



City of Biggs

Agenda Item Staff Report for the Regular City Council Meeting: May 10, 2016

TO: Honorable Mayor and Members of the City Council
FROM: City Administrator
Subject: Consideration of injury & illness prevention program, transite and LOTO (lock out tag out) policies.

Background:

As part of SCORE's efforts to incrementally improve member safety programs a recent effort with SCORE safety contractor DKF Solutions produced the attached IIPP (injury & illness prevention program), transite and LOTO (lock out tag out) policies.

Recommendation:

Review the polices, direct staff with any alterations and adopt the IIPP (injury & illness prevention program), transite and LOTO (lock out tag out) policies.

Mark Sorensen, City Administrator

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I certify the Illness and Injury Prevention Program for the City of Biggs (Biggs) has been reviewed and revised as necessary.

City Manager

Date Certified

1.0 Program Review and Certification

The Injury and Illness Prevention Program (IIPP) at Biggs will be reviewed and revised as necessary to ensure the program is current.

- Document all revisions on Attachment A – Program Review and Certification Log.

2.0 Purpose and Policy Statement

2.1 **Purpose:** Establishing a CalOSHA required Employee Injury and Illness Prevention Program in accordance with California Code of Regulations, Title 8, § 3203.

- 2.2 **Policy:** The Superintendent holds the safety of our employees, as well as that of the public we serve, as a high priority. The consideration of worker safety, and the safety of the general public, bears as high a priority as the decision to commit funds or complete a task and no function is so critical as to require a compromise of safety.

The Superintendent is committed to providing a place of employment free from health and safety hazards, promoting safe working practices, and complying with all applicable federal, state and Biggs' safety requirements.

3.0 Responsibilities

- 3.1 The Superintendent has the overall authority and responsibility for implementing the provisions of the Injury Illness Prevention Program for the City of Biggs. Specific responsibilities include, but are not limited to
- Ensuring that the program targets losses, exposures, and is in compliance with applicable government standards.
 - Providing active leadership & participation in the safety program.
 - Holding management and supervisory positions accountable for safety.
 - Ensuring adequate funding for the successful implementation of this program.
 - Ensuring the safety program is fully implemented
 - Ensuring policy and procedures are current.

3.2 Safety Department/Representative:

The Superintendent serves as a safety liaison between management, supervisors and employees and is responsible for administering, designing, and maintaining the safety program. Their responsibilities include the following:

- Providing support regarding all safety related issues.
- Reviewing, revising, and/or developing safety policies and procedures in order to keep the safety program updated and in compliance with CalOSHA requirements.
- Developing, implementing, and maintaining an effective safety program to prevent accidents, injuries, and illnesses.
- Coordinating with those in management or supervisory positions in the activities required to meet the provisions of the safety program.
- Ensuring a training schedule has been established to track and document safety training and other CalOSHA safety requirements are scheduled and implemented.
- Monitoring and coordinating safety training and events for compliance with the projected training schedule.
- Managing safety record keeping requirements.
- Participating in accident/incident investigations as necessary.
- Monitoring the effectiveness of the program and making recommendations to reduce risks and eliminate or control unsafe conditions in the work place.
- Monitoring and tracking periodic safety inspections for compliance with safety program requirements.
- Ensuring that all new employees receive New Employee Safety Orientation.
- Implementing systems (e.g. incentive systems) to encourage employee participation in the safety program.

3.3 The Superintendent is responsible for:

- Completing the OSHA Form 300 Log within 7 calendar days of receiving information that a recordable injury or illness has occurred.
- Completing the CalOSHA Form 300A (annual summary) and posting it no later than February 1 of the year following the year covered and keeping the posting in place until April 30.

3.4 Managerial and Supervisory Positions are responsible for:

- Developing a cooperative safety attitude by being an example to employees.
- Encouraging employees to report unsafe conditions, practices, and near misses and ensuring unsafe conditions or practices are evaluated and corrected.
- Completing their part of the New Employee Safety Orientation program in a timely manner for employees under their direct supervision.
- Discussing safety concerns and safe job procedures as part of section meetings
- Ensuring documented tailgate meetings are occurring as required.
- Coordinating with the Safety Representative (or designee) to schedule, develop, implement, and document all workgroup safety training.
- Reporting & documenting all injuries, property damages, near misses, unsafe conditions and unsafe practices in accordance with this policy.
- Ensuring unsafe conditions or practices are evaluated and corrected.
- Conducting and documenting safety inspections in accordance with this policy.
- Conduct special safety inspections if new substances, job tasks, or equipment introduce new hazards to their employees.
- Conducting accident/incident investigations as required by this policy.
- Ensuring employees receive prompt medical attention for all injuries/illnesses.
- Ensuring that employees under their direct supervision know, understand and follow established safety guidelines.
- Providing the necessary personal protective equipment to employees under their direct supervision and train them on its use.

3.5 Employees:

It is the responsibility of each employee to follow safe working practices and comply with safety rules and regulations.

3.5.1 Specific responsibilities include, but are not limited to

- Actively contributing to the success of the overall safety program
- Accomplishing their duties using safe work practices
- Reporting unsafe conditions and practices in accordance with Section 6.0 Hazard Assessment
- Conducting safety inspections of their respective work areas and/or equipment when requested
- Correcting any observed unsafe conditions or practices
- Immediately reporting all imminent and/or serious safety conditions/practices to their supervisor
- Maintaining good housekeeping duties pertaining to their work assignments
- Reporting all injuries to a supervisor as soon as possible

- Protecting themselves from hazardous exposures/conditions by using the proper engineering controls, administrative controls, and /or personal protective equipment when required or necessary
- Maintaining safety equipment in good condition with all safety guards in place when in operation
- Advising management when there is a need for job specific training
- Coaching fellow employees on safe work practices, whenever appropriate
- Participating on the Safety Committee when requested
- Taking the initiative to temporarily suspend any work activity or unsafe conditions that they believe is an imminent or serious hazard (i.e. is immediately dangerous to life and health)

3.5.2 Employee rights include, but are not limited to

- A safe and healthful working environment.
- Receive information and training in safety and job specific work practices.
- Refuse work that violates a health and safety standard or order where such violation would pose a hazard to his/her safety and health.
- To not perform a job until they have received instructions and training on the proper and safe work procedures.
- Contact CalOSHA about unsafe or unhealthful working conditions. Such complaints are strictly confidential per CalOSHA policy.
- Have an employee representative accompany CalOSHA on an inspection and to talk privately to the CalOSHA representative during an inspection.

4.0 Compliance

All employees, including managers and supervisors, are responsible for complying with safe and healthful work practices. The City of Biggs' system of ensuring that all employees comply with these practices includes one or more of the following practices:

- Informing workers of the provisions of the Injury Illness Prevention Program.
- Evaluating the safety performance of all workers.
- Recognizing employees who perform safe and healthful work practices.
- Providing training to workers whose safety performance is deficient.
- Disciplining workers for failure to comply with safe and healthful work practices in accordance with the City of Biggs' disciplinary procedures.

5.0 Communication

the City of Biggs recognizes that open, two-way communication between management and employees on health and safety issues is essential to an injury-free, productive workplace. The following systems of communication at Biggs are designed to facilitate a continuous flow of safety and health information between management and employees in a form that is readily understandable.

- 5.1 **New Employee Orientation:** Safety Orientations will be conducted at the time of hire and include a discussion of safety and health policies relevant to their position and stresses the importance of safety in the workplace. Safety orientation is a combined effort of the Safety Representative (or designee) and Supervisors and is documented using the New Employee Handbook.

- 5.2 **Safety Meetings:** Periodic safety meetings will be held at least annually to review and discuss safety issues and to provide relevant safety information. Safety meetings will be documented on Attachment B: Safety Meeting & Training Attendance Form, or equivalent.
- 5.3 **Required Safety Training:** Employees will receive job specific training in accordance with the tasks they are required to perform, the hazards posed and regulatory requirements. This training will be provided either at time of hire as part of the New Employee Orientation, prior to performing the activity or being exposed to the hazard. All safety training will be documented on Attachment B: Safety Meeting & Training Attendance Form, or equivalent.
- 5.4 **Equipment Safety Training:** Equipment safety training will be provided on all new equipment where training is necessary to prevent employee, coworker or third-party injury or property damage. This training will be documented on Attachment B: Safety Meeting & Training Attendance Form, or equivalent.
- 5.5 **Safety Postings:** All appropriate and required safety information will be posted on the Safety Bulletin Board or in other locations that are highly visible and accessible to all employees.
- 5.6 **Reporting Unsafe Conditions or Practices:**
- 5.6.1 Attachment C: Report of Unsafe Condition or Practice is used to report any unsafe conditions, practices, or near-misses that employees may have observed or experienced. Completed forms are given to the Superintendent. Employees may submit completed forms anonymously, if they so choose. The Superintendent will review all reports of unsafe conditions and will determine the necessary actions needed to correct hazardous conditions in accordance with Section 8.0 Hazard Correction.
- 5.6.2 If employees wish to report an unsafe condition anonymously, they may place the form on the superintendent's desk.
- 5.7 **Special Safety Meetings:** As appropriate, supervisors or managers will hold special safety meetings to review and discuss safety issues arising out of any unusual working conditions such new job activities, new equipment, on-site contractor activities, or other non-routine working conditions.
- 5.8 **Tailgate Safety Meetings:** If job activities involve construction activities (i.e. alterations, painting, repairing, construction maintenance, renovation, removal, or wrecking of any fixed structure or its part) tailgate meetings will be held every 10 days as required by the CalOSHA Construction Standard. Topics will be relevant to the job activity and associated job hazards. Other tailgate meetings are held as needed, or whenever a new job activity, work procedure, hazardous substance or any other unusual working condition exists. All Tailgate Safety Meetings will be documented on the Safety Meeting & Training Attendance Form, or equivalent.

6.0 Hazard Assessment

Hazard assessment and correction activities include the following programs:

- 6.1 **Periodic Inspections:** The City of Biggs will conduct documented safety inspections of the worksite and job activities in accordance with the following schedule in order to identify, evaluate, and correct workplace hazards and unsafe work practices
- When the IIPP is first established.
 - Inspections will be performed periodically. Periodic inspection frequencies are determined by a department's work activities and associated hazards.
 - When new substances, processes, procedures or equipment that present potential new hazards are introduced into our workplace.
 - When new, previously unidentified hazards are recognized.
 - When occupational injuries and illnesses occur.
 - When employees are hired and/or reassigned to a process or work task for which a hazard evaluation has not been previously conducted.
 - Whenever workplace conditions warrant an inspection.
- 6.2 **Safety Inspection Documentation and Tracking:**
- 6.2.1 All safety inspections and safety hazards discovered will be documented using Attachment D-1: *Safety Inspection Report Summary of Findings*.
- 6.2.2 Unresolved unsafe conditions will be recorded on Attachment D-2 *Unsafe Condition Exception Report*.
- 6.2.3 The Superintendent will review all completed inspection and exception reports. Hazards and unsafe conditions will be prioritized for correction by the Superintendent in accordance with Section 8.0 Hazard Correction.
- 6.2.4 The Superintendent will continue to monitor the status of these hazards and unsafe conditions until they have been corrected. When hazards have been corrected, the date will be logged onto the corresponding exception report.
- 6.2.5 A copy of the Unsafe Condition Exception Report will be routed to the City Manager.
- 6.3 **Special Safety Inspections** will be performed whenever:
- New substances, processes, or equipment are introduced to the workplace that the Superintendent is made aware of a new or previously unrecognized hazard.

7.0 Accident, Incident and Near Miss Reporting and Investigation

Employees are to report all work related injuries and illnesses to their immediate supervisor in accordance with Section 7.1. A thorough investigation will be performed depending upon the seriousness of the incident and/or injury as outlined in Section 7.2.

7.1 Occupational Injury and Illness Reporting Procedures:

- 7.1.1 **First Aid Injury:** If the injury or illness is a minor first aid injury, the employee will report the injury or illness to their supervisor the day of the incident, or as soon as they are aware of the injury or illness. The supervisor, or designee, will log this information according to the Accident, Incident and Near Miss Investigation Procedure (Attachment F) the day they are notified.

- Examples of minor first aid injuries include (but are not limited to) minor cuts, abrasions, or other injuries that only require flushing, cleansing, applying ointments, or require a covering such as a bandage, Band-Aid, or gauze pad.
- The purpose of recording these types of injuries is to ensure that all minor injuries & illnesses are dated in the event the injury/illness requires medical attention and/or becomes recordable (i.e. on the CalOSHA 300 Log) at a later date.

7.1.2 **Recordable Injury:** If the injury is beyond first aid (e.g. requires outside medical attention) the employee and their supervisor will follow the City of Biggs' Workers' Compensation claims procedures.

7.2 **Investigation:** The Superintendent will gather the necessary information to perform an internal investigation of accidents, incidents and near misses using the Incident Data Gathering Form, Attachment D. The main objective in conducting an investigation is to identify the root cause(s) of the accident or incident and make any changes necessary to prevent the accident or incident from occurring again.

7.2.1 **Purpose of the Investigation:** The main objective in conducting an investigation is to identify the root cause and any other factors that contributed to the incident so that steps can be taken to prevent the incident from occurring again.

7.2.2 **Conditions to Investigate:** All occupational incidents will be evaluated and documented using the Employee Incident Report and the Supervisor's Incident Report. The following incidents will require a full investigation.

- Fatalities
- Serious Injury (i.e. inpatient hospitalization for a period of 24 hours for other than medical observation)
- Lost Time Injury longer than three days from work
- Vehicle or equipment incidents involving employee or third party injuries
- Vehicle or equipment incident involving third party property damages

7.2.3 **Procedure and Documentation:** An internal investigation of incidents will be performed using the Incident Investigation Report Form (Attachment E)

7.2.4 **When to Investigate:** An incident evaluation and/or investigation will be performed as soon as possible after the supervisor has become aware that an incident has occurred

7.3 **Reporting to CalOSHA** (in accordance with Title 8, Sections 330(h) and 342)

7.3.1 The City of Biggs' IIPP Administrator, or designee, will immediately make a telephone report to the nearest District office of the Division of Occupational Safety and Health of any serious occupational injury or illness, or death.

- **Immediately** means as soon as practically possible but not longer than 8 hours after the City of Biggs knows or with diligent inquiry would have known of the death or serious injury or illness.

- **Serious injury or illness** means any injury or illness occurring in a place of employment or in connection with any employment which requires inpatient hospitalization for a period of 24 hours for other than medical observation or in which an employee suffers a loss of any member of the body or suffers any serious degree of permanent disfigurement.

7.3.2 The following information must be given in the report, if available:

- Time and date of accident.
- Employer's name, address and telephone number.
- Name and job title, or badge number of person reporting the accident.
- Address of site of accident or event.
- Name of person to contact at site of accident.
- Name and address of injured employee(s).
- Nature of injury.
- Location to where injured employee was moved.
- List and identity of law enforcement agencies present at the scene.
- Description of accident and whether the accident scene instrumentality has been altered.

8.0 Hazard Correction

Whenever possible, workplace hazards and unsafe work practices will be corrected as soon as they are identified. If not corrected the day of discovery, a target date for correction will be established based upon the following criteria:

- 8.1 **Imminent Hazard:** Imminent hazards are those conditions or practices that pose an *immediate threat* to the life or health of employees, public, or others who may be exposed. If not corrected, this activity or condition will likely cause a serious injury, serious illness, or fatality. If an imminent hazard is present, employees should stop activity and take immediate corrective action. If employees are unable or unsure what action to take, they will notify their supervisor who will take immediate corrective action, if possible. In either case, the employee shall document these condition(s) using Attachment C: Report of Unsafe Condition or Practice. If it is necessary for employees to enter the area to correct the hazardous condition, they will be provided with the necessary protection and will be trained to perform these duties. If the imminent hazard cannot be corrected, the hazard area shall be declared "off-limits" until the hazard is corrected.
- 8.2 **Serious Hazard:** Serious hazards are hazards that indicate substantial probability that an employee, public, or others will suffer physical harm. If a serious hazard is present, employees should stop activity and notify their supervisor. Serious hazards shall be corrected as soon as possible or shall be declared off limits until the hazard is corrected. The employee shall document these condition(s) using Attachment C: Report of Unsafe Condition or Practice.
- 8.3 **General Hazard:** General hazards are those that may affect the safety and health of employees. General Hazards are brought to the attention of the supervisor using Attachment C: Report of Unsafe Condition or Practice. General Hazards will be corrected as appropriate.

8.4 **Regulatory Hazard:** A regulatory hazard pertains to permits, posting, record keeping, reporting requirements, or procedure deficiencies not directly affecting the safety and health of the employees. These deficiencies are noted on Attachment C: Report of Unsafe Condition or Practice for further review by the employee's supervisor and is corrected as appropriate.

9.0 Training and Instruction

All employees, including managers and supervisors, shall have training and instruction on general and job-specific safety and health practices. Training and instruction shall be provided as follows and documented using the Safety Meeting/Training Attendance Record, or equivalent:

- When the IIP Program is first established.
- To new employees.
- To employees with new job assignments which training has not already been provided.
- Whenever new substances, processes, procedures or equipment are introduced to the workplace and represent a new hazard.
- Whenever the employer is made aware of a new or previously unrecognized hazard.
- To supervisors to familiarize them with the safety and health hazards to which workers under their immediate direction and control may be exposed.
- To all employees with respect to hazards specific to each employee's job assignment.

10.0 Record Keeping

10.1 The following safety records will be kept on file with The City of Biggs for a minimum of 3 years.

- Incident investigations
- Safety Inspections
- Safety training records including the date of the training, the name of the person conducting the training, and a description of training contents
- Staff safety meetings including the attendee names, date and items discussed
- Unsafe Condition or Practice Reports and corrective actions taken

10.2 The CalOSHA 300 forms and 300A annual summaries will be kept on file for a minimum of 5 years.

ATTACHMENT B

Safety Meeting/Training Attendance Record

TRAINING TOPIC: _____ DATE: _____

TRAINING LOCATION: _____

TRAINER: Print: _____ Sign: _____

TRAINING SUMMARY *(attach training handouts, fliers, etc):*

NAME (please print)

SIGNATURE

DEPT.

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ATTACHMENT C
Report of Unsafe Condition or Practice

Describe below the unsafe working condition, work practice, activity or equipment that you feel may result in injury or illness, workflow interruption or property damage. Forward the completed report to the superintendent. Please keep a copy for your records.

_____ **CHECK HERE IF YOU BELIEVE IMMEDIATE ACTION IS REQUIRED.**

Name of Person Submitting This Report: (Optional)		Date:
Location of Concern:		Building/Room:
Description of Unsafe Condition or Practice (If an injury, illness or work-flow interruption has resulted from this, please include details.):		
Diagram of Situation (if applicable):		
Suggested Remedial Action:		
<input type="checkbox"/> Received by (Name): _____ <input type="checkbox"/> Received anonymously		Date:
Reviewed by (Name) _____ <input type="checkbox"/> Yes <input type="checkbox"/> No		Date:
Referred to for remedial action (Name):		Date:
Remedial Action Taken:		
When completed route to the Superintendent		

**Attachment D-2
Unsafe Condition Exception Report**

List and prioritize all unsafe conditions (which were not immediately corrected) noted during the safety inspection. Use this form to keep an ongoing list and to track when these items were resolved.

		<i>Imminent Hazard - Class #1</i> Immediate threat to life or health. Serious injury or fatality likely. Requires immediate corrective action. Hazard area "off-limits" until corrected.	<i>Serious Hazard - Class #2</i> Potential threat to life or health. Serious injury or fatality not likely. Requires corrective action in 2 weeks. Hazard area "off-limits" until corrected.	<i>General Hazard - Class #3</i> Low Risk hazard that may affect safety & health. Possibility of minor injury. Includes regulatory deficiencies. Corrective action as appropriate. .		
Inspect Date	Unsafe Condition	Recommended Action and/or Comments		Hazard class	Completion Target date	Date Completed

SUPERINTENDENT:

1. Reviews safety completed inspections and completes the Unsafe Condition Exception Report
2. Reviews all OPEN items at the next scheduled safety meeting
3. Notes date when each conditions is corrected and files the form when all items are resolved.

ATTACHMENT E

Incident Data Gathering Form (page 2)

Step 4: Summarize the root cause that contributed most significantly to this incident.

Step 5: Corrective Actions:

A. Taken: _____

B. Planned: _____

Step 6: Routing: Route completed incident review and investigation package to the Superintendent for processing.

Step 7: Processing

The Superintendent will process the incident investigation per Attachment F "**Accident, Incident and Near Miss Investigation Procedures Flow Chart**"

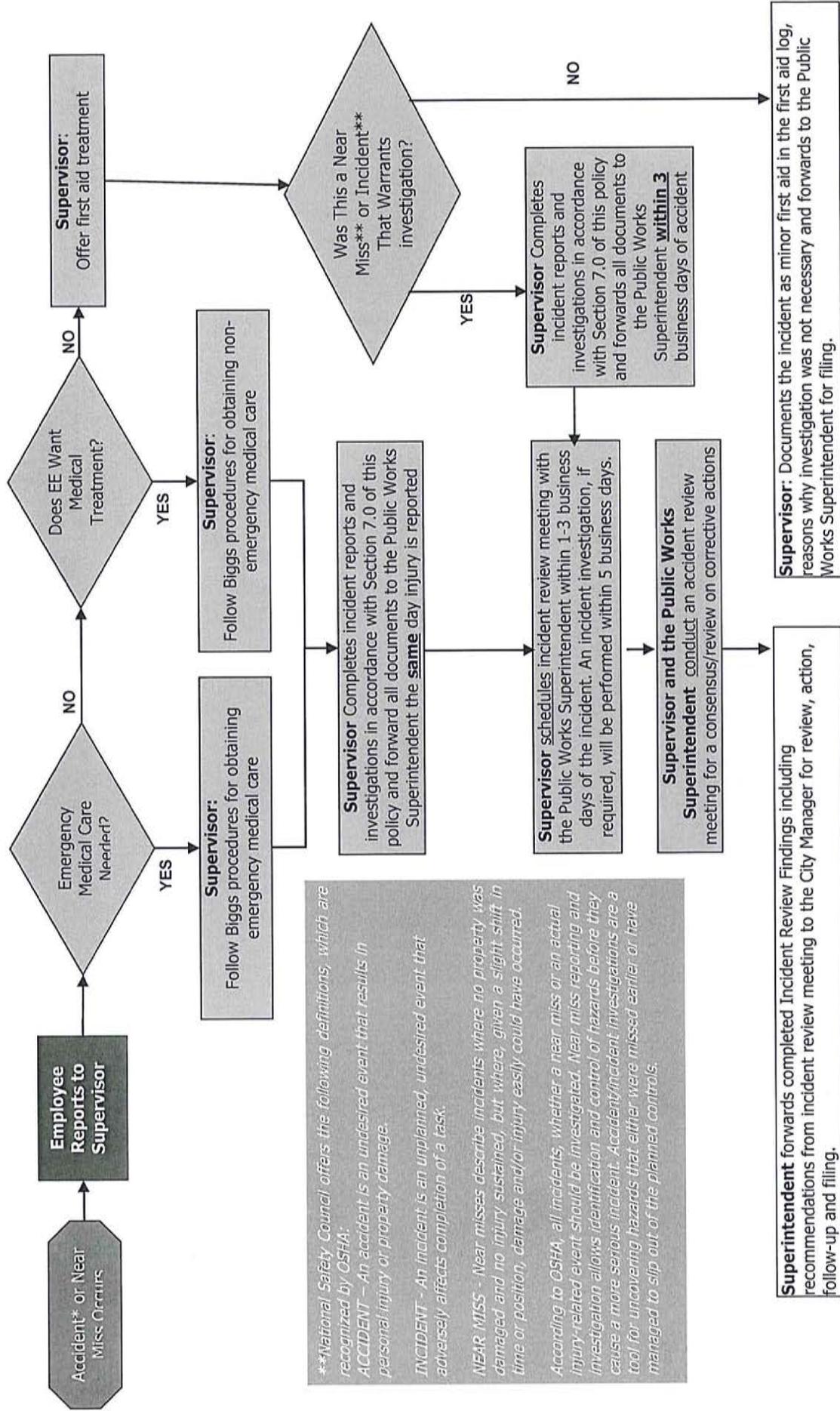
Attachments to this Report:

1. Supervisor's Incident Report (required)
2. Employee's Incident Report (required)
3. Photos (optional)
4. Witness Statements (optional)

Incident Investigation Report Form (page 3)
Identifying Contributing Factors

<p>A. Equipment & Tools Considerations:</p> <ol style="list-style-type: none"> 1. Was the employee using the required safety equipment and using it properly? 2. Was the employee using the correct tools and using them properly? 3. Did the equipment and tools function as designed? 4. Was employee operating equipment without authority? 5. Did employee fail to secure equipment? 6. Were all guards in place? 7. Did employee ignore equipment defects or bypass safety controls? 8. Was equipment or tools unsafe to use due to poor maintenance and improper care? 9. Did Incorrect equipment labeling or identification contribute? <p>B. Personal Protection Equipment Considerations:</p> <ol style="list-style-type: none"> 1. Was the employee wearing the appropriate level of PPE? 2. Was PPE inadequate (i.e. a higher level needed than required) 3. Did the PPE malfunction? 4. Was PPE damaged and/or poorly maintained? <p>C. Procedural Considerations:</p> <ol style="list-style-type: none"> 1. Is there a written procedure for performing this job? 2. Was the procedure being followed? 3. Is the procedure insufficient (not technically correct or impractical to implement)? 4. Is there an inconsistency between the written procedure and actual practices? 5. Did the employee have adequate hands-on experience performing this procedure? <p>D. Training Considerations:</p> <ol style="list-style-type: none"> 1. Was the employee trained on this task or procedure? 2. Should this activity or procedure require training (or additional training) for employees who perform it? 3. Was the employee performing this task according to the training they received? 4. Is additional training needed for this employee on this job task? 	<p>E. Did Employee's Physical Conditions Contribute?</p> <ol style="list-style-type: none"> 1. Emotional stress 2. Fatigue 3. Medication or a medical condition 4. The task exceeded the employee's physical capabilities 5. Physical limitation (e.g. hearing, sight) <p>F. Did Environmental Considerations Contribute?</p> <ol style="list-style-type: none"> 1. Temperature (cold or heat) or hazardous weather conditions 2. Slippery or wet conditions 3. The work area/task had a design issue 4. Defective raw materials 5. Poor lighting or ventilation 6. Noise or poor communications 7. Congestion 8. Hot surfaces 9. Poor storage practices 10. Soil conditions <p>G. Other Considerations:</p> <ol style="list-style-type: none"> 1. Failure to warn co-workers 2. Risk taking behaviors (e.g. driving at high speeds) 3. In a hurry/ deadline pressures 4. Distracted/inattention 5. Suspected substance use or abuse 6. Horseplay 7. Peer pressure 8. Lack of pre-job briefing or inspection 9. Lack of supervision 10. Inadequate management of this task 11. Previously identified hazard was not abated or interim safety measures not implemented <p>Other:</p> <hr/>
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**ATTACHMENT F:
Accident, Incident and Near Miss Investigation Procedure**



***National Safety Council offers the following definitions, which are recognized by OSHA:*
ACCIDENT – An accident is an undesired event that results in personal injury or property damage.
INCIDENT – An incident is an unplanned, undesired event that adversely affects completion of a task.
NEAR MISS – Near misses describe incidents where no property was damaged and no injury sustained, but where, given a slight shift in time or position, damage and/or injury easily could have occurred.
 According to OSHA, all incidents, whether a near miss or an actual injury-related event should be investigated. Near miss reporting and investigation allows identification and control of hazards before they cause a more serious incident. Accident/incident investigations are a tool for uncovering hazards that either were missed earlier or have managed to slip out of the planned controls.

Supervisor: Documents the incident as minor first aid in the first aid log, reasons why investigation was not necessary and forwards to the Public Works Superintendent for filing.

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ATTACHMENTS

- A Program Review and Certification Log
- B Transite Pipe Assessment Worksheet

I certify the Transite Pipe Policy for the City of Biggs (Biggs) has been reviewed and revised as necessary.

City Manager

Date Certified

1.0 Program Review and Certification

The Transite Pipe Policy at Biggs will be reviewed and revised as necessary to ensure the program is current with all applicable regulations and to ensure that all asbestos abatement and control work procedures continue to be the most effective, reliable, and protective of workers' health. As new procedures are developed which demonstrate greater effectiveness, reliability, and worker protection and thereby come into use, they will become state-of-the-art. All revisions are documented on Attachment A – *Program Review and Certification Log*.

2.0 Application and Scope

The City of Biggs has established a Transite Pipe Handling Protocol for all Biggs workers who must handle transite pipe while working for the agency. This protocol is intended to only address the following types of transite pipe work:

- 2.1 **Class II Transite Pipe projects:** Removing transite pipe on or in the ground
- 2.2 **Class III Transite Pipe projects:** Repairing and maintaining transite pipe on or in the ground

3.0 Purpose

The purpose of this protocol is to:

- Ensure employees use work practices and procedures that protect themselves and the environment from exposure to asbestos when handling transite pipe.
- Ensure employees do not expose coworkers, family members or others to hazardous materials from “take home contamination” from their job sites.
- Allow Biggs to handle as much transite pipe as necessary (i.e. more than 100 linear feet) without having to register with CalOSHA as an Asbestos Abatement Contractor.

4.0 Definitions

- **Aggressive-method** - removal or disturbance of building material by sanding, abrading, grinding or other method that breaks, crumbles, or disintegrates intact ACM. These methods of removal are prohibited under this protocol unless non-aggressive methods have proven to be ineffective, and local exhaust and wet methods are used.
- **Amended water** - water to which surfactant (wetting agent) has been added to increase the ability of the liquid to stick to or penetrate ACM.
- **Asbestos** - includes chrysotile, amosite, crocidolite, tremolite asbestos, anthophyllite asbestos, actinolite asbestos, and any that have been chemically treated and/or altered.
- **Asbestos-containing material (ACM)** - material containing more than 1% asbestos.
- **Asbestos-containing construction material (ACCM)** - any manufactured construction material containing more than one tenth of one percent (0.1%) asbestos. Transite pipe is an example of an asbestos-containing construction material.
- **Authorized person** - any person trained, authorized and required by work duties to be present in regulated areas.
- **Class II asbestos work** - activities involving the removal of ACM which is not thermal system insulation or surfacing material, including transite pipe.
- **Class III asbestos work** - activities that are small scale (less than five linear feet) removal of ACM or presumed ACM.

- **Closely resemble** - the training, conditions, materials and work practices employed are the same as previous work; the major workplace conditions contributed to the historical asbestos exposure levels are no more protective than conditions of the current workplace.
- **Competent person** – individual certified to identify existing and predictable hazards in the surroundings or unsanitary working conditions, hazardous, or dangerous to employees; and who has the authority to take prompt corrective measures to eliminate them.
- **Disturbance** - activities that disrupt the matrix of ACM or PACM, crumble or pulverize ACM or PACM, or generate visible debris from ACM or PACM.
- **Division** - the current Division of Occupational Safety and Health or any of its predecessors, or any subsequent successor agency.
- **Employee exposure** - exposure to airborne asbestos that would occur if the employee were not using respiratory protective equipment.
- **Excursion Limit** - Short term exposure limit as averaged over a sampling period of thirty (30) minutes.
 - The maximum excursion limit permitted by CalOSHA for asbestos is 1.0 fiber per cubic centimeter of air (1 f/cc) as averaged over a sampling period of 30 minutes.
- **Fiber** - particulate form of asbestos, 5 micrometers or longer, with a length-to-diameter ratio of at least 3 to 1.
- **Friable** - the degree to which a solid substance can be broken up into smaller pieces with a minimum of effort.
- **Glove bag** - an impervious plastic bag-like enclosure affixed around not more than a 60 x 60 inch asbestos-containing material, with glove-like appendages through which material and tools may be handled.
- **High-efficiency particulate air (HEPA) filter** - a filter which traps and retains at least 99.97 percent of all mono-dispersed particles of 0.3 micrometers in diameter.
- **Intact** - not crumbled, been pulverized, or otherwise deteriorated.
- **Negative Initial Exposure Assessment** - employee exposure during an operation is expected to be consistently below the permissible exposure limits (PELs).
- **PACM** - presumed asbestos-containing material.
- **Permanent Job Site** - the building or property is owned by the contractor, company or organization doing the asbestos-related work.
- **Permissible Exposure Limits (PELs)** - –the maximum amount of an airborne contaminant to which a worker can be exposed.
- **Presumed Asbestos Containing Material (PACM)** - thermal system insulation and surfacing material found in buildings constructed no later than 1980. Any materials that are not PACM must be considered to be and handled as asbestos-containing until sampled and proven otherwise or declared “non-suspect” for asbestos content by an AHERA (Asbestos Hazard Emergency Response Act) Accredited Building Inspector.

- **Regulated area** - an area established by the employer to demarcate areas where Class I, II, and III asbestos work is conducted, and any adjoining area where debris and waste from such asbestos work accumulate; and a work area within which airborne concentrations of asbestos may exceed the permissible exposure limit.
- **Removal** - all operations where ACM and/or PACM is taken removed from structures or substrates; includes demolition operations and transite pipe removal from the ground.
- **Temporary Job Site** - the property where the asbestos-related work is taking place is not owned by the contractor, company or organization doing the work.
- **Transite Pipe** - pipe made from a mixture of cement and asbestos fibers, also known as AC pipe or asbestos cement pipe.

5.0 Recognition of Transite Pipe

- 5.1 Transite pipe, also known as AC pipe or asbestos cement pipe, is preformed cement piping that contains asbestos. Transite pipe is typically gray in color and may have either a smooth, rough or waffled exterior texture.
- 5.2 Concrete piping encountered by Biggs employees, regardless of pipe age, is to be handled as asbestos-containing transite pipe, unless the pipe has been sampled by an AHERA accredited building inspector and found to be asbestos free.

6.0 Air Sampling and Negative Exposure Assessments

- 6.1 Initial Exposure Assessments for each job task that disturbs transite materials, an initial exposure assessment, including air sampling for asbestos, will be performed by or at the direction of a Competent Person unless a negative exposure assessment has already been performed and has demonstrated that expected employee exposure during the operation will be consistently below the PELs.
- 6.2 Negative Exposure Assessments: a negative exposure assessment will have been established if one of the following criteria was met:
 - 6.2.1 Objective data demonstrated that transite pipe material handling activities cannot release airborne fibers greater than the Time-Weighted Average and the Excursion Permissible Exposure Limits provided by CalOSHA;
 - 6.2.2 Prior asbestos jobs were monitored for the TWA and excursion limit within 12 months of the current or projected job and
 - the monitoring and analysis were performed in compliance with the asbestos standard in effect; and
 - the data were obtained during work operations conducted under workplace conditions closely resembling the processes; type of material; control methods; work practices; and environmental conditions used and prevailing in the employer's current operations; the operations were conducted by employees whose training and experience are no more extensive than that of employees performing the current job; and these data show that under the conditions prevailing and which will prevail in

the current workplace, there is a high degree of certainty that employee exposures will not exceed the TWA and excursion limit; or

- 6.2.3 The results of initial exposure monitoring of the current job were made from breathing zone air samples and were representative of the 8-hour TWA and 30-minute short-term exposures of each employee; and air sampling covered all operations which were most likely during the performance of the entire asbestos job to result in exposures over the TWA and short term exposure (excursion) limits.

7.0 Transite Pipe Handling

All Biggs employees required to handle transite pipe as part of the normal work duties, or as part of a repair, maintenance, or emergency response activity will follow the Regulated Area/Containment Set-up, Personal Protective Equipment, Work Practice, Waste Handling and Housekeeping/Clean-up procedures outlined below:

7.1 Regulated Area and Containment Setup

All Class II and III asbestos transite pipe work covered by this policy shall be conducted within regulated areas.

- 7.1.1 Demarcation: a regulated area shall be placed around the work area to minimize the number of persons within the area and to protect persons outside the area from exposure to airborne asbestos. This area shall be marked with caution tape and/or asbestos danger tape, or other barriers sufficient to prevent accidental approach to the work area.
- 7.1.2 Warning Signs: OSHA Danger Asbestos signs shall be placed at all approaches (i.e. all accessible sides) of the regulated area to prevent unauthorized entry to the work area. The warning sign shall bear the following information:

Danger Asbestos
May Cause Cancer
Causes Damage to Lungs
Authorized Personnel Only

- If the initial exposure assessment or negative exposure assessment demonstrated that employee exposure during the operation is expected to be greater than the PELs, the requirement to wear protective clothing and respirators must be noted on the sign that reads

Wear respirators and protective clothing in this area

- If the initial exposure assessment or negative exposure assessment demonstrated that employee exposure during the operation is expected to be consistently below the PELs, the wording “protective clothing and respirators required” may be removed (cut off, folded under). If this information is not removed from the sign or barrier tape, employees must wear protective clothing and respirators.
- 7.1.3 Access to regulated areas shall be limited to Authorized Persons and those authorized by the Competent Person. Work area shall be excavated to provide sufficient space to use equipment and access materials. Crews shall follow all precautions required by CalOSHA excavation standards (CCR, Title 8, Sections 1539 -1541.1) while performing this work.
- 7.1.4 Respirators: All persons entering a regulated area where employees are required to wear respirators (refer to section 7.2.1) shall be supplied with the appropriate type of tight-fitting, NIOSH-approved respirator.
- Note:** Filtering facepiece respirators (dust masks) may not be used for transite pipe work.
- 7.1.5 Prohibited activities: The employer shall ensure that employees do not eat, drink, smoke, chew tobacco or gum, or apply cosmetics in regulated areas.
- 7.1.6 Competent Persons: The employer shall ensure that all asbestos work performed within regulated areas is supervised by a competent person, as defined in subsection 4.0 of this policy. The duties of the competent person are set out in subsection 9.0 of this section.
- 7.1.7 Decontamination: A 4-6 mil poly drop cloth shall be placed adjacent to the work area to allow workers to decontaminate after handling pipe materials. This area will be used by employees to remove their personal protective equipment (disposable coveralls and respirators) used during transite pipe handling.
- Decontamination supplies: The decontamination area (drop cloth) may include water, soap, and towels to wash employees’ exposed surfaces and respirators. If a vacuum is used to vacuum employees’ clothing, a HEPA vacuum shall be used.

7.2 Personal Protective Equipment

- 7.2.1 Employees will wear a minimum of a half-face respirator equipped with disposable P100 High Efficiency Particulate Air (HEPA) filter cartridges. Use of a respirator may be suspended by Biggs employees during transite pipe handling operations if a Negative Exposure Assessment pursuant to CalOSHA’s 8 CCR 1529 (f)(2)(C) is established, showing exposures during transite pipe operations to be below the permissible exposure limit.
- 7.2.2 All employees who wear a respirator shall be in compliance with Biggs’s Respiratory Protection Program.

- 7.2.3 Employees will wear disposable coveralls during all transite pipe handling operations, except for the handling of waste once the waste has been properly packaged. Disposable coveralls should be worn regardless of the establishment of a negative exposure assessment.

7.3 Work Practices

7.3.1 Cutting Pipe

- Workers shall start by wetting pipe materials to be removed with amended water. This can be applied with either a hand-held sprayer or a powered airless sprayer.
- Workers shall determine sections to be cut. The number of cuts shall be minimized as much as possible to reduce the number of pieces that will need to be handled by personnel. Pieces shall be cut in portions that allow safe and secure handling of pipe.
- Pipes shall be removed as intact as possible.
- Crews will use "snap cutting" devices. When not practical, will not fit, or would cause significant damage to the pipe, power or pneumatic saws may be used if equipped with a HEPA filtered local exhaust system.

7.3.2 Repairing Pipe (including installation of gates, valves, branches, or other services)

- Transite pipe in need of repair will be cut as required above. ABS, PVC or other flexible coupling materials will be used to connect sections of pipe once damaged, deteriorated, or altered pipe has been cut.
- There will be no reuse or installation of transite pipe materials.

7.3.3 Tapping Pipe

- Installation of new services via "hot tapping" will be conducted using a HEPA filtered local exhaust system unless it has been demonstrated that the methods used (i.e. wet methods) do not produce dusts. If dust is generated, it shall be vacuumed as tapping, or similar, equipment is removed. This requirement will be followed for any similar operation where disturbance of the transite pipe is an isolated process.
- A coupon (i.e. a chunk of transite removed by the tapping process) and any other bulk transite materials generated, shall be handled as described in the Waste Handling section below.

7.4 Waste Handling

- 7.4.1 Once pipe is removed from its substrate, it shall be wrapped in two layers of 6-mil clear poly or placed in two 6-mil thick clear poly bags. If poly bags are used to contain the transite waste, bags must have air evacuated by using a HEPA filtered vacuum and must be goose-necked sealed with duct tape.

- 7.4.2 Warning Labels: Waste shall be labeled in accordance with CalOSHA requirements as follows:

Danger
Contains Asbestos Fibers
May Cause Cancer
Causes Damage to Lungs
Do Not Breath Dust
Avoid Creating Dust

- 7.4.3 Pipe waste shall not be placed into a hazardous waste disposal bag unless found to be friable, or made friable during removal process. Friable waste will be placed in an appropriately labeled hazardous waste bag and disposal will be in accordance with Department of Toxic Substance Control, EPA, DOT and other regulatory requirements, including a hazardous waste manifest.
- 7.4.4 Waste, not immediately removed from the project site, shall be placed in a secure holding area. Waste container shall be labeled on outside as required by CalOSHA until waste is disposed of at an approved landfill or moved to a Biggs asbestos containing materials waste hold facility.
- 7.4.5 The removed section of transite pipe that has been bagged should not be left in place (i.e. buried in place), as this requires the site to be flagged for the entire time the transite pipe remains in the ground. Since it is likely that the flag will someday be removed or destroyed, this is not a viable option.

7.5 Housekeeping/Clean-Up

- 7.5.1 Pipe is to be removed as intact as possible. However, if debris from pipe is generated, it will be cleaned up.
- 7.5.2 Exit work area and clean and/or dispose of personal protection equipment.
- 7.5.3 Using wet wiping methods or a HEPA-vacuum, clean the poly drop cloth and place in a 6-mil waste bag. If adjacent soils have become contaminated during operations, soil must be bagged and disposed of as asbestos-containing material.
- 7.5.4 Remove regulated work area signage or tape prior to conducting installation of new pipe materials or filling in of work area.

8.0 Training

8.1 Initial Training

- 8.1.1 Training shall be provided prior to or at the time of initial assignment, and at least annually thereafter. Employees engaged in asbestos cement pipe operations shall be trained and certified by a CalOSHA approved trainer.

8.1.2 Initial training will include a minimum of four hours of instruction and will include the following topics:

- The physical characteristics and health hazards of asbestos;
- The types of asbestos cement pipe an employee may encounter in his or her specific work assignments;
- Safe practices and procedures for minimizing asbestos exposures from operations involving asbestos cement pipe;
- A review of general industry and construction safety orders relating to asbestos exposure;
- Hands-on instruction using pipe and the tools and equipment employees will use in the work place.

8.2 Refresher Training

8.2.1 Annual refresher training will include a minimum of two hours of instruction and will include the important elements covered in the initial course, any changes in federal and state asbestos regulations, and the latest developments in state-of-the-art practices for work involving asbestos cement pipe.

8.3 Competent Person Training

8.3.1 Supervisors who have successfully completed a 4-hour CalOSHA approved transite pipe course, and have authority to take prompt corrective measures to eliminate asbestos hazards, may act as transite pipe Competent Person.

8.4 Access to training materials

8.4.1 Biggs will make all transite pipe written training materials and CalOSHA 8 CCR 1529 available to affected employees upon request.

9.0 Responsibilities

9.1 **Public Works Superintendent:** Has the overall authority and responsibility for implementing the provisions of the Biggs Transite Pipe Handling Policy. Specific responsibilities include, but are not limited to:

- Responsibility and authority for ensuring this program is fully implemented.
- Ensuring that the policy and program requirements are enforced.
- Ensuring funding is provided to implement the program requirements.

9.2 **Public Works Superintendent:** Is responsible for:

- Monitoring the effectiveness of the Biggs Transite Pipe Handling program by performing a program review and completing the Program Review and Certification Form (Attachment A).
- Scheduling, monitoring and coordinating Transite Pipe Training (initial and refresher) and providing assistance with training content as needed.

- Providing Managers and Supervisors guidance on the laws and regulations governing transit pipe handling; conducting the necessary research to determine those requirement, and the standards that apply.
- Maintaining records and documentation as identified in section 10.0 of this policy.

9.3 **Supervisors** are responsible for:

- Ensuring that employees under their direct supervision understand the transite pipe handling requirements as related to job activities and associated hazards.
- Implementing and enforcing the transite pipe handling requirements in their respective work groups.
- Establish regulated and decontamination areas with Competent Person.
- Ensuring employees use personal protective equipment (PPE) when required.
- Monitoring employees to ensure they adhere to the transite pipe work practices.
- Inspecting work areas, ensuring proper labeling and handling of asbestos waste.
- Monitoring the work area for proper housekeeping and cleanup activities.
- Providing or assisting with the initial and/or refresher asbestos training.

9.4 **Competent Person**

- Identifying existing asbestos hazards in the workplace.
- Selecting control strategies for safe handling and removal of transite pipe.
- Providing guidance on setting up the regulated and decontamination areas.
- Supervising all asbestos work performed within the regulated area.
- Ensuring employees follow safe work practices when handling transite pipe.
- Performing initial and negative exposure assessments, including air monitoring, to determine employee's exposures to airborne concentrations of asbestos.

9.5 **Authorized Persons (Employees)** are responsible for:

- Wearing the appropriate personal protective equipment (protective suits and respirators) when required.
- Following all safe work practices when handling transite pipe (cutting, repairing, tapping, waste disposal, housekeeping, etc.).

10.0 Record keeping

- 10.1 **Exposure Measurements:** Biggs will keep records of all measurements taken to monitor employee exposure to asbestos to include: the date of measurement; the operation being monitored; sampling and analytical methods used; the number, duration and results of sampling; types of protective devices worn (if any); and the name, employee identification number and exposure results.

- 10.2 **Objective data** used to demonstrate that Class II and/or Class III transite pipe activities were not capable of releasing fibers of asbestos in concentrations at or above the permissible exposure limit and/or excursion limit under the expected conditions of processing, use, or handling shall be maintained for the duration of the employer's reliance upon such objective data.
- 10.3 **Medical Surveillance Records:** Employee medical surveillance records will be kept confidential and will be maintained by the Biggs human resources department. Medical surveillance records will be maintained for the duration of employment plus thirty (30) years, in accordance with Section 3204 of the General Industry Safety Orders.
- 10.4 **Training Records:** The employer shall maintain all employee training records for one (1) year beyond the last date of employment by that employer.
- 10.5 **Other Records:** The following documents will be maintained by the the Public Works Superintendent:
- Initial exposure assessment data
 - Negative exposure determination records
 - Respirator program compliance records (e.g. fit tests)
 - All other related records as required by CalOSHA Section 1529 and standards
- 10.6 **Access to Records:** Employees will have access to any and all records that apply directly to their exposure to asbestos and their use of a respirator.
- 10.7 **Transfer of Records:** Records will be transferred as set forth in Section 3204 of the General Industry Safety orders.

11.0 Notifications

11.1 CalOSHA Registration

If more than 100 square or linear feet of asbestos-containing construction materials are disturbed at any project at a temporary job site (3rd party site), Biggs will register with CalOSHA as an asbestos abatement contractor unless the workers are removing, repairing or maintaining transite pipe and have received accredited transite pipe training.

11.2 CalOSHA Report of Use

If Biggs disturbs asbestos containing materials at a permanent job site, a one-time "Report of Use of carcinogens" will be made to CalOSHA.

Note: Most municipalities, water districts, utility districts and sewer districts are seen by CalOSHA as being a single site and a single "report of use" notification will be all that is required when working at sites owned by those agencies. If working on a 3rd party site, a 24-hour notice to CalOSHA may be required to establish a temporary job site. See section 11.3.

11.3 CalOSHA Notification

Biggs will provide a 24-hour notice to CalOSHA prior to any work involving asbestos containing construction materials, unless workers are removing, repairing or maintaining transite pipe and they have received accredited transite pipe training.

11.4 NESHAP Notification

If Biggs disturbs more than 260 linear feet or 160 square feet of transite pipe or other asbestos containing material, they will file a notification with the local Air Quality Management District 10 working days prior to the start of any operation where the asbestos-containing materials will be removed in a friable state, or where the asbestos-containing materials will become friable during the removal process. The only exception to this notification is if the materials can be removed in a non-friable fashion then this notification is not required.

Note: Biggs will verify notification requirements with local air pollution control district as some districts have different levels for notification. For example, the San Francisco Bay Area Air Quality requires this notification when as little as 100 square feet or linear feet of friable asbestos containing materials are disturbed.

11.5 Naturally Occurring Asbestos Notifications

Although naturally occurring asbestos is not a construction material, it must be handled correctly if the soil to be disturbed contains one quarter of one percent asbestos or more, including notifications to the California Air Resource Board and the Department of Toxic Substances Control. These notifications are based on the size of the project, the type of exposure and the level of exposure. If Biggs will be disturbing soil that contains naturally occurring asbestos, the soil will be tested and proper regulatory notifications will be made.

12.0 Authority

- 12.1 California Code of Regulations, CSO, Title 8, Section 1529 Asbestos.
- 12.2 Federal Code of Regulations, Title 40, Chapter I, Part 61, National Emissions Standards for Hazardous Air Pollutants Subpart M, National Emission Standards for Asbestos.

13.0 Policy Approval

- 13.1 The basic transite pipe policy included here was designed, and alterations to the base policy were approved by Michael C. Sharp, of Hazard Management Services, Inc. CalOSHA CAC 94-1564.
- 13.2 Alterations to the basic policy made by individual or agencies have not been approved by Hazard Management Services, Inc., unless such is indicated within individual policies and acknowledged by Hazard Management Services, Inc.

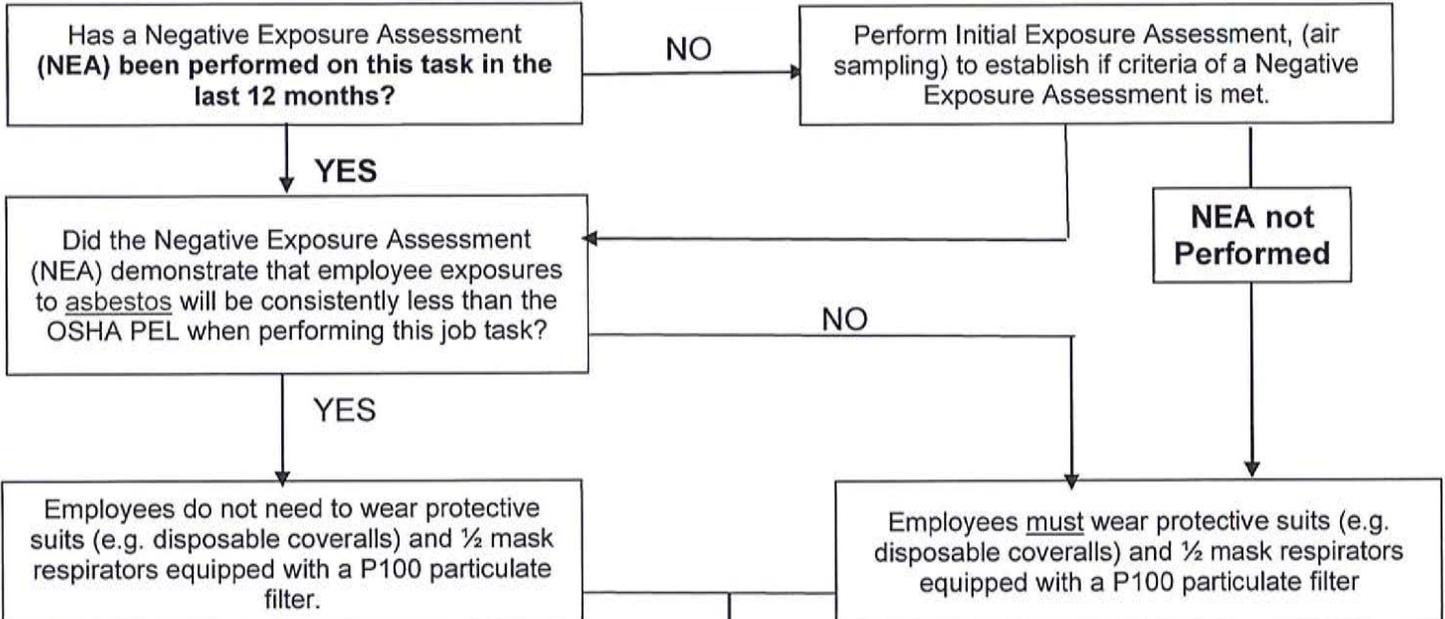
ATTACHMENT B

Transite Pipe (ACP) in Soil – Handling Worksheet

Side 1

Type of work being performed:

Cutting ACP Repairing ACP Tapping ACP Removing ACP Other: _____



Set up Regulated Work Area under the Supervision of a Competent Person

1. Mark the regulated work area with caution tape or Asbestos tape or other sufficient barriers
2. Post Danger Asbestos Signs (see section 7.1.2)
 - a. Remove any reference to PPE if NEA has demonstrated that respirator and suits are not required.
3. Limit access to authorized (trained) persons
4. No eating, drinking, smoking or chewing tobacco or gum in the regulated area

Set up Decontamination Area under the Supervision of a Competent Person

Place a 4-6 ml poly drop cloth adjacent to the regulated work area and ensure decontamination supplies are available.

Perform work. See Side 2

Transite Pipe (ACP) in Soil – Handling Worksheet

Side 2

Cutting or Repairs to Transite Pipe

1. **Wet pipe materials to be cut or repaired with amended water (i.e. water with liquid soap). Continually wet the pipe as needed to keep pipe material damp and lessen exposures to asbestos fibers.**
2. Seek to minimize the number of cuts on transite pipe.
3. Cut pieces in portions that allow safe and secure handling.
4. Use "snap cutting" whenever possible.
5. If snap cutting is not possible, or it will crush & damage the pipe, power or pneumatic saw may be used as long as they are equipped with local exhaust.
6. Use ABS, PVC or other flexible coupling materials to connect old sections of pipe with new pipe.
7. Remove pipes as intact as possible.
 - Do not leave the sections removed in the ground otherwise the location will need to be permanently marked with a flag.
 - Do not reuse or re-install transite pipe materials once removed.
8. Follow proper asbestos waste handling procedures

Tapping Transite Pipe

1. **Use a HEPA filtered local exhaust when performing "hot tapping"** unless it can be demonstrated that the method used does not produce dust.
2. If dust is being generated while removing tapping equipment or if performing any other activity that is generating dust, use a HEPA vacuum to capture the dust.
3. Follow proper asbestos waste handling procedures for any bulk transite materials generated

Removing Transite Pipe from Excavation area (Waste Handling)

1. Wrap removed section of pipe, transite materials, substrate (contaminated dirt), contaminated disposable suits and any other transite debris or waste in 2 layers of 6-mil clear poly,
2. **Or** place above materials inside two 6-mil thick poly bags. If using this method:
 - Evacuate air using a HEPA filtered vacuum
 - Seal the back in a goose-neck seal using duct tape to secure
3. **Label plastic covers:** "*Danger– Contains Asbestos Fibers. May cause cancer. Causes damage to lungs. Do not breath dust. Avoid creating dust.*" For multiple bagged wastes, you may wrap together and use one label.
4. **Do not place into a hazardous waste disposal bag UNLESS** transite Pipe waste is FRIABLE. If friable, the waste must be disposed of as a Hazardous Waste which requires a hazardous waste manifest.
5. Transite pipe waste may be **taken to an approved landfill** that accepts asbestos waste. Call ahead to confirm. If not immediately removed from the project site, place in a secure holding area.

Clean-Up

1. **Clean and/or dispose of PPE. Place all contaminated PPE that can not be cleaned in 6-mil waste bag.**
2. Clean the drop cloth and place in 6-mil waste bag. If a vacuum is used, a HEPA vacuum must be used.
3. Remove signage or asbestos tape before installing new pipe or filling in the work area

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ATTACHMENTS

- A Program Review and Certification Log
- B Process Reviews
 - B-1: LOTO Interview Checklist
 - B-2: LOTO Annual Review Summary Form
- C Lockout-Tagout Procedure Development Form
- D Equipment-Specific LOTO Procedures
- E Tag Record Log and Instructions

I certify the Hazardous Energy Control Plan (*LOTO Program*) for the City of Biggs (Biggs) has been reviewed and revised as necessary.

City Manager

Date Certified

1.0 Program Review and Certification

The Hazardous Energy Control Plan (LOTO Program) at the City of Biggs will be reviewed and revised as necessary to ensure the program is current. All revisions are documented on Attachment A: Program Review and Certification Log.

2.0 Purpose

The purpose of the LOTO Program is to establish procedures to prevent the unexpected or start up of machines or equipment, or release of stored energy that could cause injury to employees and/or contractors when cleaning, repairing, servicing, setting-up and adjusting of machines, as required by California Code of Regulations, Title 8 (8 CCR), Section 3314.

3.0 Applicability

3.1 This LOTO Program applies to all City of Biggs employees and contractors who have potential occupational exposure to hazardous energy sources and to the control of all energy sources (mechanical, hydraulic, pneumatic, chemical, electrical, thermal, etc.) during servicing and/or maintenance activities.

3.2 Contractors and Outside Personnel

3.2.1 When contractors and outside personnel provide service work on Biggs equipment, machines or facilities, these procedures shall be followed.

3.2.2 Contractors shall provide their own singularly keyed lockout lock(s).
Note: If a contractor does not have a singularly keyed lockout lock, the Lockout/Tagout Qualified Person may issue a singularly keyed lockout lock and lockout tag to the contractor. The Lockout/Tagout Qualified Person is responsible for ensuring that this lock is removed by the contractor before the contractor leaves the site for the day.

3.2.3 It is the responsibility of contractors to properly install lockout locks and tags. Contractors are to remove their lockout lock(s) and tag(s) before they leave the job site or when they have completed their assigned job tasks, whichever comes first.

4.0 Definitions

Affected Person (AP) - Any person (employees, contractors, visitors, etc) whose job requires them to operate, use or be in the area of a machine, equipment or electrical system on which maintenance is performed under lockout, blockout or tag-out. An Affected Person becomes an Authorized Employee whenever performing servicing or maintenance functions on equipment that must be locked, blocked or tagged out to prevent the release of hazardous energy.

Authorized Employee (AE) – Anyone who services or maintains machines and equipment. Locks, blocks or tags are used by Authorized Employees for their self protection from accidental releases of hazardous energy. Authorized Employees must receive training on this procedure in advance of performing associated work.

Blockout – Block device placed to ensure the equipment being controlled will not inadvertently move by sliding, falling or rolling as a result of gravity or stored energy.

Bleeding – Releasing tension or pressure from springs, spring-loaded devices, air systems, hydraulic systems, or other pressurized systems.

Blinding – A type of blockout method whereby a solid object such as a metal disk, flange, or end cap is placed in/on a pipe to ensure that no air, stream, liquid or other substance will pass through that point if the system is accidentally activated.

Capable of being locked out – an energy-isolating device is considered capable of being locked out if it meets one of the following requirements:

- It is designed with a hasp to which a lock can be attached;
- It is designed with any other integral part through which a lock can be affixed;
- It has a locking mechanism built into it; or
- It can be locked without dismantling, rebuilding, or replacing the energy isolating device or permanently altering its energy control capability.

Energized – Connected to an energy source or containing residual or stored energy.

Energy Isolating Device – A mechanical device that physically prevents the transmission or release of energy including, but not limited to: a manually operated electrical circuit breaker, a disconnect switch, a manually operated switch by which the conductors of a circuit can be disconnected from all ungrounded supply conductors (no pole can be operated independently), align a valve, a shear pin, or similar devices used to block or isolate energy. (Note: push buttons, selector switches, and control circuit devices are not considered energy isolating devices.)

Lockout Controller – A single Authorized Employee, generally Public Works Department, who is the first person to perform work on the equipment and communicates to all affected departments when all repairs are completed (maintenance and electrical) and the equipment is ready to go back into service. At the City Biggs the Lockout Controller is the Public Works Superintendent.

Lockout Device – A device that utilizes a positive means such as a lock to hold an energy isolation device in a safe position and prevent the energizing of a machine or equipment (includes blank flanges and bolted slip blinds).

Lockout Locks – Locking devices (individually assigned or not individually assigned) with singular keys used to lock out equipment and machines during servicing and/or maintenance activities that place employees at harm of hazardous energy sources.

Locked Out – Use of devices, positive methods, and procedures which will result in the effective isolation or securing of prime movers, machinery, equipment and electrical systems from mechanical, hydraulic, pneumatic, chemical, electrical, thermal or other energy sources.

Lockout Stations – A central area (usually a master control center) where lockout locks, tags and other lockout devices are stored.

Lockout Tag – The red and white-colored “**DANGER**” tags used when equipment has been properly isolated and a lockout lock is in place. The attachment method must be substantial and not easily removable (meet or exceed a 50 lb. pulling force).

Lockout/Tagout Qualified Person – the person(s) who have been authorized to use a master lockout key to open an Authorized Employee’s lockout lock under extreme circumstances, and who has the authorization to develop and/or approve alternate lockout/tagout procedures. At the City of Biggs, the LOTO Qualified Person is the Public Works Superintendent, or designee.

Multiple Hasp – The scissors-hasps that must be used if lockout requires more than one lock (i.e. the device will only accommodate one lock at a time). Also called Safety Lockout Hasp or Gang-Locks, the devices ensure equipment stays inactive while repairs or adjustments are made.

Primary Control Points – Isolation locations for the highest or most intense form of energy in the process or equipment (e.g. motor center breaker).

Servicing and/or Maintenance Activities – Workplace activities such as constructing, installing, setting up, adjusting, inspecting, modifying, maintaining and/or servicing equipment, machines and other energized systems. This definition also includes lubricating, cleaning and clearing jams, adjustments and tool changes where the affected personnel may be exposed to unexpected energizing or start-up of systems (sudden or rapid release of hazardous energy).

Stored Energy – Potentially stored or residual energy sources that include (but are not limited to) capacitors, springs, elevated machine members, rotating flywheels, hydraulic systems, air, gas, steam or water pressure systems, and gravity.

Tag-Out Device – A prominent non-reusable, warning device such as a durable (self-locking, non-releasable) tag and a means of attachment, which can be securely fastened to the energy isolating device in accordance with established procedures to indicate that the energy isolation device and the equipment being controlled may not be operated until the tag-out device is removed by the Authorized Employee or LOTO Qualified Person.

5.0 LOCKOUT PROGRAM ELEMENTS

5.1 Lockout Locks

- 5.1.1 Issuance and Location: Locks will be maintained in a location near expected points of use exist.
- 5.1.2 Availability & training: Singularly keyed locks are available to all Authorized Employees. Authorized Employees will be trained and instructed by their supervisor on lock locations and requisitions.

- 5.1.3 Lockout locks are provided with only one key. This key must be kept with the Authorized Employee during lockout activities. In this manner, only the Authorized Employee who installed the lock may remove it.
- 5.1.4 Upon completion of repairs or servicing activities, the Authorized Employee(s) may remove the lockout lock. This lock & its key must then be returned to the lockout station.
- 5.1.5 A master key for each lock is available, but may only be used under extreme circumstances. Extreme circumstances mean that the Authorized Employee has left the premises or is otherwise unavailable to remove locks and/or tags on critical equipment.
- The master key is kept in a secure location under the control of Qualified Person (see definitions).
 - The LOTO Qualified Person, or designee, will follow the following procedures when removing an Authorized Employee's individual lock
 - Verify the Authorized Employee is not available;
 - Make all reasonable efforts to contact the Authorized Employee for notification of removal of his/her lock;
 - Ensure that the Authorized Employee has knowledge of lock removal before he/she resumes work;
 - Complete the procedures found in Section 6.3: Restoring Equipment to Service.
- 5.1.6 Authorized Employees may either remove their lockout locks, or leave them in place when they have completed their respective maintenance or servicing activities for their shift. This will be up to the Authorized Employee and based upon the nature of the repair(s), the expected time that the equipment will be shut down, and any other reason why the Authorized Employee believes the lockout lock should remain in place.

5.2 Lockout Supplies

- 5.2.1 An adequate supply of lockout locks and devices shall be maintained at all times to properly isolate energized systems. These devices include, but are not limited to, lockout locks, tags, group lockout devices (e.g. multiple hasps), and & other lockout devices as appropriate.
- 5.2.2 It is the responsibility of Authorized Employees to inform their supervisor when additional lockout supplies are needed.
- 5.2.3 A Lockout Tag must be completed and attached on each lockout lock that is used. Lockout Tags must contain the following information, at a minimum:
- Name
 - Date
 - Reason for Lockout

5.2.4 Cables, chains or other adequate restraint will be provided to isolate valves and systems lacking a suitable lock receiver.

5.3 Tagout Procedures

5.3.1 When it is not possible to install a lock or other lockout device on an energy isolating device, a tag may be used as long as it is non-reusable, be attached by hand, be self-locking, non-releasable, and have an unlocking strength of at least 50 pounds pull force.

Note: A standard ¼ inch nylon cable tie (which has an unlocking strength of 75 pounds) will be used if tagout is required.

5.4 Lockout Procedures

5.4.1 Machinery or equipment capable of movement shall be stopped and the power source de-energized or disengaged, and the moveable parts shall be mechanically blocked or locked out to prevent inadvertent movement, or release of stored energy during cleaning, servicing and adjusting operations. Accident prevention signs or tags or both shall be placed on the controls of the power source of the machinery or equipment.

5.4.2 If the machinery or equipment must be capable of movement during this period in order to perform the specific task, the employer shall minimize the hazard by providing and requiring the use of extension tools (eg., extended swabs, brushes, scrapers) or other methods or means to protect employees from injury due to such movement. Employees shall be trained on safe use and maintenance of such tools or methods.

5.4.3 Each Authorized Employee shall follow the hazardous energy control procedure developed for that machine or piece of equipment, located in Attachment D: Equipment-Specific LOTO Procedures.
Exception: These lockout procedures do not need to be followed for machinery or equipment that has a single energy supply that is readily identified and isolated and has no stored or residual hazardous energy.

5.4.4 For machines or pieces of equipment for which lockout-tagout procedures have not been developed, the standard lockout procedures described in Section 6.0: LOCKOUT PROCEDURES shall be followed and Attachment C: Lockout-Tagout Procedure Development Form shall be completed in order to develop a hazardous energy control procedure for that machine or piece of equipment. The completed Attachment C: Lockout-Tagout Procedure Development Form shall be added to Attachment D: Equipment-Specific LOTO Procedures.

5.5 Lockout Restrictions

5.5.1 No one shall attempt to operate or energize any system bearing a Lockout/Blockout/Tag-out device unless specifically authorized to do so by the Authorized Employee who placed the equipment into lockout, the LOTO Qualified Person or his/her designated representative.

- 5.5.2 Prime movers, equipment, or power-driven machines equipped with lockable controls or readily adaptable to lockable controls shall be locked out or positively sealed in the "off" position during repair work and setup.
- 5.5.3 If equipment is not capable of being locked, or if the equipment cannot be blocked or isolated using standard lockout/blockout procedures, notify the LOTO Qualified Person who will authorize alternate lockout procedures. The LOTO Qualified Person must demonstrate that using tagout or other alternate procedures is as effective as locks and that the procedure assures full employee protection from hazardous energy sources, in accordance with Section 6.5.
- 5.5.4 A lockout tag will be used in conjunction with each lockout lock that has been installed (i.e. every individual lockout lock installed and at every location a lock has been installed). The reason for the lockout/tag-out, date, and authorized employee's initials must be noted on the tag.
- 5.5.5 When a valve is capable of being isolated using a physical device such as a cable, chain or other device, a LOTO danger tag will be installed on the device using a standard ¼ inch nylon cable tie. If the device can not be physically locked out with a lock, a LOTO danger tag will be attached to the valve(s) using a standard ¼ inch nylon cable tie. The LOTO danger tag may not be removed except by the Authorized Employee or LOTO Qualified Person.

6.0 STANDARD LOCKOUT PROCEDURES: The following lockout/tagout procedures are standardized actions to be followed for all lockout/tagout activities in addition to the equipment specific LOTO procedures found in Attachment D.

6.1 Notifications and Preparation for Shutdown

- 6.1.1 The Authorized Employee shall coordinate all shutdowns with affected departments and affected personnel.
- 6.1.2 The Authorized Employee shall inform all Affected Persons of the shutdown if their job activities place Affected Persons at risk of hazardous energy sources during servicing activities (i.e. they operate, use, or are in the area of the equipment being repaired or serviced under lockout conditions).
- 6.1.3 The Authorized Employee shall review the primary energy control point(s) for the proposed work to ensure they have been properly identified and isolated. If necessary, the Authorized Employee will:
- Review the piping, instrumentation and equipment schematics with the other affected personnel.
 - Consult with the area supervisor if they are uncertain of the magnitude and severity of the energy hazards.

6.2 Shutdown and Isolation

- 6.2.1 The equipment/process will be shut down and isolated by the Public Works Department unless other arrangements have been made and agreed upon.
- 6.2.2 For short duration work such as preventative maintenance tasks, operations *may* verbally authorize the AE to shut down equipment and to restart the equipment. This verbal authorization must be noted in the LOTO Log.
- 6.2.3 Use normal shutdown and isolation methods on equipment:
- Shut off the equipment at the local start/stop station
 - Leave the hand/off/auto switch in the OFF position
 - Place the Energy Isolating Device (i.e. motor control breaker) to the OFF position
 - Release all stored or residual energy sources such as hydraulic pressure, pneumatic pressure, chemical residuals, etc.
- 6.2.4 Each Authorized Employee shall install a singularly keyed lockout lock and lockout tag on the energy-isolating device before repairs or servicing is to be performed. This includes contractors.
- Each lockout tag shall include the Authorized Employee's name, the date, and the reason for the lockout work.
 - If more than one Authorized Employee installs a lock, and if the energy-isolating device (motor control breaker) does not support more than one lock, a multiple hasp will be used.
- 6.2.5 The Authorized Employee shall keep the lockout key with him/her at all times when repairing or servicing equipment under LOTO conditions.
- 6.2.6 The Authorized Employee shall verify that all energy sources have been properly identified and isolated.
- Verify that all secondary, stored or residual energy sources has been dissipated, disconnected, or restrained using methods such as grounding, repositioning, blocking, relieving pressure (bleed down), before beginning work under lockout conditions.
 - Verify that all electrical sources of energy have been de-energized: Example means to verify that sources of energy have been de-energized include, but are not limited to:
 - Attempting to operate equipment using normal controls
 - Scanning wires and conduits with a voltage tester
 - If the machine has a remotely controlled starting feature, contact the appropriate control location to request a remote start of the machine to ensure it will not start.

- 6.2.7 The Authorized Employee shall complete the Tag Record Log in accordance with Attachment E.
 - 6.2.8 Once the equipment has been properly de-energized and locked out, the Authorized Employee shall inform all affected personnel that it is safe to resume work on or near the equipment, as appropriate.
 - 6.2.9 If there is access to opened enclosures containing exposed electrical equipment or any other exposed physical hazards, the Authorized Employee shall place or install temporary barriers and barricades.
- 6.3 Restoring Equipment to Service**
- 6.3.1 When the work has been completed and the equipment is ready for testing or returning to service, the Authorized Employee shall notify and coordinate with all affected persons or departments.
 - 6.3.2 Ensure non-essential items have been removed and are intact.
 - 6.3.3 Check the area to see that no one is exposed to start-up hazards (noise, heat, rotating parts, etc.) and local controls are still in the "OFF" position.
 - 6.3.4 When the equipment (area) is clear, remove all locks and reactivate the equipment, process, or system(s).
 - 6.3.5 Return usable tags, locks, chains and clips to the designated Lockout Station. Discard deteriorated or failed tags and devices.
 - 6.3.6 Under group lockout conditions (i.e. more than one Authorized Employee working on the same equipment), the Responsible Person will communicate to affected departments (i.e. Operations) that the equipment is ready to go back in service.
 - 6.3.7 When only one Authorized Employee is servicing or repairing equipment, they will communicate to affected departments that the equipment is ready to back in service.
- 6.4 Testing Equipment during Lockout Conditions**
- Equipment may need to be tested or positioned before all maintenance tasks can be completed. If so, the following procedures must be performed when testing equipment under lockout conditions:
- 6.4.1 Notify and clear the immediate area of all Affected Persons. Anyone remaining must be in clear view of the Authorized Employee or person operating the equipment or be in positive communications with them.
 - 6.4.2 Clear tools and materials away from equipment.
 - 6.4.3 Re-energize the equipment.

6.4.4 Perform test or re-position equipment as needed.

6.4.5 Purge all systems and lock out all energy sources according to instructions in Section 6.2 prior to continuing maintenance tasks.

6.5 **Alternate Procedures**

6.5.1 Machines, equipment, or prime movers not equipped with lockable controls or readily adaptable to lockable controls shall be considered in compliance with CCR Title 8 Section 3314 when positive means are taken, such as de-energizing or disconnecting the equipment from its source of power, or other action which will effectively prevent the equipment, prime mover or machine from inadvertent movement or release of stored energy. In these situations, the Authorized Employee must notify the LOTO Qualified Person, or designee, for approval of any alternate procedures that will be used.

6.5.2 On repetitive process machines, such as numerical control machines, that require power to maintain indexing and where repair, adjustment, testing, or setting-up operations cannot be accomplished with the prime mover or hazardous energy source disconnected, such operations may be performed under the following conditions:

- The operating station where the machine may be activated must at all times be under the control of a qualified operator.
- All participants must be in clear view of the operator or in positive communication with each other.
- All participants must be beyond the reach of machine elements that may move rapidly and present a hazard to them.
- Where machine configuration or size requires that the operator leave his control station to install tools, and where machine elements exist which may move rapidly if activated, such elements must be separately locked out by positive means.
- During repair procedures where mechanical components are being adjusted or replaced, the machine shall be de-energized or disconnected from its power source.
 - Note: "Participant" shall mean any other person(s) engaged in the repair, adjustment, testing, or setting up operation in addition to the qualified operator having control of the machine operating station.

6.6 **Group Lockout/Tag-out:** Whenever servicing and/or maintenance is performed by a group of employees, or by employees from multiple employers, the following procedures must be used:

6.7.1 A group lockout/tag-out device (e.g. multiple lock hasp) must be used to enable each Authorized Employee (including contractors) to install their individual lockout lock.

6.7.2 A Lockout Controller must be assigned who is responsible for overseeing the work being performed.

- The Lockout Controller will implement the energy control procedures, communicate the purpose of the operation to the servicing and maintenance employees, coordinate the operation, and ensure that all procedural steps have been properly completed.

7.0 PROCESS REVIEWS

7.1 The Public Works Superintendent will conduct an annual evaluation of these lockout/tagout procedures to evaluate their continued effectiveness and determine the necessity for their update.

7.2 Another Authorized Employee or person, other than the one using the Lockout/Tagout procedures being reviewed, shall perform this evaluation.

7.3 This process shall include a review of the Authorized Employee's responsibilities under these lockout procedures.

7.4 Attachment B-1: *LOTO Interview Checklist* will be used to conduct the interview between the evaluator and the Authorized Employee being reviewed.

7.5 Attachment B-2: *LOTO Annual Review Summary Form* will be used to document the annual LOTO program review results.

8.0 TRAINING

8.1 All new employees whose job may expose them to hazardous energy sources shall be instructed in the purpose and use of the energy control procedures to as part of New Employee Orientation program.

8.2 Each Authorized Employee shall be trained on these hazardous energy control procedures and on the hazards related to performing activities required for cleaning, repairing, servicing, setting-up and adjusting prime movers, machinery and equipment.

8.2.1 All Authorized Employees will receive initial training in their respective duties in these Lockout/Tagout procedures before being assigned to a job task that involves hazardous energy sources.

8.2.2 Training content will include:

- Identification of hazardous energy sources at the work sites.
- Identifying primary and secondary control points to be isolated.
- Notification of appropriate personnel.
- Proper lockout/tagout procedures including alternate procedures.
- Proper use of energy isolating devices.
- Contractor requirements.
- Proper documentation requirements.

- 8.3 Affected Persons and other employees whose work operations may be in an area where energy control procedures may be utilized, shall be instructed about the prohibition relating to attempts to restart or reenergize machines or equipment which are locked out or tagged out.
- 8.4 Refresher training: When procedures, job assignments, machines, equipment, systems, processes or technology present new hazards to employees and/or contractors, refresher training will be provided. This training may be conducted in a tailgate format by the specific work group supervisor, or designee.
- 8.5 Training records shall include:
- Employee name and signature, date, trainer's name, and content of training.
 - Training records will be retained for a minimum of three years.

9.0 RESPONSIBILITIES

- 9.1 The Public Works Superintendent has the overall authority and responsibility for implementing the provisions of the Hazardous Energy Control Plan for the City of Biggs. Specific responsibilities include, but are not limited to:
- Responsibility and authority for ensuring this program is fully implemented
 - Ensuring that funding to implement the program requirements
 - Ensuring that the policy and program requirements are enforced
 - Implementing all other relevant responsibilities as identified in the Injury Illness Prevention Program (IIPP).
- 9.2 The Public Works Superintendent is responsible for:
- Ensuring that all required training (initial and refresher) has been scheduled, provided, and documented.
 - Ensuring annual LOTO interviews/program evaluations are scheduled, completed, and documented.
 - Maintaining required records such as LOTO training and program evaluation inspection records.
 - Notifying affected contractors of the agency's policy requirements.
 - Assisting in the development of equipment-specific lockout-tagout standard operating procedures (SOP's) on new or existing equipment.
 - Reviewing and updating the Lockout/Tagout Policy, as needed.
- 9.3 **Supervisors** are responsible for
- Ensuring that Authorized Employees have been issued, or have access to, an adequate supply of singularly keyed lockout locks and other lockout devices by keeping the lockout supplies/stations inventoried and fully stocked.
 - Ordering lockout devices when necessary or when informed that supplies are not adequately stocked.
 - Monitoring employee activities to ensure Authorized Employees understand and follow the agency's Lockout/Tagout procedures and provide additional instruction and/or training to them if necessary.

- Developing equipment-specific lockout-tagout standard operating procedures (SOP's) on new or existing equipment for their respective work groups.
- Assisting in providing affected employees with LOTO training when required
- Acting as a resource for questions on LOTO hazards and proper procedures.
- Assisting the LOTO Qualified Person to develop alternate lockout/tagout procedures when necessary.

9.4 **LOTO Qualified Person** is responsible for:

- Keeping a written record of all lock assignments if lockout locks are individually assigned.
- Maintaining the master lockout key and following procedures in accordance with this policy when opening an Authorized Employee's lockout lock.
- Working with affected supervisor(s) and employee(s) to develop and/or approve alternate lockout/tagout procedures.
- Issue locks to contractors if necessary in accordance with section 6.6.

9.5 **Employees** are responsible to comply with this procedure including:

- Informing their supervisor when lockout supplies need to be replenished
- Completing the LOTO log accurately
- Reporting any lost or damaged lockout locks or lockout devices
- Requesting additional singularly keyed lockout locks if needed
- Following the Equipment-Specific Lockout-Tagout SOP on each piece of equipment found in Attachment D.
- Notifying their immediate supervisor if equipment does not have an equipment-specific Lockout-Tagout SOP.
- Notifying the LOTO Qualified Person, or their immediate supervisor, for approval of any alternate procedures that will be used.

10.0 DOCUMENT CONTROL

- 10.1 The Public Works Superintendent shall maintain a current copy of this procedure and make it available to all employees.
- 10.2 This procedure shall be reviewed periodically or whenever changes are made that significantly impact this Plan. Each review and revision will be documented on Attachment A: Program Review and Certification Log.
- 10.3 Annual Lockout/Tagout process review documentation as identified in section 7.0 will be maintained in the safety files for a minimum of three years.

ATTACHMENT B-1
LOTO Interview Checklist

The below identified Authorized Employee was observed conducting Lockout/Tag-out Procedures. The purpose of this review is to ensure this employee understands their responsibilities and the LOTO procedures used at this facility for the control of hazardous energy.

Authorized Employee: _____

Evaluator Name: _____

Equipment Name: _____

Date of review: _____

STEP 1: IDENTIFYING ENERGY SOURCES. Ask employee to verify correct energy sources:
AE identified _____ as the primary energy source for this equipment?

AE identified _____ as secondary energy source(s) for this equipment.

AE identified _____ as stored energy source(s) for this equipment.

STEP 2: SHUT DOWN & ISOLATING the EQUIPMENT

- Coordinate with affected departments, employees & contractors
- Shut down equipment at the local control station (e.g. HOA switch)
What position do you leave the local station in? _____
- De-energize equipment at primary energy isolating device (e.g. breaker)
- Isolate & secure all secondary and/or stored energy (e.g. valves, springs, etc) using _____ (list the device used)
- Vent, bleed or restrain any stored energy & secure using an appropriate device
- Test equipment to verify EQ has been properly isolated at local control switch
- Return local controls to OFF position
- Complete Lockout-Tag-out Log

STEP 3: PERFORMING LOCKOUT ACTIVITIES ("Hands-in" Work)

- Coordinate with affected departments, employees & contractors
- Install singularly keyed lock and tag on primary energy isolating device
- Complete the Lockout Tag information (date, reason, initials)
- Test equipment to verify the primary energy source has been properly isolated and locked out
Describe method used: _____
Leave local controls in what position? _____
- Install a lockout device on all secondary energy sources (valves) and re-verify that all stored/secondary energy has been vented and/or bled
- Completed the required information in the LOTO Log & safely perform work
- Remove lockout locks and tags when work is completed or at the end of the shift, whichever comes first.

STEP 4: RETURNING EQUIPMENT TO SERVICE

- Coordinate with affected departments, employees & contractors
- Perform a walk-around to ensure all guards are in place, tools removed, etc.
- Verify that local controls are in neutral or off position
- Start the equipment at the local controls
- Replaced all locks, tags and other LOTO devices to proper location
- Complete the required information in the LOTO log

Review satisfactory? Yes No

Retraining indicated? Yes No

ATTACHMENT B-2
LOTO Annual Review Summary Form

The person(s) conducting the review hereby certify the following:

Yes **No**

- Participants interviewed understood LOTO procedures and their responsibility. If no, state exceptions: _____

- Participants were able to correctly identify, isolate and lockout out all sources of energy (primary energy, stored energy, secondary energy sources) If no, state exceptions: _____

- Participants were familiar with procedures for installing **individual LOTO locks** and accident prevention signs and tags. If no, state exceptions: _____

- Participants were familiar with procedures for installing **group (out-of-service) locks** and caution signs and tags (if applicable). NA. If no, state exceptions: _____

- De-energization was effective **as verified** through testing. If no, state exceptions: _____

- Proper procedures for testing, repositioning, and restoration of normal operations were followed. If no, state exceptions: : _____

- All documentation required by the City of Biggs LOTO procedures was complete and accurate? If no, state exceptions: _____

Actions recommended based on audit findings: None Corrective Action (*describe*):

Signed: _____ Date of Reports: _____

HAZARDOUS ENERGY CONTROL PLAN: Equipment Standard Procedure Development Form

Attachment D - Lockout-Tagout Procedure Development Form

Date:	Equipment Name:	Equipment ID#:
Location:	Description:	# of Lockout Points:

Lockout Application Process Summary	Lockout Removal Process and Return to Service
<ol style="list-style-type: none"> 1. Notify affected personnel. 2. Properly shut down the machine. 3. Isolate all energy sources. 4. Apply lockout devices, locks and tags. 5. Verify total de-energization of all sources. 	<ol style="list-style-type: none"> 1. Ensure all tools and items have been removed. 2. Ensure all guards have been replaced. 3. Confirm that all employees are safely located. 4. Verify that local controls are in neutral. 5. Remove lockout devices and re-energize the machine. 6. Notify Affected Persons that servicing is completed.

LOCKOUT STEPS

Step #	Energy Type	Energy Isolating Device ID (e.g., Breaker #)	EID Location (e.g., MCC Name/Number)	Control Type	Lockout Device Type	Text Instructions	Photo
	<input type="checkbox"/> Electrical <input type="checkbox"/> Pneumatic <input type="checkbox"/> Hydraulic <input type="checkbox"/> Gas <input type="checkbox"/> Thermal <input type="checkbox"/> Water <input type="checkbox"/> Steam <input type="checkbox"/> Kinetic <input type="checkbox"/> Chemical <input type="checkbox"/> Other: _____			<input type="checkbox"/> Disconnect <input type="checkbox"/> Breaker <input type="checkbox"/> Plug <input type="checkbox"/> Valve <input type="checkbox"/> Other: _____	<input type="checkbox"/> Valve locking device <input type="checkbox"/> Cable lock <input type="checkbox"/> Breaker lock <input type="checkbox"/> Plug <input type="checkbox"/> Wall switch lock <input type="checkbox"/> Fuse lock <input type="checkbox"/> Gate valve lock <input type="checkbox"/> Hasp w/lock <input type="checkbox"/> Gas Cylinder lock <input type="checkbox"/> Other: _____		
	<input type="checkbox"/> Electrical <input type="checkbox"/> Pneumatic <input type="checkbox"/> Hydraulic <input type="checkbox"/> Gas <input type="checkbox"/> Thermal <input type="checkbox"/> Water <input type="checkbox"/> Steam <input type="checkbox"/> Kinetic <input type="checkbox"/> Chemical <input type="checkbox"/> Other: _____			<input type="checkbox"/> Disconnect <input type="checkbox"/> Breaker <input type="checkbox"/> Plug <input type="checkbox"/> Valve <input type="checkbox"/> Other: _____	<input type="checkbox"/> Valve locking device <input type="checkbox"/> Cable lock <input type="checkbox"/> Breaker lock <input type="checkbox"/> Plug <input type="checkbox"/> Wall switch lock <input type="checkbox"/> Fuse lock <input type="checkbox"/> Gate valve lock <input type="checkbox"/> Hasp w/lock <input type="checkbox"/> Gas Cylinder lock <input type="checkbox"/> Other: _____		

City of Biggs
HAZARDOUS ENERGY CONTROL PLAN: Equipment Standard Procedure Development Form

Step #	Energy Type	Energy Isolating Device ID (e.g., Breaker #)	EID Location (e.g., MCC Name/Number)	Control Type	Lockout Device Type	Text Instructions	Photo
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	<input type="checkbox"/> Electrical <input type="checkbox"/> Pneumatic <input type="checkbox"/> Hydraulic <input type="checkbox"/> Gas <input type="checkbox"/> Thermal <input type="checkbox"/> Water <input type="checkbox"/> Steam <input type="checkbox"/> Kinetic <input type="checkbox"/> Chemical <input type="checkbox"/> Other:			<input type="checkbox"/> Disconnect <input type="checkbox"/> Breaker <input type="checkbox"/> Plug <input type="checkbox"/> Valve <input type="checkbox"/> Other:	<input type="checkbox"/> Valve locking device <input type="checkbox"/> Cable lock <input type="checkbox"/> Breaker lock <input type="checkbox"/> Plug <input type="checkbox"/> Wall switch lock <input type="checkbox"/> Fuse lock <input type="checkbox"/> Gate valve lock <input type="checkbox"/> Hasp w/lock <input type="checkbox"/> Gas Cylinder lock <input type="checkbox"/> Other:		
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ATTACHMENT D

Equipment-Specific LOTO Procedures

**Note: Agency to insert all equipment-specific
LOTO procedures as Attachment D
as they are completed**

Attachment E

Steps for Completing the Tag Record Log

When locking-out/blocking-out/tagging-out equipment or systems - **write all of the following items in the Tag Record Log:**

1. Date and time of lock/block/tag placement
2. Equipment and/or system name or designation
3. Reason for the lock/block/tag out
4. **Authorized Employees** (including contractors): Initial in the "Lock On" column when individual lock(s) are installed
7. **All Authorized Employees** (including contractors): Initial in the "Lock Off" column when individual lock(s) are removed. Each Authorized Participant must remove their individual lock when they are no longer working on the equipment, or at the end of their shift.
8. **Responsible Persons/Authorized Employees:** Notify any affected departments when the repairs or servicing is completed.

Consider the following precautions:

- De-energize all sources of potential energy (electric, pneumatic, hydraulic, gravity, secondary energy sources, and any energy that may be stored in batteries, capacitors, springs, etc)
- Blind flange or disconnect affiliated lines - if necessary
- Ensure all pressurized systems have been vented
- Ensure all associated valves are closed & tagged out. Lock out valves if possible.

