operating City-owned vehicles or equipment.

### **PROCEDURES**

#### **Operation of City Vehicles and Equipment**

1. Employees are responsible for the safe operation of vehicles, towed trailers, and equipment assigned to them.
2. Employees must be properly trained, certified, or licensed to operate the class of vehicles or equipment they will be using.
3. Employees must obey all traffic laws and follow work area policies and procedures.

4. Employees should always be courteous and attentive while operating City-owned vehicles and equipment.
5. Employees must conduct required pre-trip and post-trip inspections and preventative maintenance on assigned vehicles and equipment.
6. Employees must thoroughly complete all vehicle-related inspections and maintenance forms and adhere to Fleet Management's recommendations regarding service, maintenance and inspection.
7. Employees must keep vehicle and equipment interiors clean and free from trash. Also, exterior will be cleaned as needed.
8. Employees must wear seat belts, shoulder harnesses, and all safety devices appropriately while driving or riding in a City-owned vehicle or operating equipment.
9. Employees should learn and utilize defensive driving techniques.
10. Employees who are passengers in a City-owned vehicle are responsible for assisting as a spotter for the driver during all backing operations. If a backing accident occurs, the employee responsible for assisting the driver may receive disciplinary action under the City's progressive discipline policy depending on the circumstances involved.
11. Whenever a vehicle or heavy equipment is being fueled:
  - a. The engine shall be in the OFF position
  - b. Smoking is prohibited
  - c. Driver/operator must remain with vehicle/equipment at all times
  - d. Fuel leaks and/or spills shall be immediately reported to Fleet personnel
12. Employees must remove ignition keys when a City vehicle or piece of equipment is parked or vacated unless parked in an enclosed garage.

### **Prohibited or Inappropriate Use of City Vehicles and Equipment**

1. City-owned vehicles shall only be used for official travel while conducting City business or services. Limited, infrequent personal use of a City vehicle may be permitted by the Department Director or his designee in order to satisfy authorized on-call requirements or when such use is incidental to the conducting of official business.
2. Using a City vehicle for personal errands or appointments, unless approved by supervisor.
3. Permitting a passenger to ride in the vehicle, unless the person is a City employee or a person being transported in association with City business.
4. Possessing and/or ingesting alcoholic beverages or other drugs prohibited by the Department of Transportation during working hours while in City vehicles or on City premises.
5. Smoking in City vehicles or equipment. This includes all electronic smoking devices.
6. Using data services on cell phones, such as texting or accessing the web or other distracting activities, while driving. Under no circumstances are employees allowed to place themselves or others at risk to fulfill business needs.
7. Using any hand-held mobile device when operating a commercial motor vehicle (CMV).
8. Tampering, over-riding, or disconnecting any manufactured installed safety features or devices.
9. Engaging in improper or other unsafe acts while driving a City vehicle or operating equipment.

## **Reporting Vehicle and Equipment Accidents**

1. The driver must immediately notify his/her supervisor, who in turn must immediately notify the police (if applicable), and then inform the Safety Manager. The driver should provide the physical address and directions from the nearest intersection and give an accurate account (or as much as possible) of what occurred. Vehicles and/or equipment must not be moved from the location where an accident occurred until instructed to do so by a police officer or immediate supervisor. *An exception to this is where the accident poses a hazard to traffic, greatly impedes traffic flow, may cause additional accidents, or the damage is minor (i.e. bumping mirrors, damaging mailboxes).*
2. At all times drivers are to be courteous, give their name, address, license information and acknowledge they are an employee of the City of Norman. Never admit guilt or responsibility for the accident, and do not blame the other driver involved in the accident. Provide open and honest representation of the accident circumstances to the investigating officer when asked to do so. Do not volunteer information to the other driver. If contacted by the citizen's attorney or their insurance carrier, refer them to the City's Legal Department.
3. The Safety Manager will photograph the accident, record information and collect statements from all parties. It will be left to the discretion of the investigating police officer as to whether or not a citation will be issued to the respective City driver. The Safety Manager and/or supervisor will not influence the officer's citation issuing decision in any manner.
4. All fines and other criminal penalties, due to violation of the law by the driver, are the personal responsibility of the driver. These costs are not reimbursable by the City and must be paid promptly by the driver.
5. As soon as possible, the employee must submit a completed Vehicle Accident/Damage Report to their supervisor.
6. If the accident is minor with no injuries or tickets issued, the employee's supervisor may take all necessary steps to document the accident and, including photographs, and forward that information along with the Vehicle Accident/Damage Report to the Safety Manager.
7. Any employee who knowingly submits a false vehicle Vehicle Accident/Damage Report or gives a false statement to police officers, supervisors, etc. about the circumstances or facts concerning a vehicle accident will be subject to discipline up to and including termination.
8. Any employee who fails to report a vehicle or equipment accident to their supervisor, or a supervisor's failure to report the same to the Safety Manager will be disciplined at the discretion of his/her supervisor and/or Department Director.

## **Post- Accident/Injury Procedures**

An injured employee will be transported to the City's medical provider if the injury is not severe or life-threatening. Major injuries will be transported via ambulance to the nearest Emergency Room for treatment. Employees, if capable of doing so, are encouraged to render aid to others who may be injured.

The employee shall be taken for drug and alcohol screening procedures if any of the following occur:

1. A traffic citation is issued to the City driver.
2. The City vehicle sustains considerable damage.
3. Any vehicle is towed from the scene of the accident.
4. Medical treatment is required away from the accident scene at a medical facility.
5. Any reasonable suspicion the City employee is intoxicated or under the influence of drugs.

The employee's supervisor must notify Fleet Management within twenty-four (24) hours of the accident to schedule a damage assessment and estimate. The estimate to repair the City vehicle and any other damage caused by the accident will be presented to the Safety Manager as one of the measures of the severity of the accident.

### **Accident Review Procedures**

Upon notification of an accident, the Safety Manager will determine the investigative means by which the accident will be reviewed and determine if an accident review is necessary. If a meeting is deemed necessary, the Safety Manager will notify the employee, the employee's supervisor and any witnesses at least three (3) days in advance of the meeting, but no later than ten (10) business days from the accident date. The Safety Manager may review more than one accident case during the same meeting and will assess if any vehicles, procedures, or situations may have contributed to the cause of the accident and then make recommendations to the appropriate Department Director for changes.

To make the determination of chargeable or non-chargeable, the Safety Manager will review his/her initial investigative report, the Vehicle Accident/Damage Report completed by the driver of the vehicle and other pertinent information (if applicable) such as the official Oklahoma Traffic Collision Report (DPS; 0192-01), witness statements, physical evidence, circumstances of the accident, the cost to repair all damage(s), and the employee's past driving record. The accident will be deemed chargeable if the employee caused or contributed to the cause of the accident resulting in damage to vehicles, property, or resulting in personal injury.

Once the fact finding segment of the meeting is completed, the Safety Manager will make a determination and finalize a recommendation to the appropriate Department Director. Recommendations may range from no action needed to disciplinary recommendations. Upon receipt of the Safety Manager's recommendation, the Department Director will respond in writing within ten (10) working days to the employee and the Safety Manager. Discipline is to follow the progressive discipline policy as outlined in referenced sections of the Vehicle Safety Policy concerning the following outcomes:

1. Causing damage while willfully disobeying traffic laws or signs, i.e. excessive speed, passing through an intersection on a red light, failure to stop at a stop sign, endangering the safety of fellow employees or citizens, etc.
2. Operating a vehicle while intoxicated or impaired.
3. When the total cost for repairs resulting from the accident exceeds \$10,000.00.
4. When the employee's driving record indicates numerous vehicle accidents over their time of employment.
5. When persons involved in accident must be transported to a hospital for medical care.
6. Any flagrant misuse of City vehicles or equipment that caused an accident to occur.

### **Reporting Vehicle/Equipment Damage (not involving an accident)**

1. Driver must immediately notify supervisor.
2. The supervisor will photograph the damage and record information and statements from the employee.
3. The employee's supervisor must notify Fleet Management within twenty-four (24) hours from when the damage occurred, or was reported, and then schedule a damage assessment to estimate the cost of repairs to be made as a result of damage. The estimate to repair the damage will be forwarded to the supervisor for use as one of the measures to determine if discipline is warranted.
4. Any employee, who willingly submits a false statement concerning the cause of damage, or the circumstances or facts concerning the damage, will be disciplined up to and including termination.
5. Any employee who fails to report damage to their supervisor may be disciplined. A supervisor's failure to document the damage and determine if discipline action is appropriate will be disciplined at the discretion of their supervisor and/or Department Director.

### **Off Duty DUI Procedures**

1. Within twenty-four (24) hours or the employee's next day at work following a DUI, the employee must report the incident to his/her supervisor.
2. The supervisor must immediately inform the Safety Manager and send a copy of the employee's temporary license for inclusion in the employee's driving record.
3. The Safety Manager will investigate the circumstances, review the employee's current driving record, and advise the employee's Department Director regarding the status of the employee's license. The employee is responsible for submitting any subsequent temporary license(s) issued by the ODPS to his/her supervisor and/or Safety Manager.
4. A hearing will be scheduled by the Safety Manager and attended by the employee, his/her supervisor, and Department Director to review the ODPS administrative action.
5. If the employee retains his/her driving privileges, he/she will be offered an opportunity to participate in the Employee Assistance Program (EAP) for an evaluation and, if warranted, treatment options. The employee is not required to seek treatment.

6. If the employee's driving privilege is suspended, the affected employee will be placed on leave and their job status will be evaluated based on the requirements of the job as described in the applicable class specification. If the class specification requires the employee to possess a current driver's license, or CDL, plus endorsements, the employee must have the appropriate license plus all applicable endorsements to retain their position. A hearing will be scheduled for an employee who loses or has their driving privileges suspended in order to allow the employee to apply for other open position(s) which do not require a driver's license or CDL.

**CITY OF NORMAN****SAFETY MANUAL**

<b>EFFECTIVE DATE:</b> 6/30/03	<b>POLICY NUMBER:</b> 100-1	<b>POLICY TITLE:</b> Hazard Assessment Policy
<b>TOPICS:</b> Hazard Assessment and mitigation procedure	<b>REFERENCE:</b> 29CFR 1910 29 CFR 1926, Sub. C 40 OS Section 401-424	<b>NUMBER OF PAGES:</b> 8
<b>AUTHORIZED BY:</b> Brandon McLendon Safety Manager	<b>SPECIAL INSTRUCTIONS</b>	<b>LAST REVIEW DATE:</b> 12/03/15

**PURPOSE:**

The purpose of this policy is to formalize the method for assessing and minimizing/ mitigating work hazards in the workplace. It is also to satisfy the intent of the OSHA General Duty Clause (29 CFR 1910.5 (a) 1, Public Law 91-596) and the State of Oklahoma OSH Act of 1970 general duty clause (o.s. 40-403 A).

**POLICY:**

The City of Norman is committed to furnishing each of its employees a place of employment that is reasonably free from recognized hazards that are causing or are likely to cause death, injury, illness or other serious physical harm to its employees, commensurate with the Occupational Health and Safety Act of 1970. It is this policy that provides the formats for assessing the likeliness or risk of the action or activity. The safety of the individual employee is a higher priority than production quotas or scheduled completion dates. Nonetheless, it is understood that some occupations have inherent risks that cannot be entirely mitigated, but these risks can be recognized and reduced to have a minimum impact on the employee's health and safety. The City requires that all employees are involved in the hazard assessment of their workplace. Employees are empowered to commit their insight, education, and energy to reducing workplace hazards without the fear of repercussion for their input.

This policy is based on a positive management methodology, not on an immediate action management basis. This is to allow managers to prudently allocate assets for minimizing/ mitigating the workplace hazard in a responsible manner, with respect to budgetary constraints and timeliness. Those hazards that can be immediately minimized or mitigated must be immediately addressed. This includes employee behavioral hazards, indifference and lack of formal training on the risks of the activity.

The priority for minimizing / mitigating workplace hazards is:

1. Housekeeping or improving storage methods
2. Training and informing the employee of the correct procedure.
3. Engineering Controls to remove the hazard with machine guarding, substitution of materials etc.
4. Administrative Controls to rotate tasks or requiring specific procedures/ practices through written policies, regulations, or through positive discipline.
5. Personal Protective Equipment.

## **DEFINITIONS:**

Contributing Factor – Weather, fatigue, age of equipment, worker’s experience etc.

Hazard Assessment – Analyzing worksites, tasks and other work related activities to determine the amount of risk taken to accomplish the task etc.

Hazard Contributor - How many employees have been injured in this process / procedure, or with this piece of equipment?

Hazard minimization / mitigation – Using the results of the Hazard Assessment to reduce or remove the source of the risk to the employee or machinery involved.

Immediate Action Management – Taking action to immediately change the activity without regard to workload, financial or behavioral restraints.

Positive Management – Planned change of action over the shortest time duration, with regard to workload, financial or behavioral restraints. Managing actions in a responsible manner to honor previous commitments and use available resources in a manner that will minimize / mitigate risk without undue turmoil to schedules, financial responsibilities or public duty while placing a high priority on minimizing/mitigating that risk.

Risk – A dangerous element or factor, the possibility of loss or injury.

Risk Assessment – A method of deriving a numerical value for the amount of risk taken versus the amount of possible injury or damage that may occur.

Severity – How much physical discomfort or hardship does the injury cause to the employee, or how much did the damage impair the operation of the equipment. e.g. – death or permanent disability is more severe than a cut finger that requires first aid.

Frequency – How often does this same injury / damage occur.

29 CFR 1910 – OSHA General Industry Standards, as amended and current

29 CFR 1926 – OSHA Construction Industry Standards, as amended and current

## **PROCEDURE:**

Departmental Superintendents and Supervisors shall be responsible for ensuring that their employees work in conditions that comply with the published standards in 29 CFR 1910 and 1926. They shall also be responsible for ensuring that their employees perform with safe work habits and that their employees comply with the provisions of this policy.

The Safety Manager is responsible for conducting regular building and worksite inspections to determine the cause and suggest cures for workplace hazards. He /she is to submit a report of the inspection findings to the pertinent Division Head and Department Head citing the hazard and the citation of the appropriate OSHA regulation that speaks to the condition /activity and a suggestion on how to minimize / mitigate the condition/ hazard.



Hazard assessment is accomplished in two distinct manners. It is a proactive method of looking at each project, task, employee job class or individual and assessing each activity in the process to understand where the risks of injury can be reduced or eliminated. It can be to look at the activities of each employee and assessing each activity that he/ she undertakes to understand where the risks of injury can be reduced or eliminated.

Assessing projects for risks is part of the Project Management Process, but it is too broad a process to specifically indicate the risk for each task for each employee in construction activities on large projects. More specific tasks like spraying herbicide to control vegetation on the public right-of-way, or chlorinating new water lines can be assessed and the risks specifically identified. These reoccurring tasks must be formally assessed. Those assessments included in standardized procedures must be specific to those tasks.

## **DISCUSSION:**

### Risk Assessment

Using a Risk Assessment Matrix (page 4 of this policy) provides employees with an empirical method of determining whether an activity, an action or a tool is too risky to safely use. It can also be used to assess the safety activities of individual employees' work behaviors.

For example, if an employee habitually has more than two vehicular accidents in a year that cause significant property damage, they can be classified using the definitions below to be in an A-II category which is in the EXTREME hazard probability range. The same can be said for a machine on which two or more employees suffer an injury that impairs them (like an amputation or disfigurement) each year. As such, the machine is an A-II category and an EXTREME Hazard.

The optimal range for operation is the Low Hazard Probability. Operations should be conducted in this range if at all possible. At times, some projects contain risk(s) that may force the assessor to evaluate a project or situation as a Medium Hazard Probability. Managers should try to limit operations in this category at no greater rate than 10-15% of their total annual operational man-hours. Because of the nature of municipal service, some undertakings that can be classified in the Extremely High and High, risk categories still must be undertaken. Activities of this nature are: Snow Removal, Cleaning Storm Drains during storms, repairing waterlines in areas where they cross streets, refuse collection etc. This matrix is then used to inform the employees of the risks assessed for these activities, how to reduce the risks as much as possible, and how to continue to do the task with a heightened state of employee awareness. Some of the reductions to the risk are conducting the operation at a pace commensurate with conditions, improving methods of communication, correctly placing traffic control devices around the area, and so on.

The risk assessment matrix can also be used in operations planning and decision making. Assess the risks of each task and ensure that any risks above the Medium category are fully assessed to be sure that an alternate method is not available. At times the alternate method is more expensive, either in time or materials. Nevertheless, these additional costs are quickly overshadowed by the costs of injuries or property damage. The default decision must provide for the safest, most effective method of conducting the task.

Other methods for assessing the risk of an operation and for assessing the risk of each position's job duties and individual assignments are included after the Matrix. No one method is innately superior to the next; the superior method is the one that best describes the amount of risk to which an employee is exposed, and how that employee can reduce or mitigate that risk.

**Risk Assessment Matrix**

		HAZARD PROBABILITY				
		Frequently	Likely	Occasionally	Seldom	Unlikely
EFFECT		A	B	C	D	E
Catastrophic	I	Extreme	Extreme	High	High	Medium
Critical	II	Extreme	High	High	Medium	Low
Moderate	III	High	Medium	Medium	Low	Low
Negligible	IV	Medium	Low	Low	Low	Low

**Effect**

Catastrophic (I) – Death, Permanent Total Disability, System Loss, Major Property damage

Critical (II) – Permanent Partial Disability, Temporary Total Disability in excess of three months duration, major system damage, Significant Property Damage.

Moderate (III) – Minor Injury, Lost Workday Accident, Compensable Accident, Minor System Damage, Minor Property Damage.

Negligible (IV) – First Aid or minor supportive medical treatment, minor system impairment

**Hazard Probability**

Frequently (A) – Occurs once every six months or more, occurs continuously during service life, many employees are exposed or injured

Likely (B) – Occurs once per year or several times during service life, affects more than one employee with injury or exposure

Occasional (C) – Occurs on an irregular basis – less frequent than once per year

Seldom (D) – Occurs infrequently but has occurred

Unlikely (E) – Can assume that it will not occur

**Risk Levels**

- Extremely High Risk – Loss of the ability to accomplish the assigned task
- High Risk – Significantly degrades the ability to accomplish the assigned task
- Medium Risk – Degrades the ability to accomplish the assigned task
- Low Risk – Little or no impact on accomplishing the assigned task.

(Risk Assessment Matrix and Definitions developed by the 95<sup>th</sup> Division (IT), USAR as regulation # 385-1)

**Procedure for assessing the general risk on a worksite –**

Using the OK-200 and OK-300 logs for as many years as available and any other pertinent data, determine the specific cause(s) for each incident. Then determine the number of times that the operation was conducted, the more times the operation was conducted, the more accurate the calculation will be. Keeping each cause separate; count the number of injuries and divide the count by the number of times that the activity was conducted. Convert the resulting number to a percentage by multiplying it by 100. For example, if your work area sustained five smashed finger injuries while operating a hammer 2,000 times, the formula for finding the risk is  $(5 \div 2000) \times 100 = 0.25\%$  or  $\frac{1}{4}$  of one percent chance of smashing a finger every time that task (hammering) is conducted.

A comparison scale for assessing the Risk Level for this type of calculation is:

- 80% – 100% Extremely High Risk
- 79% - 50% High Risk
- 49% - 20% Medium Risk
- 19% or less Low Risk

In the finger-smashing example above, the risk level of  $\frac{1}{4}$  of one percent was derived. This value falls in the Low Risk Level, but it still exists as a hazard. It is particularly existent if you are the employee who smashed his/ her finger with the hammer. Reducing this low level of risk is possible, but the infrequency and lack of the injury’s severity cause it to be not cost effective to mitigate. If it were one death (extremely high severity) instead of one smashed finger, the activity’s risk must be mitigated.

Procedure for assessing risk on projects-

List each activity on a project and determine the hazards for each step and the recommended control for that hazard.

**ACTIVITY HAZARD ANALYSIS**

<b>Pump Replacement in Sewage Lift Station Vault</b>		
<b>Principal Steps</b>	<b>Hazards</b>	<b>Recommended Controls</b>
Control of work area	Slip / trip/ fall exposure to inhalation of hazardous gasses or fire and explosion hazard	Barricade work area to protect members of the public
Isolation of lift station vault	Electrical shock / fire / explosion hazard	Deenergize / lock out circuit breaker at pole
Open vault lid, prepare for permit-required confined entry (Note: contractors must comply as well)	Back Strain, exposure to hazardous gas, fire and explosion hazard	Use mechanical device to lift the lid , use team lifting, test for Oxygen content, flammable gasses, CO, H2S, set up rescue equipment & ventilate space

Procedure for assessing risk of a class of employees -

Using a job specification or an inventory of activities specific to that employee, list the activities that the employee is expected to accomplish. Then take the hazard associated with that activity and list it beside the activity. As with the previous example, list the control for that hazard in the right hand column.

**ACTIVITY HAZARD ANALYSIS**

MW II (Street Maintenance Division)		
<b>Principal Tasks</b>	<b>Hazards</b>	<b>Recommended Controls</b>
Operates Jack Hammer	Chips of concrete flying Noise in excess of 85 db, pulsating Vibration to hands, Repetitive Injury Back Injury from pulling Jackhammer Working near moving traffic	Eye Protection Ear Protection, earmuffs Vibration Gloves Back Belt Traffic Control Devices, Safety Vests
Places Concrete	Puncture injury from nails, wood splinters Skin Irritation (Concrete Poisoning)	Leather palmed gloves Kneepads
Builds Concrete Forms	Power tool injuries  Puncture injury from nails, wood splinters	Formal Training in the use of each power tool  Leather Palmed Gloves

And so on until each classification can understand what the hazards are and how to reduce or mitigate the hazard.

When Personal Protective Equipment (PPE) is the recommended control for the hazard, then the Supervisor must issue the PPE and train the employee in its use. Refer to the pertinent section in the Safety Manual for the correct procedure for each type of PPE.

Procedure for assessing risk of an individual employee -

Using the same analysis method as shown above, each employee is to formulate a risk assessment of his or her particular position. They are to confer with their Supervisor about the use of controls, particularly the use of PPE. This type of assessment includes clerical, supervisory and managerial employees as well as field operations employees. This is done to account for repetitive stress injuries, slips-trips-and-falls as well as exposures to some chemical compounds.

## ACTIVITY HAZARD ANALYSIS

--	--	--

Conducted By

Date

Department / Division

--

For which project, activity, employee class, individual, machine etc.

<b>ACTIVITY, TASK, STEP</b>	<b>HAZARD</b>	<b>RECOMMENDED CONTROL</b>

# Certification of Hazard Assessment

The workplace has been assessed for hazards which may be reduced through the use of selected Personal Protective Equipment. This assessment is in accordance with 29 CFR 1910.132 and its related standards 29 CFR 1910.133 thru 1910.140. The attached survey form(s) serve as detail supporting the analysis as to the individual work area and possible hazards associated with each function,

DIVISION OR SECTION SURVEYED \_\_\_\_\_

SURVEYED BY \_\_\_\_\_ TITLE \_\_\_\_\_

DATE(S) SURVEYED \_\_\_\_\_

CERTIFIED BY \_\_\_\_\_ TITLE \_\_\_\_\_

DATE(S) CERTIFIED \_\_\_\_\_

<b>EFFECTIVE DATE:</b> 6/30/03	<b>POLICY NUMBER:</b> 200-1	<b>POLICY TITLE:</b> Personal Protective Equipment (PPE) Policy
<b>TOPICS:</b> Personal Protective Equipment, Safety	<b>REFERENCE:</b> 29 CFR 1910.132.133, 136,135,138 and applicable subparts OAC 380: 45 multiple sections OS§47-12-417 1,A (1)(2) CON Licensing Manual for Operators of City Owned Vehicles, (10-99) IV,A (5)	<b>NUMBER OF PAGES:</b> 5
<b>AUTHORIZED BY:</b> Brandon McLendon Safety Manager	<b>SPECIAL INSTRUCTIONS</b>	<b>LAST REVIEW DATE:</b> 12/03/15

**PURPOSE:**

The purpose of this policy is to protect City of Norman employees who work in areas where physical hazards or the potential for physical hazards exist, by providing the appropriate personal protective equipment.

**POLICY:**

It is the policy of the City of Norman to provide the appropriate personal protective equipment (PPE) to employees after a hazard assessment is conducted for each duty and the assessment reveals that physical hazards or the potential for physical hazards to employees exist. The City of Norman will provide the necessary PPE to the employee. If an employee decides to provide their own their Supervisor must confirm that the employee provided equipment complies with the applicable national standard. If the employee provided equipment does not comply, it may not be worn in the workplace.

CFR 29 1903.1 requires that “employees comply with standards, rules, regulations and orders issued under the Act [OSHA] which are applicable to their own actions and conduct.” With this in mind, employees who refuse to wear or disregard the instructions of those placed in authority over them to wear Personal Protective Equipment are subject to the discipline policy described in the Personnel Manual or applicable Labor Union Contracts. Supervisors and employees acting in a lead-worker capacity who fail to enforce this policy may also be subject to the discipline policy. This may involve steps to immediately terminate the employee as caused by an overt act of insubordination, if the Department Head deems necessary.

It is also the policy of the City of Norman that in accordance with OAC 380:45-7-2, “Employees working in areas where exposure(s) to hazardous chemicals exist shall be required to perform their jobs in accordance with precautions communicated to them during training and information programs. Employers may take appropriate disciplinary action when an employee does not comply with the precautionary measures this chapter mandates.”

And it is the policy of the City of Norman that all employees correctly wear seatbelts in City Vehicles as noted below in O.S. §47-12-417A (1) (2) and on or in all pieces of equipment equipped with seat belts.

O.S. §47-12-417A (1) (2):

- A. 1. Every operator and front seat passenger of a passenger car operated in this state shall wear a properly adjusted and fastened safety seat belt system, required to be installed in the motor vehicle when manufactured pursuant to 49 C.F.R. §571.208.
2. For the purposes of this section, "passenger car" shall mean "vehicle" as defined in Section 1102 of this title. "Passenger car" shall include the passenger compartment of pickups, vans, minivans, and sport utility vehicles. "Passenger car" shall not include trucks, truck-tractors, recreational vehicles, motorcycles, or motorized bicycles. "Passenger car" shall not include a vehicle used primarily for farm use which is registered and licensed pursuant to the provisions of Section 1134 of this title."

**DEFINITIONS:**

PPE: Personal Protective Equipment worn or used by the employee when the hazard to personal safety cannot be eliminated using engineering, work practice or administrative controls. It includes all clothing and other work accessories designed to create a barrier against workplace hazards.

**PROCEDURE:**

This policy requires that protective equipment, including personal protective equipment for eyes, face, head, and extremities, protective clothing, respiratory devices, and protective shields and barriers, shall be provided, used, and maintained in a sanitary and reliable condition wherever it is necessary by reason of hazards of processes or environment, chemical hazards, radiological hazards, or mechanical irritants encountered in a manner capable of causing injury or impairment in the function of any part of the body through absorption, inhalation or physical contact.

Where employees provide their own protective equipment, the City shall be responsible to assure its adequacy, including proper maintenance, and sanitation of such equipment. If the City deems that the employee's own protective equipment does not conform to OSHA criteria, then the employee will not wear or use the equipment while performing their job function. This is particularly an issue in eye protection, clothing proper to the job function and the wearing of hearing protection.

The responsible supervisor shall assess the workplace using the Hazard Assessment policy (Policy # 100-1), to determine if hazards are present, or are likely to be present, which necessitate the use of personal protective equipment (PPE). The supervisor shall verify that the required workplace hazard assessment has been performed through a written certification that identifies the workplace evaluated; the person certifying that the evaluation has been performed; the date(s) of the hazard assessment; and, which identifies the document as a certification of hazard assessment. If such hazards are present, or likely to be present, the supervisor shall select, and have each affected employee use, the types of PPE that will protect the affected employee from the hazards identified in the hazard assessment; communicate selection decisions to each affected employee; and, select PPE that properly



fits each affected employee. All personal protective equipment shall be of safe design and construction for the work to be performed. Defective or damaged personal protective equipment shall not be used.

Training Required by 1910.132(f)(1) and (2) :

The City shall provide training to each employee who is required by this section to use PPE. Each such employee shall be trained to know at least the following:

- When PPE is necessary;
- What PPE is necessary;
- How to properly don, doff, adjust, and wear PPE;
- The limitations of the PPE; and,
- The proper care, maintenance, useful life and disposal of the PPE.

The supervisor shall verify that each affected employee has received and understood the required training through a written documentation that contains the name of each employee trained, the date(s) of training, and that identifies the subject of the documentation.

Each affected employee shall demonstrate an understanding of the training specified in paragraph (f)(1) of 29 CFR 1910.132, and the ability to use PPE properly, before being allowed to perform work requiring the use of PPE.

When supervisor has reason to believe that any affected employee who has already been trained does not have the understanding and skill required by the previous paragraph, the supervisor shall retrain each such employee. Circumstances where retraining is required include, but are not limited to, situations where:

- Changes in the workplace render previous training obsolete; or
- Changes in the types of PPE to be used render previous training obsolete; or
- Inadequacies in an affected employee's knowledge or use of assigned PPE indicate that the employee has not retained the requisite understanding or skill.
- The training of an employee due to unsafe job performance, or neglecting to use, or improper use of Personal Protective Equipment.

Eye and face protection per 1910.133 and 1926.102

The supervisor shall ensure that each affected employee uses appropriate eye or face protection when exposed to eye or face hazards from flying particles, molten metal, liquid chemicals, acids or caustic liquids, chemical gases or vapors, or potentially injurious light radiation. The supervisor shall ensure that each affected employee uses eye protection that provides side protection when there is a hazard from flying objects. Detachable side protectors (e.g. clip-on or slide-on side shields) meeting the pertinent requirements of this section are acceptable.

The City shall ensure that each affected employee who wears prescription lenses while engaged in operations that involve eye hazards wears eye protection that incorporates the prescription in its design, or wears eye protection that can be worn over the prescription lenses without disturbing the proper position of the prescription lenses or the protective lenses. The employee's respective Department or Division Head determines the procedure for them to obtain prescription safety glasses. The Department or Division procedure for

obtaining the safety eye wear must state, “the eye wear or other eye protection PPE shall be distinctly marked to facilitate identification of the manufacturer, and that it complies with ANSI Z-87.2.” This is to ensure that the employee’s choice of eye protection is in accordance with this policy.

When the City provides prescription safety eyewear for employees, the employee must wear the provided eyewear during the workday for operations that require the eye protection. Failure to wear the provided safety eye ware will result in the employee becoming subject to the progressive disciplinary policy and will result in the appropriate disciplinary action taken to correct unsafe behaviors. This includes the wearing of sidepiece eye shields at all times when the working environment dictates side shield eye protection, while wearing the provided glasses.

Supervisors of employees who weld, cut or braze shall ensure that each affected employee uses equipment with filter lenses that have a shade number appropriate for the work being performed for protection from injurious light radiation. 29CFR 1910.133 contains a table in paragraph (a)(5) that provides the information necessary to determine the shade of the protective lens.

#### Head protection per 1910.135 and 1926.100

The Supervisors and employees in a lead worker capacity shall ensure that each employee wears a protective helmet when working in areas where there is a potential for injury to the head from falling objects or when near exposed electrical conductors which could contact the head. This policy purposely includes employees working around backhoes, under power lines, around scaffolding, working in an open excavation below other employees, or when construction work is occurring above their heads or in any capacity when good judgment dictates that the potential for injury is present. The policy excludes activities like, concrete slab finishing at surface level, asphalt lay-down operations, gardening and landscaping activities except tree trimming and tree cutting, refuse and yard waste collection, and operations where the equipment operator is covered by a full cab. Again good judgment is to be used to apply this section of the policy, if the protective helmet will pose more of a hazard to the employee that it prevents then another equally protecting means of head protection can be used, including abstinence from wearing the protective helmet.

Protective helmets shall comply with ANSI Z89.1-1986, "American National Standard for Personnel Protection-Protective Headwear for Industrial Workers-Requirements," which is incorporated by reference as specified in 29 CFR 1910.6, or shall be demonstrated to be equally effective.

#### Occupational foot protection per 1910.136 and 1926.96.

Supervisors of employees engaged in activities other than construction shall ensure that each affected employee uses protective footwear when working in areas where there is a danger of foot injuries due to falling or rolling objects, or objects piercing the sole, and where such employee's feet are exposed to electrical hazards. As previously noted in this policy, “The responsible supervisor shall assess the workplace using the Hazard Assessment policy (Policy # 100-1) to determine if hazards are present, or are likely to be present, which

necessitate the use of personal protective equipment (PPE).” 29 CFR 1926.96 does not specify that safety toed footwear must be worn for construction work, it simply specifies that if safety toed footwear is required; it must conform to the ANSI Z41-1991 standard. Therefore, the Supervisor has some latitude in their assessment of the proper foot protection level used based on the employee’s assigned projects. Nonetheless, common sense dictates that employees engaged in activities around heavy equipment, engaged in excavation or digging by hand, in construction or around rotating blades and parts etc. should wear sturdy construction boots that will protect their feet from the hazards in the workplace. Those that are not engaged in these activities may choose the footwear that provides them the best comfort and protection.

When the City provides footwear for employees, the employee must wear the provided footwear during the workday for operations that require the foot protection. Failure to wear the provided footwear will result in the employee becoming subject to the progressive disciplinary policy and will result in the appropriate disciplinary action taken to correct unsafe behaviors.

#### Hand Protection per 29 CFR 1910.138

Supervisors shall select and require employees to use appropriate hand protection when employees' hands are exposed to hazards such as those from skin absorption of harmful substances; severe cuts or lacerations; severe abrasions; punctures; chemical burns; thermal burns; and harmful temperature extremes.

#### Working in Traffic

Per Federal Highway Administration ruling 11-24-06 Part 634 – Worker Visibility, Supervisors will ensure that all employees working within the right of way of any road open for public travel who are exposed either to traffic (vehicles using the highway for purposes of travel) or to construction equipment within the work area shall wear high visibility safety apparel conforming to a minimum of performance class 1 or 2 as appropriate, as defined by the current Manual on Uniform Traffic Control Devices, and conforming to the standard ANSI /ISEA 107-1999. This clothing is most commonly seen in the form of high visibility T-shirts (Class 1) and traffic vests (Class 2). If working at night Class 3 and Class E (pants and long sleeved vest ensembles are appropriate. These garments shall be visible at a distance of 300m (1,000 feet). The retro-reflective clothing shall be designed to identify clearly the wearer as a person

Providing a safe working area around crews working on the edge of the roadway conducting chipping operations shall be additionally accomplished by using traffic control devices in accordance with the current Manual on Uniform Traffic Control Devices, and the City of Norman Traffic Policy 1300-1.

<b>EFFECTIVE DATE:</b> 6/30/03	<b>POLICY NUMBER:</b> 300-1	<b>POLICY TITLE:</b> Hazard Communications Policy
<b>TOPICS:</b> HAZARD COMMUNICATIONS	<b>REFERENCE:</b> 29 CFR 1910.1200 29 CFR 1910.2910 Subpart "Z" 40 OS 403(E)	<b>NUMBER OF PAGES:</b> 11
<b>AUTHORIZED BY:</b> Brandon McLendon Safety Manager	<b>SPECIAL INSTRUCTIONS</b>	<b>LAST REVIEW DATE:</b> 12/03/15

**PURPOSE:**

The purpose of this policy is to protect employees from hazardous chemicals in the workplace, to ensure that employees are adequately informed and trained in the use of chemicals, and how to protect themselves from hazardous chemicals in the workplace. It is also to prevent employee work-related injuries and illnesses from exposures to hazardous chemicals.

**POLICY:**

It is the policy of the City of Norman to maintain a Hazard Communication Policy and program to protect employees from hazardous chemical exposures and document employees who may be exposed to hazardous chemicals in the performance of their duties. The program is designed to achieve regulatory compliance with the Oklahoma Department of Labor statutes in support of OSHA Legislation and to promote regulatory compliance and employee health and safety.

**DEFINITIONS:**

Chemical: any element, chemical compound or mixture of elements and/or compounds.

Combustible Liquid: any liquid having a flashpoint at or above 100 deg. F (37.8 deg. C), but below 200 deg. F (93.3 deg. C), except any mixture having components with flashpoints of 200 deg. F (93.3 deg. C), or higher, the total volume of which make up 99 percent or more of the total volume of the mixture.

Common Name: any designation or identification such as code name, code number, trade name, brand name or generic name used to identify a chemical other than by its chemical name.

Exposure or Exposed: when an employee is subjected, in the course of employment, to a chemical that is a physical or health hazard, and includes potential (e.g. accidental or possible) exposure. "Subjected" in terms of health hazards includes any route of entry (e.g. inhalation, ingestion, skin contact or absorption.)

Hazardous Chemical: any chemical that is a physical hazard or a health hazard. Listed as such in the MSDS or in 29 CFR.1910, Subpart Z.

Hazard Warning: any words, pictures, symbols, or combination thereof appearing on a label or other appropriate form of warning which convey the specific physical and health hazard(s), including target organ effects, of the chemical(s) in the container(s).

Health Hazard: a chemical for which there is statistically significant evidence based on at least one study conducted in accordance with established scientific principles that acute or chronic health effects may occur in exposed employees. The term "health hazard" includes chemicals which are carcinogens, toxic or highly toxic agents, reproductive toxins, irritants, corrosives, sensitizers, hepatotoxins, nephrotoxins, neurotoxins, agents which act on the hematopoietic system, and agents which damage the lungs, skin, eyes, or mucous membranes.

Identity: any chemical or common name which is indicated on the material safety data sheet (MSDS) for the chemical. The identity used shall permit cross-references to be made among the required list of hazardous chemicals, the label and the MSDS.

Label: any written, printed, or graphic material displayed on or affixed to containers of hazardous chemicals.

Material Safety Data Sheet (MSDS): written or printed material concerning a hazardous chemical which is prepared in accordance with paragraph (g) of this section.

Use: to package, handle, react, emit, extract, generate as a byproduct, or transfer.

Work Area: a room or defined space in a workplace where hazardous chemicals are produced or used, and where employees are present.

Workplace: means an establishment, job site, or project, at one geographical location containing one or more work areas.

## **PROCEDURE:**

The core of the City's hazard communication program is the Hazard Communication Identification Procedure, which contains the following elements:

- ❑ Identifying hazardous chemicals,
- ❑ Determining employee exposure to hazardous chemicals,
- ❑ Informing employees of potential hazards and training requirements,
- ❑ Establishing a chemical inventory,
- ❑ Acquiring and distributing Material Safety Data Sheets (MSDS) for each chemical or compound used that has an MSDS,
- ❑ Maintaining a container labeling system,
- ❑ Establishing record keeping procedures and providing employee training and information.

The results of this procedure must be readily available to employees, employee representatives, and regulatory agencies.

## Chemical Inventory and Material Safety Data Sheets

Annual updates of the Chemical Information Lists (CIL) beginning with the last day of the fiscal year are required. Individual department Supervisors / superintendent / division heads shall submit a copy of their Chemical Information Lists (CIL) to the Safety Manager no later than August 1 of each year, in the format provided by the attached format as the CIL Form on page 10. The submission is to be in Microsoft Excel and can be transmitted by e-mail or other electronic media. Each CIL is subject to physical audit by the Safety Manager.

A master CIL shall be created and maintained by the Safety Manager in a manner that will allow a listing of hazardous substances by common name, chemical name, amount in storage or use, location, chemical abstract service number(s) (CAS #) and manufacturer. The Safety Manager will provide copies of the combined CIL to the Norman Fire Department.

Each chemical storage location shall have a CIL posted in the break room or common area so all employees can access the information. The CIL shall include a listing of all hazardous substances present.

Each time a department receives a new hazardous substance, the substance must be added to the departmental CIL within 30 days. A copy of the amended CIL, along with a copy of the Material Safety Data Sheet (MSDS) for the new substance, must be sent to the Safety Manager.

### Safety Data Sheets (SDS)–

Department Supervisors / Superintendents /Division Heads must assure that SDS for all substances in the work place are obtained. A copy of the SDS must be kept in the department / workspace and be readily accessible to employees who work with those substances. Copies of the MSDS should be placed in alphabetical order by trade or common name in a filing cabinet, notebook, etc., and marked in a manner that clearly denotes that this is an SDS file. A master SDS file is kept on line at MSDSONline, and electronic service. Any City of Norman employee may access this list at:

<https://msdsmanagement.msdsonline.com/company/EAF83E1E-2326-4FE9-A386-BD1CCB571612>

Purchase Orders for any hazardous substance, regardless of the quantity ordered, shall require that an SDS be obtained. It is the responsibility of the ordering department (Department Head) to make every effort to obtain an SDS from the manufacturer. If difficulties are encountered, the Safety Manager can assist. When new products are added to the inventory or products are depleted and no longer going to be replenished in inventory; the division will edit the online inventory and make changes as necessary. The administrator's site on MSDSONline if to be found at: <http://www.msdsonline.com/> .

Should the Supervisor of an area dealing with hazardous substances become aware of any information that is significant in regard to the health hazard of a substance (that does not already appear on the MSDS), he/she must add the information to the MSDS within a period not to exceed 30 days. The Supervisor must also report this information to Safety Manager.

### Signs and Labels

All existing labels on containers of hazardous substances and chemicals must remain intact. The labels must be legible and written in English. Where labels are not present or are not

legible, a Hazardous Material Information System (HMIS) label will be affixed to those containers holding the hazardous substance.

It is the responsibility of the Department Supervisor / Superintendent / Division Head to assure that each container of a hazardous substance in the workplace is marked, labeled or tagged with the:

- ❑ Common/trade name of the substance.
- ❑ Appropriate hazard warnings: Health, flammability, reactivity, and personal protective equipment.
- ❑ Chemical Abstract Service number (CAS#).

Portable containers filled with hazardous chemicals transferred from a labeled storage container must be labeled if:

- ❑ The material is not used within the work shift of the employee making the transfer.
- ❑ The employee that made the transfer leaves the work area.
- ❑ The container is moved to another work area and is no longer in possession of the employee who filled the container.

Labels on portable containers are not required if the employee who made the transfer uses all of the contents during the work shift. Nonetheless, all containers should be labeled if at all possible.

Storage tanks must be labeled with the identity of the substances that it contains. This includes the tanks on chemical spray apparatus over 1 quart (or 1 liter) in volume and dusters that hold over 2.2 lbs (1 Kg). The label must contain the name of the chemical, CAS#, and the NFPA the health, flammability, reactivity, and physical hazards associated with the substance. The National Fire Protection Association (NFPA) or HMIS rating system must be used to show these ratings.

Containers used by outside service contractors shall be properly labeled with either a manufacturer's label or an HMIS label prior to the use of the hazardous substance on City property. The exception to this is pesticide application conducted inside municipal buildings.

### Exclusions

These regulations do not apply to any substances that are foods, drugs, cosmetics, or tobacco products intended for personal consumption by the employees while in the workplace. Additionally, these regulations do not apply to any consumer products and foodstuffs packaged for distribution to (and intended for use by) the general public. Consumer products are packaged and used as a normal consumer would use the product as defined in the Consumer Product Safety Act and Federal Hazardous Substances Act.

- ❑ The term "laboratory" is intended to mean a workplace where relatively small quantities of hazardous chemicals are used on a non-production basis. All laboratories may be excluded from the standard except for the following requirements:

- ❑ Complete a CIL and submit a copy to the Safety Manager.
- ❑ Conduct a training and education program that shall be designed to inform employees of appropriate work practices, protective measures, and emergency measures regarding hazardous materials in the workplace.
- ❑ Supply employees with the chemical names of all hazardous substances.
- ❑ Maintain MSDS and make them readily accessible to employees.
- ❑ Ensure that containers of hazardous substances bear a legible manufacturer's label or an HMIS label.
- ❑ Develop and implement a written chemical hygiene plan and provide a copy to the Safety Manager. Use the CFR 29 1910.1450 and the Chemical Hygiene and Lab Safety Policy (Policy # 400-1) as a guide to develop the Chemical Hygiene Plan.

### Exposure

An exposure is when an employee is subjected to a hazardous chemical in the course of employment through any route of entry (inhalation, ingestion, skin contact or absorption, etc.), and includes potential (e.g. accidental or possible) exposure as referenced by the MSDS. When the employer discovers that an employee has received a potentially hazardous exposure to any substance or agent, the employer must immediately notify the employee and take such steps that may be necessary to provide medical evaluation, monitoring, or treatment. Likewise, an employee that has received a potentially hazardous exposure to a substance or agent must immediately notify their Supervisor and the Safety Manager of such exposure.

After the appropriate safety and health precautions have been taken, it is the responsibility of the employee's Supervisor to fill out an Employee Exposure Report. The completed Employee Exposure Report should be submitted to the Safety Manager (original copy), with a copy retained at the department and a copy provided to the employee. The Safety Manager will retain the original Employee Exposure Report and send a copy to the Human Resources records keeper in Human Resources. The Human Resources records keeper will place the Employee Exposure Report in the Exposure file to be retained for the length of employment plus 30 years.

An affected employee (or designated representative) may make a request to the Safety Manager or Supervisor for access to copies of the appropriate CIL and MSDS. Access to the appropriate CIL and MSDS shall be granted within a reasonable time, place, and manner, but never later than one working day after the request for access is made. In addition, whenever an affected employee or designated representative requests a copy of the CIL and/or MSDS, the employee's Supervisor shall, within one working day, assure that either a copy or a mechanical means to copy is provided.

An employee who requested information as stated in the above paragraph, and did not received the requested information within the specified time period, may refuse to work with the substance(s) or refuse to work at the location for which the request was made. This does not mean that the employee may leave work, or refuse to report to work without authorization from their Supervisor. Any time an employee is absent from their assigned work duties, their absence must be accounted for with personal leave and duly authorized by



the Supervisor. A Supervisor may not discharge or initiate any adverse personnel action against any employee because the employee has exercised his/her right to the requested information. Furthermore, a Supervisor may not request or require an employee to waive any rights under this policy. Any such waiver executed shall be null, void, and unenforceable.

Employees working in areas where exposure(s) to hazardous substances exist shall be required to perform their jobs in accordance with precautions communicated to them during training and education programs. This includes wearing Personal Protective Equipment, following the procedures listed and using the hazardous substance as specified in the MSDS. A Supervisor may take the appropriate disciplinary action when an employee does not comply with the precautionary measures that this policy indicates.

The Department Head or designee shall be responsible for providing the following in all departmental areas having contact with hazardous substances:

- ❑ Chemical name of each hazardous substance.
- ❑ Correct labeling of each hazardous substance.
- ❑ Availability of any MSDS for each hazardous substance present in the immediate work area.
- ❑ Training and education of employees on work practices, protective measures, and emergency measures in the work place.

## **TRAINING**

Employees of shall receive Hazard Communication training annually. All non-elected employees will include temporary, part-time, and full-time personnel. New employees will receive a general training on Hazard Communication from the Safety Manager at the start of employment, during their initial Orientation.

Department Supervisors shall ensure that their employees are informed of the requirements of the Hazard Communication Standard (cover the four stages of the program), any operations in their department where hazardous substances are used, the location and availability of the MSDS and CIL, and a review of the Department Emergency Management Plan contained in Policy # 500-1. In addition, the training must cover the methods used to detect the presence of a Hazardous Material released, and the steps to take after the release is detected, the physical and health hazards associated with the employee's job, the measures and equipment used for personal protection, and the details of the written plan. This training must occur within 30 days of employment for new employees. Any time a new hazard is introduced into the workplace, employees must be trained on the hazard; and an annual retraining session is required for all employees.

Training and education provided to employees and others must be documented with detailed records of training maintained by the department. A copy of all Hazard Communications training records must be sent to the Safety Manager. A copy of the training documentation is attached on page 11 as the City of Norman Attendance Roster.

### Responsibilities for Service Contractors

Any time an outside contractor brings a hazardous substance(s) into the workplace, the Safety Manager and the pertinent Supervisor must receive a CIL and MSDS for those substance(s). Similarly, a CIL and MSDS for all hazardous substances in the area that the contractor will be working must be provided to the contractor. This exchange will be coordinated by whoever is granting the contract.

When determined necessary by the Work Center Supervisor, service contractors whose work or materials pose a health hazard to City employees shall be responsible for providing the training and education requirements outlined under the training section of this policy. Examples of service contractors who may be required to provide training are bulk lime, chlorine or sludge dewatering chemical suppliers etc. Bulk chemical providers and/or other hazardous product suppliers may, as a product promotion/educational program, volunteer to provide employees the product safety training. The Work Center Supervisor will determine the need, method and means for the training. The Work Center Supervisor or designee shall document the training. The Safety Manager must retain the record of this training in the manner that in-house safety training is cataloged.

Outside contractors must comply with all the provisions of the Hazard Communication Standard while working for the City of Norman. Periodic oversight visits from the Safety Manager may be performed to assure compliance.

**CITY OF NORMAN Employee Exposure Report**  
Complete form and return to the Safety Manager, within 24 hours of exposure

Last name: \_\_\_\_\_ First Name: \_\_\_\_\_ Middle Initial: \_\_\_\_\_

Department: \_\_\_\_\_ Title: \_\_\_\_\_ SSN: \_\_\_\_\_

Date/Time of Exposure: \_\_\_\_\_

Duration of Exposure: \_\_\_\_\_

Location of Exposure \_\_\_\_\_

Chemical / Hazardous Substance Name(s): \_\_\_\_\_

Chemical Abstract Number(s) - (CAS): \_\_\_\_\_

Trade and/or common name(s) of chemical(s) or hazardous substance(s): \_\_\_\_\_

Type of exposure (e.g. inhalation, ingestion, contact) (If contact, what body part was involved?) \_\_\_\_\_

How did exposure occur? (Use additional sheet if necessary): \_\_\_\_\_

Was personal protective equipment available? Yes \_\_\_ No \_\_\_

Was personal protective equipment used? Yes \_\_\_ No \_\_\_

If personal protective equipment was used, what type(s)? \_\_\_\_\_

Did employee receive training/instructions prior to exposure? (Explain) \_\_\_\_\_

Were any symptoms present at time of exposure? Yes \_\_\_ No \_\_\_

If so, describe (attach physician's report, if applicable): \_\_\_\_\_

Severity of exposure: First Aid \_\_\_ Medical Treatment \_\_\_ Unknown \_\_\_

Describe: \_\_\_\_\_

Did employee lose time from work? Yes\_\_\_\_ No\_\_\_\_

Estimate of lost time:\_\_\_\_\_

Were other employees exposed? Yes\_\_\_\_ No\_\_\_\_

If so, list names & SSN (use additional sheet if necessary):\_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

List suggestions to prevent reoccurrence: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_  
(exposed employee's signature & today's date)

\_\_\_\_\_  
(Supervisor's signature + print/type name of Supervisor)





**CITY OF NORMAN****SAFETY MANUAL**

<b>EFFECTIVE DATE:</b> 6/30/03	<b>POLICY NUMBER:</b> 400-1	<b>POLICY TITLE:</b> Lab Safety and Chemical Hygiene Policy
<b>TOPICS:</b> Lab Safety, Chemical Hygiene and Hazard Communications	<b>REFERENCE:</b> 1910.1450 Occupational exposure to hazardous chemicals in laboratories.	<b>NUMBER OF PAGES:</b> 4
<b>AUTHORIZED BY:</b> Brandon McLendon, Safety Manager	<b>SPECIAL INSTRUCTIONS</b>	<b>LAST REVIEW DATE:</b> 4/5/16

**PURPOSE:**

The purpose of this policy is to establish the City of Norman's commitment to operating safe laboratories and thereby protecting our employees and the general public from exposure to hazardous chemicals.

**POLICY:**

While all quantities of hazardous chemicals used in the City's laboratories are normally below reportable quantities, the procedure for protecting our employees from exposure is through the Hazard Communications Policy (Policy # 300-1).

The Senior Laboratory Technician in each laboratory is designated as the Chemical Hygiene Officer and is responsible for the Chemical Hygiene Plan in their assigned laboratory. They are charged with compliance to 29CFR 1910.1450. They are also charged with ensuring that the Chemical Inventory Lists (CIL) for their respective laboratories are maintained in an updated condition, and that the mechanical facilities of their laboratories, such as fume hoods, ventilation, safety equipment, storage cabinets etc. are maintained in a fully functional condition, including calibration.

In the case that chemicals are stored in a non-laboratory setting such as herbicides, pesticides, cleaning solvents, petroleum derivatives, gas injection or solution processes etc., the Supervisor over that storage is responsible for maintaining and publishing an accurate CIL for the work center, maintaining a safe storage area with spill protection, and conducting Hazard Communications Training for the employees assigned to them.

When a compound or reagent without a constituent listed in Subpart Z of CFR1910.1000 can be substituted for one that does; it should be substituted. This procedure should also be followed for all products with a NFPA or HMIS rating of 3 or above for Health Hazard (Blue) and 2 or above for Flammability Hazard (Red). The object is to eliminate any paths of exposure to hazardous chemicals. If the substitution substantially alters the result of the test, it is not an acceptable substitute. The decision for making these substitutions is the prerogative of the Senior Laboratory Technician under the guidance of his/ her Supervisor.

**DEFINITIONS:**

"Action level" means a concentration designated in 29 CFR part 1910 for a specific substance, calculated as an eight (8)-hour time-weighted average, which initiates certain required activities such as exposure monitoring and medical surveillance.

"Chemical Hygiene Officer" means an employee who is designated by the employer, and who is qualified by training or experience, to provide technical guidance in the development and implementation of the provisions of the Chemical Hygiene Plan. This definition is not intended to place limitations on the position description or job classification that the designated individual shall hold within the employer's organizational structure.

"Chemical Hygiene Plan" means a written program developed and implemented by the employer which sets forth procedures, equipment, personal protective equipment and work practices that (i) are capable of protecting employees from the health hazards presented by hazardous chemicals used in that particular workplace and (ii) meets the requirements of paragraph (e) of this section.

"Employee" means an individual employed in a laboratory workplace who may be exposed to hazardous chemicals in the course of his or her assignments.

"Hazardous chemical" means a chemical for which there is statistically significant evidence based on at least one study conducted in accordance with established scientific principles that acute or chronic health effects may occur in exposed employees. The term "health hazard" includes chemicals which are carcinogens, toxic or highly toxic agents, reproductive toxins, irritants, corrosives, sensitizers, hepatotoxins, nephrotoxins, neurotoxins, agents which act on the hematopoietic systems and agents which damage the lungs, skin, eyes, or mucous membranes. Appendices A and B of the Hazard Communication Standard (29 CFR 1910.1200) provide further guidance in defining the scope of health hazards and determining whether or not a chemical is to be considered hazardous for purposes of this standard.

"Laboratory" means a facility where the "laboratory use of hazardous chemicals" occurs. It is a workplace where relatively small quantities of hazardous chemicals are used on a non-production basis.

"Laboratory-type hood" means a device located in a laboratory, enclosure on five sides with a movable sash or fixed partial enclosed on the remaining side; constructed and maintained to draw air from the laboratory and to prevent or minimize the escape of air contaminants into the laboratory; and allows chemical manipulations to be conducted in the enclosure without insertion of any portion of the employee's body other than hands and arms. Walk-in hoods with adjustable sashes meet the above definition provided that the sashes are adjusted during use so that the airflow and the exhaust of air contaminants are not compromised and employees do not work inside the enclosure during the release of airborne hazardous chemicals.



## **PROCEDURE:**

As stated in the Safety Policy (#001-1), “The City of Norman must reasonably comply with all federal, state and local regulations related to occupational safety and health. We do not consider any phase of our operations more important than that of the occupational safety and health of our employees.” For this reason, Where the action level (or in the absence of an action level, the permissible exposure limit) is routinely exceeded for an OSHA regulated substance with exposure monitoring and medical surveillance requirements, paragraphs (d) and (g)(1) and (2) of this section shall apply.

### 29 CFR 1910.1450

#### (d) Employee exposure determination –

(1) Initial monitoring. The employer shall measure the employee's exposure to any substance regulated by a standard which requires monitoring if there is reason to believe that exposure levels for that substance routinely exceed the action level (or in the absence of an action level, the PEL).

#### (g) Medical consultation and medical examinations.

(1) The employer shall provide all employees who work with hazardous chemicals an opportunity to receive medical attention, including any follow-up examinations which the examining physician determines to be necessary, under the following circumstances:

(i) Whenever an employee develops signs or symptoms associated with a hazardous chemical to which the employee may have been exposed in the laboratory, the employee shall be provided an opportunity to receive an appropriate medical examination.

(ii) Where exposure monitoring reveals an exposure level routinely above the action level (or in the absence of an action level, the PEL) for an OSHA regulated substance for which there are exposure monitoring and medical surveillance requirements, medical surveillance shall be established for the affected employee as prescribed by the particular standard.

(iii) Whenever an event takes place in the work area such as a spill, leak, explosion or other occurrence resulting in the likelihood of a hazardous exposure, the affected employee shall be provided an opportunity for a medical consultation. Such consultation shall be for the purpose of determining the need for a medical examination.

(2) All medical examinations and consultations shall be performed by or under the direct supervision of a licensed physician and shall be provided without cost to the employee, without loss of pay and at a reasonable time and place.

### Training

Training on the following required topics will be conducted at least annually for all personnel through the Hazard Communications Policy; Laboratory workers should also be reinforced on a constant basis through on the job training:

- ❑ Methods and observations that may be used to detect the presence or release of a hazardous chemical (such as monitoring conducted by the employer, continuous monitoring devices, visual appearance or odor of hazardous chemicals when being released, etc.);
- ❑ The physical and health hazards of chemicals in the work area; and
- ❑ The measures employees can take to protect themselves from these hazards, including specific procedures the employer has implemented to protect employees from exposure to hazardous chemicals, such as appropriate work practices, emergency procedures, and personal protective equipment to be used.
- ❑ The employee shall be trained on the applicable details of the employer's written Lab Safety and Chemical Hygiene Plan and Hazard Communications Plan.

### Medical Attention

The City shall provide all employees who work with hazardous chemicals an opportunity to receive medical attention, including any follow-up examinations which the examining physician determines to be necessary, under the following circumstances:

- ❑ Whenever an employee develops signs or symptoms associated with a hazardous chemical to which the employee may have been exposed in the laboratory, the employee shall be provided an opportunity to receive an appropriate medical examination.
- ❑ Where exposure monitoring reveals an exposure level routinely above the action level (or in the absence of an action level, the PEL) for an OSHA regulated substance for which there are exposure monitoring and medical surveillance requirements, medical surveillance shall be established for the affected employee as prescribed by the particular standard.
- ❑ Whenever an event takes place in the work area such as a spill, leak, explosion or other occurrence resulting in the likelihood of a hazardous exposure, the affected employee shall be provided an opportunity for a medical consultation. Such consultation shall be for the purpose of determining the need for a medical examination.

All medical examinations and consultations shall be performed by or under the direct supervision of a licensed physician and shall be provided without cost to the employee, without loss of pay and at a reasonable time and place. The employee's Supervisor shall provide, without delay, the following information to the physician:

- ❑ The identity of the hazardous chemical(s) to which the employee may have been exposed;
- ❑ A description of the conditions under which the exposure occurred including quantitative exposure data, if available; and
- ❑ A description of any signs and symptoms of exposure that the employee is experiencing, if appropriate.

### Material Identification

Supervisors shall ensure that labels on chemical containers of are not removed or defaced.

Supervisors shall maintain any material safety data sheets/ safety data sheets that are received with incoming shipments of hazardous chemicals, and ensure that they are readily accessible to laboratory employees.

**CITY OF NORMAN****SAFETY MANUAL**

<b>EFFECTIVE DATE:</b> 6/30/03	<b>POLICY NUMBER:</b> 500-1	<b>POLICY TITLE:</b> Emergency Management Plan
<b>TOPICS:</b> Catastrophic Events to structures, infrastructure, explosions and natural catastrophes, Municipal Complex Security, Bomb Threats, Hostile Intruder, Active Shooters.	<b>REFERENCE:</b> 40 OS Section 403A General Safety Policy 001-1 29CFR 1910.38 & 1910.157	<b>NUMBER OF PAGES:</b> 45
<b>AUTHORIZED BY:</b> Brandon McLendon Safety Manager	<b>SPECIAL INSTRUCTIONS</b>	<b>LAST REVIEW DATE:</b> 12/03/15

**PURPOSE:**

The purpose of this policy is to pre-plan responses to emergencies that may interrupt employees from their normally assigned work activities. Emergency situations in the workplace may be instigated by fire, natural disaster, environmental emergencies, terrorism, civil disturbance and violence in the workplace or any threat to the health and safety of City employees. This policy is written to enhance the City's compliance with 29 CFR1910.38.

**POLICY:**

**This policy is subordinate to the City of Norman Emergency Operations Plan.** The purpose of this policy is to delineate the actions taken by City of Norman employees in their respective workplaces prior to the arrival of the Norman Fire or Police Departments or other agency lending assistance. Upon the arrival of an on-scene commander from the Norman Fire or Police Department, the initial person in charge will brief the on-scene commander about the situation and relinquish control of the situation.

The City of Norman is committed to furnishing each of its employees a place of employment that is reasonably free from recognized hazards that are causing or are likely to cause death, injury, illness or other serious physical harm to its employees, commensurate with the Occupational Health and Safety Act of 1970.

In this, City employees are to be trained in the preferred responses to emergency actions during contingency situations. Periodic retraining, not to exceed two years between trainings, will be coordinated with the Norman Emergency Management Director and under the direction of the City Manager.

This policy is based on a theoretical immediate action management basis. It is not intended to be a "step-by-step" procedural policy. These policies are included in the attachment sections for each Division or building. The initial person in charge, generally the Department Head, Superintendent or Supervisor is permitted to make decisions concerning the disposition of the persons immediately affected by the emergency. These should be limited to moving persons out of danger and out of the path of emergency response teams. Once a trained on-scene commander is on site, he/she may make decisions pertinent to the wisdom of following the established procedure and how effective that decision will improve the outcome of the actual event.

<b>APPENDICES</b>		
MUNICIPAL COMPLEX BUILDINGS	BUILDING B	LINE MAINTENANCE
FIRE ADMINISTRATION & STATIONS	FLEET MANAGEMENT	STREET MAINTENANCE
PARK MAINTENANCE	SANITATION	BUILDING MAINTENANCE
WASTE WATER TREATMENT	TRAFFIC CONTROL	WATER TREATMENT
WESTWOOD GOLF COURSE		

**SNOW/ INCLEMENT WEATHER DAYS:**

On days when driving conditions present a clear and present hazard to motorists, employees who have permission from their Department Head may take vacation leave instead of reporting to work. Department Heads generally assign the responsibility of giving permission to employees to take vacation leave to the Superintendents and Supervisors assigned with responsibility for the requesting employee.

**DEFINITIONS:**

Emergency – an unforeseen combination of circumstances or the resulting state that calls for immediate action. In the context of this policy, emergencies are fire, weather, chemical spills etc. that effect the safety of employees.

Chemical Spills – in this context are defined as accidental releases of sufficient quantities of substances deemed injurious to human health by NIOSH, Governmental Regulation, or competent authority as reported on the compound’s material safety data sheet.

**PROCEDURE:**

To ensure the safety of employees during structural fires in their workspaces or adjoining structures and other emergency situations listed above, each employee is to be trained to respond to each situation. All employees will be trained to correctly respond to take the following actions:

- ❑ Emergency escape procedures and emergency escape route assignments,
- ❑ Procedures to be followed during evacuation,
- ❑ Those employees who will remain to operate critical plant-operations before they evacuate,
- ❑ Procedures used to account for all employees after emergency evacuation is completed,
- ❑ Rescue and medical duties for those employees who are to perform them,
- ❑ The preferred means of reporting fires and other emergencies,
- ❑ The names or regular job titles of persons who can be contacted for further information or explanation of duties under the plan.

New employees will be trained within thirty days of their arrival by their immediate Supervisor, Safety Manager, or a certified trainer in the above competencies.

Designated employees from each building or work site will be trained to assist / direct evacuations or follow operating procedures to protect the lives of fellow employees.

Emergency action plans will be practiced annually for each workplace / building. Prior to initiating the drill, all drills must be coordinated with Norman Fire-Police-EMS through the Fire Department.

In the event of a fire inside a building, employees are encouraged to sound the alarm and evacuate the affected building. The City of Norman shall provide an educational program to familiarize select employees with the general principles of fire extinguisher use and the hazards involved with small, “able to be controlled with a fire extinguisher” stage fire fighting. If an employee deems that the small fire can be controlled with a fire extinguisher they may use the extinguisher after alerting the employees in the area by shouting the alarm; but only trained firefighters are expected to fight fires. We will provide employees who have been designated to use fire-fighting equipment as part of the emergency management plan with training in the use of the appropriate equipment. This training will be refreshed periodically thereafter.

### **Bomb Threat Response**

In the event of a bomb threat via telephone, the person receiving the call should:

1. Keep the caller on the line as long as possible and make a note of the calling number if displayed on caller ID.
2. Ask the following questions:
  - a. When is the bomb going to explode?
  - b. Where is it right now?
  - c. What does it look like?
  - d. What kind of bomb is it?
  - e. What will cause it to explode?
  - f. Did you place the bomb?
  - g. Why?
  - h. What is your address?
  - i. What is your name?
3. Try to record the exact wording of the threat.
4. If the building is occupied, advise the caller that the detonation of a bomb could result in injury or death to many innocent people.
5. Pay attention to background noises.
6. Listen closely to the voice (male/female), voice quality, accents, speech impediments, etc.
7. Use a “Bomb Threat Card” supplied by the police department to assist in the collection and recording of this information.

After receiving a bomb threat call, IMMEDIATELY CALL 911, and then contact your immediate supervisor. Uniformed police personnel will respond to assist in dealing with the threat.

Upon receipt of a bomb threat, an authorized agent of the threatened premises will decide whether evacuation is necessary. A search of the premises must be conducted. If an actual explosive device or suspicious package is found, the Norman Police Department will order and assist in evacuation. Evacuation will be at a minimum of 300 feet. Evacuees should be placed under some type of cover if possible.

If an actual explosive device or suspicious package is located, the police officer on scene will inform his/her supervisor who in turn will call for the Hazardous Devices Unit to respond.

The Hazardous devices Unit will respond to the scene to remove or render safe the explosive device or suspicious package. Re-entry into the building will be allowed only when the senior Hazardous Devices Technician present deems it safe.

#### Active Shooter / Hostile Intruder

In the event of a violent event involving an active shooter or an armed hostile intruder in a City Building, the employees in that building should:

1. Call 9-1-1 immediately to report the situation. This call should be made even if police officers are present during the incident. The caller should remain on the phone with the 9-1-1 operators until contacted by a police officer to provide ongoing information.
2. Assess the situation and determine if immediate evacuation to a safe area is warranted;
  - a. Unless police or citizen action immediately resolves the situation, immediate evacuation is warranted.
  - b. The senior person (Superintendent, Supervisor, Lead person) in the immediate area should immediately take charge of the evacuation process.
3. If evacuation is warranted, employees should move quickly to the designated assembly point or another safe area designated by the senior person. All persons are to go to the same assembly point. It may be necessary for employees to be interviewed or debriefed by police officials
4. The senior person should verify all employees are present in the safe area and determine if any are injured.
5. First aid should be administered as needed; the 9-1-1 operators should be informed of the presence and extent of injuries.
6. If medical attention is needed, EMSStat will be dispatched to the scene. The paramedics will be allowed to enter the safe area as soon as it is deemed safe by the police officials present.
7. All employees should remain in the safe area until contacted by police officials.
8. It may be necessary to break out a window to create a safe exit point for evacuation.

**EMERGENCY MANAGEMENT PLAN FOR BUILDINGS A, C & MUNICIPAL BUILDING**

If the emergency is located in your building and is not weather related call 911 and immediately inform them of the emergency. They will dispatch emergency services personnel to your emergency.

If the 911 call center is not responding call 321-1600 (NPD Non-emergency) or 292-9780 (Norman Fire non-emergency) to report the emergency.

If the emergency is in your building and related to the failure of a part of the building because of a roof failure, broken water pipe, sewer overflow or similar emergency call 292-9717 (Building Maintenance) and inform them of the emergency.

Alert the employees in your area and have them alert everyone in their area. (Sound the Alarm, Pass the word). Make sure any persons who might be physically challenged or unaware of circumstances are in the know.

If the emergency is a fire in the small (able to be controlled with a fire extinguisher) stage, use a fire extinguisher to extinguish the fire. Ensure at least one person is watching the location equipped with a fully charged fire extinguisher until the Fire Department arrives.

If the fire cannot be extinguished with a portable fire extinguisher then evacuate the building to the assembly area immediately.

**Emergency Escape Procedure for Fire in the Building –**

These areas are assigned the responsibility for making sure that 911 is notified

BUILDING A	PERMIT TECHNICIANS
BUILDING C	UTILITIES CUSTOMER SERVICE REPRESENTATIVES
MUNICIPAL BUILDING	ADMIN. TECHNICIAN AT THE INFORMATION DESK

These positions are assigned rescue medical and building search/ sweep duties

Only trained emergency responders equipped with PPE are allowed these duties.

Designated assembly points?

All three Buildings evacuate to the Pavilion in Andrews Park

Which person will count the people from their Department at the assembly point?

Department Head or Senior Administrative Technician from that Department

What equipment must be left running or shut down through a procedure prior to evacuation?

Equipment in Computer Room left running if at all possible

What information needs to be protected in case of a fire (do not risk life to do so)?

Personnel are required to exit building immediately and meet at designated assembly point.

**Tornado -**

Where do people take shelter in a tornado?

Gender appropriate Rest Room in each building

What information needs to be protected/ copied/ moved to another location in the event of an impending storm?

Personal Computers shut down properly

Electrical load decreased by turning off unnecessary lighting and electrical accessories

**Chemical spill in your location –**

Who is responsible for making sure that the Fire Department is notified?

BUILDING A	PERMIT TECHNICIANS
BUILDING C	UTILITIES CUSTOMER SERVICE REPRESENTATIVES
MUNICIPAL BUILDING	ADMIN. TECHNICIAN AT THE INFORMATION DESK

What chemicals (gasses) are present in your area that may present a problem?

None

Who is assigned rescue medical and building search/ sweep duties?

Only trained emergency responders equipped with proper PPE should perform these duties.

Designated assembly points -

BUILDING A	COUNCIL CHAMBERS IN MUNICIPAL BLDG.
BUILDING C	COUNCIL CHAMBERS IN MUNICIPAL BLDG.
MUNICIPAL BUILDING	BLDG. C, WEST CONFERENCE ROOM

**IF ALL THREE BUILDINGS ARE AFFECTED -- MEET AT THE PIVILION IN ANDREWS PARK**

Which person will count the persons from their Department at the assembly point?

Department Head or Senior Administrative Technician from that Department

What equipment must be left running or shut down through a procedure prior to evacuation?

None specifically, evacuate as quickly as possible

What information needs to be protected/ copied/ moved to another location in the event of a spill?

None specifically, (personnel and sensitive data if it is readily accessible)



**Chemical spill on downwind street or railroad –**

Who are assigned rescue medical and building search/ sweep duties?

If the spill involves a hazardous chemical or employees are experiencing an adverse physical reaction to the spilled chemical; then an evacuation of the building is advised.

Only trained emergency responders equipped with proper PPE should perform these duties.

Designated assembly points -

This will be determined at the time of incident. The assembly point should be an area out of the dispersion cone (drift cloud) and 90° to the wind direction. The general wind direction in the winter is from the North, so the assembly point should be either directly East or West of the Municipal Complex. Similarly with the summer winds from the south and southwest, the assembly point should be south or southwest and not in direction of the wind path.

Which person will count the persons from their Department at the assembly point?

- Department Head or Senior Administrative Technician from that Department

What equipment must be left running or shut down through a procedure prior to evacuation?

- None specifically, evacuate as quickly as possible

What information needs to be protected/ copied/ moved to another location in the event of a spill?

- None specifically, personnel and sensitive data if it is readily accessible;
- Evacuate as quickly as possible

**Civil Defense Emergency –**

What are management's expectations for employee activities during Civil Defense Emergencies (Tornadoes, flooding, riots, either in Norman or a nearby town, but not in your location?)

Take appropriate actions based on the direction(s) from the Director of Emergency Management or other competent authority.

Duties assigned by the Director of Emergency Management

None assigned

## Active Shooter / Hostile Intruder: COUNCIL CHAMBERS

In the event of a violent event involving an active shooter or an armed hostile intruder in the council chamber during a City Council meeting or other function, the council members and other city officials should:

1. Call 9-1-1 immediately to report the situation. This call should be made even if police officers are present in the council chambers during the incident.
  - a. The caller should remain on the phone with the 9-1-1 operator until contacted by a police officer to provide ongoing information.
2. Assess the situation and determine if immediate evacuation to a safe area is warranted;
  - a. Unless police or citizen action immediately resolves the situation, immediate evacuation is warranted.
  - b. The City Manager or his/her designee should immediately take charge of the evacuation process.
3. If evacuation is warranted, the council members and city officials should move quickly to a designated safe area.
  - a. Preferred safe areas are the council lounge and/or the study session room depending on the location of the most immediate threat.
  - b. All council members and city officials should go to the same safe area if possible.
  - c. Once inside the safe area, all doors should be locked and opened only for police officials.
4. The City Manager or his/her designee should verify all council members and city officials are present in the safe area and determine if any are injured.
5. First aid should be administered as needed; the 9-1-1 operators should be informed of the presence and extent of injuries.
6. If medical attention is needed, EMSStat will be dispatched to the scene. The paramedics will be allowed to enter the safe area as soon as it is deemed safe by the police officials present.
7. All city council members and city officials should remain in the safe area until contacted by police officials.
8. If the situation can not be resolved quickly, it may be necessary to evacuate the building. The primary evacuation site is the Norman Police Department.
  - a. The council members and city officials should be escorted to the police department by uniformed police officers to ensure their safety.
  - b. It may be necessary to break out a window in the safe area to create a safe exit point.

9. Upon arrival at the police department, the council members and city officials should gather in the Patrol Squad Room. The City Manager or his/her designee should again verify that all council members and city officials are present.
  - a. It may be necessary for council members and city officials to be interviewed or debriefed by police officials.

Upon resolution of the incident, council members and city officials will be provided an escort to their vehicles or residences if they desire.

### City Council Security Options

The following security options are intended as general guidelines for addressing security needs during City Council Meetings and other government sponsored meetings in city buildings. The City Manager in consultation with the Chief of Police and the Emergency Manager will determine what level of security is appropriate.

#### **Security Level 1**

Security Level 1 may be implemented when the perceived threat to the City Council and/or other city officials is low.

While operating under Security Level 1, there will be at least one police officer present in the Council Chambers when a council meeting is in session. The officer may be uniformed or in civilian attire. The officer shall be armed and will have in his/her possession a police radio to facilitate communication should an unforeseen event occur.

#### **Security level 2**

Security Level 2 may be implemented when the perceived threat to the City Council and/or city officials is elevated above normal levels but no specific credible threat exists. Conditions that may warrant Security Level 2 may include but are not limited to:

- Recent terrorist activity within the continental United States
- Significant labor related unrest within the city
- Potential for peaceful demonstrations against city policy, controversial agenda items, etc.

When Security Level 2 is in effect, at least two uniformed police officers will be present in the Council Chambers when a council meeting is in session. The officers will be on post no later than 30 minutes prior to the beginning of the council meeting and will remain until all council members and city officials have left the premises. One officer will be posted in the front of the Council Chambers. The second officer will be posted in the rear of the Council Chambers near on of the doors.

The on-duty patrol division commander will be responsible for ensuring that an adequate number of officers are available.

### **Security Level 3**

Security Level 3 may be implemented when the threat level to the City Council and/or other city officials is perceived to be high. Conditions that may warrant Security Level 3 may include but are not limited to:

- Recent or ongoing terrorist activity within the state of Oklahoma
- Specific credible threats against a City Council member or other city official
- Specific credible threats against the government in general
- Significant potential for violent demonstrations against city policy or officials

When Security Level 3 is in effect, no less than four uniformed police officers will be posted in the Council Chambers when a City Council meeting is in session. The officers will be on post no later than one hour prior to the beginning of the council meeting and will remain until all council members and city officials have left the premises. Two officer will be posted in the front of the Council Chambers, one on either side of the dais. The other two officers will be posted in the rear of the Council Chambers, one at each door.

The on-duty patrol division commander will be responsible for ensuring that an adequate number of officers are available.

#### Additional Security Measures

When Security Level 3 is in effect, the Council Chambers and adjacent rooms will be checked for explosive devices by members of the Norman Police Department Hazardous Devices Unit prior to the arrival of any council members.

All council members and city officials should park their vehicles in a designated location. Parking lot security may be provided by uniformed police officers in marked police units.

The prohibition of handbags, brief cases and backpacks in the Council Chambers may be considered. A bag check area can be established in the Multi-Purpose Room. Checked bags can be screened for explosives.

## **EMERGENCY MANAGEMENT PLAN FOR BUILDING B**

The primary Emergency Management functions detailed in NPD Policy Numbers 201 and 206 must be followed by those persons assigned to perform those functions. Employees who are not assigned functions by either 201, 206, or other NPD policy sections shall take appropriate action by the following procedure.

If the emergency is located in Building B and is not weather related call dispatch and immediately inform them of the emergency after you are away from the immediate danger. They will dispatch emergency services personnel to your emergency.

If dispatch center is not responding, use a radio communications to report the emergency.

If the emergency is in your building and related to the failure of a part of the building because of a roof failure, broken water pipe, sewer overflow or similar emergency call 292-9717 (Building Maintenance) and inform them of the emergency.

Alert the employees in your area and have them alert everyone in their area. (Sound the Alarm, Pass the word).

If the emergency is a fire in the small (able to be controlled with a fire extinguisher) stage, use a fire extinguisher to extinguish the fire. Ensure that a person is watching the location equipped with a fully charged fire extinguisher until the Fire Department arrives.

If the fire cannot be extinguished with a portable fire extinguisher then evacuate the building to the assembly area.

While they are evacuating, have two persons quickly sweep the building for injured or straggling persons who may not be physically able to evacuate.

### **Emergency Escape Procedure for Fire in the Building – Norman Police Department Employees –**

Who is assigned the responsibility for making sure that the Fire Department is notified?  
Communications/Dispatch.

Who do you want to train in the use of fire extinguishers and fire prevention methods?  
All employees will be trained annually

Who is assigned rescue medical and building search/ sweep duties?  
Only trained emergency responders equipped with proper PPE should perform these duties.

Designated assembly point?

- Day Time during normal working hours, in the Council Chambers, Municipal Building
- After Working Hours / Weekends and Holidays in the Andrews park pavilion until suitable shelter is found.

Which person will count the persons at the assembly point?  
Shift Supervisors

**Municipal Court Employees-**

Who is assigned the responsibility for making sure that the Fire Department is notified?  
Communications/Dispatch.

Who do you want to train in the use of fire extinguishers and fire prevention methods?  
All personnel will be trained annually

Who is assigned rescue medical and building search/ sweep duties?  
Only trained emergency responders equipped with proper PPE should perform these duties.

Designated assembly point (for fire)?  
Day time - Council Chambers  
After Hours - Andrews Park pavilion

Which person will count the persons at the assembly point?  
Chief Deputy Court Clerk  
Alternate – Court Administrator

Shelter/ Assembly Point (Tornado)  
Downstairs in Dispatch Area unless flooding is a serious threat, then Judge's chambers

Assembly Points (Chemical Spill)  
Walgreen's either east or west which will be determined by wind direction.

**All Building B employees -**

What equipment must be left running or shut down through a procedure prior to evacuation?  
Nothing is required to be shut down unless that equipment is the source of the fire.

What information needs to be protected/ copied/ moved to another location in the event of a fire?  
In the case of a fire in the building, all employees must exit the building immediately and meet at the designated assembly point.

**Tornado -**

Where do people take shelter in an impending tornado  
Gender appropriate restrooms on the ground level or out of the traffic flow in the underground level of the building.

What is the procedure for fueling vehicles prior to the storm or moving equipment if your location is in the path of the storm?  
Fuel vehicles prior to the storm that have less than one-half tank full.

What information needs to be protected/ copied/ moved to another location in event of an impending storm?

Confidential Files and Records that may be destroyed or compromised during the storm. In general, this refers to electronic files on PCs that should be turned off and files not secured in workplaces in offices.

Those items in file cabinets or other secure locations do not have to be moved unless they are endangered.

**Chemical spill in your location –**

Who is responsible for making sure that the Fire Department is notified?

Communications / Dispatch or by radio call if Communications is disabled

What chemicals (gasses) are present in your area that may present a problem?

None

Who is assigned rescue medical and building search/ sweep duties?

Only trained emergency responders equipped with proper PPE should perform these duties.

Designated assembly point?

- Day Time during normal working hours, in the Council Chambers, Municipal Building
- After Working Hours / Weekends and Holidays in the Andrews park pavilion until suitable shelter is found.

Which person will count the persons at the assembly point?

Shift Supervisors

What equipment must be left running or shut down through a procedure prior to evacuation?

Nothing is required to be shut down unless that equipment is the source of the fire

What information needs to be protected in the event of a fire?

In the case of a fire in the building, all employees must exit and meet at the designated assembly point.

**Chemical spill on downwind street or railroad –**

Who is assigned rescue medical and building search/ sweep duties?

Only trained emergency responders equipped with proper PPE should perform these duties.

Designated assembly points?

To be determined at the time the incident takes place. The assembly point should be an area out of the dispersion cone (drift cloud) and 90° to the wind direction. The general wind direction in the winter is from the North, so the assembly point should be either directly East or West of the Municipal Complex. Similarly with the summer winds from the south and southwest, the assembly point should be south or southwest.

Which person will count the persons at the assembly point?

Shift Supervisors

What equipment must be left running or shut down through a procedure prior to evacuation?

Nothing is required to be shut down unless that equipment is the source of the fire

What information needs to be protected/ copied/ moved to another location in the event of a fire?

In the case of a fire in the building, all employees must exit the building immediately and meet at the designated assembly point.

**Civil Defense Emergency –**

What are management's expectations for employee activities during Civil Defense Emergencies (Tornadoes, flooding, riots, either in Norman or a nearby town, but not in your location)?

Take appropriate actions based on the direction(s) from the Director of Emergency Management or other competent authority.

Duties assigned by the Director of Emergency Management?

None assigned



## **EMERGENCY MANAGEMENT PLAN FOR BUILDING MAINTENANCE, 103 WEST GRAY**

If the emergency is located in your building and is not weather related call 911 and immediately inform them of the emergency. They will dispatch emergency services personnel to your emergency.

If the 911 call center is not responding call 321-1600 (NPD Non-emergency) or 292-9780 (Norman Fire non-emergency) to report the emergency.

If the emergency is in your building and related to the failure of a part of the building because of a roof failure, broken water pipe, sewer overflow or similar emergency call 292-9717 (Building Maintenance) and inform them of the emergency.

Alert the employees in your area and have them alert everyone in their area. (Sound the Alarm, Pass the word).

If the emergency is a fire in the small (able to be controlled with a fire extinguisher) stage, use a fire extinguisher to extinguish the fire. Ensure that a person is watching the location with a fully charged fire extinguisher until the Fire Department arrives.

If the fire cannot be extinguished with a portable fire extinguisher then evacuate the building to the assembly area.

While they are evacuating, have two persons quickly sweep the building, on their way of exiting, for injured or straggling persons who may not be physically able to evacuate.

### **Emergency Escape Procedure for Fire in the Building –**

Who is assigned the responsibility for making sure that the Fire Department is notified?

Whoever is in the area and can call

.

Who do you want to train in the use of fire extinguishers and fire prevention methods?

All personnel will be trained annually

Who is assigned rescue medical and building search/ sweep duties?

Only trained emergency responders equipped with proper PPE should perform these duties

Designated assembly point?

Under the north end of the overhang at 111 North Peters

Which person will count the persons at the assembly point?

Building Maintenance Superintendent

What equipment must be left running or shut down through a procedure prior to evacuation?

None

What information needs to be protected in the event of a fire?

None

**Tornado -**

Where do people take shelter in a tornado?

Area located within the center of the facility maintenance building.

What is the procedure for fueling vehicles prior to the storm or moving equipment if your location is in the path of the storm?

Vehicle fuel tanks should be topped off with fuel when major snow and ice storms are known to be approaching.

What information needs to be protected/ copied/ moved to another location in the event of an impending storm?

None

**Chemical spill in your location –**

Who is responsible for making sure that the Fire Department is notified?

Custodial Coordinator or whoever is in the building.

Who do you want to train in the use of hazardous spill management/ control methods?

No person, Fire Department will contain hazardous spills

What chemicals (gasses) are present in your area that may present a problem?

Pressurized aerosol cans of cleaning products

Who is assigned rescue medical and building search/ sweep duties?

Only trained emergency responders equipped with proper PPE should perform these duties

Designated assembly point?

Council chambers located at 201 West Gray

What person will count the persons at the assembly point?

Building Maintenance Superintendent

What equipment must be left running or shut down through a procedure prior to evacuation?

None

What information needs to be protected/ copied/ moved to another location in the event of a spill?

None

**Chemical spill on downwind street or railroad –**

Who is assigned rescue medical and building search/ sweep duties?

Only trained emergency responders equipped with proper PPE should perform these duties

Designated assembly points -

To be determined at the time at the time of incident. The assembly point should be an area out of the dispersion cone (drift cloud) and 90° to the wind direction. The general wind direction in the winter is from the North, so the assembly point should be either directly East or West of the Facility. Similarly with the summer winds from the south and southwest, the assembly point should be south or southwest.

What person will count the persons at the assembly point?

Building Maintenance Superintendent

What equipment must be left running or shut down through a procedure prior to evacuation?

None

What information needs to be protected/ copied/ moved to another location in the event of a spill?

None

**Civil Defense Emergency –**

What are management's expectations for employee activities during Civil Defense Emergencies (Tornadoes, flooding, riots, either in Norman or a nearby town, but not in your location)?

Take appropriate actions based on the direction(s) from the Director of Emergency Management or other competent authority.

Duties assigned by the Director of Emergency Management?

None assigned

## **EMERGENCY MANAGEMENT PLAN FOR FLEET MANAGEMENT**

If the emergency is located in your building and is not weather related call 911 and immediately inform them of the emergency. They will dispatch emergency services personnel to your emergency.

If the 911 call center is not responding call 321-1600 (NPD Non-emergency) or 292-9780 (Norman Fire non-emergency) to report the emergency.

If the emergency is in your building and related to the failure of a part of the building because of a roof failure, broken water pipe, sewer overflow or similar emergency call 292-9717 (Building Maintenance) and inform them of the emergency.

Alert the employees in your area and have them alert everyone in their area. (Sound the Alarm, Pass the word).

If the emergency is a fire in the small (able to be controlled with a fire extinguisher) stage, use a fire extinguisher to extinguish the fire. Ensure that a person watching the location is equipped with a fully charged fire extinguisher until the Fire Department arrives.

If the fire cannot be extinguished with a portable fire extinguisher then evacuate the building to the assembly area.

While they are evacuating, have two persons quickly sweep the building for injured or straggling persons who may not be physically able to evacuate.

### **Emergency Escape Procedure for Fire in the Building –**

Who is assigned the responsibility for making sure that the Fire Department is notified?

Administrative Technician and the Supervisor

Who do you want to train in the use of fire extinguishers and fire prevention methods?

All personnel will be trained annually

Who is assigned rescue medical and building search/ sweep duties?

Only trained emergency responders equipped with proper PPE should perform these duties

Designated assembly point -

Parking lot north of the building

Secondary assembly during inclement weather – Traffic Control breaks room

Which person will count the persons at the assembly point?

Supervisors

What equipment must be left running or shut down through a procedure prior to evacuation?

None

What information needs to be protected in the event of a fire?

In the case of a fire in the building, all employees must exit and meet at the designated assembly point.

**Tornado -**

Where do people take shelter in a tornado or heavy thunderstorm?

Vault in Line Maintenance

What information needs to be protected/ copied/ moved to another location in the event of an impending storm?

Vehicle records and personnel files if possible

**Chemical spill in your location –**

Who is responsible for making sure that the Fire Department is notified?

Administrative Technician, and/ or the Supervisor

What chemicals (gasses) are present in your area that may present a problem?

Oxygen/Acetylene	Motor Fuels	Tires
Automotive Products	Pressurized Cans	Rubber Products
Battery Acid	Automotive Lubricants	

Who is assigned rescue medical and building search/ sweep duties?

Only trained emergency responders equipped with proper PPE should perform these duties

Designated assembly point?

Parking lot north of the building

Secondary assembly point during inclement weather – Traffic Control break room

What person will count the persons at the assembly point?

Supervisor

What equipment must be left running or shut down through a procedure prior to evacuation?

None

What information needs to be protected / copied /moved to another location in the event of a spill?

None

**Chemical spill on downwind street or railroad –**

Who is assigned rescue medical and building search/ sweep duties?

Only trained emergency responders equipped with proper PPE should perform these duties.

Designated assembly points -

To be determined at the time. The assembly point should be an area out of the dispersion cone (drift cloud) and 90° to the wind direction. The general wind direction in the winter is from the North, so the assembly point should be either directly East or West of the Facility. Similarly with the summer winds from the south and southwest, the assembly point should be south or southwest.

What person will count the persons at the assembly point?

Supervisor

**Civil Defense Emergency –**

What are management's expectations for employee activities during Civil Defense Emergencies (Tornadoes, flooding, riots, either in Norman or a nearby town, but not in your location)?

Take appropriate actions based on the direction(s) from the Director of Emergency Management or other competent authority.

Duties assigned by the Director of Emergency Management?

None assigned

## **EMERGENCY MANAGEMENT PLAN FOR LINE MAINTENANCE**

If the emergency is located in your building and is not weather related call 911 and immediately inform them of the emergency. They will dispatch emergency services personnel to your emergency.

If the 911 call center is not responding call 321-1600 (NPD Non-emergency) or 292-9780 (Norman Fire non-emergency) to report the emergency.

If the emergency is in your building and related to the failure of a part of the building because of a roof failure, broken water pipe, sewer overflow or similar emergency call 292-9717 (Building Maintenance) and inform them of the emergency.

Alert the employees in your area and have them alert everyone in their area. (Sound the Alarm, Pass the word).

If the emergency is a fire in the small, “able to be controlled with a fire extinguisher” stage, use a fire extinguisher to extinguish the fire. Ensure that a person watching the location is equipped with a fully charged fire extinguisher until the Fire Department arrives.

If the fire cannot be extinguished with a portable fire extinguisher then evacuate the building to the assembly area.

While they are evacuating, have two persons quickly sweep the building for injured or straggling persons who may not be physically able to evacuate on their way to the exit(s).

### **Emergency Escape Procedure for Fire in the Building –**

Who is assigned the responsibility for making sure that the Fire Department is notified?

Administrative Technician III and/or the Supervisor

Who do you want to train in the use of fire extinguishers and fire prevention methods?

All personnel will be trained annually

Who is assigned rescue medical and building search/ sweep duties?

Only trained emergency responders equipped with proper PPE should perform these duties

Designated assembly point -

Parking lot north of the building

Secondary assembly point during inclement weather – Traffic Control break room

Which person will count the persons at the assembly point?

Supervisors

What equipment must be left running or shut down through a procedure prior to evacuation?

None

What information needs to be protected incase of a fire?

In the case of a fire in the building, all employees must exit and meet at the designated assembly point.

## **Tornado -**

Where do people take shelter in a tornado or heavy thunderstorm?

Vault

What is the procedure for fueling vehicles prior to the storm or moving equipment if your location is in the path of the storm?

Fuel vehicles prior to snow and ice events

What information needs to be protected, copied, or moved to another location in the event of an impending storm?

Computer data and vehicles for emergency response. As many brass and copper fittings as can be moved or protected (**only if time permits**)

## **Chemical spill in your location –**

Who is responsible for making sure that the Fire Department is notified?

Administrative Technician III, Supervisor

Who do you want to train in the use of spill management/ control methods?

Only trained emergency responders equipped with proper PPE should perform these duties

What chemicals (gasses) are present in your area that may present a problem?

Oxygen and Acetylene

Who is assigned rescue medical and building search/ sweep duties

Only trained emergency responders equipped with proper PPE should perform these duties

Designated assembly point -

Parking lot north of the building

Secondary assembly during inclement weather – Traffic Control break room

What persons will count the persons at the assembly point?

Supervisors

What equipment must be left running or shut down through a procedure prior to evacuation?

None

What information needs to be protected, copied, or moved to another location in case of a spill?

In the case of a fire in the building, all employees must exit and meet at the designated assembly point



**Chemical spill on downwind street or railroad –**

Who is assigned rescue medical and building search/ sweep duties?

Administrative Technician and/or Supervisor

Designated assembly points -

To be determined at the time of the incident. The assembly point should be an area out of the dispersion cone (drift cloud) and 90° to the wind direction. The general wind direction in the winter is from the North, so the assembly point should be either directly East or West of the Facility. Similarly with the summer winds from the south and southwest, the assembly point should be south or southwest.

What persons will count the persons at the assembly point?

Supervisors

What equipment must be left running or shut down through a procedure prior to evacuation?

None

What information needs to be protected, copied, or moved to another location in the event of a spill?

Computer data and vehicles for emergency response

**Civil Defense Emergency –**

What are management's expectations for employee activities during Civil Defense Emergencies (Tornadoes, flooding, riots, either in Norman or a nearby town, but not in your location)?

Take appropriate actions based on the direction(s) from the Director of Emergency Management or other competent authority.

Duties assigned by the Director of Emergency Management/

None assigned

## **EMERGENCY MANAGEMENT PLAN FOR PARK MAINTENANCE**

If the emergency is located in your building and is not weather related call 911 and immediately inform them of the emergency. They will dispatch emergency services personnel to your emergency.

If the 911 call center is not responding call 321-1600 (NPD Non-emergency) or 292-9780 (Norman Fire non-emergency) to report the emergency.

If the emergency is in your building and related to the failure of a part of the building because of a roof failure, broken water pipe, sewer overflow or similar emergency call 292-9717 (Building Maintenance) and inform them of the emergency.

Alert the employees in your area and have them alert everyone in their area. (Sound the Alarm, Pass the word).

If the emergency is a fire in the small, “able to be controlled with a fire extinguisher” stage, use a fire extinguisher to extinguish the fire. Ensure that a person watching the location is equipped with a fully charged fire extinguisher until the Fire Department arrives.

If the fire cannot be extinguished with a portable fire extinguisher then evacuate the building to the assembly area.

While they are evacuating, have two persons quickly sweep the building for injured or straggling persons who may not be physically able to evacuate.

### **Emergency Escape Procedure for Fire in the Building –**

Who is assigned the responsibility for making sure that the Fire Department is notified?

Small Equipment Mechanic or anyone in the shop area at the time

Who do you want to train in the use of fire extinguishers and fire prevention methods?

All personnel will be trained annually

Who is assigned rescue medical and building search/ sweep duties?

Only trained emergency responders equipped with proper PPE should perform these duties

Designated assembly point?

Garden Center Building

Which person will count the persons at the assembly point?

Supervisor

What equipment must be left running or shut down through a procedure prior to evacuation?

None

What information needs to be protected in the event of a fire?

None

**Tornado -**

Where do people take shelter in a tornado that threatens the Shop Building?

Garden Club Building

Do you have a procedure for fueling vehicles prior to the storm or moving equipment if your location is in the path of the storm?

Fuel vehicles prior to storm

What information needs to be protected/ copied/ moved to another location in the event of an impending storm?

None

**Chemical spill in your location –**

Who is responsible for making sure that the Fire Department is notified?

Small Equipment Mechanic or anyone in the shop area at the time

Who do you want to train in the use of spill management and control methods?

Crew Chiefs, Supervisor

What chemicals (gasses) are present in your area that may present a problem?

Oxygen and Acetylene	Paints and Coatings	Lubricants
Pesticides	Motor Fuels	Pressurized Cans
Herbicides	Solvents	

Who is assigned rescue medical and building search/ sweep duties?

Only trained emergency responders equipped with proper PPE should perform these duties

Designated assembly point -

West side of the parking lot west of the building

What person will count the persons at the assembly point?

Supervisor

What equipment must be left running or shut down through a procedure prior to evacuation?

None

What information needs to be protected, copied, or moved to another location in the event of a spill?

None

**Chemical spill on downwind street or railroad –**

Who is assigned rescue medical and building search/ sweep duties?

Only trained emergency responders equipped with proper PPE should perform these duties

Designated assembly point -

To be determined at the time of the incident. The assembly point should be an area out of the dispersion cone (drift cloud) and 90° to the wind direction. The general wind direction in the winter is from the North, so the assembly point should be either directly East or West of the Facility. Similarly with the summer winds from the south and southwest, the assembly point should be south or southwest.

What person will count the persons at the assembly point?

Supervisor

What equipment must be left running or shut down through a procedure prior to evacuation?

None

What information needs to be protected, copied or moved to another location in case of a spill?

None

**Civil Defense Emergency –**

What are management's expectations for employee activities during Civil Defense Emergencies (Tornadoes, flooding, riots, either in Norman or a nearby town, but not in your location)?

Take appropriate actions based on the direction(s) from the Director of Emergency Management or other competent authority.

Duties assigned by the Director of Emergency Management?

None assigned

## **EMERGENCY MANAGEMENT PLAN FOR SANITATION**

If the emergency is located in your building and is not weather related call 911 and immediately inform them of the emergency. They will dispatch emergency services personnel to your emergency.

If the 911 call center is not responding call 321-1600 (NPD Non-emergency) or 292-9780 (Norman Fire non-emergency) to report the emergency.

If the emergency is in your building and related to the failure of a part of the building because of a roof failure, broken water pipe, sewer overflow or similar emergency call 292-9717 (Building Maintenance) and inform them of the emergency.

Alert the employees in your area and have them alert everyone in their area. (Sound the Alarm, Pass the word).

If the emergency is a fire in the small, “able to be controlled with a fire extinguisher” stage, use a fire extinguisher to extinguish the fire. Ensure that a person watching the location is equipped with a fully charged fire extinguisher until the Fire Department arrives.

If the fire cannot be extinguished with a portable fire extinguisher then evacuate the building to the assembly area.

While they are evacuating, have two persons quickly sweep the building for injured or straggling persons who may not be physically able to evacuate.

### **Emergency Escape Procedure for Fire in the Building –**

Who is assigned the responsibility for making sure that the Fire Department is notified?

Karen Kimber and Jennifer Matthews

Who do you want to train in the use of fire extinguishers and fire prevention methods?

All personnel will be trained annually

Who is assigned rescue medical and building search/ sweep duties?

Only trained emergency responders equipped with proper PPE should perform these duties

Designated assembly point -

100 yards north along the fence line of the Sanitation Building

In inclement weather, assemble in the Traffic control Break Room

Which person will count the persons at the assembly point?

Scottie Williams

What equipment must be left running or shut down through a procedure prior to evacuation?

Leave computers and equipment running

What information needs to be protected or copied in the event of a fire?

None

**Tornado -**

Where do people take shelter in a tornado or heavy thunderstorm?

Closet in the main office area

What is the procedure for fueling vehicles prior to the storm or moving equipment if your location is in the path of the storm?

Vehicles are to be fueled at day's end as a Standard Operating Procedure

What information needs to be protected, copied, or moved to another location in case of an impending storm?

None

**Chemical spill in your location –**

Who is responsible for making sure that the Fire Department is notified?

Scottie Williams

Who do you want to train in the use of spill management/ control methods?

Only trained emergency responders equipped with proper PPE should perform these duties

What chemicals (gasses) are present in your area that may present a problem?

None

Who is assigned rescue medical and building search/ sweep duties?

Only trained emergency responders equipped with proper PPE should perform these duties

Designated assembly point?

100 yards north along the fence line of the Sanitation Building

In inclement weather assemble in the Traffic control Break Room

What person will count the persons at the assembly point?

Scottie Williams

What equipment must be left running or shut down through a procedure prior to evacuation?

Personal Computers can be left running (nothing needs to be shut down)

What information needs to be protected/ copied/ moved to another location in the event of a spill?

None

**Chemical spill on downwind street or railroad –**

Who is assigned rescue medical and building search/ sweep duties?

Only trained emergency responders equipped with proper PPE should perform these duties

Designated assembly point -

To be determined at the time of the incident. The assembly point should be an area out of the dispersion cone (drift cloud) and 90° to the wind direction. The general wind direction in the winter is from the North, so the assembly point should be either directly East or West of the Facility. Similarly with the summer winds from the south and southwest, the assembly point should be south or southwest.

What person will count the persons at the assembly point?

Supervisors

What equipment must be left running or shut down through a procedure prior to evacuation?

Personal Computers can be left running

What information needs to be protected, copied, or moved to another location in the event of a spill?

None

**Civil Defense Emergency –**

What are management's expectations for employee activities during Civil Defense Emergencies (Tornadoes, flooding, riots, either in Norman or a nearby town, but not in your location)?

Take appropriate actions based on the direction(s) from the Director of Emergency Management or other competent authority.

Duties assigned by the Director of Emergency Management?

None assigned

## **EMERGENCY MANAGEMENT PLAN FOR STREET MAINTENANCE FACILITY**

If the emergency is located in your building and is not weather related call 911 and immediately inform them of the emergency. They will dispatch emergency services personnel to your emergency.

If the 911 call center is not responding call 321-1600 (NPD Non-emergency) or 292-9780 (Norman Fire non-emergency) to report the emergency.

If the emergency is in your building and related to the failure of a part of the building because of a roof failure, broken water pipe, sewer overflow or similar emergency call 292-9717 (Building Maintenance) and inform them of the emergency.

Alert the employees in your area and have them alert everyone in their area. (Sound the Alarm, Pass the word).

If the emergency is a fire in the small, “able to be controlled with a fire extinguisher” stage, use a fire extinguisher to extinguish the fire. Ensure that a person watching the location is equipped with a fully charged fire extinguisher until the Fire Department arrives.

If the fire cannot be extinguished with a portable fire extinguisher then evacuate the building to the assembly area.

While they are evacuating, have two persons quickly sweep the building for injured or straggling persons who may not be physically able to evacuate.

### **Emergency Escape Procedure for Fire in the Building –**

Who is assigned the responsibility for making sure that the Fire Department is notified?

Administrative Technician

Who do you want to train in the use of fire extinguishers and fire prevention methods?

All personnel will be trained annually

Who is assigned rescue medical and building search/ sweep duties?

Only trained emergency responders equipped with proper PPE should perform these duties

Designated assembly point -

Outside by the Salt Barn

Which person will count the persons at the assembly point?

Supervisor

What equipment must be left running or shut down through a procedure prior to evacuation?

None

What information needs to be protected in the event of a fire?

None



**Tornado -**

Where do people take shelter in a tornado?

Restrooms if imminent

Dale Hall basement at N. E. Corner of Lindsey & Elm if time allows

What is the procedure for fueling vehicles prior to the storm or moving equipment if your location is in the path of the storm?

Fuel vehicles prior to large storms (only perform if time permits to do so safely)

What information needs to be protected/ copied/ moved to another location incase of an impending storm?

None

**Chemical spill in your location –**

Who is responsible for making sure that the Fire Department is notified?

Administrative Technician

Who do you want to train in the use of spill management/ control methods?

Maintenance worker in tool crib

What chemicals (gasses) are present in your area that may present a problem?

Oxygen	Acetylene	Pesticides	Herbicides
Motor Fuels	Luricants	Pressurized Cans	

Who is assigned rescue medical and building search/ sweep duties?

Supervisor

Designated assembly point -

Outside by the Salt Barn

What person will count the persons at the assembly point?

Supervisor

What equipment must be left running or shut down through a procedure prior to evacuation?

None

What information needs to be protected, copied, or moved to another location in the event of a spill?

None

**Chemical spill on downwind street or railroad –**

Who is assigned rescue medical and building search/ sweep duties?

Only trained emergency responders equipped with proper PPE should perform these duties

Designated assembly point -

To be determined at the time of the incident. The assembly point should be an area out of the dispersion cone (drift cloud) and 90° to the wind direction. The general wind direction in the winter is from the North, so the assembly point should be either directly East or West of the Facility. Similarly with the summer winds from the south and southwest, the assembly point should be south or southwest.

What person will count the persons at the assembly point?

Supervisor

What equipment must be left running or shut down through a procedure prior to evacuation?

None

What information needs to be protected, copied, or moved to another location in the event of a spill?

None

**Civil Defense Emergency –**

What are management's expectations for employee activities during Civil Defense Emergencies (Tornadoes, flooding, riots, either in Norman or a nearby town, but not in your location)?

Take appropriate actions based on the direction(s) from the Director of Emergency Management or other competent authority.

Duties assigned by the Director of Emergency Management?

None assigned

## **EMERGENCY MANAGEMENT PLAN FOR TRAFFIC CONTROL**

If the emergency is located in your building and is not weather related call 911 and immediately inform them of the emergency. They will dispatch emergency services personnel to your emergency.

If the 911 call center is not responding call 321-1600 (NPD Non-emergency) or 292-9780 (Norman Fire non-emergency) to report the emergency.

If the emergency is in your building and related to the failure of a part of the building because of a roof failure, broken water pipe, sewer overflow or similar emergency call 292-9717 (Building Maintenance) and inform them of the emergency.

Alert the employees in your area and have them alert everyone in their area. (Sound the Alarm, Pass the word).

If the emergency is a fire in the small, “able to be controlled with a fire extinguisher” stage, use a fire extinguisher to extinguish the fire. Ensure that a person watching the location is equipped with a fully charged fire extinguisher until the Fire Department arrives.

If the fire cannot be extinguished with a portable fire extinguisher then evacuate the building to the assembly area.

While they are evacuating, have two persons quickly sweep the building for injured or straggling persons who may not be physically able to evacuate.

### **Emergency Escape Procedure for Fire in the Building –**

Who is assigned the responsibility for making sure that the Fire Department is notified?  
Administrative Technician

Who do you want to train in the use of fire extinguishers and fire prevention methods?  
All personnel will be trained annually

Who is assigned rescue medical and building search/ sweep duties?  
Only trained emergency responders equipped with proper PPE should perform these duties

Designated assembly point -  
In the parking lot east of the office door  
During inclement weather, assemble in the Line Maintenance Break Room

Which person will count the persons at the assembly point?  
Supervisor

What equipment must be left running or shut down through a procedure prior to evacuation?  
None

What information needs to be protected in the event of a fire?  
None

**Tornado -**

Where do people take shelter in a tornado?

Under the loading dock on the east side of the building

What is the procedure for fueling vehicles prior to the storm or moving equipment if your location is in the path of the storm?

Vehicles are to be fueled if possible, particularly if news of an impending ice or snowstorm is received in time to take action. In a tornado and if time allows, move as many vehicles as possible to a safe location out of the predicted path of the storm (only if time permits).

What information needs to be protected/ copied/ moved to another location incase of an impending storm?

None

**Chemical spill in your location –**

Who is responsible for making sure that the Fire Department is notified?

Administrative Technician

Who do you want to train in the use of spill management and control methods?

Maintenance Worker I's

What chemicals (gasses) are present in your area that may present a problem?

Oxygen	Acetylene	Motor Fuels
Toluene	Natural Gas	

Who is assigned rescue medical and building search/ sweep duties?

Only trained emergency responders equipped with proper PPE should perform these duties

Designated assembly point -

In the parking lot east of the office door

During inclement weather, assemble in the Line Maintenance Break Room

What person will count the persons at the assembly point?

Traffic Signal Technician or Crew Chief

What equipment must be left running or shut down through a procedure prior to evacuation?

None

What information needs to be protected, copied, or moved to another location incase of a spill?

None

**Chemical spill on downwind street or railroad –**

Who is assigned rescue medical and building search/ sweep duties?

Only trained emergency responders equipped with proper PPE should perform these duties

Designated assembly point -

To be determined at the time of the incident. The assembly point should be an area out of the dispersion cone (drift cloud) and 90° to the wind direction. The general wind direction in the winter is from the North, so the assembly point should be either directly East or West of the Facility. Similarly with the summer winds from the south and southwest, the assembly point should be south or southwest.

What person will count the persons at the assembly point?

Traffic Signal Technician or Crew Chief

What equipment must be left running or shut down through a procedure prior to evacuation?

None

What information needs to be protected, copied, or moved to another location incase of a spill?

None

**Civil Defense Emergency –**

What are management's expectations for employee activities during Civil Defense Emergencies (Tornadoes, flooding, riots, either in Norman or a nearby town, but not in your location)?

Take appropriate actions based on the direction(s) from the Director of Emergency Management or other competent authority. Division is on 24-hour call – 7 days per week.

Duties assigned by the Director of Emergency Management?

None assigned

## **EMERGENCY MANAGEMENT PLAN FOR WASTE WATER TREATMENT FACILITY**

If the emergency is located in your building and is not weather related call 911 and immediately inform them of the emergency. They will dispatch emergency services personnel to your emergency.

If the 911 call center is not responding call 321-1600 (NPD Non-emergency) or 292-9780 (Norman Fire non-emergency) to report the emergency.

If the emergency is in your building and related to the failure of a part of the building because of a roof failure, broken water pipe, sewer overflow or similar emergency call 292-9717 (Building Maintenance) and inform them of the emergency.

Alert the employees in your area and have them alert everyone in their area. (Sound the Alarm, Pass the word).

If the emergency is a fire in the small, “able to be controlled with a fire extinguisher” stage, use a fire extinguisher to extinguish the fire. Ensure that a person watching the location is equipped with a fully charged fire extinguisher until the Fire Department arrives.

If the fire cannot be extinguished with a portable fire extinguisher then evacuate the building to the assembly area.

While they are evacuating, have two persons quickly sweep the building for injured or straggling persons who may not be physically able to evacuate.

### **Emergency Escape Procedure for Fire in the Building –**

Who is assigned the responsibility for making sure that the Fire Department is notified?

Administrative Technician and/or Laboratory Technician

Who do you want to train in the use of fire extinguishers and fire prevention methods?

All personnel will be trained annually

Who is assigned rescue medical and building search/ sweep duties?

Only trained emergency responders equipped with proper PPE should perform these duties

Designated assembly point -

Between Old Finals and Storm Holding Ponds, (Large Tanks 100 yds west of the Main Building)

Which person will count the persons at the assembly point?

Administrative Technician and/or Laboratory Technician

What equipment must be left running or shut down through a procedure prior to evacuation?

Nothing- all equipment will continue to operate in automatic mode – Supervisor can access the plant automation remotely if equipment shut down is needed.

What information needs to be protected in the event of a fire?

State and Federal operations discharge and sludge reports need to be protected from fire and water if possible and danger is not imminent.

**Tornado / Flooding-**

Where do people take shelter in a tornado or heavy thunderstorm?

Old Effluent Meter Vault – Tornado only

Flooding – evacuate the site, which is in the flood plain.

What is the procedure for fueling vehicles prior to the storm or moving equipment if your location is in the path of the storm?

Do not attempt to fuel vehicles.

What information needs to be protected, copied, or moved to another location incase of an impending storm?

Nothing

**Chemical spill in your location –**

Who is responsible for making sure that the Fire Department is notified?

Administrative Technician and/or Laboratory Technician

Who do you want to train in the use of spill management and control methods?

Laboratory Technicians, Crew Chief and Plant Mechanic

What chemicals (gasses) are present in your area that may present a problem?

Hydrogen Sulfide	Methane	Carbon Dioxide	Chlorine
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Who is assigned rescue medical and building search/ sweep duties?

Only trained emergency responders equipped with proper PPE should perform these duties

Designated assembly point?

Between Old Finals and Storm Holding Ponds, (Large Tanks 100 yds west of the Main Building)

What person will count the persons at the assembly point?

Laboratory Technician, Administrative Technician

What equipment must be left running or shut down through a procedure prior to evacuation?

Nothing

What information needs to be protected, copied, or moved to another location in the event of a spill?

Nothing

**Chemical spill on downwind street or railroad –**

Who is assigned rescue medical and building search/ sweep duties?

Only trained emergency responders equipped with proper PPE should perform these duties

Designated assembly point -

To be determined at the time of the incident. The assembly point should be an area out of the dispersion cone (drift cloud) and 90° to the wind direction. The general wind direction in the winter is from the North, so the assembly point should be either directly East or West of the Facility. Similarly with the summer winds from the south and southwest, the assembly point should be south or southwest.

What person will count the persons at the assembly point?

Administrative Technician and/or Laboratory Technician

What equipment must be left running or shut down through a procedure prior to evacuation?

None

What information needs to be protected, copied, or moved to another location in the event of a spill?

None

**Civil Defense Emergency –**

What are management's expectations for employee activities during Civil Defense Emergencies (Tornadoes, flooding, riots, either in Norman or a nearby town, but not in your location)?

Take appropriate actions based on the direction(s) from the Director of Emergency Management or other competent authority.

Duties assigned by the Director of Emergency Management?

None assigned



## **EMERGENCY MANAGEMENT PLAN FOR WATER TREATMENT FACILITY**

If the emergency is located in your building and is not weather related call 911 and immediately inform them of the emergency. They will dispatch emergency services personnel to your emergency.

If the 911 call center is not responding call 321-1600 (NPD Non-emergency) or 292-9780 (Norman Fire non-emergency) to report the emergency.

If the emergency is in your building and related to the failure of a part of the building because of a roof failure, broken water pipe, sewer overflow or similar emergency call 292-9717 (Building Maintenance) and inform them of the emergency.

Alert the employees in your area and have them alert everyone in their area. (Sound the Alarm, Pass the word).

If the emergency is a fire in the small, “able to be controlled with a fire extinguisher” stage, use a fire extinguisher to extinguish the fire. Ensure that a person watching the location is equipped with a fully charged fire extinguisher until the Fire Department arrives.

If the fire cannot be extinguished with a portable fire extinguisher then evacuate the building to the assembly area.

While they are evacuating, have two persons quickly sweep the building for injured or straggling persons who may not be physically able to evacuate.

### **Emergency Escape Procedure for Fire in the Buildings –**

Who is assigned the responsibility for making sure that the Fire Department is notified?

Laboratory Technician

Who do you want to train in the use of fire extinguishers and fire prevention methods?

All personnel will be trained annually

Who is assigned rescue medical and building search/ sweep duties?

Only trained emergency responders equipped with proper PPE should perform these duties

Designated assembly point -

Assemble either in main parking lot to the north of the filter building, or in the area between the small clarifiers to the west of the filter building (depending on wind direction and the presence of smoke).

Which person will count the persons at the assembly point?

Supervisor

What equipment must be left running or shut down through a procedure prior to evacuation?

Leave everything running

What information needs to be protected in the event of a fire?

All personnel are expected to evacuate building immediately in the event of a fire

**Tornado -**

Where do people take shelter in a tornado or heavy thunderstorm?

Basement of the filter room (filter pipe gallery)

What is the procedure for fueling vehicles prior to the storm or moving equipment if your location is in the path of the storm?

As necessary, fill vehicle fuel tanks.

What information needs to be protected, copied, or moved to another location in the event of an impending storm?

Primarily paper records stored in the basement. Also, equipment manuals, plans and specifications in Supervisor's office, the operator's room, and the Superintendent's office. (This should be done only if time permits)

**Chemical spill in your location –**

Who is responsible for making sure that the Fire Department is notified?

Supervisor and/or Laboratory Technician

Who do you want to train in the use of spill management/ control methods?

Crew Chief, Plant Mechanic, Plant Operators

What chemicals (gasses) are present in your area that may present a problem?

Chlorine	Ammonia	Carbon Dioxide
Oxygen	Acetylene	Motor Fuels

Who is assigned rescue medical and building search/ sweep duties?

Only trained emergency responders equipped with proper PPE should perform these duties

Designated assembly point -

Assemble either in main parking lot to the north of the filter building, or in the area between the small clarifiers to the west of the filter building (depending on wind direction and the presence of gasses-smoke-vapor cloud).

What person will count the persons at the assembly point?

Supervisor

What equipment must be left running or shut down through a procedure prior to evacuation?

Leave machinery running, nothing has to be turned off or on

**Chemical spill on downwind street or railroad –**

Who is assigned rescue medical and building search/ sweep duties?

Only trained emergency responders equipped with proper PPE should perform these duties

Designated assembly point -

To be determined at the time of the incident. The assembly point should be an area out of the dispersion cone (drift cloud) and 90° to the wind direction. The general wind direction in the winter is from the North, so the assembly point should be either directly East or West of the Facility. Similarly with the summer winds from the south and southwest, the assembly point should be south or southwest.

What person will count the persons at the assembly point?

Supervisor

What equipment must be left running or shut down through a procedure prior to evacuation?

Leave machinery running, nothing has to be turned off or on

What information needs to be protected, copied, or moved to another location in the event of a spill?

Personnel are expected to exit building immediately in the event of a fire

**Civil Defense Emergency –**

What are management's expectations for employee activities during Civil Defense Emergencies (Tornadoes, flooding, riots, either in Norman or a nearby town, but not in your location)?

Take appropriate actions based on the direction(s) from the Director of Emergency Management or other competent authority.

Duties assigned by the Director of Emergency Management?

None assigned

## **EMERGENCY MANAGEMENT PLAN FOR WESTWOOD/ GOLF COURSE**

If the emergency is located in your building and is not weather related call 911 and immediately inform them of the emergency. They will dispatch emergency services personnel to your emergency.

If the 911 call center is not responding call 321-1600 (NPD Non-emergency) or 292-9780 (Norman Fire non-emergency) to report the emergency.

If the emergency is in your building and related to the failure of a part of the building because of a roof failure, broken water pipe, sewer overflow or similar emergency call 292-9717 (Building Maintenance) and inform them of the emergency.

Alert the employees in your area and have them alert everyone in their area. (Sound the Alarm, Pass the word).

If the emergency is a fire in the small, “able to be controlled with a fire extinguisher” stage, use a fire extinguisher to extinguish the fire. Keep a person watching the location, with a fresh fire extinguisher until the Fire Department arrives.

If the fire cannot be extinguished with a portable fire extinguisher then evacuate the building to the assembly area.

While they are evacuating, have two persons quickly sweep the building for injured or straggling persons who may not be physically able to evacuate.

### **Emergency Escape Procedure for Fire in the Building –**

Who is assigned the responsibility for making sure that the Fire Department is notified?  
Mechanic

Who do you want to train in the use of fire extinguishers and fire prevention methods?  
All personnel will be trained annually

Who is assigned rescue medical and building search/ sweep duties?  
Only trained emergency responders equipped with proper PPE should perform these duties

Designated assembly point -  
Driving Range Tee Box

Which person will count the persons at the assembly point?  
Superintendent

What equipment must be left running or shut down through a procedure prior to evacuation?  
None

What information needs to be protected in the event of a fire?  
None

**Tornado -**

Where do people take shelter in a tornado or heavy thunderstorm?

Robinson St. pump house / underground

What is the procedure for fueling vehicles prior to the storm or moving equipment if your location is in the path of the storm?

Fuel vehicles when storms are impending and move them to a safe location if necessary and only if time permits

What information needs to be protected/ copied/ moved to another location in the event of an impending storm?

Nothing

**Chemical spill in your location –**

Who is responsible for making sure that the Fire Department is notified?

Maintenance Worker II

Who do you want to train in the use of spill management/ control methods?

All Hands (only if there is no danger)

What chemicals (gasses) are present in your area that may present a problem?

Oxygen	Acetylene	Aerosol Cans	Solvent Vat	Motor Fuels
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Who is assigned rescue medical and building search/ sweep duties?

Only trained emergency responders equipped with proper PPE should perform these duties

Designated assembly point -

Driving Range Tee Box

What person will count the persons at the assembly point?

Assistant Supervisor and Maintenance Worker II

What equipment must be left running or shut down through a procedure prior to evacuation?

None

What information needs to be protected, copied, or moved to another location incase of a spill?

None

**Chemical spill on downwind street or railroad –**

Who is assigned rescue medical and building search/ sweep duties?

Only trained emergency responders equipped with proper PPE should perform these duties

Designated assembly point -

To be determined at the time of the incident. The assembly point should be an area out of the dispersion cone (drift cloud) and 90° to the wind direction. The general wind direction in the winter is from the North, so the assembly point should be either directly East or West of the Facility. Similarly with the summer winds from the south and southwest, the assembly point should be south or southwest.

What person will count the persons at the assembly point?

Superintendent

What equipment must be left running or shut down through a procedure prior to evacuation?

None

What information needs to be protected, copied, or moved to another location in the event of a spill?

None

**Civil Defense Emergency –**

What are management's expectations for employee activities during Civil Defense Emergencies (Tornadoes, flooding, riots, either in Norman or a nearby town, but not in your location)?

Take appropriate actions based on the direction(s) from the Director of Emergency Management or other competent authority.

Duties assigned by the Director of Emergency Management?

None assigned



## NORMAN POLICE DEPARTMENT

### Questions to Ask:

1. When is the bomb going to explode?
2. Where is it right now?
3. What does it look like?
4. What kind of bomb is it?
5. What will cause it to explode?
6. Did you place the bomb?
7. Why?
8. What is your address?
9. What is your name?

### Exact Wording of the Threat

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Sex of caller: \_\_\_\_\_ Race: \_\_\_\_\_

Age: \_\_\_\_\_ Length of call: \_\_\_\_\_

Number at which call was received:

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Time: \_\_\_\_\_ Date: \_\_\_\_\_

**BOMB THREAT**

### Caller's Voice:

_____ Calm	_____ Nasal
_____ Angry	_____ Stutter
_____ Excited	_____ Lisp
_____ Slow	_____ Raspy
_____ Rapid	_____ Deep
_____ Soft	_____ Ragged
_____ Loud	_____ Clearing throat
_____ Laughter	_____ Deep breathing
_____ Crying	_____ Cracking voice
_____ Normal	_____ Disguised
_____ Distinct	_____ Accent
_____ Slurred	_____ Familiar
_____ Whispered	

If the voice is familiar, who did it sound like?

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### **Background Sounds:**

_____ Street noises	_____ Factory noises
_____ Crockery	_____ Animal noises
_____ Voices	_____ Clear
_____ PA System	_____ Static
_____ Music	_____ Local
_____ House noises	_____ Long distance
_____ Motor	_____ Office

Other \_\_\_\_\_

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### **Threat Language:**

_____ Well spoken	_____ Incoherent
_____ Foul	_____ Taped
_____ Irrational	_____ Message read by threat maker

**Remarks:** \_\_\_\_\_

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### **Report call immediately to:**

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Phone number: \_\_\_\_\_

Date: \_\_\_\_\_

Name: \_\_\_\_\_

Position: \_\_\_\_\_

Phone number: \_\_\_\_\_

**CITY OF NORMAN****SAFETY MANUAL**

<b>EFFECTIVE DATE:</b>  6/30/03	<b>POLICY NUMBER:</b>  600-1	<b>POLICY TITLE:</b> Bloodborne Pathogen Policy and Exposure Control Plan
<b>TOPICS:</b> Bloodborne Pathogens Exposure Control Plan	<b>REFERENCE:</b> 29CFR 1910.1030 29 CFR 1904.20 40 OS Section 401-424	<b>NUMBER OF PAGES:</b>  12
<b>AUTHORIZED BY:</b> Brandon McLendon Safety Manager	<b>SPECIAL INSTRUCTIONS</b>	<b>LAST REVIEW DATE:</b> 12/03/15

**PURPOSE:**

The purpose of the Bloodborne Pathogen Policy and Exposure Control Plan is to protect the employees of the City of Norman from health hazards due to occupational exposure to bloodborne pathogens, by minimizing the exposure risk, and if necessary, providing treatment for exposed employees through medical facilities. In addition, it is to communicate the clean up procedures, personal protective equipment requirements and the training necessary to conform to State and Federal regulations.

**POLICY:**

The City of Norman conducts a two-tiered bloodborne pathogens compliance program for its employees. The tiers are defined by, those employees who are at risk for exposure and, those employees who are at low-risk for exposure to bloodborne pathogens.

The at risk employees are those persons who may be reasonably anticipated coming in contact with human blood or other potentially infectious body fluids during the performance of their duties. These persons must receive a thorough annual training in the Bloodborne Pathogen Standard to eliminate or control exposure. They will also be required to be immunized for Hepatitis “B” or submit a declination form, with their legal signature, to the medical records keeper in Human Resources.

Those persons who may be at greater for exposure risk and therefore reasonably anticipate coming in contact with human blood or other potentially infectious body fluids during the performance of their duties are:

Firefighters	Sanitation Workers
Law Enforcement Officers	Wastewater Workers
Animal Control Officers	Recreation Technicians

The low-risk exposure risk employees are those who have no reasonable anticipation for coming in contact with blood or other potentially infectious body fluids during the performance of their duties. This group will be given periodic awareness training concerning the hazards of bloodborne pathogens and exposure control procedures.

This program includes the use of engineering and work practice controls, personal protective clothing and equipment, informational training, Hepatitis B vaccination, post-exposure valuation and follow-up, sign and label programs, and other protection provisions that are appropriate to the employee’s exposure tier.



**DEFINITIONS:**

Bloodborne Pathogens - Pathogenic microorganisms that are present in human blood and that can infect and cause disease in persons who are exposed to blood containing these pathogens

Confidentiality – All medical information shall be considered confidential and no employee's health information will be released without the written consent of the employee. The medical records keeper in Human Resources shall maintain these records.

Contaminated – The presence or reasonably assumed presence of human blood or other potentially infectious materials on an item or surface

Contaminated Sharps – Any object capable of penetrating the skin, which is contaminated with blood or any other potentially infectious material.

Covered Diseases – Hepatitis B, Hepatitis C and Human Immunodeficiency Viruses, Ebola.

Decontamination – Using physical or chemical methods to remove, inactivate or destroy bloodborne pathogens on a surface or item to assure that they cannot transmit infectious particles.

Hand washing facilities – An area in the workplace which provides an adequate supply of running water, soap and single use towels.

Regulated Waste – Includes:

- ❑ Liquid or semi-liquid blood, or other potentially infectious materials;
- ❑ Contaminated items that would release liquid or semi liquid blood or other body fluids if compressed;
- ❑ Items caked with dried blood or other potentially infectious bodily fluid that would release materials during handling;
- ❑ Contaminated Sharps; and
- ❑ Pathological or microbiological wastes containing blood or other potentially infectious materials.

**PROCEDURE:**

Department Superintendents and Supervisors shall be responsible for ensuring their employees comply with the provisions of this plan. The City of Norman is responsible for providing all necessary supplies such as personal protective equipment, soap, household bleach, Hepatitis B vaccinations, etc. Hepatitis B vaccinations are administered through the Safety Manager. The Safety Manager is also responsible for disposing of biohazardous waste contained in biohazard bags. The Safety Manager shall be responsible for training City of Norman employees for both awareness and the annual training mandated by 29CFR 1910.1030 (in depth training).

## Engineering and Work Practice Controls

Universal precautions will be observed by all City employees in order to prevent contact with blood or other potentially infectious materials. All blood or other potentially infectious materials will be considered infectious regardless of the perceived status of the source individual.

**Employees must wash their hands or other contaminated skin with soap and water, or flush mucous membranes with water, as soon as possible following an exposure incident (such as a splash of blood to the eyes or an accidental needle stick).**

### Universal Precautions

Universal Precautions is an aggressive, standardized approach to infection control. According to the concept of Universal Precautions, employees should treat all human blood and certain body fluids as if they are known to contain HIV, Hepatitis B or C Virus or other bloodborne pathogens.

Employees shall use universal precautions at all times to reduce the risk to workers in the vicinity of an accident, whether or not they are responding. Since there is no way to know if an injured worker is infected with a bloodborne pathogen. Universal precautions must be used for all activities involving contact with blood, tissue and body fluids or equipment or materials, which may have been contaminated.

Wear gloves when anticipating contact with human blood, body fluid, tissues mucous membranes or contaminated surfaces, or if the person responding has breaks in the skin of their hands, like cuts, hangnails or dry skin.

Use disposable resuscitation devices if a decision is made to respond to an emergency.

Wear the correct Personal Protective Equipment (apron, mask and eye protection and gloves) if the possibility of splattering is possible while attending a citizen or co-worker. If the proper PPE is not available, use what is available and make sure that you thoroughly wash the contaminated area of your body and immediately report the incident as an exposure.

Wash any contaminated areas of the body, clothing or other surfaces thoroughly with non-abrasive germicidal cleaners. After washing, wash the area again, and then again. Soap and water are plentiful, use as much as you want.

### Hand washing Procedure:

1. Moisten skin / Hands with water (warm or cold)
2. Apply a non-abrasive lotion soap (bacteria can live on a wet bar of soap)
3. Thoroughly wash all surfaces, cracks, and crevices of the skin, hands and wrists for a minimum of 10-15 seconds, using friction and a vigorous mechanical action.
4. Rinse well with running water and allow the water to continue during the next step.
5. Take two paper towels and thoroughly dry the area, use the paper towels to turn off the faucet. Dispose of the towels in the trash receptacle.

An alternative method of washing the skin is to use antiseptic towelettes and disposable towels. Dispose of these items in a Regulated Waste Bag.

Use a brush and scoop to pick up broken glass and “sharps”. Discard “sharps” and disposable contaminated items in an appropriately labeled impervious sharps disposal container.

Immediately report all needle stick accidents, mucosal splashes or contamination of open wounds with blood or bodily fluids to the Safety Manager. These exposures are to be recorded in the OSHA 300 Log as an injury.

Dispose of all biohazard waste generated in accordance with the Regulated Waste section of this policy.

Isolate the accident area until clean up is completed.

City of Norman employees who encounter improperly disposed of needles shall notify the Safety Manager of the location of the needle(s), the Safety Manager will pick up and dispose of the needles in an appropriate container.

- ❑ No eating, drinking, smoking, applying cosmetics or lip balm, or handling contact lenses is allowed in a work area where there is a reasonable likelihood of occupational exposure.
- ❑ No food or drinks shall be kept in refrigerators, freezers, shelves, cabinets, or on counter tops or bench tops where blood or other potentially infectious materials are present.
- ❑ Employees must perform all procedures involving blood or other potentially infectious materials in such a manner as to minimize splashing, spraying, splattering, and generation of droplets of these substances.
- ❑ All spills of bodily fluids are to be cleaned up by trained personnel. These persons are recipients of the mandated 29 CFR 1910.1030 training. They will also be required to be immunized for Hepatitis “B” or submit a declination form, with their legal signature, to the medical records keeper in Human Resources.

#### Housekeeping:

Decontamination will be accomplished by utilizing the following materials:

- ❑ 10% (minimum) solution of chlorine bleach (1 pint per gallon), mixed daily or Lysol, or other EPA-registered disinfectant, solution mixed to the manufacturer’s directions.
- ❑ The bleach solution or disinfectant must be left in contact with contaminated work surfaces, tools, objects, or potentially infectious materials for at least 10 minutes before cleaning.

- ❑ All contaminated work surfaces, tools, objects, etc. will be decontaminated immediately or as soon as feasible after any spill of blood or other potentially infectious materials.
- ❑ Equipment and tools that were contaminated with blood or other potentially infectious materials will be decontaminated before servicing or put to use.
- ❑ Employees who are involved in cleaning contaminated surfaces must wear the appropriate Personal Protective Equipment for the conditions. This is to say that custodial workers do not need to be dressed in fully isolating PPE to simply perform the functions of their job. The proper level of protection for Custodians is that they must wear general duty, nitrile or latex gloves when cleaning toilets and washroom facilities to ensure that they are not contaminated from these surfaces.
- ❑ Broken glassware will not be picked up directly with the hands. Sweep or brush material into a dustpan. Known or suspected contaminated sharps shall be discarded immediately or as soon as feasible in containers that are closeable, puncture-resistant, leak-proof on sides and bottom, and marked with an appropriate biohazard label. If sharps container is not pre-labeled, biohazard labels are available through the Safety Manager.
- ❑ When containers of contaminated sharps are being moved from the area of use or discovery, the containers shall be closed immediately before removal or replacement to prevent spillage or protrusion of contents during handling, storage, transport, or shipping.

Regulated Waste:

- ❑ Regulated waste shall be placed in containers that are closeable, constructed to contain all contents and prevent leakage of fluids during handling, storage, transportation or shipping.
- ❑ The waste must be labeled or color-coded and closed before removal to prevent spillage or protrusion or contents during handling, storage, or transport.
- ❑ Biohazard bags and labels are available through the Safety Manager.
- ❑ A biological waste destructor shall handle incineration of all biohazardous waste. Small quantities, such as a single small (approx. 9" X 12") bag or a Bio-Wipe Mitt Bag, can be disposed of at Fire Station #1, 411 E. Main St., Norman.

Laundry Procedures:

Personal clothing contaminated with blood or other potentially infectious material will be handled as if it were any other contaminated material. Such laundry will not be sorted or rinsed with uncontaminated clothing. If at all possible, the owner of the clothing shall conduct the cleaning of the contaminated clothing or gear, using the clothing owner's washing machine or other personally owned tool or appliance. If the owner cannot coordinate the cleaning then the clothing shall be disposed of in the same manner as Regulated Waste.

Clothing that is rented or leased through a commercial uniform supplier shall be dealt with through their procedure. If no procedure exists, then the person whose bodily fluids are contaminating the clothing, prior to returning into the laundry service, shall launder the contaminated clothing.

Decontamination can be accomplished by soaking the contaminated clothing in a bath of 10% chlorine bleach solution, Lysol, or other EPA-registered disinfectant, solution mixed and used per the manufacturer's directions then triple rinsed with clean water. After completing this procedure, the clothing must be laundered mechanically in hot water with detergent. Footwear does not have to be mechanically laundered if the process will ruin the footwear.

If at all possible, the person whose bodily fluids contaminated the gear shall decontaminate City owned Personal Protective Equipment. If this is not possible than only a person who has been trained to clean bodily fluid contaminates may do so.

### Personal Protective Equipment

Where occupational exposure remains after institution of engineering and work controls, personal protective equipment shall also be utilized. The City will provide gloves, face shields, eye protection and other appropriate protective equipment at no cost to employees. The City will replace or repair personal protective equipment as necessary at no cost to employees. All personal protective equipment will be chosen based on the anticipated exposure to blood or other potentially infectious materials. The protective equipment will be considered appropriate only if it does not permit blood or other potentially infectious materials to pass through or reach the employee's clothing, skin, eyes, mouth, or mucous membranes under normal conditions of use and for the duration of time for which the protective equipment will be used.

Employees must

- ❑ Utilize protective equipment in occupational exposure situations.
- ❑ Remove garments that become penetrated by blood or other potentially infectious material immediately or as soon as feasible.
- ❑ Replace all garments that are torn or punctured, or that lose their ability to function as a barrier to bloodborne pathogens.
- ❑ Remove all contaminated personal protective equipment before leaving the work area.
- ❑ Place all garments in the appropriate designated area or container for cleaning, decontamination, or disposal.

### Hepatitis B Vaccine

The Hepatitis B vaccination shall be made available after the employee has received the training in occupational exposure avoidance and within 10 working days of initial assignment. It shall be made available to all employees who have potential occupational exposure unless, the employee previously received the complete Hepatitis B vaccination series, antibody testing revealed that the employee is immunized, or the vaccine is contraindicated for medical reasons. If the employee initially declines Hepatitis B

vaccination but at a later date decides to accept the vaccination, the vaccination shall then be made available.

All employees who decline the Hepatitis B vaccination offered shall sign the OSHA required waiver indicating their refusal. The declination sheet is included at the end of this policy.

If the U.S. Public Health Service recommends a routine booster dose of Hepatitis B vaccine at a future date, such booster doses shall be made available at no cost to the employee.

#### Post exposure evaluation and follow up

All exposure incidents shall be reported, investigated, and documented as an on-the-job injury. When the employee incurs an exposure incident, it shall be reported immediately to their Supervisor. Following a report of an exposure incident, the exposed employee shall go to the Norman Regional Hospital's Occupational Health Services, 724 24<sup>th</sup> Ave. NW for a confidential medical evaluation and follow-up, including at least the following elements:

- ❑ Documentation of the route(s) of exposure.
- ❑ A description of the circumstances under which the exposure occurred.
- ❑ The identification and documentation of the source individual. (The identification is not required if that identification is impossible or prohibited by state or local law.)
- ❑ The collection and testing of the source individual's blood for HBV and HIV serological status, if allowed by law.
- ❑ Post-exposure treatment for the employee, when medically indicated in accordance with the U.S. Public Health Service guidelines.
- ❑ Counseling for the employee.
- ❑ Evaluation of any reported illnesses.

The Healthcare professional evaluating an employee will be provided with the following information:

- ❑ A copy of this plan.
- ❑ A copy of the OSHA Bloodborne Pathogen regulations (29 CFR 1910.1030)
- ❑ Documentation of the route(s) of exposure.
- ❑ A description of the circumstances under which the exposure occurred.
- ❑ Results of the source individual's blood testing, if available.
- ❑ All medical records applicable to treatment of the employee, including vaccination status.

The employee will receive a copy of the evaluating healthcare professional's written opinion within 15 days of the completion of the evaluation. The healthcare professional's written opinion for Hepatitis B vaccination is limited to the following:

- (1) Whether the employee needs Hepatitis B vaccination;
- (2) Whether the employee has received such a vaccination.

The healthcare professional's written opinion for post-exposure evaluation and follow-up is limited to the following information:

- (1) That the employee was informed of the results of the evaluation.
- (2) That the employee was informed about any medical conditions resulting from exposure to blood or other infectious materials that require further evaluation or treatment.

All other findings or diagnoses must remain confidential and will not be in a written report.

All medical evaluations shall be made by or under the supervision of a licensed physician or by or under the supervision of a licensed healthcare professional.

All laboratory tests must be conducted by an accredited laboratory, at no cost to the employee.

All medical records will be kept in accordance with 29 CFR 1904.20 and HIPPA laws.

### Training

All at risk employees shall participate in an in-depth training program. Training will occur before assignment to a task where occupational exposure may take place and at least annually thereafter. Additional training will be provided when changes such as modification of tasks or procedures affect the employee's occupational exposure.

All low-risk employees will receive training in bloodborne pathogen procedures during their initial employee orientation. Divisions can schedule refresher training on an as needed basis. Employees desiring annual refresher training may request to be included in the scheduled in-depth bloodborne pathogen training events after securing permission from their Supervisor.

Any employee who is exposed to infectious materials shall receive in-depth training, even if the employee was allowed to receive the HBV vaccine after exposure.

The in-depth training program will include at least the following elements:

- (1) An accessible copy of the regulatory text of 29 CFR 1910.1030 and an explanation of its contents.
- (2) A general explanation of the epidemiology and symptoms of bloodborne diseases.
- (3) An explanation of the modes of transmission of bloodborne pathogens.
- (4) An explanation of the employer's exposure control plan and the means by which the employee can obtain a copy of the written plan.
- (5) An explanation of the appropriate methods for recognizing tasks and other activities that may involve exposure to blood or other potentially infectious materials.
- (6) An explanation of the use and limitations of methods that will prevent or reduce exposure, including appropriate engineering controls, work practices, and personal protective equipment.
- (7) Information on the types, proper use, location, removal, handling, decontamination, and disposal of personal protective equipment.
- (8) An explanation of the basis for selection of personal protective equipment.

**City of Norman, Oklahoma**  
**Hepatitis B Vaccine Declination**

I understand that due to my occupational exposure to blood or other infectious materials that I may be at risk of acquiring Hepatitis B virus infection. I have been given the opportunity to be vaccinated with the Hepatitis B vaccine at no charge to myself. However, I decline the Hepatitis B vaccination at this time. I understand that by declining this vaccine, I continue to be at risk of acquiring Hepatitis B, a serious disease. If in the future I continue to have occupational exposure to blood or other potentially infectious materials and I want the Hepatitis B vaccine, I can receive the vaccination series at no charge to me.

\_\_\_\_\_  
(print name)

\_\_\_\_\_  
(title)

\_\_\_\_\_  
(date)

\_\_\_\_\_  
(signature)



## **INSTRUCTIONS**

### **Oklahoma State Department of Health Communicable Disease Risk Exposure Report**

This report form was developed to initiate a system of notification for risk exposures occurring outside of a health care facility to health care workers, emergency responders, and funeral workers as specified by the Oklahoma State Department of Health OAC 310:555. This report and all information entered on it are to be held in strictest confidence to conform with 63 O.S. Supp. 2001, Section 1-502.1 et. seq.  
Note: For questions regarding the handling of ODH Form 207, call 405/271-4636.

#### **PART I: Exposed Worker Section**

**Questions 1-13 are to be completed by the exposed worker, immediately following the injury.**

9: Describe exposure in detail. Include information regarding type of exposure, body part affected, type of body fluid involved, duration of exposure, etc.

12: List the facility where the source patient was taken. This will be the facility that is responsible for testing the source patient.

**Questions 14-19 are to be completed by Employer's Designee, immediately following the injury.**

**Questions 20-22 are to be completed by a Licensed Health Care Professional. (MD, DO, RN, PA,).**

Routing:

A. If the Licensed Health Care Professional determines that the exposure does not have the potential for transmission of a communicable disease, the form should be returned to the Employer's Designee.

B. If the exposure does have the potential for transmission of a communicable disease, the

**Yellow** copy should be mailed **immediately** to the OSDH HIV/STD Service (use gray, self addressed, metered envelope).

The **Green** copy, a gray metered envelope and instruction page are to be delivered **immediately** to the designated person (usually the Infection Control Practitioner) at the health care facility to which the source patient was transported; to the attending physician, if the source patient was being cared for outside of a health care facility; to the health care provider who last had responsibility for the deceased source patient; or to the medical examiner.

#### **PART II: Source Patient Health Care Provider Section**

**Questions 23-38 are to be completed by the Health Care Provider who is responsible for testing the source patient.**

32. Rapid HIV testing has become a valuable tool used to quickly determine the need for initiation and/or continuation of PEP meds for the exposed person. When a rapid HIV test is performed on the source patient, communication of these results should not be delayed. The results should be **immediately** communicated to the physician/provider who is providing post-exposure counseling and follow up and is listed on page 1, q. 17-19.

Please note that as other source results become available, these should be released to the Provider listed on page 1, q. 17-19.

Routing:

A. The Health Care Provider should complete Part II and mail the completed green form to OSDH HIV/STD Service immediately using the gray, self-addressed, metered envelope.

OSDH form 207

11/03

## Communicable Disease Risk Exposure Report

The filing of this report initiates a system of notification for risk exposures occurring outside of a health care facility to health care workers, emergency responders, and funeral workers as specified by the Oklahoma State Department of Health OAC 310:555. This report and all information entered on it are to be held in strictest confidence in conformance with 63 O.S. Supp. 2001, Section 1-502.1 et. seq.

### PART I: Exposed Worker Section (Please Print)

1. Employee Name: \_\_\_\_\_  
(Last) (First) (MI)
2. Birth date: \_\_\_\_/\_\_\_\_/\_\_\_\_  
Mo. Day Yr.
3. Home Telephone: (\_\_\_\_) \_\_\_\_\_
4. Profession/Job Title: \_\_\_\_\_
5. Employer/Company Name: \_\_\_\_\_
6. Work Address/Telephone: \_\_\_\_\_ (\_\_\_\_) \_\_\_\_\_  
(Street) (City) (Zip) Telephone
7. Number of hepatitis B vaccinations previously received:  None;  1;  2;  3
8. Date of Exposure: (Mo./Day/Yr.) \_\_\_\_/\_\_\_\_/\_\_\_\_ 9. Time of Exposure: \_\_\_\_\_ AM or PM (Circle One)
10. Supervisor's Name/Telephone: \_\_\_\_\_ (\_\_\_\_) \_\_\_\_\_  
Telephone
11. Description of Exposure: \_\_\_\_\_
12. Source Patient Name: \_\_\_\_\_  
(Last) (First) (M.I.)
13. Location of Source Patient (include name of facility, address and phone number): \_\_\_\_\_

### To Be Completed By Employer's Designee

I have reviewed the circumstances and management of this incident and verify that the appropriate follow-up (according to our agency Exposure Control Plan) is being attempted in order to identify or prevent the transmission of communicable diseases to which the employee may be at risk as a result of this exposure.

14. \_\_\_\_\_ 15. \_\_\_\_\_  
Name & Title (Print) Signature
16. \_\_\_\_/\_\_\_\_/\_\_\_\_  
Mo. Day Yr.

Post-exposure counseling and follow-up will be provided to this employee by:

17. \_\_\_\_\_ 18. (\_\_\_\_) \_\_\_\_\_ 19. (\_\_\_\_) \_\_\_\_\_  
Provider's Name Provider's Telephone Number Provider's Fax Number

### To Be Completed by A Licensed Health Care Professional (MD, DO, RN, PA,)

In my professional judgment, this  was  was not a mucosal, percutaneous or respiratory exposure that has the potential for transmission of a communicable disease, such as hepatitis B, hepatitis C, HIV, TB or meningococcus.

20. \_\_\_\_\_ 21. \_\_\_\_\_ 22. \_\_\_\_/\_\_\_\_/\_\_\_\_  
Name & Title (Print) Signature Mo. Day Yr.

For consultation regarding exposures and PEP meds: PEP Hotline 1-888-448-4911

**Note:** If this exposure does not warrant medical follow-up, please return the form to the *Employer's Designee* and indicate to that individual why no follow up is required.

**If this is an exposure that warrants medical follow-up, the employer shall handle the report accordingly:**

A. **Yellow** copy to be mailed **Immediately to the OSDH HIV/STD Service (use gray, self-addressed, metered envelope) at 1000 N.E. 10, OKC, Ok 73110**

B. **Green** copy, a gray metered envelope and instruction page to be delivered **immediately** to the designated person (usually the Infection Control Practitioner) at the location of the source patient.

**PART II: Source Patient Health Care Provider Section (Please Print)**

23. Date and time Communicable Disease Risk Exposure Report received: (Mo./Day/Yr.) \_\_\_\_/\_\_\_\_/\_\_\_\_ Time: \_\_\_\_AM or PM (Circle One)

24. Person completing Part II:

\_\_\_\_\_  
(Last) (First) (Title)

25. Institution (name): \_\_\_\_\_ 25. Business Phone: \_\_\_\_\_  
(\_\_\_\_) \_\_\_\_\_

**Source Patient Information**

26. Birth date: (Mo./Day/Yr.) \_\_\_\_/\_\_\_\_/\_\_\_\_ 27. Sex:  Male;  Female

28. Primary Diagnoses: \_\_\_\_\_

29. Was the source patient found to have any potentially communicable disease(s), such as hepatitis B, hepatitis C, HIV, TB, meningococcal disease, or others?  Yes  No

30. If yes, specify: \_\_\_\_\_

31. Does the source patient have clinical evidence of AIDS or symptoms of HIV infection or acute retroviral syndrome?  Yes;  No;  Unknown

**Source Patient Test Results**

32. Rapid HIV test:  Positive;  Negative;  Indeterminant Test Date: (Mo./Day/Yr.) \_\_\_\_/\_\_\_\_/\_\_\_\_  Not Done

**Note: IMMEDIATELY report Rapid HIV results by phone or fax to the Provider listed on page 1, q. 17-19. As other test results become available, these are also to be released to the Provider listed on page 1, q. 17-19.**

33. HBsAg:  Positive;  Negative Test Date: (Mo./Day/Yr.) \_\_\_\_/\_\_\_\_/\_\_\_\_  Not Done

34. anti-HCV:  Positive;  Negative Test Date: (Mo./Day/Yr.) \_\_\_\_/\_\_\_\_/\_\_\_\_  Not Done

35. HIV:  Positive;  Negative;  Indeterminant Test Date: (Mo./Day/Yr.) \_\_\_\_/\_\_\_\_/\_\_\_\_  Not Done

36. Other: Name of Test: \_\_\_\_\_ Test result: \_\_\_\_\_ Test Date: (Mo./Day/Yr.) \_\_\_\_/\_\_\_\_/\_\_\_\_

**Note: Source results may be released to the source patient; the exposed person; the exposed person's physician/provider or OSDH per OAC 310:555.**

37. Date results released to Provider: (Mo./Day/Yr.) \_\_\_\_/\_\_\_\_/\_\_\_\_ 38. Date mailed to OSDH: (Mo./Day/Yr.) \_\_\_\_/\_\_\_\_/\_\_\_\_

**When Part II is completed, mail immediately to the OSDH HIV/STD Service using the gray, self-addressed, metered envelope.**

**Part III: OSDH Section (Please Print)**

Date Report Received: (Mo./Day/Yr.) \_\_\_\_/\_\_\_\_/\_\_\_\_

Person Completing Part III: \_\_\_\_\_  
(Last) (First)

**OSDH**

**Division:** \_\_\_\_\_

**Follow-Up Action:** \_\_\_\_\_

**CITY OF NORMAN****SAFETY MANUAL**

<b>EFFECTIVE DATE:</b>  6/30/03	<b>POLICY NUMBER:</b>  600-2	<b>POLICY TITLE:</b> Tuberculosis (TB) Policy
<b>TOPICS:</b> Tuberculosis Exposure Control Plan	<b>REFERENCE:</b> 1994 CDC TB Guidelines 29 CFR 1904.20 40 OS Section 401-424	<b>NUMBER OF PAGES:</b>  2
<b>AUTHORIZED BY:</b> Brandon McLendon, Safety Manager	<b>SPECIAL INSTRUCTIONS</b>	<b>LAST REVIEW DATE:</b> 5/4/16

**PURPOSE:**

The purpose of this policy is to specify the steps for employees to take to (a) minimize their exposure to *mycobacterium tuberculosis* (M. tuberculosis, tuberculosis, TB) in the workplace and (b) to report an exposure or possible exposure to a person carrying TB. It is also to satisfy the intent of the OSHA General Duty Clause (Public Law 91-596) and the State of Oklahoma OSH Act of 1970 general duty clause (o.s. 40-403 A).

**POLICY:**

The City of Norman is committed to providing a safe and healthy workplace for all of its employees. It is the policy of the City to exercise all precautions necessary to protect employees from all accidents and exposures to pathogens. Any employee who believes that they have been exposed to M. Tuberculosis must report the exposure to their Supervisor. The employee will be medically assessed to identify whether they are infected. If an employee is found to be infected with TB, then the employee will be given access to proper medical care and treatment to cure the infection. Results of the assessment will be kept confidential. Work restrictions may be imposed on the infected employee to prevent co-workers from exposure. The attending physician, the Safety Manager and the employee's Supervisor through the return to work procedure, will determine the extent of the restrictions.

**DEFINITIONS:**

Mycobacterium tuberculosis (M. tuberculosis, tuberculosis, TB) – The bacteria that is responsible for causing TB in humans.

TB – is a disease that primarily spreads from person to person through droplet nuclei suspended in the air. When a person coughs, sings or laughs, the droplet nuclei are released into the air. When another person *repeatedly* breathes the droplets nuclei there is a *chance* of their becoming infected with TB.

Confidentiality – All medical information shall be considered confidential and no employee's health information will be released without the written consent of the employee. The medical records keeper in Human Resources shall maintain these records.

Contaminated – The presence or reasonably assumed presence of M. Tuberculosis or other potentially infectious materials on an item or surface

Decontamination – Using physical or chemical methods to remove, inactivate or destroy TB containing droplet nuclei on a surface or item to assure that they cannot transmit infectious particles.

## **PROCEDURE:**

Departmental Superintendents and Supervisors shall be responsible for ensuring their employees comply with the provisions of this policy.

For an employee to develop TB infection he or she must have close contact to a sufficient number of air droplet nuclei over a long period of time. The state of the employee's health is also considered as contributing to the susceptibility for TB infection and the possible development of the TB disease. The probability of contracting TB in Cleveland County is very low (6 cases per 100,000 (Incidence Rate = 2.5) per the Oklahoma Department of Health's website link to, *Number and Incidence of Reported Tuberculosis Cases by County, Oklahoma 2009*. Nonetheless, Norman has a growing population of persons who immigrate into Norman from countries that have significant populations of persons who are infected with TB. This yields an existent, but low possibility of exposure to TB, primarily for Police Officers and Firefighters.

Persons with active cases of TB may be recognized by their persistent, violent coughing that may produce blood involved with the sputum. Symptoms of the disease those persons may suffer from weight loss, weakness, fever, night sweats, and chest pain.

The protocol for employees to determine whether a person is infected with TB is to:

- ❑ Determine if they display any of the symptoms listed above, and if they do simply ask them if they have TB.
- ❑ If they respond affirmatively, have that person breath through a handkerchief or paper towel that will stop the droplet nuclei from becoming airborne and contaminating the City employee.
- ❑ If a person displaying the symptoms does not speak English or cannot communicate, or appears to be lying, then the employee is to take the necessary precautions by having them breath through a handkerchief or paper towel.
- ❑ When transporting a person with, or suspected of having TB the employee is advised to cover their mouth and nose with a disposable dust mask, handkerchief or paper towel if at all possible. Transporting the person suspected of having TB should be done in a vehicle with the windows open. Transmission of the disease requires a prolonged contact with an infected person; it is improbable that a single short exposure to the droplet nuclei will cause an infection. Nonetheless, limiting the amount of exposure to unfiltered air may lower the risk of contracting the disease.
- ❑ If the infected person is taken into custody or moved to a medical facility, inform the recipient facility of your suspicion of TB infection.

The Safety Manager shall be responsible for training City of Norman employees for TB awareness training. The training shall consist of the following topics; disease transmission, signs and symptoms, medical surveillance and therapy, and the proper use of controls.

**CITY OF NORMAN**

**SAFETY MANUAL**

<b>EFFECTIVE DATE:</b> 2/1/09	<b>POLICY NUMBER:</b> 600-3	<b>POLICY TITLE:</b> First Aid Policy
<b>TOPICS:</b> First Aid Kits, First Aid vs. Physician’s care First Aid/ CPR / AED classes	<b>REFERENCE:</b> 29CFR 1926.50 29 CFR 1910.151 40 OS Section 401-424	<b>NUMBER OF PAGES:</b> 1
<b>AUTHORIZED BY:</b> Brandon McLendon Safety Manager	<b>SPECIAL INSTRUCTIONS</b>	<b>LAST REVIEW DATE:</b> 12/03/15

A vast majority of injuries that occur in the workplace are minor and should be dealt with using simple first aid procedures. These procedures include topical disinfection, the applications of anti-biotic and itch relieving ointments and preparations, and protecting the injured area with a bandage.

The Supervisor should make the determination to seek the care of our medical provider on a case by case basis. Normally excluded from the need to seek care from our medical provider are; minor insect bites (chiggers, fleas, mosquitoes and the like), dermatitis caused by poison ivy, poison sumac, or other poisonous plants, minor cuts, abrasions and contusions, sunburn etc. Relief from these can usually be found through first aid treatment or preventative treatment such as wearing insect repellent or preventative poison ivy therapies like Rhus-Tox.

To provide the number of persons needed to administer first aid, all supervisors, crew chiefs and ten (10) percent of the division’s population will be trained annually in First Aid Procedures. Scheduling for the one day course of instruction in first aid/ CPR and AED is the responsibility of the Safety Manager; the course should be repeated annually. Providing the persons to be trained annually is the responsibility of the Department Head or his/her designee.

To provide adequate first aid supplies a first aid kit will be maintained by each division or department as applicable. All City Vehicles (not equipment) will be equipped with a first aid kit. The responsibility for maintaining these kits with supplies is that of the department. The contents of the kits are as follows:

Department/ Work Center Kit (minimum)

- 2 ea Eye wash, 4 oz
- 1 box Self adhesive strip bandages
- 1 box Knuckle bandages
- 1 box 3X3 sterile gauze pads (indiv. wrapped)
- 1 roll gauze bandage
- 1 roll adhesive tape
- 1 box Antiseptic (alcohol) Wipes
- 1 ea Antiseptic Spray 3 oz
- 1 box /tube Triple Antibiotic ointment
- 1 box /tube Hydrocortisone cream
- Eye cups
- 1 pr ea Tweezers, scissors
- 2 pr Disposable health care gloves
- Blood Flow compress
- Cold Packs for sprains/ strains
- Oval Eye Pads, sterile
- Disposable thermometers (Tempa-DOT)
- Triangular Bandage
- Suggested, but not mandatory-**
- Quick Clot Packages
- Antiviral spray for Blood Exposure (MyClyns or Vionex)
- Gel Burn Dressings (4X4 Water Gel Dressings)

Vehicle Kit (suggested)

- 2 ea Eye wash, 4 oz
- some Self adhesive strip bandages
- some Knuckle bandages
- some 3X3 sterile gauze pads
- 1 roll gauze bandage or compress
- 1 roll adhesive tape
- some Antiseptic (alcohol) Wipes
- 1 ea Antiseptic Spray 3 oz
- 1 tube Triple Antibiotic ointment
- 1 tube Hydrocortisone cream
- 1 pr ea Tweezers, scissors
- 2 pr Disposable health care gloves
- Antiviral spray/ wipes for Blood
- some Oval Eye Pads, sterile

<b>EFFECTIVE DATE:</b>  6/30/03	<b>POLICY NUMBER:</b>  700-1	<b>POLICY TITLE:</b> Confined Space Policy
<b>TOPICS:</b> Confined Spaces, permit and non-permit required	<b>REFERENCE:</b> 29 CFR Part 1910.146 29 CFR Part 1926.956, .21(b) 6, Hazard Assessment Policy 301-1	<b>NUMBER OF PAGES:</b>  9
<b>AUTHORIZED BY:</b> Brandon McLendon Safety Manager	<b>SPECIAL INSTRUCTIONS</b>	<b>LAST REVIEW DATE:</b> 12/03/15

**PURPOSE:** The purpose of this policy is to ensure that all employees entering a confined space adhere to the OSHA Permit Required Confined Space procedure (29 CR 1910.146) and use required confined space entry equipment. It is also to ensure that the employees are properly trained to conduct themselves safely in permit required confined spaces.

**POLICY:**

It is the policy of City of Norman that any employee entering into a confined space will do so in accordance with the procedures outlined in this document. All practices in confined space entry will meet or exceed applicable federal, state and local safety regulations.

All persons planning on entering a confined space must obtain a Confined Space Entry Permit from their Division Supervisor, or his/her designee. The Entry Supervisor is responsible for atmospheric testing in confined spaces; record keeping and completing Confined Space Entry Permits.

**DEFINITIONS:**

A confined space is defined by the concurrent existence of all of the following conditions:

- (1) Large enough and so configured that an employee can bodily enter and perform assigned work.
- (2) Has limited or restricted means for entry or exit.
- (3) Is not designed for continuous employee occupancy.

Such as: manholes, boilers, tanks, vats, sewer pipelines, vaults without existing general ventilation. Note: Trench excavations are typically not confined spaces.

A Permit Required Confined Space is a confined space that has one or more of these additional characteristics:

- (1) Contains or has the potential to contain a hazardous atmosphere.
- (2) Contains a material that has the potential for engulfing an entrant.
- (3) Ready removal of a suddenly disabled employee is difficult due to the location and/or size of access openings.
- (4) Has an internal configuration such that an entrant could be trapped or asphyxiated by inwardly converging walls or by a floor which slopes downward and tapers to a smaller cross-section; or
- (5) Contains any other recognized serious safety or health hazard.

**DEFINITIONS: (cont.)**

An ENCLOSED SPACE is a space that does not meet the definition of a confined space, but may require precautionary measures upon entering. Examples of enclosed spaces are crawl spaces, attics and service tunnels with existing general ventilation.

NON-PERMIT CONFINED SPACE is a confined space that probably does not contain or, have the potential to contain any hazard capable of causing death or serious physical harm. In particular, atmospheric hazards physical hazards or engulfment hazards. An example of this is the Digester Basements at the Pollution Control Facility. Although they are confined, they are well ventilated and built for access using the stairs.

DANGEROUS AIR CONTAMINATION is an atmosphere capable of causing death, injury, acute illness, or disablement due to the presence of flammable, explosive, toxic, or incapacitating substances.

OXYGEN DEFICIENT/ OXYGEN ENRICHED ATMOSPHERE is an atmosphere containing less than 19.5% or greater than 23.5% oxygen by volume.

LOWER EXPLOSIVE LIMIT (LEL) is the lowest concentration of a substance in air that will produce a flash of fire when an ignition source (heat, arc, or flame) is present. At concentrations lower than the LEL, the mixture is too "lean" to burn.

UPPER EXPLOSIVE LIMIT (UEL) is the highest concentration of a substance in air that will produce a flash of fire when an ignition source (heat, arc, or flame) is present. At concentrations higher than the UEL, the mixture is too "rich" to burn.

CONFINED SPACE ENTRY PERMIT is a permit that must be completely filled out by the persons entering the space, their attendants and approved by their Supervisor that allows them to enter the space. No permit shall be valid for more than 24 hours after the time of issue by the Supervisor.

**PROCEDURE:**

Responsibilities of participants in the Confined Space Entry:

Department Supervisors

- ❑ Ensure that employees under their direct supervision understand and adhere to adopted procedures during confined space entry operations.
- ❑ Assure that necessary education and training will take place prior to the employee being assigned to work in a confined space.
- ❑ Maintain copies of all Confined Space Entry Permits, including all air testing results.
- ❑ Provide necessary operations equipment and resources including confined space attendants.
- ❑ Identify locations and potential hazards of each confined space that may require entry by employees.



## The members of the Entry Team:

### Entry Supervisors

- ❑ Determine if acceptable entry conditions are present at a permit space where entry is planned.
- ❑ Oversee entry operations for the duration of assigned work and terminate entry when conditions are determined to be unsafe.
- ❑ Complete Confined Space Entry Permits.
- ❑ Must be able to call/alert rescue personnel at all times that the Entrant is in the confined space.

### Entrants

- ❑ Because of the number of potential hazards that may exist or develop in the work environment, confined space entrants are required to use extreme caution at all times. Disregard for established safety practices will be brought to the attention of appropriate Supervisors.
- ❑ Confined space entrants are responsible for reading and complying with procedures and guidelines provided by their Supervisors and the Safety Manager.
- ❑ Ensure that understand this policy and that they are competent in confined space entry.

### Attendants

- ❑ Assist entry Supervisor and entrants as directed by the entry Supervisor.
- ❑ Perform air monitoring as required, preferably continuously, logging results every 30 minutes
- ❑ Maintain communications with the entrant at all times. And maintain clear communications with the Entry Supervisor at all times.
- ❑ Hand / lower tools to Entrant, relay messages, recognize hazards or changes in the work space.

### Minimum number of employees

A minimum of three employees will be immediately available during all confined space entries. A minimum of two trained employees will be within line sight and verbal communication distance of one another outside of the confined space. A typical confined space team consists of an Entry Supervisor, an Attendant, and Entrant(s).

### Ventilation

- ❑ Adequate ventilation will be provided to protect employees from dangerous working conditions resulting from accumulations of hazardous concentrations of flammable vapors, toxic gases, or an oxygen deficient or enriched environment in all buildings, pits, rooms, vaults, or other enclosed areas.
- ❑ If sufficient general ventilation exists to ensure the removal of all atmospheric hazards, as identified through air monitoring, then the space may be treated as a Non-Permit Required Space and only those requirements shall apply.
- ❑ Note that positive pressure ventilation applied to single entry/exit point may cause potentially contaminated air to come out of the space. Precautions should be taken to prevent workers from being exposed (e.g. run air lines away from area or clear workers from entry point).

## **PRE-ENTRY PROCEDURES**

- ❑ It is recommended, but not required that lines, (except public utility gas distribution systems), which may convey flammable, injurious, or incapacitating substances into the space shall be disconnected, blinded, or blocked off by other positive means. This is done to prevent the development of dangerous air contamination and/or oxygen deficiency within the space by leaking lines. The method used shall prevent inadvertent reconnection or disabling of the line. This does not require blocking of all laterals to sewers or storm drains.
- ❑ Where experience or knowledge of industrial use indicates materials resulting in dangerous air contamination may be dumped into an occupied sewer, all such laterals shall be blocked.
- ❑ Confined spaces shall be emptied, flushed, or otherwise purged of flammable, injurious or incapacitating substances, removing the hazard to the minimum concentration feasible.
- ❑ Spaces shall be ventilated for at least 15 minutes prior to entry using the most effective method (e.g. blowing air into or drawing air from the space).
- ❑ Where interconnected spaces are blinded off as a unit, each space shall be tested and the results recorded, and the most hazardous condition so found shall govern procedures to be followed.
- ❑ A confined space entry permit will be completed, signed and dated by the Division Supervisor (or their designee) of the crew conducting the entry. The original entry permit shall be kept on file by the department using the permit. The copy is to be kept on file by the Supervisor.
- ❑ An attendant shall be continually present while workers are inside an enclosed or confined space. The attendant may operate the air monitoring equipment.
- ❑ All exits and entries shall be readily accessible.
- ❑ When entrance covers are removed, the opening shall be promptly guarded by a railing, temporary cover, or other temporary barrier that will prevent an accidental fall through the opening and that will protect each employee working in the space from foreign objects entering the space.
- ❑

### Pre-entry testing procedures

- ❑ The air shall be tested with an appropriate device or method to determine whether dangerous air contamination and/or oxygen deficiency exists and a written record of such testing results shall be made and kept at the work site for the duration of the work. Affected employees and/or their representative shall be afforded an opportunity to review and record the testing results.
- ❑ Testing should be performed without disturbing the space, if possible.
- ❑ After long breaks (30 minutes or more) such as lunch, complete testing for permit required confined spaces shall be performed again to determine if any atmospheric changes have taken place inside the confined space.
- ❑ Employees shall refrain from leaning over the area to be tested; instead, the air-testing device should be placed over or into the opening of the area.

- ❑ Testing of the oxygen content and for flammability (LEL) shall be conducted on a continuous basis and documented to ensure that the confined space atmosphere's hazards are abated.

#### Special Precautions prior to entry

- ❑ Work involving the use of flame, arc, or spark, or other source of ignition is prohibited within a confined space (or any adjacent space having common walls, floor, or ceiling with the confined space), which contains, or is likely to develop, dangerous air contamination due to flammable and/or explosive substances.
- ❑ Whenever gases such as nitrogen are used to provide an inert atmosphere for preventing the ignition of flammable gases or vapors, no flame, arc, spark, or other source of ignition shall be permitted unless the oxygen concentration is maintained at less than 20 percent of the concentration that will support combustion.
- ❑ If the existence of dangerous air contamination and/or an oxygen deficiency (O<sub>2</sub> at less than 20%) is determined by the tests performed, existing ventilation shall be supplemented by the appropriate means.
- ❑ Whenever oxygen-consuming equipment is used, arrangements will be made to ensure sufficient venting for all combustion air and exhaust gases.
- ❑ Automatic fire suppression systems employing toxic or oxygen displacing gases or total foam flooding shall be deactivated. If it is not feasible to deactivate these systems, then the use of respiratory protective equipment shall be used during entry into and work within such spaces (SCBA or Supplied Air Respirator with Egress bottle only)
- ❑ Only approved lighting and electrical equipment, in accordance with the NFPA Explosion-Proof standard, shall be used in confined spaces where dangerous air contamination due to flammable and/or explosive substances exists.
- ❑ Where live electrical work will be performed, the tripod unit will be properly grounded (e.g. welding cable and clamp).

### **OPERATING PROCEDURES**

#### Non-Permit Required Confined Space

- ❑ A two-way radio, cell phone or other communications device of equal reliability may be used in lieu of the attendant in this case. Plant Operators may enter the space as a course of their duties if no hazardous gasses or conditions exist within the space, the "two-man rule" is not followed.
- ❑ Employees working in non-permit confined spaces shall wear appropriate personal protective equipment appropriate for the hazards expected in the space.
- ❑ Air testing shall be conducted periodically to monitor the pre-existing atmospheric environment and to detect any atmospheric changes that might occur. If the space is constantly monitored through a fixed monitoring system, then the monitoring system is sufficient protection, except for Oxygen Percentage levels. These levels must be monitored on entry and while the entrants are in the space.
- ❑ If air sampling / monitoring instruments indicate a developing adverse atmospheric change (e.g. steadily rising hydrogen sulfide or carbon monoxide levels, or steadily increasing or decreasing oxygen concentration), the entrant will immediately exit the confined space and reassess the area for its new hazard.

### Permit required confined space

- ❑ Permit required means precisely that anyone entering a confined space must have a permit, approved by their Work Center Supervisor or their designee, prior to any body part moving across or through the entry opening (breaking the plane) for any amount of time. This is understood to mean that an employee may not stick their head in to look, or arm in to check any confined space, even for a nano-second. If the access is opened, the employee must have the permit and team on hand and operation at the time of the opening.
- ❑ An approved safety belt with an attached line shall be used. The free end of the line will be secured outside the entry opening. The line shall be a minimum 2000 pound test strength and 1/2 inch in diameter.  
The only exception to this is when an Entry Supervisor determines that a safety belt and line would further endanger the life of the employee. Under these circumstances, the harness should remain attached to the employee to facilitate rescue in the event of an emergency.
- ❑ After the initial air monitoring readings are taken and after ventilating the confined space, continuous air monitoring will be performed. Data will be entered on the confined space for 15 minutes, entry permit every 15 minutes by the entry Supervisor.
- ❑ Top Openings - When entry must be made through a top opening, the following requirements also apply:
  - ❑ A safety belt shall be of the harness type that suspends the employee in an upright position will be worn by any person entering the space.
  - ❑ A hoisting device (tripod) or other effective means shall be provided for lifting employees out of the space.

### After hours and Priority entries

- ❑ Under no circumstances is an employee to enter a permit required confined space at the City of Norman without following the procedures outlined in this section.
- ❑ In the event that a permit required confined space must be entered after regular working hours, an attempt will be made to contact the work center Supervisor or their designee, for the area entered. If a Supervisor is not available, confined space entry may proceed if at least three trained and with demonstrated competence confined space personnel are present and all of the procedures outlined in this document are followed.

### Emergency and Rescue procedures

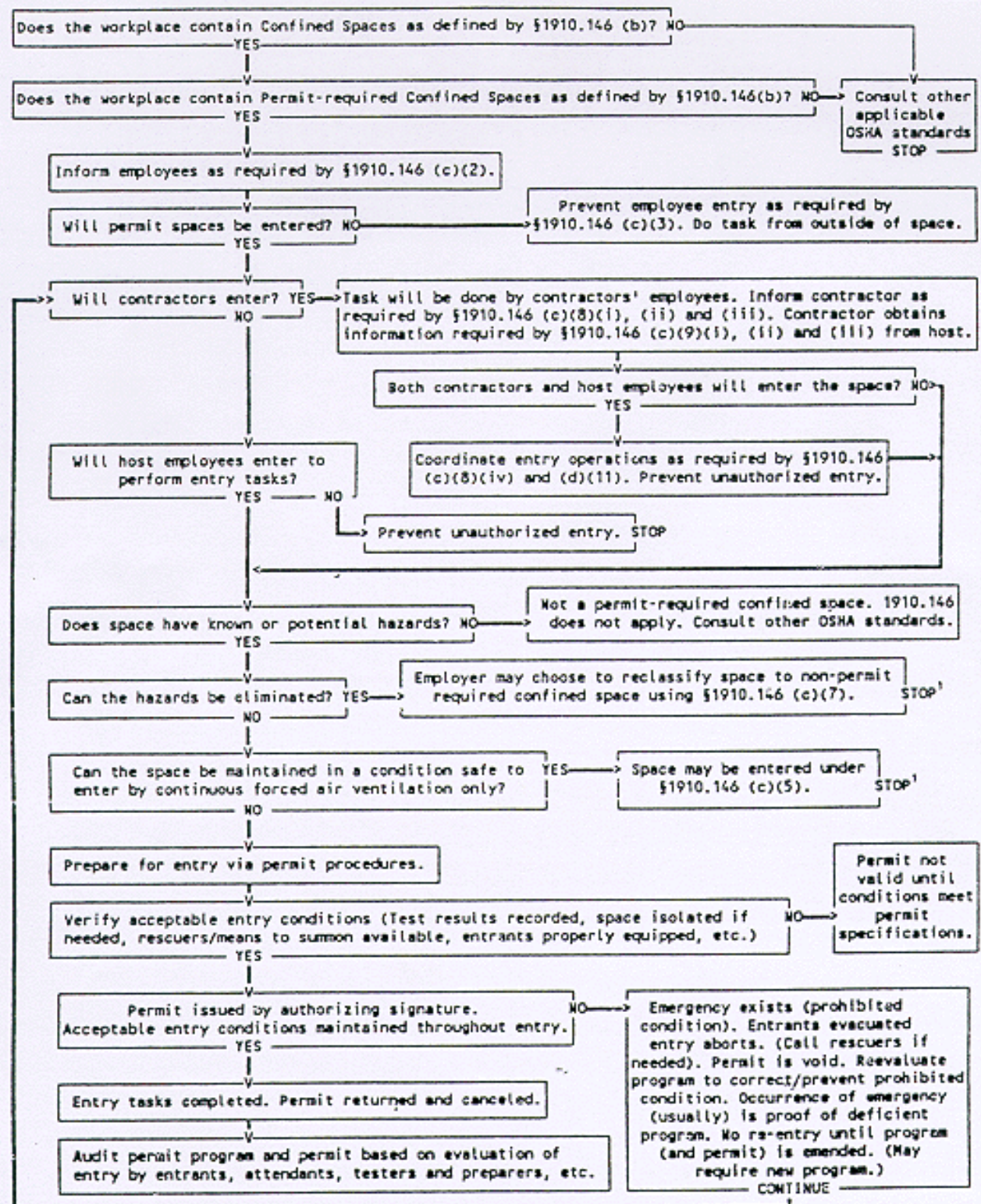
- ❑ Should an employee become disabled while in a confined or enclosed space, the attendant shall immediately call the emergency number (911) to summon emergency personnel. It is important to communicate to the dispatchers that a "confined space rescue" is necessary.
- ❑ If rescue can be made without re-entering the space then the on-site entry team may rescue the injured person. If rescue requires re-entering the space then the Norman Fire Department must conduct the rescue. The only exception to this is when the Norman Fire Department or the Division Supervisor specifically allows re-entry for that particular rescue; and the persons re-entering the confined space are aware of the cause of the injury and are protected against the hazard.

## **EMPLOYEE TRAINING**

Employees entering confined spaces (entrants), confined space entry Supervisors, and attendants must have received and be currently certified in all of the training outlined below prior to being assigned duties involving confined space operations [see 29CFR 1910.146(g) Training.]

- ❑ Respirator Certification
- ❑ Respirator Fit Testing
- ❑ Respirator Selection Training
- ❑ Confined Space Operating Procedures (Duties of entrants, attendants, and entry Supervisors)
- ❑ Training in Physical & Chemical hazards (H<sub>2</sub>S, Flammables, etc.)
- ❑ Air Monitoring Training
- ❑ Operation of Communication Equipment

APPENDIX A TO §1910.146—PERMIT-REQUIRED CONFINED SPACE DECISION FLOW CHART



### CONFINED SPACE ENTRY PERMIT

One copy of this permit is left on the job site, one is filed in the Division Supervisor's file

<b>Job/Space/Site /Location (as appropriate)</b>	<b>Entry Supervisor</b>
<b>Date &amp; Time issued</b>	<b>Date and time permit expires</b>
<b>Reason for entry</b>	<b>Actual time of exit and securing space</b>

Entry Supervisor	_____
Attendant	_____
Entrant	_____
Second Entrant	_____
Other	_____
Other	_____

Circle appropriate response:

- |                                     |   |  |   |
|-------------------------------------|---|--|---|
| Energy Sources are un-secured       | <input type="checkbox"/> Y <input type="checkbox"/> N | Forced Ventilation necessary                                 | <input type="checkbox"/> Y <input type="checkbox"/> N |
| Hazardous energy un-secured (LOTO)  | <input type="checkbox"/> Y <input type="checkbox"/> N | Excessive heat a problem?                                    | <input type="checkbox"/> Y <input type="checkbox"/> N |
| Accumulation of welding fumes?      | <input type="checkbox"/> Y <input type="checkbox"/> N | Trap/ Asphyxiation Hazards                                   | <input type="checkbox"/> Y <input type="checkbox"/> N |
| Hazardous energy released (LOTO)    | <input type="checkbox"/> Y <input type="checkbox"/> N | Excessive heat a problem?                                    | <input type="checkbox"/> Y <input type="checkbox"/> N |
| Chemical Fumes in space as a hazard | <input type="checkbox"/> Y <input type="checkbox"/> N | Trip or Fall Hazard  | <input type="checkbox"/> Y <input type="checkbox"/> N |
| Are others working above?           | <input type="checkbox"/> Y <input type="checkbox"/> N | Equipment /Traffic above?                                    | <input type="checkbox"/> Y <input type="checkbox"/> N |
| Are there any other hazards?        | <input type="checkbox"/> Y <input type="checkbox"/> N | Will this entry introduce a Hazard while work is being done? | <input type="checkbox"/> Y <input type="checkbox"/> N |

Please explain any  Y answers \_\_\_\_\_

**Atmosphere readings**

<b>Time</b>	<b>O<sub>2</sub></b>	<b>LEL</b>	<b>H<sub>2</sub>S</b>	<b>CO</b>
Prior to entry				



**CITY OF NORMAN****SAFETY MANUAL**

<b>EFFECTIVE DATE:</b> 6/30/03	<b>POLICY NUMBER:</b> 800-1	<b>POLICY TITLE:</b> Cranes, Chain Hoists and Tackle Inspection
<b>TOPICS:</b> Chains, Wire ropes, Lifting Equipment	<b>REFERENCE:</b> 29 CFR 1910.179 29 CFR 1910.251	<b>NUMBER OF PAGES:</b> 9
<b>AUTHORIZED BY:</b> Brandon McLendon Safety Manager	<b>SPECIAL INSTRUCTIONS</b>	<b>LAST REVIEW DATE:</b> 12/03/15

**PURPOSE:**

The purpose of the City of Norman crane and hoist program is to ensure the safety of all employees required to use a crane or hoist while performing their duties, and to provide the guidelines for equipment inspection.

**PROCEDURE:**

All chains and ropes and their attachments, used to lift, bind or pull must be regularly inspected to ensure their safety. The following practices and specifications are set to give guidance to employees in the use and inspection of this equipment.

All existing equipment will be inspected prior to use and on a monthly basis for general wear. Chain hoists will be inspected and proof tested annually by a competent testing facility.

New and existing equipment shall meet all of these standards and other regulations as required for installation and operation.

**DEFINITIONS:**

Chain Hoist – mechanical device using a looped chain over gears to lift materials. Either powered or manually operated.

Tackle – Chain, rope, sheaves, hoists, hooks, slings and all manner of equipment to lift or bind loads.

Crane – for the purposes of this policy a crane is defined as any load supporting mechanism from which a chain or rope hoist is suspended for the propose of moving material or hoisting loads. Powered mobile cranes are specifically excluded from this policy.

Crane / Chain Hoist Inspections and Modifications

Modifications may be done if a qualified structural engineer or the equipment manufacturer checks them thoroughly for the new rated load. The crane shall be tested at not more than 125 percent of the rated load unless recommended differently by the manufacturer. The test results will be on file and readily available.

Rated load markings shall be clearly marked on each side of the crane or hoist. If the crane or hoist has more than one hoisting unit, each shall have the rated load marked so it can be clearly seen from the ground or floor.

There will be an initial inspection prior to use of all new and altered cranes or hoists to ensure compliance with provisions of all standards and regulations.

Inspections are divided into two general classifications. The intervals are dependent upon the nature and degree of exposure to wear, deterioration, or malfunction. The two classifications are *frequent* and *periodic*.

A crane or hoist that has been idle for more than one month, but less than six months, shall be given an inspection per *frequent* inspection checklist and will be documented with the inspector's name, date of inspection, and identification of the crane or hoist inspected.

*Frequent* inspections are performed daily to monthly and include:

- ❑ All functional operational mechanisms for maladjustment, performed daily,
- ❑ Deterioration or leakage in lines, tanks, valves, drain pumps and other parts of air or hydraulic systems, checked daily,
- ❑ Hooks with deformation or cracks, or with safety latches missing. Visual inspection daily - monthly inspection with a certification record which includes the date of inspection, name and signature of inspector and serial number or other identifier of the hook inspected. If the hook is cracked or has more than 15 percent excess throat opening or more than 10 percent twist, the hook shall be replaced.

Hoist chains will follow the same guidelines as the hook inspection above, and cranes or hoists that have been idle for more than six months shall be given a complete inspection conforming to both the *frequent* and *periodic* inspections, to include inspector's name and date of inspection. This documentation must be kept on file and readily available.

*Periodic* inspections are performed at 6 to 12 month intervals. This inspection is to inspect for:

- ❑ Deformed, cracked or corroded members
- ❑ Loose bolts or rivets
- ❑ Cracked or worn sheaves and drums
- ❑ Worn, cracked or distorted parts such as pins, bearings, shafts, gears, rollers, locking and clamping devices
- ❑ Excessive wearing on the brake
- ❑ Excessive wear of chain drive sprockets and excessive chain stretch, and
- ❑ Electrical apparatus for deterioration, limit switches, and push button stations.

Standby cranes or hoists shall be inspected at least semi-annually using the criteria for *frequent* inspections.

## Testing

Prior to use, all new or altered cranes or hoists shall be tested to ensure compliance by checking the following functions (as applicable):

- ❑ Hoisting and lowering
- ❑ Trolley travel
- ❑ Bridge travel, and
- ❑ Limit switches.

Locking and safety devices are to be checked with an empty hook and increasing speeds up to the maximum. The actuating components shall be set to trip the switch under all conditions in sufficient time to prevent the hook from hitting the trolley.

All cranes and hoists over one-ton in rating will be tested as per these guidelines. The operators of all cranes and electric hoists will follow these guidelines. The operators of all cranes and manual hoists will follow the guidelines for *frequent* inspections.

## Maintenance

Preventive maintenance shall be based on the crane or hoist manufacturer's recommendations. Prior to maintenance the following shall be done:

- ❑ Locate the crane or hoist so it does not interfere with operations in the area
- ❑ Place all controllers in the *off* position
- ❑ Lock out the main power supply using the procedure delineated in the City of Norman Safety Policy # 1000-1 Hazardous Energy Isolation Procedures (LO/TO)
- ❑ Tag-out the crane or hoist to inform other employees that maintenance is being performed on the equipment, and
- ❑ After maintenance, all guards shall be replaced, safety devices reactivated, and tools all removed before checking operation of the equipment.

## Wire Rope Inspection

Inspection of the wire rope shall be performed monthly and a record kept with date of inspection, name and signature of inspector, and identification of the ropes inspected. This information shall be kept on file and readily accessible. The following items shall be checked or observed:

- ❑ Reduction of rope diameter

Wire Rope Size	Allowable Reduction	Minimum Size
5/16" (0.312)"	1/64" (0.015)	19/64" (0.030)
3/8" – 1/2" (0.375 – 0.5)"	1/32"(0.031)	13/32 to 15/32" (0.34 to 0.47 )
9/16" – 3/4" (0.562 – 0.75)"	3/64" (0.046)	33/64 to 45/64" (0.52 to 0.70)
7/8" – 1 1/8" (0.875 – 1.125)	1/16" (0.062)	13/16 to 1 1/16" (0.81 to 1.06)
1 1/4" – 1 1/2" (1.25 – 1.5)"	3/32" (0.093)	1 5/32 to 1 13/32" (1.16 to 1.41)

- ❑ Corrosion of internal or external wires
- ❑ Number of broken outside wires and the degree of distribution and concentration on the rope

WHEN TO REPLACE WIRE ROPE – BASED ON THE NUMBER OF BROKEN WIRES					
ANSI Standard	Equipment	Number of Broken Wires in Running Ropes		Number of Broken Wires in Standing Ropes	
		In one rope lay	In one strand	In one rope lay	At end connection or adjacent
B30.2	Overhead and Gantry Cranes	12	4	Not Specified	
B30.3	Tower Cranes	12	4	3	2
B30.4	Portal, Tower and Pillar Cranes	6	3	3	2
B30.5	Crawler, and Truck Cranes	6	3	3	2
B30.6	Derricks	6	3	3	2
B30.7	Base mounted Drum Hoists	6	3	3	2
B30.8	Floating Cranes and Derricks	6	3	3	2
B30.16	Overhead Hoists	12	4	Not Specified	
A10.4	Personnel Hoists	6**	3	2**	2
A10.5	Material Hoists	6**	Not Specified	Not Specified	
** Also remove 1 for valley break					
From - Ronald M. Garby, IPT's Crane and Rigging Handbook,(6 <sup>th</sup> Ed.), IPT Publishing, Edmonton, Canada. Table #5, p. 18					

- ❑ Worn or corroded wires at the end connectors
- ❑ Corroded, cracked or improperly attached connections
- ❑ Severe kinking.

Any rope, which has been idle for a month or more, will receive a full inspection with the date of inspection, name and signature of inspector, and identification of the rope. This will be documented and remain on file and readily available.

#### Handling Loads

- ❑ The following procedures will apply while handling a load:
  - ❑ The crane, hoist chain or rope will not be wrapped around the load.
  - ❑ The load should be attached using a sling or other approved device.
  - ❑ The load shall be balanced in the sling or lifting device before lifting it more than a couple of inches.
  - ❑ The crane or hoist rope shall not be kinked.

### Handling Loads (continued)

- ❑ The crane or hoist should not be used for side pulls.
- ❑ No load should be hoisted while employees are on the load.
- ❑ Loads should not be carried over individuals.
- ❑ The brake shall be tested each time a load is moved at the rated capacity of crane or hoist.
- ❑ A load should not be lowered below the point where there are less than two full wraps of rope left on the drum.
- ❑ The operator shall not leave his position at the controls while the load is suspended.

### Crane and Hoist Limit Switches

The following procedure will be followed while checking limit switches:

- ❑ At the beginning of the operations shift, the empty hook shall be raised slowly to ensure that the upper limit switch is operational. If not, a repair shall be made before using the equipment.
- ❑ The upper limit switch shall never be used as an operational control.

### Holding Brakes

- ❑ Holding brakes shall automatically set when the power is disconnected.
- ❑ Holding brakes shall have an adjustment means.
- ❑ All brake drums shall be maintained with a smooth surface.
- ❑ Brakes may be applied by mechanical, electrical, pneumatic, gravity, or hydraulic means.

### Electric Equipment

- ❑ All wiring shall comply with National Electric Code specifications.
- ❑ The control circuit shall not exceed 600 volts.
- ❑ The pendant control voltage shall not exceed 150 volts AC and 300 volts DC.
- ❑ The pendant shall be supported by some means to prevent strain on the electric wire.
- ❑ The pendant control buttons shall be clearly marked as to their function.
- ❑ Lockout and Tagout procedures, as stated in City of Norman Safety Policy # 1000-1 will be used while maintenance is being done.

## Chain Inspection for hoisting/ Lifting / Rigging

Any chain used for lifting overhead is to be Grade 80 alloy chain.

It is important both to inspect chain slings regularly and to keep a record of all chain inspections. Follow this guide for such an inspection system.

- ❑ Before inspecting, clean chains with a non-acid/non-caustic solvent so that marks, nicks, wear, and other defects are visible.
- ❑ Inspect each link for these conditions:
  - Twists or bends
  - Nicks or gouges
  - Excessive wear at bearing points
  - Stretch
  - Distorted or damaged master links, coupling links, or attachments, especially spread in throat opening of hooks
- ❑ Mark plainly with paint each link or attachment showing any of the conditions listed here to indicate rejection; remove from service until properly repaired.

### Sling Identification.

Alloy steel chain slings shall have permanently affixed durable identification stating size, grade, and rated capacity.

### Attachments.

- ❑ Hooks, rings, oblong links, pear-shaped links, welded or mechanical coupling links or other attachments shall have a rated capacity at least equal to that of the alloy steel chain with which they are used or the sling shall not be used in excess of the rated capacity of the weakest component.
- ❑ Makeshift links or fasteners formed from bolts or rods, or other such attachments, shall not be used.

### Inspections.

In addition to the inspection required daily before use, a thorough periodic inspection of alloy steel chain slings in use shall be made on a regular basis, to be determined on the basis of:

- ❑ Frequency of sling use
- ❑ Severity of service conditions
- ❑ Nature of lifts being made, and
- ❑ Experience gained on the service life of slings used in similar circumstances.

**Such inspections shall in no event be at intervals greater than once every 12 months.**

Each City of Norman Division shall make and maintain, for the service life of the sling or chain, a record of the most recent month in which each alloy steel chain sling was thoroughly inspected, and shall make such record available for examination by the Safety Division upon request.

The thorough inspection of alloy steel chain slings shall be performed by a qualified person designated by the employer, and shall include a thorough inspection for wear, defective welds, deformation and increase in link length. Where such defects or deterioration reduce the rated capacity the sling shall be immediately removed from service.

Proof Testing. Employees shall ensure that before use, each new, repaired, or reconditioned alloy steel chain sling, including all welded components in the sling assembly, shall be proof tested in accordance with the sling manufacturer's recommendations. The appropriate Division shall retain a certificate of the proof test, for the service life of the sling and shall make it available for examination by the Safety Division upon request.

Minimum proof loads for alloy steel chain shall be equal to twice the working load limit values shown for single slings.

Sling Use. Alloy steel chain slings shall not be used with loads in excess of the rated capacities prescribed in Table S-1. Slings not included in these orders shall be used only in accordance with the manufacturer's recommendations.

Repairing and Reconditioning Alloy Steel Chain Slings.

- ❑ Worn or damaged alloy steel chain slings or attachments shall not be used until repaired. When alloy steel chain slings are repaired or reconditioned and welding or heat treating is involved, such slings shall be proof tested by the manufacturer or equivalent entity.
- ❑ Mechanical coupling links or low carbon steel repair links shall not be used to repair broken lengths of chain.

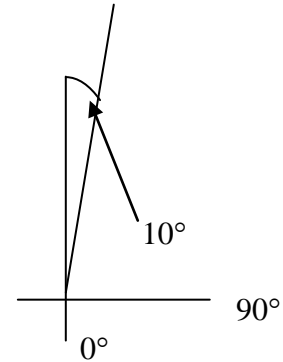
Effects of Wear. If the chain size at any point of any links is less than that stated in Table S-1a, the sling shall be removed from service. The size of the chain must be measured with either a gauge or micrometer to ensure the accuracy of the measurement.

Additionally, any broken or twisted chain links, master links or other attachments must be repaired or removed from the lifting device.

Deformed Attachments.

Alloy steel chain slings with cracked or deformed master links, coupling links or other components shall be removed from service.

Slings shall be removed from service if hooks are cracked, have been opened more than 15 percent of the normal throat opening measured at the narrowest point



or twisted more than 10 degrees from the plane of the unbent hook.

**Table S-1**  
**Rated Capacity (Working Load Limit), for Alloy Steel Chain Slings\***

\*Rated Capacity (Working Load Limit), in Pounds  
 [Horizontal angles shown in parentheses]

Chain Size in inches	Single Branch Sling	Double Sling Vertical Angle (1)		
	90° Loading	30° Loading (60° Horizontal)	45° Loading (45° Horizontal)	60° Loading (30° Horizontal)
1/4	3,250	5,650	4,550	3,250
3/8	6,600	11,400	9,300	6,600
1/2	11,250	19,500	15,900	11,250
5/8	16,500	28,500	23,300	16,500
3/4	23,000	39,800	32,500	23,000
7/8	28,750	49,800	40,600	28,750
1"	38,750	67,100	58,000	38,750
1 1/8	44,500	77,000	63,000	44,500
1 1/4	57,500	99,500	61,000	57,500
1 3/8	67,000	116,000	94,000	67,000
1 1/2	80,000	138,000	112,900	80,000
1 3/4	100,000	172,000	140,000	100,000



Table S-1a, Minimum allowable chain size at any point of link

Chain Size in inches	Minimum allowable chain size in inches	Minimum allowable chain size in decimal inches
¼	13/64	0.2031
3/8	19/64	0.2969
½	25/64	0.3906
5/8	31/64	0.4844
¾	19/32	0.5938
7/8	45/64	0.7031
1”	13/16	0.8125
1 1/8	29/32	0.9063
1 ¼	1.0	1.0
1 3/8	1 3/32	1.0938
1 ½	1 3/16	1.1875
1 ¾	1 13/32	1.4063

Chains for pulling/ load binding / securing, Table S-2

Safe Working Loads for Wrought Iron Chain (In Pounds or Tons of 2000 Pounds)

Nominal size chain (Stock inch)	Single leg	Angles from the horizontal		
		60-degree angle	45-degree angle	30-degree angle
1/4*	1060 Pounds	1835 Pounds	1500 Pounds	1060 Pounds
1/16*	1655	2865	2340	1655
3/8	2385	2.1 Tons	3370	2385
7/16*	3250	2.8 Tons	2.3 Tons	3250
1/2	2.1 Tons	3.7	3.0	2.1 Tons
3/16*	2.7	4.6	3.8	2.7
3/8	3.3	5.7	4.7	3.3
3/4	4.8	8.3	5.7	4.8
7/8	6.5	11.2	9.2	6.5
1	8.5	14.7	12.0	8.5
1 1/2	10.0	17.3	14.2	10.0
1 1/4	12.4	21.4	17.5	12.4
1 3/8	15.0	25.9	21.1	15.0
1 1/2	17.8	30.8	25.2	17.8
1 5/8	30.9	36.2	29.5	20.9
1 3/4	24.2	42.0	34.3	24.2
1 7/8	27.6	47.9	39.1	27.6
2	31.6	54.8	44.8	31.0

\* These sizes of wrought iron chain are no longer manufactured in the United States. The source is ASTM A56-68, Specifications for Wrought Iron Crane Chain.

**CITY OF NORMAN****SAFETY MANUAL**

<b>EFFECTIVE DATE:</b> 6/30/03	<b>POLICY NUMBER:</b> 900-1	<b>POLICY TITLE:</b> Hearing Conservation Program and Policy
<b>TOPICS:</b> Hearing Conservation Dosimetry / Audiometry	<b>REFERENCE:</b> 29CFR1910.95, Safety Policies 100-1 Hazard Assessment and 200-1 PPE	<b>NUMBER OF PAGES:</b> 6
<b>AUTHORIZED BY:</b> Brandon McLendon Safety Manager	<b>SPECIAL INSTRUCTIONS</b>	<b>LAST REVIEW DATE:</b> 12/03/15

**PURPOSE:**

The purpose of this policy is to administer a continuing, effective, hearing conservation program that provides for monitoring and the reduction of noise levels, analysis of the noise frequencies and reduction to a level below 85 decibels over an eight-hour period measured on the "A" scale, or an equivalent 50% dose. This can be accomplished through any personal protective equipment, engineering controls or noise source elimination that is found to be cost and functionally effective.

**POLICY:**

It is the policy of the City of Norman to provide the appropriate hearing protection to employees with a primary objective of maintaining workspaces and work sites free from noise hazards that could lead to noise induced hearing loss. After a sound survey, (Dosimetry/assessment) is conducted for each task, workspace or area, and the survey reveals that the occupational noise level is above the OSHA action level of 85 decibels on an 8-hour time weighted average, noise exposure reduction procedures must be enacted. Employees exposed to noise levels at or above the action level must be notified of the noise survey results as soon as reasonably possible.

If an employee decides to provide their own hearing protection, their supervisor must confirm that the employee provided equipment complies with applicable national standards. If the employee provided hearing protection does not comply, it may not be worn in the workplace.

29 CFR 1903.1 requires that "employees comply with standards, rules, regulations and orders issued under the Act [OSHA] which are applicable to their own actions and conduct." With this in mind, employees who refuse to wear or disregard the instructions of those placed in authority over them to wear PPE hearing protection are subject to the positive discipline policy described in the Personnel Manual or applicable Labor Union Contracts. Supervisors and employees acting in a lead-worker capacity who fail to enforce this policy may also be subject to the positive discipline policy. This may involve steps to immediately terminate the employment of the employee as caused by an overt act of insubordination, if the Department Head deems necessary.

**DEFINITIONS:**

**Action Level** - Noise exposure limits, as indicated in Table 1, above which exposed employees must be included in the Hearing Conservation Program. Levels measured on the A-scale at slow response and without regard to hearing protection worn. At no time shall exposure to impact noise exceed 140 decibels (dB).

**Table 1**  
**Sound Level (dBA) Duration per day (Hours)**

85	8
90	4
95	2
100	1
105	1/2
110	1/4
115	1/8

**Attenuation** - Reduction in the loudness level.

**Audiogram** - A graph of the results of a hearing test. It shows how loud a sound has to be before an individual can hear it. The graph shows the results for sounds of varying frequencies.

**Audiometric testing** - A method of evaluating an exposed employee's changes in hearing over time. It consists of a baseline hearing test followed by annual testing.

**Decibel (dB)** - A unit of measurement of loudness of sound, measurement of sound pressure

**dBA** - Decibel measurements read on the A-scale of a sound level meter. This scale more closely approximates human perception of sound levels.

**Exposed employees** - Employees whose workday routine exposes them to workplace noise at or above the action level.

**Hearing Protective Devices** - Individually worn devices, such as earmuffs and earplugs, that attenuate (reduce) noise levels.

**Potentially Hazardous Noise Environment** - An environment in which workers must raise their voices in order to communicate while standing three feet away from each other.

**Standard Threshold Shift** - A change in hearing threshold relative to the baseline audiogram of an average of 10dB or more at 2000, 3000, and 4000Hz in either ear.

**PROCEDURE:**

The Key elements of the Hearing Conservation Program are:

- ❑ Identify hazardous noise environments in the workplace through sound surveys.
- ❑ Implement engineering and/or administrative controls to reduce workplace noise levels or worker exposure to noise.
- ❑ Provide hearing protective devices to exposed employees whenever such controls are not feasible or fail to reduce noise levels below the action level.
- ❑ Provide audiometric testing for exposed employees.
- ❑ Provide training for employees with a risk of exposure.

The amount of potential damage to the ear is related to the intensity of noise and the duration of exposure. Sound surveys will be conducted to identify work environments in which the combination of noise level and exposure time could subject employees to noise at or above the action level. Employees are entitled to observe these monitoring procedures if they so choose.

Basic Sound Survey: Initially, noise levels will be estimated using a sound level meter.

- ❑ If measurements show that maximum noise levels fall below the action level, no further steps are required.
- ❑ If measurements indicate noise levels are or could potentially be above the action level, a detailed sound survey is necessary.
- ❑ If sound level meter monitoring is too difficult due to high worker mobility or fluctuating noise levels, a detailed sound survey is necessary.

Detailed Sound Survey: Noise level measurements will be recorded during the course of a typical workday using dosimeters that will be worn by representative employees.

- ❑ If measurements indicate noise levels are below the action level, no further steps are required. However, use of engineering controls, administrative controls and/or hearing protective devices are encouraged.
- ❑ If measurements indicate noise levels are at or above the action level, identified exposed employees must be included in the Hearing Conservation Program.

Engineering Sound Surveys: If measurements in the detailed sound survey also prove to be high, a survey of individual units of equipment, or noise sources, will be conducted in order to determine the problem areas and types of engineering controls.

Surveys should be requested any time there is an increase in the use of noisy equipment or if activities or procedures change noise levels in the work environment.

### **Controls used to lower the noise level:**

#### Engineering Controls

The preferred method for reducing noise to safe levels is to implement engineering controls. Engineering controls modify the equipment producing the noise, the characteristics of the exposed employee's environment, or the path through which the noise travels. Some examples of engineering controls are the use of absorption materials, muffling devices and vibration dampening equipment. If engineering controls successfully reduce noise to below the action level, affected employees will no longer be included in the Hearing Conservation Program.

### Administrative Controls

If engineering controls are not feasible or are ineffective; administrative controls, although sometimes less desirable, may be an alternative course of action. Administrative noise controls include replacement of old equipment with quieter new models, establishment of equipment maintenance programs and changes in employee work schedules to reduce noise doses by limiting exposure time. In so doing, the Supervisor may assign times to each employee in increments to reduce the exposure. For example, if a noise source emits 115 dBA then the supervisor can limit the time that the employee spends at the source to no more than five minutes total for every eight hours instead of the seven and one half minutes allowed by Table G-16 of 29 CFR 1910.95. This would render the dose lower than the action level and eliminate the need to place the employee on a hearing conservation program. The difference between Table G-16 of the Standard and Table 1 included in the Definitions section of this policy is that Table 1 is based on action level and Table G-16 is an absolute maximum for exposure.

### Hearing Protection

#### 1. Required Use

When neither engineering nor administrative controls are feasible, or if they fail to reduce noise to acceptable levels, exposed employees must be included in the Hearing Conservation Program. As part of this program, employees must be issued and be required to wear hearing protection. Prior to issuing Hearing protection, employees must be trained as required in this policy.

All employees who are exposed to workplace noise at or above the action level must attend annual hearing conservation training sessions. These sessions will provide training and education in the following areas:

- Effects of noise on hearing
- Hearing protective devices (Hearing protection)
- Purpose of hearing protection
- Types of hearing protection and their attenuations
- Advantages and disadvantages of hearing protection
- Instruction on selection, use and care of hearing protection
- Initial fitting of hearing protection
- Purpose of audiometric testing and an explanation of test procedures.

#### 2. Optional Use

Use of hearing protection is encouraged in noisy work environments that have been determined not to expose employees to noise at or above the action level. Hearing protection is available for employees through their Supervisor.

### **Audiometric Testing**

**Step 1: Obtain a Baseline Audiogram.** Prior to annual testing, a baseline audiogram must be established. When establishing a baseline, the employee should not be exposed to workplace noise or high levels of non-occupational noise for at least 14 hours. A baseline audiogram within the first 6 months of employment is required for new employees assigned to an area in which noise exposure is expected to exceed the action level.

Step 2: Annual Audiograms. The purpose of annual testing is to detect threshold shifts so that follow-up action may be taken to prevent further hearing loss. Annual audiograms should be taken during the normal work shift in order to detect temporary threshold shifts resulting from workplace noise exposure that may lead to permanent hearing loss. If audiometric testing reveals that an employee has experienced a standard threshold shift, the use, fit and attenuation of the hearing protective device should be evaluated to ensure adequate protection. In addition, follow-up action, as shown below, must be taken.

Step 3: Follow-up action, if required, includes:

- ❑ Determining the cause of the standard threshold shift (see Appendix A).
- ❑ Referral for a clinical Audiological evaluation or otological exam when problems of a medical nature are suspected.
- ❑ Retesting the employee's hearing level thresholds within 30 days to determine whether the standard shift is a temporary or permanent threshold shift.

All monitored employees must be informed of their audiometric test results and be provided with an explanation of these results. Those employees who exhibit a standard threshold shift must be informed in writing within 21 days of the audiometric test. Follow-up recommendations may be included in the written notification form.

An accurate record for each exposed employee, including audiometric test results must be established and maintained. Access to all regulations and personal monitoring records described below must be granted to each employee. The record must include the following information:

- ❑ Noise Exposure Measurements
- ❑ Audiometric test dates and results
- ❑ Hearing protective device fitting dates
- ❑ Attendance at annual training sessions

Management will request sound surveys for potentially hazardous noise environments and or request additional sound surveys whenever a change in the workplace noise level may occur (due to new equipment, increased production, etc.). They will also permit affected employees to observe the sound level monitoring, if they so choose. Supervisors must also implement engineering and/or administrative controls whenever feasible and ensure that effective hearing protective devices are being worn by employees in required areas or while performing duties which require their use.

It is also the work center Supervisor's responsibility to identify and schedule all exposed employees for annual hearing conservation training with Norman Regional Occupational Health (360-6868), and send exposed employees for audiometric testing. They are also to schedule hearing tests to establish baseline audiograms for newly exposed employees. Newly exposed employees must be sent for baseline audiograms within 6 months of initial exposure. Employees must not be exposed to workplace noise for 14 hours prior to the testing. Employees should also be notified to avoid high levels of non-occupational noise 14 hours prior to testing. And schedule hearing tests annually to obtain follow-up audiograms.

Testing should be scheduled during normal work shift hours and is done on the City of Norman's time as a regular function of their employment.

Supervisors will inform employees about the City's Noise Policy and of their responsibilities under the policy, notify employees of the sound survey results and make a copy accessible to them and notify exposed employees of their individual annual hearing test results. In the event the employee has experienced a standard threshold shift, he/she must be notified of this fact in writing within 21 days of the determination.

Exposed employees will familiarize themselves with the City's Hearing Conservation Policy, select and wear hearing protective devices in required work environments and attend annual training sessions notify supervisors of any significant change in observed workplace noise levels.

The Safety Manager develops, implements and maintains the City's Hearing Conservation Policy, identifies problem areas by conducting basic, detailed and engineering sound surveys and recommends steps to be taken when noise levels are at or above the action level. In addition he/she shall provide information and training on hearing conservation and noise control for exposed employees.

The Safety Manager also maintains records of sound surveys conducted in each department, including a list of high noise level areas and activities and copies of sound survey results. He/she will also maintain records of employee attendance at training and hearing protective device fitting sessions, copies of annual audiometric test results for the duration of employment of the exposed employees, and maintain records of the number of exposed employees.

**CITY OF NORMAN****SAFETY MANUAL**

<b>EFFECTIVE DATE:</b>  6/30/03	<b>POLICY NUMBER:</b>  1000-3	<b>POLICY TITLE:</b> HAZARDOUS ENERGY ISOLATION PROCEDURES (LOCK OUT/ TAG OUT)
<b>TOPICS:</b> Lock out / Tag out procedures	<b>REFERENCE:</b> 29CFR 1910. 147 29 CFR 1926.200 O.S. 40-404 (1970)	<b>NUMBER OF PAGES:</b>  6
<b>AUTHORIZED BY:</b> Brandon McLendon Safety Manager	<b>SPECIAL INSTRUCTIONS</b>	<b>LAST REVIEW DATE:</b> 12/03/15

**PURPOSE:**

It is the purpose of this policy and of the City of Norman to prevent injury to all employees caused by the unexpected energizing, start-up or release of stored energy when working on equipment, machinery or systems. Energy sources that must be safely controlled are electrical, hydraulic, pneumatic, chemical, thermal and mechanical systems or other energy sources.

**POLICY:**

Authorized Person(s) must isolate the energy source and make the machine, equipment or system inoperative (establish a Zero Mechanical State) prior to performing any service or maintenance. Only properly trained Authorized Persons may isolate the energy source. Each time a piece (s) of equipment, machinery or system is Locked Out or Tagged out it must be recorded in a permanent record. This includes Tagging out power tools which fall under 29 CFR 1926.200.

**DEFINITIONS:**

Authorized Persons - Employees who are designated by his or her department to perform maintenance or service on a piece(s) of equipment, machinery or system and; are qualified to perform the work through proper training on the Lock Out Tag Out procedures for the equipment, machinery or system. Only Authorized Persons using Lock Out procedures perform shutdowns.

Affected Persons - Employees who are designated by his or her department to operate equipment, machinery or systems that can be affected during shutdowns for service and/or maintenance. In addition, these employees may be persons affected by shutdowns and Lock Out procedures when they are working in controlled spaces (e.g.- electrical power to work area is secured during renovation, demolition activities or abatement of hazardous materials).

Energy Isolation Device - A mechanical device that is part of a piece of equipment, machinery or system that physically prevents the transmission or release of energy. Some examples include but are not limited to: manually operated electrical circuit breakers, disconnect switches, slide gates, line valves and blocks.

Locks - An individually keyed padlock personally assigned to an Authorized Person or Affected Person that is used with a lock out device to control and isolate energy sources.



## **DEFINITIONS (continued):**

Lockout Device - A device that uses a positive means such as a lock to hold an Energy Isolation Device safely and prevent the start up of a machine or equipment. Lock Out devices include but are not limited to: valve wheel covers, ball valve locks, locks for circuit breakers and; plug and switch plate locks.

Lock Out - The placement of a Lock Out Device including a padlock on the Energy Isolating Device of a piece of equipment, machinery or system. The placement is done in accordance with the department's established procedures that ensure the energy isolation device and equipment being controlled cannot be operated until the lock out device is removed. Only the Authorized Person who placed the lock on can remove it at the completion of the job. Procedures must include those conditions when personnel other than the Authorized Person can also be affected by accidental release of hazardous energy. An example would be multiple personnel performing work activities in a controlled space (e.g. electrical power has been secured to a work area, equipment, machinery or system). During Lock Outs by multiple personnel, the equipment, machinery or system must remain secured until the last Authorized or Affected person has completed his or her work task and has removed his or her lock.

Servicing or Maintenance Activities - Workplace activities that include but are not limited to: installing, setting up, inspection or maintaining equipment and; lubrication, cleaning and making tool changes where the employee may be exposed to the unexpected energization of the equipment or release of hazardous energy.

Tag Out - Posting a prominent warning tag with durable string onto the energy isolation device and/or lock out device of the piece of equipment, machinery or system being controlled. This tag documents the Authorized Person taking the equipment out of operation and the date. It is a warning to others that the equipment cannot be put back into operation until the Authorized Person has removed the tag or tag and lock.

Zero Mechanical State - The mechanical potential energy of all portions of the equipment or machine is set so that the opening of pipes, tubes, hoses, or actuation of any valve, lever or button, will not produce a movement which could cause injury.

## **PROCEDURE:**

Departmental superintendents and supervisors shall be responsible for ensuring their employees comply with this policy and for establishing and documenting Lock Out/ Tag Out procedures.

These procedures shall apply to each piece of equipment, machinery, vehicle or system under the department's control that is serviced and maintained by the department's employees.

Procedures may be established for classes of equipment or machinery if their function and operation are similar and the procedure can collectively account for the control of all hazardous energy sources. Department's are responsible for meeting the following requirements:

1. Authorization through Training and Qualification - All persons must be authorized through training and qualification on the departmental Lock Out procedures for the equipment and machinery on which they are assigned to work. This training must be completed before they can perform any service or maintenance. Training and qualification must include understanding safe operation of the equipment and the use of the Lock Out devices and warning tags provided by the Department.
2. Lock Out Devices, Individually Keyed Padlocks and Warning Tags - Departments must provide appropriate lock out devices, individually keyed padlocks and warning tags to each Authorized Person. Affected personnel who will be assigned to work on a locked out piece of equipment, machinery or system including working in a controlled area, must be provided with his or her individual padlock and warning tag.
3. Training for Affected Persons on Lock Out Tag Out - Departments must train all persons, who may be affected by equipment and machinery shutdown. Training for those affected by equipment or machinery lock out must include: recognition of warning tags, lock out devices and; that tags and locks can only be removed by the Authorized Person who took the equipment or machine out of operation. In addition, Affected Persons who will be assigned to perform a work task on the locked out piece of equipment, machinery or system, including working in a controlled work area, must know how to install his or her own individual padlock and warning tag.
4. City of Norman employees are responsible for following Departmental Lock Out procedures. Failure to follow the procedure will result in personnel actions using the progressive discipline procedures included in the City of Norman Personnel Manual and applicable Union Agreement.
5. Departments are responsible for requesting the installation of lockable energy isolation devices onto their equipment or machinery whenever there is major replacement, repairs, renovations or modification to the equipment. All newly purchased equipment and machinery must include specifications that the energy isolation device(s) are lockable.

Outside personnel (contractors) - The on site representative for the Department and the Contractor's representative must inform one another of their respective Lock Out procedures. The contractor's personnel and the Department's personnel must comply with all restrictions; whichever is stricter, of one another's Lock Out procedures.

### **Hazardous Energy Isolation Procedure**

The purpose of the Lock Out Tag Out Procedure is to document the sequence of steps the Authorized Person must follow to IDENTIFY and CONTROL all hazardous energy sources before performing service or maintenance on equipment, machinery or on a system. Individual departments are responsible for establishing procedures specific to their areas of responsibility and; training their designated Authorized and Affected Personnel on these procedures. **Consultation is available from the Safety Manager.**

Lock Out Tag Out procedures must include the following elements:

## **EQUIPMENT SHUTDOWN**

Document step-by-step procedures to shut down, isolate, block and secure the piece (or class) of equipment, machinery or system including notification to other employees who may be affected by the equipment, machine or system that is shut down.

Special procedures must be documented when multiple personnel will be working on a controlled piece of equipment, machinery, system or; working in a controlled area (e.g.- electrical power to work area has been shut down for renovations, demolitions or abatement activities).

### **Lock out / Tag out devices**

Document the steps the Authorized Person must follow to safely install, remove and transfer the lock and lock out device onto the equipment's energy isolating device including; attaching the Tag with the date and name of the Authorized Person performing the Lock Out. Locks and tags must be installed by Affected personnel who will also be working on the shut down piece of equipment, machinery, system or; working in a controlled area.

### **Release all hazardous energy sources**

Document the steps required to safely release any residual or stored energy (i.e. - springs, chocks, capacitors, valves) on the piece of equipment or machine.

### **Verify that the equipment is in a zero mechanical state**

Document the steps required to verify the equipment or machine is safely isolated and secured from the release of any hazardous energy.

### **Re-energizing the equipment/ machine**

Document the steps to be completed BEFORE starting-up the equipment, machine or system once the service or maintenance has been done. Include the following:

#### **Verification that the equipment/machine is in good working order.**

**Notification to Affected Personnel** that the equipment or machine is being started up and that all personnel are safely positioned.

Check for and retrieve all loose tools and parts, reinstall all guards.

Remove all locks and lock out devices from the energy isolation device of the equipment or machine.

Operate the energy isolation devices to restore energy to equipment/machine.

Lock out Tag out of tools and equipment under 29 CFR 1926.200 h (1 & 2)

“(1) Accident prevention tags shall be used as a temporary means of warning employees of an existing hazard, such as defective tools, equipment etc. They shall not be used in place of, or as a substitute for, accident prevention sign. (2) Specifications for accident prevention tags similar to those in Examples-1 shall apply. They may be captioned with “CAUTION” or “OUT OF ORDER” with a precautionary message that accurately indicates the prohibited action.

Examples-1



Colors for tags

Basic Stock (Background)	Safety Colors (Ink)	Copy Specifications (Letters)
White	Red	White letters on Red Square
White	Black and Red	White letters on reds oval with black square
Yellow	Black	Yellow letters on a black background
White	Black	White Letters on Black Background

Tools, equipment, vehicles etc. that are defective or in an unsafe condition are to be immediately tagged out of service using a “Do not operate” tag and taken out of service. Tools and machinery must be locked out of service using Lock out Tag out device(s) and along with the authorized tag.

Examples of reasons to lock out or tag out tools may be:

- ❑ Broken ground prong on electrical cord plug
- ❑ Faulty insulation on electrical cord
- ❑ Faulty insulation on the body of the tool if it is double insulated
- ❑ Faulty power wiring or switching that impairs the operation of the tool
- ❑ If the electrical portion of the tool has been submerged in water and may short circuit
- ❑ If the tool is sparking, emitting smoke or not operating in a proper manner
- ❑ If a safety device attached to the tool is missing or not operating
- ❑ Et cetera.

Vehicles are to be tagged out of service by tagging the steering wheel or steering mechanism, tagging out the starting mechanism or other method of ensuring that the vehicle cannot be used until it is inspected and repaired by Fleet Maintenance and returned to service.

Examples of reasons to lock out or tag out vehicles may be:

- ❑ Faulty braking system
- ❑ Major fluid leaks
- ❑ Electrical, hydraulic or pneumatic systems failure that may make the vehicle unsafe
- ❑ Loose body parts that may fall off of the vehicle while it is operating
- ❑ Tires worn or damaged to the point that it makes the vehicle unsafe
- ❑ Any other reason that renders the vehicle unsafe to operate.

Examples of items that are **not** reasons to lock out or tag out a vehicle:

- ❑ Inoperable headlights when the vehicle can be driven to Fleet Maintenance during the daylight hours for service.
- ❑ Low levels of motor fuel
- ❑ Inoperable window operators
- ❑ Et cetera.

**CITY OF NORMAN****SAFETY MANUAL**

<b>EFFECTIVE DATE:</b> 6/30/03	<b>POLICY NUMBER:</b> 1100-1	<b>POLICY TITLE:</b> Respiratory Protection Policy
<b>TOPICS:</b> Respiratory Protection	<b>REFERENCE:</b> 29CFR1910.134, 29CFR 1910.134 App. D interpretation of 10/5/1998 Fairfax to Jaggi	<b>NUMBER OF PAGES:</b> 17
<b>AUTHORIZED BY:</b> Brandon McLendon Safety Manager	<b>SPECIAL INSTRUCTIONS</b>	<b>LAST REVIEW DATE:</b> 12/03/15

**PURPOSE:**

The purpose of this policy is to administer a continuing, effective, respiratory protection program that provides for the safe use of respirators.

**POLICY:**

This policy incorporates the requirements of the Occupational Safety and Health Administration's (OSHA's) Respiratory Protection Standard (29 CFR 1910.134) and serves as the City's written respiratory protection program, as required by the standard. The Safety Manager is the designated Program Administrator for the City except the Norman Fire and Norman Police Departments. They are self-administering so that they can specifically serve their firefighters/ officers in their duties. The designated Administrator for the Norman Fire Department is the Fire Training Officer. The designated Administrator for the Norman Police Department is the Captain of Investigations.

Respiratory protection must be worn when the Material Safety Data Sheet (MSDS), Safety Data Sheet (SDS), product labeling or on site instrumentation indicates that it must be worn. Those employees who are medically cleared to wear respirators may choose to wear respirators in situations that are not mandated by the MSDS, SDS, material labeling or instrumentation for their own protection if they wish. Examples of this are dust masks while mowing, sweeping or using a string trimmer. Employees who are not medically cleared to wear respiratory protection may not wear respiratory protection.

If an employee decides to provide their own respiratory protection, their supervisor must confirm that the employee provided equipment complies with NIOSH standards, is fit tested to the employee, is suited for the purpose for which it will be used and is in usable condition. If the employee provided respiratory protection does not comply or is not suited to the application, it may not be worn in the workplace.

29 CFR 1903.1 requires that “employees comply with standards, rules, regulations and orders issued under the Act [OSHA] which are applicable to their own actions and conduct.” With this in mind, employees who refuse to wear or disregard MSDS/SDS instructions or the instructions of those placed in authority over them to wear respiratory protection are subject to the positive discipline policy described in the Personnel Manual or applicable Labor Union Contracts. Supervisors and employees acting in a lead-worker capacity who fail to enforce this policy may also be subject to the positive discipline policy. This

may involve steps to immediately terminate the employment of the employee as caused by an overt act of insubordination, if the Department Head deems necessary.

When an employee chooses to wear a filtering facepiece (a dust mask) to accomplish their work in a location that does not have any known hazard, and only contains non-hazardous dust or particles (i.e. saw dust), they may wear a filtering facepiece. This is only permissible after an assessment is done to determine any hazards from the dust. The letter of interpretation on 1910.134 (c) dated October 5, 1998 Fairfax to Jaggi, states “Voluntary use of filtering a filtering facepiece respirator does not require medical evaluation. The employer needs only ensure that the dust masks are not dirty or contaminated, that their use does not interfere with the employee’s ability to work safely, and to provide a copy of Appendix D to each voluntary wearer.

Provide this to those who voluntarily wear filtering facepiece (Dust Mask) respirators:

**Appendix D to Sec. 1910.134 (Mandatory) Information for Employees Using Respirators When Not Required Under the Standard**

Respirators are an effective method of protection against designated hazards when properly selected and worn. Respirator use is encouraged, even when exposures are below the exposure limit, to provide an additional level of comfort and protection for workers. However, if a respirator is used improperly or not kept clean, the respirator itself can become a hazard to the worker. Sometimes, workers may wear respirators to avoid exposures to hazards, even if the amount of hazardous substance does not exceed the limits set by OSHA standards. If your employer provides respirators for your voluntary use, or if you provide your own respirator, you need to take certain precautions to be sure that the respirator itself does not present a hazard.

You should do the following:

1. Read and heed all instructions provided by the manufacturer on use, maintenance, cleaning and care, and warnings regarding the respirators limitations.
2. Choose respirators certified for use to protect against the contaminant of concern. NIOSH, the National Institute for Occupational Safety and Health of the U.S. Department of Health and Human Services, certifies respirators. A label or statement of certification should appear on the respirator or respirator packaging. It will tell you what the respirator is designed for and how much it will protect you.
3. Do not wear your respirator into atmospheres containing contaminants for which your respirator is not designed to protect against. For example, a respirator designed to filter dust particles will not protect you against gases, vapors, or very small solid particles of fumes or smoke.
4. Keep track of your respirator so that you do not mistakenly use someone else's respirator.

## **PROCEDURE:**

As part of a continuing effort to provide a safe and healthful workplace for City employees, this policy is enforced to ensure that employees are adequately protected from air contaminants and other respiratory hazards including, gas and vapor contaminants, airborne particulate matter, oxygen deficiency, or any combination of the above. It specifically does not apply to protection against M. tuberculosis. Exposures to this hazard are covered in the City of Norman Tuberculosis Policy (#600-2).

While the proper respirator may offer suitable protection against the above hazards, a respirator must not be considered the first choice for offering protection. The primary method for controlling exposure to respiratory hazards in the workplace must be through engineering controls such as ventilation, enclosure of an operation, or substitution with less toxic materials. However, when workers may be exposed above recognized exposure limits, respirators must be used if engineering controls are not feasible, engineering controls alone cannot reduce exposures to acceptable levels, or respirators are used as an interim measure while engineering controls are in the process of being implemented.

## **Respirator Selection**

Only respirators certified by the National Institute for Occupational Safety and Health (NIOSH) may be used. Respirators must be selected on the basis of the potential hazard to which the worker is exposed. The following factors must be considered in making this selection:

- ❑ The identity of the substance(s) and environment for which protection is needed;
- ❑ The physical state of the contaminant (dust, mist, vapor, etc., or a combination thereof);
- ❑ The permissible exposure limit or toxicity of the substance;
- ❑ Exposure assessments indicating the concentration likely to be encountered;
- ❑ The protection factor listed for the respirator type;
- ❑ The possibility of oxygen deficiency or other environments that are immediately dangerous to life or health (IDLH); and
- ❑ Any limitations or restrictions applicable to the types of respirators being considered which could make them unsafe in the environment involved.

## **Respirator Types and Acceptable Use Criteria**

Air-Purifying Respirators (APRs) cleanse contaminated air as it passes through an air-purifying device (such as a filter, cartridge, or canister). The respirator will not offer protection unless the proper air-purifying device made for specific air contaminants (such as gases, vapors, dusts, mists and fumes) is used. APRs provide no protection against oxygen deficiency or other atmospheres that are immediately dangerous to life or health (IDLH); these are those atmospheres that would not allow the wearer to escape if the respirator were to fail. Dust Masks are APRs with the facepiece serving as the filtering medium.



Powered Air-Purifying Respirators (PAPR) are positive pressure devices that use a blower to force ambient air through an air-purifying device, and then to the wearer's respirator facepiece, hood, or helmet. A PAPR is the most protective of the APRs because the positively pressurized respirator prevents inward leakage of contaminants into the facepiece, hood, or helmet.

Atmosphere-Supplying Respirators provide a supply of breathable air to the wearer from an uncontaminated source, independent of the ambient air. The OSHA Respiratory Protection standard requires employers to provide workers who are wearing atmosphere-supplying respirators with breathing air of high purity. Two types of atmosphere-supplying respirators are:

Air-line Respirators supply the wearer with breathable air through a hose from a compressor or compressed air cylinder. These respirators are equipped with half- or full- face pieces, hoods, helmets, or loose-fitting face pieces. Airline respirators may not be used in IDLH atmospheres.

Self-contained Breathing Apparatus (SCBA) provides a breathing air source that is carried by the user, offering greater mobility to the wearer than airline respirators. SCBAs may be used in IDLH atmospheres provided that they offer a minimum service life of 30 minutes. This is the equipment of choice for emergency situations. SCBA respirators with less than 30 minutes of service life may be used to escape from IDLH atmospheres provided that they are NIOSH-certified for escape from the atmosphere in which they will be used.

### **Voluntary Use of Respirators**

Employees who voluntarily choose to wear a respirator when a respirator is not required may do so. The training requirements will not apply in this case. However, supervisors must ensure that:

- ❑ The respirator maintenance and care provisions of this policy are followed.; and
- ❑ Employees who wear a respirator, are medically evaluated. If an employee wishes to wear a filtering facepiece (dust mask), they may do so after the air contaminate has been evaluated and found to be non-hazardous, and the employee submits a signed Appendix D.

### **Medical Evaluations**

An initial medical evaluation using the OSHA Respirator Medical Evaluation Questionnaire (1910.134 App. C) must be conducted by a physician or other licensed health care professional prior to being assigned tasks requiring the use of a respirator. These are normally given at the Norman Regional Hospital Occupational Health Facility. The physician or other licensed health care professional will make a written determination of whether the employee is able to use a respirator.

Supervisors are responsible for ensuring that their employees receive medical evaluations prior to assigning them a respirator. The Safety Manager will make arrangements for the number of persons needing medical evaluations with the Norman Regional Occupational Health Facility staff. Departments are responsible for making individual appointments for their employees by contacting the facility at 360-6868. Medical questionnaires must be

administered confidentially during the employee's normal working hours or at a time and place convenient to the employee. The medical questionnaire must be administered in a manner that ensures that the employee understands its content. Employees must be given the opportunity to discuss the questionnaire or physical examination results with the physician or other licensed health care professional.

Medical evaluations must be conducted whenever any of the following occurs:

- ❑ An employee reports medical signs or symptoms that are related to his/her ability to use a respirator.
- ❑ A physician or other licensed health care professional, supervisor, or the Safety Manager informs the employee that the employee needs to be reevaluated. Annual requirement if necessary.
- ❑ Information from the respiratory protection program, including observations made during fit-testing and program evaluation, indicates a need for employee reevaluation.
- ❑ A change occurs in the workplace that places a greater physiological burden on an employee.

### **Medical Records**

An accurate record for each employee subject to medical surveillance must be established and maintained. The record must include at least the following information:

- ❑ The name of the employee;
- ❑ The physician or other licensed health care professional's written recommendation;
- ❑ A copy of the employee's medical evaluation results, including the Medical Evaluation Questionnaire, and results of any tests or follow-up physical examinations; and
- ❑ Any employee medical complaints related to exposure to any respiratory hazards.

The Human Resources Department, through the Safety Manager is responsible for ensuring that this Medical record is maintained for the duration of employment plus thirty (30) years, in accordance with 29 CFR 1910.1020.

### **Training**

Employees who are required to wear a respirator must receive training prior to engaging in work requiring its use. For users of air purifying respirators (APRs) training will be conducted by the Safety Manager or his/her authorized designee. Departments must make special arrangements for SCBA and Airline Respirator users to receive training from a qualified instructor. Supervisors should arrange for training with the Safety Manager after employees have been medically evaluated and written approval to wear a respirator has been received from a physician or other licensed health care professional.

### **Respirator Fit**

A properly fitting respirator is essential if employees are to receive adequate protection. Supervisors must ensure that each employee is Fit Tested to his/her assigned respirator prior to its first use. In addition, User Seal Checks must be performed by the employee prior to each use of the respirator. Procedures for Fit Tests and User Seal Checks and other considerations to ensure fit are as follow:

Fit Tests --This section applies to all tight-fitting respirators (does not apply to helmets, or hoods, or for escape-only respirators).

1. Employees must pass a respirator fit test prior to using a respirator and annually thereafter.

2. The Safety Manager or his/her authorized designee will perform these tests using the Qualitative Fit Test method. (Note: For SCBA and Airline respirators used in demand mode, or Full-face negative pressure respirators used in atmospheres more than ten times the OSHA Permissible Exposure Limit, Departments must make special arrangements for fit testing using the Quantitative Fit Test method with the manufacturer or other qualified fit testing agency.)

3. Additional fit testing is required whenever an employee:

- incurs a weight change of 20 lbs or more;
- has significant dental changes; or
- has any other change in facial conditions that may interfere with facepiece sealing (i.e., broken facial bone, scarring, surgery, etc.).

4. Fit tests will be conducted with the same make, model, and size respirator that the employee will use on the job.

5. Employees with beards or other facial hair that interfere with a tight facepiece seal will not be allowed to use tight-fitting respirators, and will not be fit tested. Respiratory protection for employees with beards may be attained by using a powered air-purifying hood. The decision concerning the purchase of a powered air purifying hood versus directing the employee to shave his beard will be made by the Department Head.

Prior to each use, a User Seal Check must be performed by the employee to ensure an adequate seal is achieved each time the respirator is worn. User Seal Checks are not substitutes for Fit Tests. User Seal Checks must be conducted by adjusting and securing the respirator facepiece, straps, and headband properly. Conducting a positive and a negative pressure check of the seals. If leakage is detected, adjust and repeat until a proper seal is attained.

Employees who must wear corrective glasses, goggles, or other protective equipment must do so in a manner that does not interfere with the face-to-facepiece seal or valve function of the respirator.

## **Respirator Maintenance and Care**

### Cleaning and Disinfecting

Each employee must be provided with a respirator that is clean, sanitary, and in good operating condition.

Respirators (except dust masks) must be cleaned and disinfected as follows:

- As often as necessary.
- Before being worn by different individuals.
- After each use for emergency use respirators.

- ❑ After each use for respirators used for fit testing and training.

Respirators (except dust masks) must be cleaned using the following procedures, or as recommended by the manufacturer:

- ❑ Remove filters or cartridges. Disassemble face pieces by removing components as recommended by the manufacturer. Discard or repair any defective parts.
- ❑ Wash components in warm (110°F max.) water with a disinfecting cleaner recommended by the manufacturer. Use a nylon brush, if needed, to help remove dirt.
- ❑ Rinse components thoroughly in clean, warm, preferably running water. Drain.
- ❑ Hand dry components with a clean lint-free cloth or air dry.
- ❑ Reassemble facepiece, replacing filters and cartridges where necessary.
- ❑ Test the respirator to ensure that all components work properly using the positive and negative pressure test.

### Storage

Respirators must be stored to protect them from damage from the elements and from becoming deformed.

Emergency respirators must be stored as follows:

- ❑ To be accessible to the work area.
- ❑ In compartments marked as such.
- ❑ In accordance with manufacturer's recommendations.

### Inspections

All respirator inspections will include checking respirator function, tightness of connections, and condition of the parts.

- ❑ Routine-use respirators must be inspected before each use and during routine cleaning by the user.
- ❑ SCBAs and emergency respirators must be inspected monthly and checked for proper function before and after each use. SCBA inspections will also include checking that cylinders are fully charged and that regulators and warning devices function properly. SCBA inspections must be certified and documented by tagging the respirator or by maintaining inspection reports.
- ❑ Emergency escape-only respirators must be inspected before being carried into the workplace for use.
- ❑ Supervisors must periodically inspect respirators to ensure that they are kept clean, stored properly, and in good working condition.
- ❑ Employees must report any malfunction of a respirator or damaged respirator parts to his/her supervisor.
- ❑ Supervisors must take any worn-out or damaged respirator or respirator parts out of service immediately and have them replaced with NIOSH-approved parts or repaired by trained personnel. NOTE: Any reducing and admission valves, regulators, and alarms must be adjusted or repaired by the manufacturer or a technician trained by the manufacturer.

## **Respirator Use in IDLH Atmospheres**

Only SCBA trained employees such as; Fire Fighters, First Responders and trained Special Operations Police Officers, Sewer Line Maintenance workers, and those who change out chlorine cylinders are permitted to use respirators in hazardous and IDLH atmospheres. Whenever respirators are used in hazardous and IDLH atmospheres or during interior structural firefighting, the following must be ensured:

1. The appropriate numbers of standby personnel are deployed.
2. Standby personnel and employees in the IDLH environment maintain communication.
3. Standby personnel are properly trained, equipped, and prepared.
4. A designated representative is notified before standby personnel enter an IDLH atmosphere to provide emergency rescue.
5. Standby personnel are equipped with a pressure-demand or other positive pressure SCBA, or a positive pressure supplied air respirator with an escape SCBA, and appropriate retrieval equipment or other means for rescue.

Entering an IDLH atmosphere is to be treated as a confined space entry under City of Norman Confined Space Entry policy (700-1). Although two individuals must always be located outside the IDLH atmosphere (The Attendant and Entry Supervisor), the Entry Supervisor may be assigned to an additional role (such as incident command) so long as this individual is able to perform assistance or rescue activities without jeopardizing the safety or health of any employee working at the incident. Any assignment of additional duties to the Entry Supervisor must be weighed against the potential for the additional duties to interfere with assistance or rescue activities.

**OSHA Respirator Medical Evaluation Questionnaire (29CFR 1910.134 Appendix C)**

TO THE EMPLOYEE: Can you read (circle one)? Yes/No

Your employer must allow you to answer this questionnaire during normal working hours, or at a time and place that is convenient to you. To maintain your confidentiality, your employer or supervisor must not look at or review your answers, and your employer must tell you how to deliver or send this questionnaire to the health care professional who will review it.

Part A. Section 1. (Mandatory)

The following information must be provided by every employee who has been selected to use any type of respirator (please print).

1. Today's date: \_\_\_\_\_

2. Your name: \_\_\_\_\_

SIGNATURE \_\_\_\_\_

3. Your age (to nearest year): \_\_\_\_\_

4. Sex (circle one): Male/Female

5. Your height: \_\_\_\_ft. \_\_\_\_in.

6. Your weight: \_\_\_\_\_lbs.

7. Your job title: \_\_\_\_\_

8. A phone number where you can be reached by the health care professional who reviews this questionnaire (include the Area Code): \_\_\_\_\_

9. The best time to phone you at this number:  
\_\_\_\_\_

10. Has your employer told you how to contact the health care professional who will review this questionnaire (circle one): Yes/No

11. Check the type of respirator you will use (you can check more than one category):

a. \_\_N, R, or P disposable respirator (filter-mask, non-cartridge type only).

b. \_\_Other type (for example, half- or full-facepiece type, powered-air purifying, supplied-air, self-contained breathing apparatus).

12. Have you worn a respirator (circle one): Yes/No

If "yes", what type(s): \_\_\_\_\_

Part A. Section 2. (Mandatory) Questions 1 through 9 below must be answered by every employee who has been selected to use any type of respirator (please circle "yes" or "no").

1. Do you currently smoke tobacco, or have you smoked tobacco in the last month:  
Yes/No

2. Have you ever had any of the following conditions?

- a. Seizures (fits): Yes/No
- b. Diabetes (sugar disease): Yes/No
- c. Allergic reactions that interfere with your breathing: Yes/No
- d. Claustrophobia (fear of closed-in places): Yes/No
- e. Trouble smelling odors: Yes/No

3. Have you ever had any of the following pulmonary or lung problems?

- a. Asbestosis: Yes/No
- b. Asthma: Yes/No
- c. Chronic bronchitis: Yes/No
- d. Emphysema: Yes/No
- e. Pneumonia: Yes/No
- f. Tuberculosis: Yes/No
- g. Silicosis: Yes/No
- h. Pneumothorax (collapsed lung): Yes/No
- i. Lung cancer: Yes/No
- j. Broken ribs: Yes/No
- k. Any chest injuries or surgeries: Yes/No
- l. Any other lung problem that you've been told about: Yes/No

4. Do you currently have any of the following symptoms of pulmonary or lung illness?

- a. Shortness of breath: Yes/No
- b. Shortness of breath when walking fast on level ground or walking up a slight hill or incline: Yes/No
- c. Shortness of breath when walking with other people at an ordinary pace on level ground: Yes/No
- d. Have to stop for breath when walking at your own pace on level ground: Yes/No
- e. Shortness of breath when washing or dressing yourself: Yes/No
- f. Shortness of breath that interferes with your job: Yes/No
- g. Coughing that produces phlegm (thick sputum): Yes/No
- h. Coughing that wakes you early in the morning: Yes/No
- i. Coughing that occurs mostly when you are lying down: Yes/No
- j. Coughing up blood in the last month: Yes/No
- k. Wheezing: Yes/No
- l. Wheezing that interferes with your job: Yes/No
- m. Chest pain when you breathe deeply: Yes/No
- n. Any other symptoms that you think may be related to lung problems: Yes/No

5. Have you ever had any of the following cardiovascular or heart problems?

- a. Heart attack: Yes/No
- b. Stroke: Yes/No
- c. Angina: Yes/No
- d. Heart failure: Yes/No
- e. Swelling in your legs or feet (not caused by walking): Yes/No
- f. Heart arrhythmia (heart beating irregularly): Yes/No

- g. High blood pressure: Yes/No
  - h. Any other heart problem that you've been told about: Yes/No
6. Have you ever had any of the following cardiovascular or heart symptoms?
- a. Frequent pain or tightness in your chest: Yes/No
  - b. Pain or tightness in your chest during physical activity: Yes/No
  - c. Pain or tightness in your chest that interferes with your job: Yes/No
  - d. In the past two years, have you noticed your heart skipping or missing a beat: Yes/No
  - e. Heartburn or indigestion that is not related to eating: Yes/No
  - f. Any other symptoms that you think may be related to heart or circulation problems: Yes/No
7. Do you currently take medication for any of the following problems?
- a. Breathing or lung problems: Yes/No
  - b. Heart trouble: Yes/No
  - c. Blood pressure: Yes/No
  - d. Seizures (fits): Yes/No
8. If you've used a respirator, have you ever had any of the following problems? (If you've never used a respirator, check here and go to question 9): \_\_\_\_\_
- a. Eye irritation: Yes/No
  - b. Skin allergies or rashes: Yes/No
  - c. Anxiety: Yes/No
  - d. General weakness or fatigue: Yes/No
  - e. Any other problem that interferes with your use of a respirator: Yes/No
9. Would you like to talk to the health care professional who will review this questionnaire about your answers to this questionnaire: Yes/No
10. Have you ever lost vision in either eye (temporarily or permanently): Yes/No
11. Do you currently have any of the following vision problems?
- a. Wear contact lenses: Yes/No
  - b. Wear glasses: Yes/No
  - c. Color blind: Yes/No
  - e. Any other eye or vision problem: Yes/No
12. Have you ever had an injury to your ears, including a broken eardrum: Yes/No
13. Do you currently have any of the following hearing problems?
- a. Difficulty hearing: Yes/No
  - b. Wear a hearing aid: Yes/No
  - c. Any other hearing or ear problem: Yes/No
14. Have you ever had a back injury: Yes/No
15. Do you currently have any of the following musculoskeletal problems?
- a. Weakness in any of your arms, hands, legs, or feet: Yes/No
  - b. Back pain: Yes/No
  - c. Difficulty fully moving your arms and legs: Yes/No
  - d. Pain or stiffness when you lean forward or backward at the waist: Yes/No
  - e. Difficulty fully moving your head up or down: Yes/No
  - f. Difficulty fully moving your head side to side: Yes/No



- g. Difficulty bending at your knees: Yes/No
- h. Difficulty squatting to the ground: Yes/No
- i. Climbing a flight of stairs or a ladder carrying more than 25 lbs: Yes/No
- j. Any other muscle or skeletal problem that interferes with using a respirator: Yes/No

16. How often are you expected to use the respirator(s) (circle "yes" or "no" for all answers that apply to you)?:

- a. Escape only (no rescue): Yes/No
- b. Emergency rescue only: Yes/No
- c. Less than 5 hours per week: Yes/No
- d. Less than 2 hours per day: Yes/No
- e. 2 to 4 hours per day: Yes/No
- f. Over 4 hours per day: Yes/No

17. During the period you are using the respirator(s), is your work effort:

- a. Light (less than 200 kcal per hour): Yes/No

If "yes", if how long does this period last during the average shift: \_\_\_\_\_ hrs. \_\_\_\_\_ mins.

Examples of a light work effort are sitting while writing, typing, drafting, or performing light assembly work;

or standing while operating a drill press (1-3 lbs.) or controlling machines.

- b. Moderate (200 to 350 kcal per hour): Yes/No

If "yes", if how long does this period last during the average shift: \_\_\_\_\_ hrs. \_\_\_\_\_ mins.

Examples of moderate work effort are sitting while nailing or filing; driving a truck or bus in urban traffic; standing while drilling, nailing, performing assembly work, or transferring a moderate load (about 35 lbs.) at trunk level; walking on a level surface about 2 mph or down a 5-degree grade about 3 mph; or pushing a wheelbarrow with a heavy load (about 100 lbs.) on a level surface.

- c. Heavy (above 350 kcal per hour): Yes/No

If "yes", if how long does this period last during the average shift: \_\_\_\_\_ hrs. \_\_\_\_\_ mins.

Examples of heavy work are lifting a heavy load (about 50 lbs.) from the floor to your waist or shoulder; working on a loading dock; shoveling; standing while bricklaying or chipping castings; walking up an 8-degree grade about 2 mph; climbing stairs with a heavy load (about 50 lbs.).

18. Will you be wearing protective clothing and/or equipment (other than the respirator) when you're using your respirator: Yes/No

If "yes", if describe this protective clothing and/or equipment: \_\_\_\_\_

19. Will you be working under hot conditions (temperature exceeding 77°F): Yes/No

20. Will you be working under humid conditions: Yes/No

## Instructions for Fit Testing Respirators

The test subjects must not eat, drink or use tobacco for fifteen minutes prior to conducting the fit tests.

### Prior to starting the test,

1. Each subject must answer the following questions:

HAVE YOU EXPERIENCED ANY CHANGE OR CHANGES IN YOUR MEDICAL / PHYSICAL CONDITION SINCE YOUR LAST FIT TEST OR MEDICAL EXAMINATION THAT MAY INHIBIT OR PREVENT YOU FROM WEARING YOUR ISSUED RESPIRATOR?

- If the test subject answers “NO”, then proceed to the next question
- If the test subject answers “Yes”, then refer them to the Norman Occupational Health Facility for further evaluation. Do not fit test these persons until it is deemed medically safe to do so by a physician or other licensed health care professional.

IS THERE ANY REASON THAT YOU DO NOT FEEL THAT YOU ARE FULLY TRAINED IN THE USE OF YOUR RESPIRATOR?

- If the test subject answers “NO”, then ask them to sign the declaration on the Respirator Fit Test Record that they answered “NO” to the questions. Then proceed with the fit testing.
- If the test subject answers “Yes”, then seek or commence remedial training immediately. Do not fit test these persons until the training is complete. Proceed with the fit testing when the test subject is confident in the use of their respirator.

2. Fill out the individual Fit Test Record for each test subject. This record will be kept in the respirator file in Human Resources. Additional copies can be made for an individual’s file or a supervisor’s file.

3. Each individual is to be reminded that this is a Qualitative Fit test not a Quantitative Fit Test. This is to be marked on the Fit Test Record.

4. On each Fit Test Record, indicate the number of squeezes needed to have the subject test sensitive to the solution in the Sensitivity Test. Thirty squeezes is the maximum number for any test subject. If the subject does not test sensitive to the taste within thirty squeezes they are to wait fifteen minutes and try again. If the second sensitivity test does not make the subject sensitive, then another method of fit testing with acrid smoke or amyl acetate is necessary.

5. Test subjects must also sign a Class Roster to verify that they attended Respirator Use Training and that they were fit tested.

**INSTRUCT ALL TEST SUBJECTS TO BREATHE THROUGH THEIR MOUTH WITH THEIR TONGUE EXTENDED DURING THE SENSITIVITY TEST AND THE FIT TEST.**

### Fit Test Procedures:

1. The test subject must conduct a positive and negative pressure check of the respirator seals in their mask. This is done by:

- ❑ Donning the respirator with the air purifying cartridges removed
- ❑ Negative test - Using a latex glove or piece of plastic wrap, block off and seal the cartridge port and have the subject inhale. They should be able to seal off the mask well enough to evacuate the air from the mask and maintain the vacuum for 15 seconds.
- ❑ Positive Test – by blocking the exhalation valve and blowing out slightly and evenly, the subject can apply a positive pressure to the inhalation valves and face seals thereby checking the completeness of their seal.

2. Equipment Preparation is accomplished by:

- ❑ Hanging the Fit test tent in an area conducive to administering the test,
- ❑ Preparing the fit and sensitivity test solutions per the test kit instructions
- ❑ Readyng the hood for the sensitivity test.

3. Administration of the Sensitivity Test:

- ❑ The test subject should not eat, drink, chew gum or use tobacco products for 15 minutes prior to the beginning of the sensitivity test,
- ❑ Explain the entire screening and testing procedure to the test subject(s) prior to beginning
- ❑ Instruct the test subject to don the hood, without their respirator and breathe through their mouth
- ❑ Using nebulizer #1 with the Sensitivity Test solution, inject the aerosol into the hood through the hole in the hood window. Inject 10 squeezes of the bulb, fully collapsing the bulb and allowing it to expand fully on each squeeze. Both plugs on the nebulizer must be removed and the nebulizer held in an upright position to ensure aerosol generation.
- ❑ Ask the subject if they can taste the bitter or sweet taste of the solution and if tasted, record the number of squeezes of the nebulizer that occurred prior to the subject's sensitivity.
- ❑ If not tasted, inject an additional 10 squeezes from the nebulizer. Repeat again if sensitivity is not reached.
- ❑ If 30 squeezes are not adequate, the test is ended and another type of fit test must be used. The test can be re-administered after waiting 15 minutes.
- ❑ Remove the test hood, and give the subject a few minutes to clear the taste from their mouth without eat, drinking, chewing gum or using tobacco products.

Administration of Fit Test:

- ❑ Instruct the test subject(s) to don their respirator and conduct a Positive and a Negative Fit Test, and then install their cartridge into the mask.
- ❑ Have the subject enter the test tent, with their respirator on and checked, breathing through their mouth, and wait for the test. The respirator shall not be adjusted once the fit test exercises begin. Any adjustment voids the test and the fit test must be repeated.
- ❑ Using nebulizer #2 with the Fit Test solution, inject the fit test solution into the test tent at about shoulder level to the subject with a minimum number of either 10 squeezes or half the number of squeezes (which ever is greater), that were required in the sensitivity test for the subject to taste the solution. Repeat the number of squeezes every 30 seconds.
- ❑ After the initial aerosol is injected, ask the test subject to perform the following exercises for 60 seconds each. Remember to inject aerosol every 30 seconds while the subject is performing exercises.
- ❑ The test is terminated at any time that the sweet or bitter taste of the aerosol is detected by the subject, because this indicates an inadequate fit. If this occurs, adjust the respirator, wait 15 minutes and re-administer the test.
- ❑ Failure of a second Fit Test indicates that a different size or model of respirator is needed.
- ❑ If the entire test is completed without the subject detecting the taste of the aerosol, the test is successful and the respirator is deemed adequate.

## **Test Exercises**

Each test exercise shall be performed for one minute except for the grimace exercise that shall be performed for 15 seconds. The test subject shall be questioned by the test conductor regarding the comfort of the respirator upon completion of the protocol. If it has become unacceptable, another model of respirator shall be tried. The respirator shall not be adjusted once the fit test exercises begin. Any adjustment voids the test, and the fit test must be repeated.

- (1) Normal breathing. In a normal standing position, without talking, the subject shall breathe normally.
- (2) Deep breathing. In a normal standing position, the subject shall breathe slowly and deeply, taking caution so as not to hyperventilate.
- (3) Turning head side to side. Standing in place, the subject shall slowly turn his/her head from side to side between the extreme positions on each side. The head shall be held at each extreme momentarily so the subject can inhale at each side.
- (4) Moving head up and down. Standing in place, the subject shall slowly move his/her head up and down. The subject shall be instructed to inhale in the up position (i.e., when looking toward the ceiling).
- (5) Talking. The subject shall talk out loud slowly and loud enough so as to be heard clearly by the test conductor. The subject can read from a prepared text such as the Rainbow Passage, count backward from 100, or recite a memorized poem or song.
- (6) Grimace. The test subject shall grimace by smiling or frowning for 15 seconds.
- (7) Jogging in Place. The test subject shall jog in place, under the test tent or hood while counting backwards from one hundred
- (8) Normal breathing. Same as exercise (1).

## Rainbow Passage

When the sunlight strikes raindrops in the air, they act like a prism and form a rainbow. The rainbow is a division of white light into many beautiful colors. These take the shape of a long round arch, with its path high above, and its two ends apparently beyond the horizon. There is, according to legend, a boiling pot of gold at one end. People look, but no one ever finds it. When a man looks for something beyond reach, his friends say he is looking for the pot of gold at the end of the rainbow.

## City of Norman Respirator Fit Test Record

<b>Name</b>	<b>Social Security Number</b>	<b>Date of Test</b>
<b>Department/ Division</b>	<b>Test method</b>	<b>Number of nebulizer squeezes to achieve sensitivity</b>

Specific respirator tested:

<b>Make</b>	<b>Model/style</b>	<b>Size</b>
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Qualitative Fit Test (check one of the following types and indicate Pass/ Fail:

Saccharin	PASS	FAIL
Isoamyl Acetate	PASS	FAIL
Bitrex Solution	PASS	FAIL
Irritant Smoke	PASS	FAIL

Fit Tester's Comments:

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Fit Tester's printed name

Signature

Date

**CITY OF NORMAN****SAFETY MANUAL**

<b>EFFECTIVE DATE:</b>  6/30/03	<b>POLICY NUMBER:</b>  1200-1	<b>POLICY TITLE:</b> EXCAVATIONS/ TRENCHING and SHORING
<b>TOPICS:</b> Shoring, Soil Classification and Testing Procedures	<b>REFERENCE:</b> 29CFR 1926.Subpart P 29CFR 1910.135 and 1926.100 CON Safety Policy 701 and 1100-1	<b>NUMBER OF PAGES:</b>  11
<b>AUTHORIZED BY:</b> Brandon McLendon Safety Manager	<b>SPECIAL INSTRUCTIONS</b>	<b>LAST REVIEW DATE:</b> 12/03/15

**PURPOSE:**

It is the purpose of this policy and of the City of Norman to prevent injury or death to employees caused by earth removal such as: excavating, excavations or improper shielding and shoring procedures. This policy applies to all open excavations made in the earth's surface.

**POLICY:**

Hard hats, eye protection and leather work boots will be worn while working around any City of Norman excavation. They will also be worn on any site where excavation machinery is operated.

Employees exposed to vehicular traffic are required to wear reflective vests or other suitable garment marked with or made of reflecting or high-visibility materials as discussed in City of Norman Traffic Policy 1300-1.

A competent person will be placed in charge of each excavation **greater than four feet deep**. The competent person will be present whenever workers are in an excavation.

Per OSHA 1926.651 (b) and the Oklahoma Underground Facilities Damage Prevention Act, Underground utilities must be located and marked before excavations begin. For utility locate requests notify Call OKIE at Dial 811, or (800) 522-OKIE (6543) or (800) 377-1339 for FAX Routine requests require 48 hours notice (excluding weekends and holidays) prior to excavating, requests prior to excavating emergency (damage to life health or property) repairs must be called in, but excavation can begin immediately. Great caution should be taken to methodically reveal the location of underground utilities during excavation so as to avoid damaging them or adding to the excavation hazard by introducing a gas leak or live current into the excavated area. Failure to comply with the utility location procedure or to willfully damage an underground utility due to neglect or recklessness may result in disciplinary action.

In excavations **less than four-feet deep**, employees are not allowed in the excavation while heavy equipment is actively digging within 10-feet of the person. When an underground utility spotter or a person is sent into the excavation to hand dig, the excavation machinery operator must quit operating the equipment. The excavation equipment operator may use the excavation equipment boom to place pipe or appurtenances with a person in the trench and at the location of the joint or appurtenance.

In excavations **greater than four-feet deep**, employees are not allowed in the excavation without the protection of shields/ shoring, or proper benching or a surface opening wide enough that should one of the walls collapse that the persons in the excavation would not be endangered. When an underground utility spotter or a person is sent into the excavation to manually expose underground utilities or other buried facilities, the excavation machinery operator must quit operating the equipment. The utility spotter must always have the protection of shielding/ shoring while hand digging in excavations over four feet deep. The excavation equipment operator may use the excavation equipment boom to place pipe or appurtenances with a person in the trench as long as the person is within the shield / shoring

For excavations greater than 4 feet in depth, the trench inspection checklist will be filled out, (Appendix A of this policy) and the guidance in 29 CFR 1926, subpart P, will be followed.

If the excavation is greater than 20 feet in depth or if there is any deviation from the 29 CFR 1926, subpart P, an engineering design must be completed, and signed by a registered professional engineer.

#### **DEFINITIONS:**

**Aluminum Hydraulic Shoring.** An engineering shoring system comprised of aluminum hydraulic cylinders (cross braces), used in conjunction with vertical rails (uprights) or horizontal rails (walers). Such a system is designed specifically to support the sidewalls of an excavation and to prevent cave-ins.

**Benching.** A method of protecting employees from cave-ins by excavating the sides of an excavation to form one or a series of horizontal levels or steps, usually with vertical or near vertical surfaces between levels.

**Cave-in.** Separation of mass of soil or rock materials from the side of an excavation, or the loss of soil from under a trench shield or support system, and its sudden movement into the excavation, either by falling or sliding in sufficient quantity so that it could entrap, bury, or otherwise injure and immobilize a person.

**Competent Person.** One who is capable of identifying existing and predictable hazards in the surroundings or working conditions which are unsanitary, hazardous or dangerous to employees, and who has authorization to take prompt corrective measures to eliminate them. All competent persons will have and be able to demonstrate the following:

- ❑ Training, experience and knowledge of soil analysis, use of protective systems, and the requirements outlined in 29 CFR 1926, subpart P.
- ❑ Ability to detect conditions that could result in cave-ins, failures in protective systems, hazardous atmospheres, and other hazards, including those associated with confined spaces, lockout/tagout, etc.

**Excavation.** Any man-made cut, cavity, trench or depression in an earth surface formed by earth removal.



## **DEFINITIONS** (continued):

**Shield (Shield System or Trench Box).** A structure that is able to withstand the forces imposed on it by a cave-in and thereby protects the employees with the structure. Shields can be permanent structure or can be designed to be portable and moved along as work progresses. Also known as trench box or trench shield.

**Shoring (Shoring System).** A structure such as metal hydraulic, mechanical or timber shoring system that supports the sides of an excavation and which is designed to prevent cave-ins.

**Sloping (Sloping System).** A method of protecting employees from cave-ins by excavating to form sides of an excavation that are inclined away from the excavation so as to prevent cave-ins. The angle of incline varies with differences in such factors as the soil type, environmental conditions of exposure, and application of surcharge loads.

### **Soil Types:**

- ❑ **Type A:** Most stable. Rock, clay, silty clay, (resists penetration). No soil is Type A if it is fissured, is subject to vibration of any type, has been previously disturbed, or has seeping water. Do not consider any soil in Norman a Type A soil.
- ❑ **Type B.** Medium stability. Silt, sandy loam, medium clay and unstable dry rock; previously disturbed soils unless otherwise classified as Type C; soils that meet the requirements of Type A soil but are fissured or subject to vibration.
- ❑ **Type C.** Least stable. Gravel, loamy sand, soft clay, submerged soil or dense, heavy unstable rock, and soil from which water is freely seeping.

**Trench (Trench Excavation).** A narrow excavation (in relation to its length) made below the surface of the ground. In general, the depth is greater than the width, but the width of a trench (measured at the bottom) is not greater than 15 feet. If forms or other structures are installed or constructed in an excavation as to reduce the dimension measured from the forms or structure to the side of the excavation to 15 feet or less, the excavation is also considered to be a trench.

**Wales.** Horizontal members of a shoring system placed parallel to the excavation face whose sides bear against the vertical members of the shoring system or earth.

## **PROCEDURE:**

Supervisors will ensure that only trained, competent individuals are assigned the duties of a competent person at excavation operations. And they shall enforce excavation policies and procedures along with the competent person.

The competent person will enforce all City of Norman excavation and equipment operation policies and procedures as stated, and ensure compliance with 29 CFR 1926, subpart P. This will include the following inspections:

- ❑ Prior to starting work daily, and every eight hours of operations thereafter until the crew ceases labor for the day.
- ❑ As dictated by work being done in the trench, (i.e. after a pipe is opened and water is released into the trench, after a cave in or a large amount of the side sloughs off into the trench) .
- ❑ After each rain storm or other event that could increase hazards, such as a windstorm, earthquake, dramatic change in weather, etc.
- ❑ When bulging at the bottom, fissures, tension cracks, sloughing, undercutting, water seepage or similar conditions occur.
- ❑ When there is a change of the location or placement of the spoil pile that places more weight on the trench wall.
- ❑ When there is any indication of change or movement in adjacent structures.
- ❑ The competent person in charge of the excavation will be responsible for determining whether the soil is Type B or C. Where soils are configured in layers, the soils will be classified on the basis of the weakest layer. Each layer may be classified individually if a more stable layer lies below a less stable layer, i.e. Type C soil resting on top of stable rock. Soil type can change during excavation, i.e., adding water to Type B will change soil classification to Type C.
- ❑ The competent person will conduct a visual test with one or more manual tests of the soil prior to and during excavation. In addition, the competent person will perform a visual test to evaluate conditions around the entire site, to include soil adjacent to excavation, any signs of vibration in the area, such as heavy vehicular traffic, Vibratory Roller use etc.
- ❑ The competent person will have a complete and current copy of 29 CFR 1926, subpart P, and this policy at the job site, while work is in progress.

## **OPERATING PROCEDURES.**

- ❑ Soil tests will be performed by the competent person in charge of the excavation using a visual test, coupled with one or more manual tests. The manual test methods are outlined in the **Manual Soil Test Methods Section** included in this policy
- ❑ The visual test method requires the competent person to perform a physical observation of the entire excavation site, including the soil adjacent to the site, and the soil being excavated. A visual check will also be performed for any evidence of vibration in the vicinity. The competent person will:
  - Identify existing utilities.
  - Observe the open side of the excavation for indicators of layered geologic structuring.
  - Check for crack-line openings along the failure zone that would indicate tension cracks.
  - Check areas adjacent to the excavation for signs of foundations or other intrusions into the failure zone.

- Look for signs of bulging, or sloughing, as well as for signs of surface water seeping from the sides of the excavation or from the water table.
- Check for surcharging load limit (caused by the weight of the spoil pile near the edge of the excavation) and the spoil pile distance from the edge of the excavation.

Spoils (excavated material) will be placed no closer than 3 feet from the surface edge of the excavation, measured from the nearest base of the spoil to the cut. Further distance may be required, depending on the type of material, to ensure that the temporary spoils do not fall onto the employees in the excavation. They will be placed so that it cannot accidentally run, slide or fall back into the excavation.

Rainwater or other run-off water will be directed away from the excavation.

Surface crossing of trenches will not be made unless absolutely necessary. If necessary, they are permitted under the following conditions:

Vehicle crossings must be designed by and installed under the supervision of a registered professional engineer.

Walkways or bridges across excavations must:

- Have a minimum clear width of 20 inches.
- Be fitted with standard guardrails with top and mid-rails and toe boards per 29 CFR 1926.501 even if the distance to the lower level is less than six-feet.
- Extend a minimum of 24 inches beyond the surface edge of the trench.

Ingress/ egress.

- Trenches 4 feet or more in depth will be provided with a fixed means of ingress and egress.
- Spacing between ladders (or other means of egress) must be in such a manner that a worker does not have to travel more than 25 feet laterally to the nearest means of egress once inside the excavation.
- Ladders must be secure, and extend a minimum of 36 inches above the landing. Use non-conductive ladders when electric utilities are present.
- When pulling pipe or pulling loose bell connections, no employee is allowed in the trench within the distance that the freed section may swing or pose a hazard.
- At no time will employees be allowed to work under raised loads, nor will employees be allowed to work under loads being lifted or moved by heavy equipment used for digging or lifting.
- Employees are required to stand away from equipment that is being loaded/unloaded, to avoid being struck by falling material or spillage.
- Equipment operators or truck drivers are allowed to remain in their equipment/vehicles during loading/unloading if the equipment is properly equipped with a cab shield or canopy.

The following measures will be implemented to prevent vehicles from accidentally falling into the trench:

Barricades will be installed, as necessary.

Hand or mechanical signals will be used, as required.

Wheel chocks or bumper blocks will be used if there is danger of vehicles falling into the trench.

Soil will be graded away from the excavation in order to assist in vehicle control and channeling of run-off water.

Trenches will be fenced off to prevent persons from falling into the excavations and if in a roadway, barricaded per the Manual on Uniform Traffic Control Devices (MUTCD) when left open and unattended. If possible, heavy plywood or other weight bearing material should be used to cover the top of the excavation to prevent persons from falling over the fence and into the excavation. The gaps between the top sheeting may not exceed 1-inch by 12-inches.

#### Atmospheric conditions and confined spaces.

Employees will not normally be permitted to work in hazardous and/or toxic atmospheres. These conditions include:

- ❑ Less than 19.5% oxygen.
- ❑ A combustible gas concentration greater than 10% of the lower explosive limit (LEL).
- ❑ Concentrations of hazardous substances that exceed those specified in the OSHA standard. (If the work must be done to avert the loss of life, health and property, the Competent Person must inform the Division Superintendent prior to beginning work).
- ❑ Any such operations will be conducted in accordance with all OSHA requirements for occupational health, and environmental controls for personal protective equipment, and lifesaving equipment. Job hazard evaluation will be implemented, to ensure any required controls, i.e., ventilation or respiratory equipment is provided. If the trench qualifies for classification as a confined space, entry will be in compliance with the Confined Space Program (Policy number 700-1).
- ❑ Employees required to wear respiratory protection will be trained, fit-tested and enrolled in a respiratory protection program prior to wearing a respirator per City of Norman Respiratory Protection policy 1100-1.
- ❑ Safety harness and lifelines are used in conformance with OSHA requirements (29 CFR 1926.104 and 29 CFR 1910, subpart I).
- ❑ Normally, employees will not be allowed to enter trenches that have significant accumulation of water. Water removal equipment will be used and monitored by the competent person until the water level is controlled to an average depth of no greater than six-inches. Those entering dewatered trenches must wear a safety harness and

lifeline that conform to 29 CFR 1926.104 and 29 CFR 1910, subpart I, or be protected by a shield or shoring.

Employees will be removed from the trench during rainstorms. Trenches will be carefully inspected by a competent person after each rain, and before employees are permitted to re-enter the trench.

If the potential for a hazardous atmosphere is present, i.e., excavations near landfills or excavations in the vicinity of hazardous materials/pipelines (natural gas), atmospheric testing will be accomplished prior to entry, and will be performed at one-hour intervals to ensure that the trench remains safe.

Atmospheric testing will be increased if equipment is operating in the trench or if welding, cutting or burning is being performed in the trench. In addition, when working beside heavily trafficked roadways on atmospherically still days, additional testing for the accumulation of Carbon Monoxide must be done. If the concentrations of explosive or noxious gasses exceed the Permissible Exposure Limits (PEL) listed by Parts Per Million (PPM) in CFR 29 1910.1000 Table Z-1 "Limits for Air Contaminates," the trench must be evacuated and ventilated by mechanical means until the contaminate concentrations comply with the permissible limits.

Benching, sloping, shoring, and shielding.

Sidewalks and pavements shall not be undermined, unless a support system or similar method of protection against possible collapse is provided for employees.

Maximum allowable slopes for excavations less than 20 feet based on soil type and angle to the horizontal are as follows:

<b>Soil Type</b>	<b>Height/Depth Ratio</b>	<b>Slope Angle</b>
Type B	1:1	45 degrees
Type C	1 1/2 : 1	34 degrees

For example, a 10 feet deep trench in Type B soil would be sloped to a 45-degree angle -- 10 feet back in both directions. Total distance across a 10 feet deep trench would be 20 feet, plus the width of the bottom of the trench itself. In Type C soil, the trench would be sloped at a 34-degree angle that is 15 feet back in both directions, for at least 30 feet across, plus the width of the bottom of the trench itself.

Benching. There are two basic types of benching, single and multiple, which can be used in conjunction with sloping. **Benching is not allowed in Type C soil.**

- ❑ In Type B soil, the vertical height of benches must not exceed 4 feet.

- ❑ Benches must be below the maximum allowable slope for that soil type. For example, a 10 feet deep trench in Type B soil must be benched back 10 feet in each direction, with a maximum of a 45-degree angle.

Shielding. Trench boxes are preferred by the City of Norman as the method of protecting workers in trench excavations different from shoring, instead of supporting the trench face, they are intended primarily to protect workers from cave-ins.

- ❑ Excavation areas, when the distance between the outside of the trench box and face of the trench is in excess of one foot on either side must be backfilled, to prevent lateral movement of the box.
- ❑ Shields (Trench Boxes) may not be subjected to loads exceeding those that the system was designed to withstand.
- ❑ Shields may be used in combination with sloping and benching.
- ❑ Shields must extend at least 18 inches above the surrounding area if there is sloping toward the excavation. This can be accomplished by providing a benched area adjacent to the shield.
- ❑ Any modifications to the shields must be approved by the manufacturer.
- ❑ Shields may ride above the bottom of an excavation, provided they are calculated to support the full depth of an excavation and there is no caving under or behind the shield.
- ❑ Workers must enter and leave the shield in a protected manner, such as a ladder.
- ❑ Workers must not remain in the shield while it is being moved.

Shoring. Shoring or shielding is used when location or depth of the cut makes sloping back to the maximum allowable slope impractical. The two basic types are timber and aluminum hydraulic. Due to cost and effort of using lumber, aluminum hydraulic is the preferred method. If lumber shoring is used, it must meet the requirements set forth in 29 CFR 1926, subpart P.

- ❑ All shoring will be installed from the top down, and removed from the bottom up.
- ❑ Hydraulic shoring will be checked at least once per shift for leaking hoses and/or cylinders, broken connections, cracked nipples, bent bases, or any other damage or defective parts. Unserviceable equipment will not be used at any time.
- ❑ The top cylinder of hydraulic shoring will be no more than 18 inches below the top of the excavation.
- ❑ The bottom of the cylinder shall be no higher than 4 feet from the bottom of the excavation. Two feet of trench wall may be exposed beneath the bottom of the rail or plywood sheeting, if used.
- ❑ Three vertical shores, evenly spaced, must be used to form a system.
- ❑ Wales are installed no more than 2 feet from the top, no more than 4 feet from the bottom, and no more than 4 feet apart, vertically.

- Hydraulic shoring for Type B and Type C soil will be installed IAW Appendix D, 29 CFR 1926, subpart P.

## **TRAINING.**

Prior to training, the supervisor must determine the excavation requirements/qualifications for a particular operation through the use of job hazard analysis or risk assessment.

Training for the competent person will consist at a minimum of attending and passing an approved excavation course, and the experience deemed necessary by the Supervisor to perform competently.

Individuals expected to enter excavations will attend the approved excavation class.

Approved excavation/ competent person training will be documented by the Safety Manager in the "First Aid and Safety Training" binder in the Human Resources Records Office.

## **MANUAL SOIL TEST METHODS**

Thumb penetration test. Attempt to press the thumb firmly into the soil in question; if the thumb penetrates no further than the length of the nail, it is normally Type B soil. If the thumb penetrates the full length of the thumb, it is Type C soil. It should be noted that the thumb penetration is the least accurate.

Dry strength test. Take a dry soil sample, if it crumbles freely or with moderate pressure into individual grains it is considered granular (Type C). If the dry soil falls into clumps, which in turn can be broken into smaller clumps, and these smaller clumps can only be broken with difficulty, it is probably clay in combination with gravel, sand or silt (Type B).

Plasticity or wet thread test. Take a moist sample of soil. Mold it into a thin thread, approximately 1/8 inch in diameter by 2 inches in length, if the soil does not break when held by one end, it may be considered Type B.

Empirical Tests. A pocket penetrometer, shearvane, or torvane shear may also be used to determine the unconfined compression strength of soils.

**APPENDIX A Excavation Checklist**

(Cut, cavity or depression a Trench/Excavation more than 4 ft deep)

Date \_\_\_\_\_ Time \_\_\_\_\_ Competent Person \_\_\_\_\_

Location \_\_\_\_\_ Weather Conditions \_\_\_\_\_

Item	Yes	No	Action Required
Is the excavation >20 in depth?			Professional Engineer in Charge if over 20' deep
Is a competent person in charge and present at site?			
Is the water in the excavation more than 6" average depth?			
Has competent person made soil determination?			Soil Classification
Is ingress/egress adequate?			
Have the underground utilities been identified?			Locate Number
Are there any surface hazards (i.e. overhead power lines)?			
Are procedures in place to protect from falling loads?			
Is there exposure to vehicular traffic? Vibration? Carbon Monoxide?			
Danger from adjacent structure?			



Is spoil placed 3 feet or more from edge of the excavation?			
Are surface crossings required?			
Are all employees wearing hard hats?			
Are hazardous atmospheres or confined spaces present?			Time and Date Superintendent notified
Are respirators required?			
Does the procedure require benching (A/B Type Soil only)?			
Does the procedure require shoring, shielding, sloping?			
If provided, does the shield extend at least 18 in. above the surrounding area if sloped toward the excavation?			
If shields are used, is the depth of the cut >2 ft below the bottom of the shield?			
Are means of egress (i.e. ladders) provided no more than 25 ft from work?			
Is emergency rescue equipment required?			
Are daily excavation inspections performed and documented?			Date/time of last inspection

**CITY OF NORMAN****SAFETY MANUAL**

<b>EFFECTIVE DATE:</b>  10/15/14	<b>POLICY NUMBER:</b>	<b>POLICY TITLE:</b> Traffic Safety & Visibility
<b>TOPICS:</b> Safe Work Zones Traffic Management	<b>REFERENCE:</b> 29CFR 1926 Subpart G (.200-.203), Final rule 9/12/02 Federal Register # 67:57722-57736 and the Manual on Uniform Traffic Control Devices (MUTCD), Norman Code of Ordinances Chapter 20, Art. XI § 20- 1112.	<b>NUMBER OF PAGES:</b>  2
<b>AUTHORIZED BY:</b> Brandon McLendon Safety Manager	<b>SPECIAL INSTRUCTIONS</b>	<b>LAST REVIEW DATE:</b> 12/03/15

**PURPOSE:**

It is the purpose of this policy and of the City of Norman to prevent injury or death to employees caused while working in traffic. In addition, it is to prevent City workers from presenting a hazard to motorists by incorrectly using temporary traffic control devices or flagging in work zones or roadsides. It is also a purpose to comply with the OSHA standard, applicable Oklahoma State Law, and City of Norman Ordinance.

**POLICY:**

Those groups of City employees who are engaged in maintenance or new construction activities on roadways are to conform to 29 CFR 1926 Subpart G and the most recent edition of the Manual on Uniform Traffic Control Devices (MUTCD). When the edition of the MUTCD cited in 29 CFR 1926 Subpart G is not the most recent edition of the MUTCD, it is to be understood as a reference to the most recent edition. This policy is to specifically ensure compliance to, traffic control devices to protect construction workers (29 CFR 1926.200 (g) (2)), signaling by flagmen (29 CFR 1926.201), and barricades for the protection of workers (29 CFR 1926.202).

Per O.S. 40 §403(E) (2) the City is to provide safety training for employees. Traffic safety training, appropriate to the positional responsibility of the employee, will be accomplished through the American Traffic Safety Services Association (ATSSA) or other approved organization qualified for the training, testing and certification of employees, as approved by the Director of Public Works or his designee. Training must be conducted for all employees who work in roadway traffic lanes or supervise those employees who do. The Division Superintendent/ Manager / Coordinator / Supervisor are to track and ensure that persons working on roadways are trained. Documentation of the attendance and successful completion and attainment of ATSSA certification is retained on file by the Division Supervisor.

This policy focuses on the importance of safety for the City of Norman employees working on rebuilding existing roadways and improving existing roadways. In doing so, the traffic areas continue to grow which creates the possibility of congestion. The following procedure can be used to help minimize and control risks for workers.

**PROCEDURE:**

To help ensure the safety of workers who are focused on rebuilding and improving roadways for the City of Norman, certain procedures should be followed to help minimize risk hazards.

### High-Visibility Apparel:

- All workers should wear high visibility apparel.
- Worker visibility may be enhanced by the use of fluorescent colored apparel.
- Apparel should be visible and distinct to identify workers from other markers or equipment.

### Training:

- All workers should be trained to work near traffic.
- Workers responsible for temporary traffic control measures should be trained.
- Work rules should be established to minimize risks.

### Activity Area Planning

- Routes should be identified and marked to allow workers and work vehicles to safely enter and exit the work space.
- Backing of vehicles should be controlled by spotters to ensure safety in work areas.
- Overhead and underground utility lines should be marked to prevent contact by workers.

### Speed Control

- Establish appropriate speed limits for work zone.
- Properly post speed limits for drivers to follow.
- Make sure law enforcement is aware of changes.
- Possible use of radar activated changeable signs.
- Possible use of flaggers (trained) under certain conditions.

### Lighting

- Temporary lighting should be used to provide adequate lighting for visibility of drivers to safely navigate through the work zone.
- Illumination should be provided to help workers more visible when needed.
- Controlling of glare must be addressed to help with interference of visibility of the work zone and workers.

### Worker Safety Planning

- Hazard assessments should be performed to determine risks of all workers involved.
- Engineering and administrative controls should be implemented to protect workers from any identified risk(s).

### Special Devices:

- Rumble devices may be used to help drivers identify upcoming work zones.
- Changeable message signs can be used to help drivers better informed.
- Intrusion alarms can be used to warn drivers.
- Spotters can be used to help minimize risks.