

# Kansas Water Technologies and Remediation Services Company Employee Safety Policies Handbook

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Valley Center, KS

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## *KWT and RSC Safety Policy Statement*

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KWT AND RSC promote Behavior Based Safety practices which require safety considerations for each job. We believe in the elimination of root causes and undesirable behaviors by the process of “Safe Performance Self-Assessment” and “Job Safety Analysis” for each job activity. We encourage “job safety observation” and constructive criticism of our work. We accept customer safety policies as our own. We claim the right to stop work if we assess an unsafe job environment. We accept the right of others with whom we work to stop our work if they assess an unsafe work environment. We have developed an extensive “JSA” for our chemical cleaning activities. We follow OSHA standards for “Confined Space Entry” for boiler and other vessel inspection. We maintain Hazwoper 40 hour training for KWT AND RSC supervisors. We follow OSHA Hazcom standards in providing our customers MSDS and training. Using proper PPE (personal protective equipment) in accordance to the MSDS’s is required of KWT AND RSC personnel and others with whom we work.

### *Drug and Alcohol Screening and Background Checks*

KWT AND RSC conduct drug and alcohol screening for preemployment. Existing employees will also need to have drug and alcohol screening within 2 months of the publication of this policy. KWT AND RSC will conduct drug and alcohol screening on all employees for cause or for post-accident investigation with cause.

Prospective employees that fail drug and alcohol screening will not be eligible for employment. Existing employees that fail drug and alcohol screening will have their employment terminated. Employees who refuse to take drug or alcohol screening tests will have their employment terminated.

KWT AND RSC will conduct employee background checks for preemployment of all new employees. Background checks will be conducted on all existing employees within 2 months of the publication of this policy. Prospective employees with felonies or multiple misdemeanors in the last 5 years will not be eligible for employment.

### *Driving Record and Maintaining valid Driving Licenses*

KWT AND RSC employees must maintain a valid driver’s license in the state of Kansas. In some cases an employee must obtain a valid CDL license to transport chemical products. Failure to maintain a valid driver’s license will result in employment being

terminated. To maintain our insurance coverage and to verify our safe driving record we will verify prospective employees' driving history every 2 years.

## ***KWT and RSC Environmental Policy Statement***

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KWT AND RSC promote environmental stewardship based on scientific principles. We strictly obey the environmental laws of the United States and the states and communities in which we work. When working in customer plants and facilities we accept customer environmental policies as our own. We make every effort to keep updated about the changing environmental law. We will make this information available to our employees, suppliers and customers. We will recommend environmentally sound practices including secondary containment and safe transporting and handling of all chemicals we sell. We will consider and promote technologies which have environmental benefits.

## ***KWT and RSC Weapons Policy Statement***

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KWT AND RSC employees will not carry weapons onto KWT property or the property of our customers either physically or in their vehicles or in company vehicles. Most of our customers have explicit "no weapons allowed" on their premises. We will honor and support their policies. In case of emergency we will contact our customer's security officers and follow their instructions

## ***KWT and RSC Safe Driving Policy Statement***

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KWT AND RSC employees will maintain Safe Driving Procedures as our policy including:

1. Maintain legal speed limits on public highways.
2. Maintain posted speed limits on customer's property
3. Avoid cell phone and texting use while driving.
4. Seat belt use while vehicles are in motion.

## ***KWT and RSC Safety Procedures Policy***

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KWT AND RSC employees will be required to follow the Safety Procedures in the following sections of this manual as policy and as a condition for employment. This

includes all verbal and written policy, procedures and rules, including avoiding horseplay and failure to wear required PPE.

Each employee will be required to know the following procedures. This includes knowledge of the procedure as demonstrated by receiving certification of training and/or a certified managerial review of the procedures.

Eric Fraser is responsible for the implementation of the safety policy and procedures by KWT AND RSC employees. Eric Fraser and all other employees will be responsible for inspecting the work areas and identify unsafe work practices and reporting and correcting these conditions as per the JSA, tailgate safety meetings and stop work authority as required.

Failure to follow the stated safety policies, procedures and rules will result in verbal warning, written warnings, verbal and written warning of loss of employment and loss of unemployment.

A job safety analyses will be required of each typical KWT and RSC work procedure including:

- A. Sampling of Water Systems
- B. Testing of Water Systems
- C. Inspecting of Water Treatment Equipment
- D. Chemical Cleaning of Equipment
- E. Adding Chemical to Feed Tanks
- F. Priming of Chemical Feed Pumps
- G. Handling of Chemical Drums
- H. Handling of Chemicals

A job safety analyses will be required of each non typical KWT and RSC work procedures. Some examples of these JSA are attached.

The JSA procedures will be reviewed by all involved personnel including both our employees and our customers.

## ***KWT and RSC Lifting Safely Plan***

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**OSHA citation policy on lifting injuries and ergonomics.** The federal Occupational Safety and Health Administration (OSHA) will cite employers under the General Duty Clause for failure to reduce employees' exposure to musculoskeletal disorder (MSD) risk factors. Lifting heavy objects often expose employees to one or more risk factors for MSDs. The basic criteria OSHA will use in deciding whether to issue a citation under the General Duty Clause are:

- Whether an ergonomic hazard exists

- Whether that hazard is recognized
- Whether the hazard is causing, or is likely to cause, serious physical harm to employees
- Whether a feasible means exists to reduce the hazard

OSHA will not focus its enforcement efforts on employers who are making good faith efforts to reduce ergonomic hazards.

**Job hazard analysis.** Before you can complete and implement a plan for safe lifting, you must conduct an analysis or evaluation of workplace hazards and risk factors for lifting activities. OSHA has developed a list of tools for evaluating such risk factors. The National Institute for Occupational Safety and Health (NIOSH) has also developed tools for evaluating the specific hazards and risks associated with lifting. See OSHA's "Job Hazard Analysis Tools" and NIOSH's lifting equation manual that accompany this Plan for more information.

**Review and incorporate state regulatory requirements.** This plan is based on federal requirements and/or best practices. Some states have laws and regulations that are stricter than federal requirements and may impact how you customize this plan. Click on the link below to view state requirements on this topic. After reviewing the specific information for your state(s), you can edit the plan accordingly.

## *KWT and RSC Benzene Awareness*

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KWT AND RSC employees will be working in petroleum refineries. Because KWT AND RSC business in the refinery is limited to the water systems (boiler systems, cooling systems, wastewater facilities, firewater systems, membrane separation facilities, and laboratory facilities) the exposure to benzene is incidental and unlikely to working at these water systems. Frequent or continuous exposure to benzene is unlikely because our work in the process areas will be limited. When working in the refineries we will be aware of the locations and times where benzene is present and avoid exposure to benzene below the TWA and STEL limits defined below. We will consult with the refinery employees about the benzene levels that they are aware and monitoring regularly in our common work areas.

### Benzene Properties and Health Hazards

Benzene is a clear, colorless liquid with a pleasant, sweet odor. The odor of benzene does not provide adequate warning of its hazard.

The limits of airborne exposure to benzene is defined by the maximum time-weighted average (TWA) exposure limit is 1 part of benzene vapor per million parts of air (1 ppm) for an 8-hour workday and the maximum short-term exposure limit (STEL) is 5 ppm for any 15-minute period. The OSHA action level is .5 ppm of benzene in the atmosphere. The acute and chronic health effects of exposure to Benzene are as follows:

For acute effects if KWT AND RSC employees are overexposed to high concentrations of benzene, well above the levels where its odor is first recognizable, they may feel breathless, irritable, euphoric, or giddy; they may experience irritation in your eyes, nose, and respiratory tract. They may develop a headache, feel dizzy, nauseated, or intoxicated. Severe exposures may lead to convulsions and loss of consciousness.

For Chronic effects repeated or prolonged exposure to benzene, even at relatively low concentrations, may result in various blood disorders, ranging from anemia to leukemia, an irreversible, fatal disease. Many blood disorders associated with benzene exposure may occur without symptoms.

### Benzene Respirators and PPE

KWT AND RSC employees will not work in areas where benzene concentration is high enough to require wearing of respirators. If high benzene concentration is found in our work areas we will wait until engineering controls or atmospheric conditions exist where we can safely return to work.

KWT AND RSC employees will wear appropriate PPE when near liquid benzene or benzene containing products. This will include boots, gloves, sleeves, apron, face shield and goggles.

### Benzene – First Aid

KWT AND RSC employees will be aware of the following first aid practices specifically recommended for benzene exposure:

- A. Eye and Face Exposure. If benzene is splashed in your eyes, wash it out immediately with large amounts of water. If irritation persists or vision appears to be affected see a doctor as soon as possible.
- B. Skin Exposure. If benzene is spilled on your clothing or skin, remove the contaminated clothing and wash the exposed skin with large amounts of water and soap immediately. Wash contaminated clothing before you wear it again.
- C. Breathing. If you or any other person breathes in large amounts of benzene, get the exposed person to fresh air at once. Apply artificial respiration if breathing has stopped. Call for medical assistance or a doctor as soon as possible. Never enter any vessel or confined space where the benzene concentration might be high without proper safety equipment and at least one other person present who will stay outside. A life line should be used.
- D. Swallowing. If benzene has been swallowed and the patient is conscious, do not induce vomiting. Call for medical assistance or a doctor immediately.

### Benzene – Fire Extinguishers, No Smoking around Benzene, Safe Handling

KWT AND RSC employees will be aware of the following Safe Handling, Use and Storage Guidelines for benzene:

Benzene liquid is highly flammable. It should be stored in tightly closed containers in a cool, well-ventilated area. Benzene vapor may form explosive mixtures in air. All sources of ignition must be controlled. Use nonsparking tools when opening or closing benzene containers. Fire extinguishers, where provided, must be readily available. Know where they are located and how to operate them. Smoking is prohibited in areas where benzene is used or stored. Ask your supervisor where benzene is used in your area and for additional plant safety rules.

### Benzene Awareness Training

KWT AND RSC employees will be trained in the preceding information regarding benzene. They will also be required to participate in site specific training provided by our customers.

### Noncompliance with Benzene Safety Procedures as outlined above

The disciplinary policy of KWT and RSC as outline in the Disciplinary Policy section of this manual will be followed.

### Benzene Awareness References

CFR 29 1910.1028 App A

CFR 29 1910.1028 App B

## *KWT and RSC Confined Space Entry Plan*

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It is the policy of **KWT and RSC** to establish a uniform procedure for safe entry into confined spaces and ensure that proper protection is taken for all employees, contractors, subcontractors, and employees of contractors working in or near confined spaces. The company will consult with affected employees and their authorized representatives on the development and implementation of all aspects of the permit space program, and provide them with all information required for program development.

Each confined space at the facility will be evaluated to determine its classification as a permit-required confined space. No one may enter any confined space until it has been evaluated.

**Eric Fraser** will ensure that a survey of the facility is conducted to identify all types of confined spaces. The survey will be updated whenever a new confined space is created or conditions change in existing spaces.



# Confined Space Entry Requirements

## Non-Permit Confined Space Entry

### General Requirements

Employees entering a non-permit confined space need not comply with the permit requirements for confined spaces or duties of authorized personnel provided that:

- It has been demonstrated and documented that the only hazard is actual or potentially hazardous atmosphere.
- It has been determined that the forced air ventilation alone is sufficient to maintain safe entry.
- The monitoring and inspection data required by the plan are being used.
- Test data collection that requires an initial entry must be performed in compliance with the permit-required confined space and entry supervisor requirements.
- The determinations and data required are documented and available to employees who enter the space.

### Entry

Entry without a permit must be performed in accordance with the general requirements for non-permit space entry and the following specific requirements:

Any condition making it unsafe to remove an entrance cover will be eliminated before the cover is removed.

- Before covers are removed, the entrance will be promptly guarded by a barrier that will prevent an accidental fall through the opening and will protect employees in the space from foreign objects entering the space.
- If it is necessary to enter a confined space to collect initial monitoring data or inspect for hazards, the full provisions for entering a permit-required confined space must be implemented.
- Before an employee enters the space, the internal atmosphere will be tested for the following conditions, in the order given, with a calibrated direct-reading instrument:
  - Oxygen content
  - Flammable gases and vapors
  - Potential toxic air contaminants
- There must be no hazardous atmosphere within the space whenever any employee is inside the space.
- Continuous forced air ventilation will be used as follows:
  - An employee may not enter the space until forced air ventilation has eliminated a hazardous atmosphere.

- Forced air ventilation will be directed to ventilate the immediate areas where an employee is or will be, and will continue until all employees have left the space.
  - The air supply for the ventilation will be clean and may not increase the hazard.
- The atmosphere within the space will be continuously tested as necessary to ensure that the continuous forced air ventilation is preventing the accumulation of a hazardous atmosphere.
- If a hazardous atmosphere is detected during entry:
  - Each of the employees will leave the space immediately.
  - The space will be evaluated to determine how the hazardous atmosphere developed.
  - Measures will be implemented to protect employees from the hazardous atmosphere before a subsequent entry.
- Before each entry, the employer will verify that the space is safe for entry and that the measures above have been taken, with a written certification giving the date, location of the space, and signature of the person providing the certification.

### **Pre-Entry Certification**

**Eric Fraser** will verify that pre-entry measures have been followed through a written certification that contains the date, the location of the space, and the signature of the person providing the certification. The certification will be made before entry and will be made available to each employee entering the space or to that employee's authorized representative.

### **Reclassification of a Permit-Required Space**

A space classified as a permit-required space may be reclassified as a non-permit space if:

- The permit space poses no actual or potential atmospheric hazards and if all hazards are eliminated without entering the space.
- Testing and inspection demonstrate that the hazards have been eliminated.
- Eric Fraser has documented that the basis for determining that all hazards have been eliminated through a certification that contains the date, location of the space, and the signature of the person making the determination.

If it is necessary to enter the permit space to eliminate hazards, such entry will be performed under the permit-required confined space requirements of this plan.

**New hazards.** When hazards arise within a permit-required space that has been declassified to a non-permit space, anyone in the space must exit. **Eric Fraser** will reevaluate the space and determine if it will be reclassified as a permit space.

## **Permit-Required Confined Space**

The following measures will be implemented by Eric Fraser to ensure the safety of entrants and to prevent unauthorized entry into a confined space:

- Identify and evaluate the hazards of the permit spaces before employees enter them by performing atmospheric testing.
- Post danger signs outside of confined spaces such as “DANGER—PERMIT-REQUIRED CONFINED SPACE—AUTHORIZED ENTRANTS ONLY” or an equally effective means will be used.
- Designate the persons who are to have active roles in entry operations, their duties, and provide each with the training required by this program.
- Summon rescue and emergency services for rescuing entrants and for preventing unauthorized personnel from attempting rescue.
- Coordinate entry operations when employees of more than one employer are entering a permit space so that they do not endanger each other.
- Prepare, issue, use, and cancel entry permits.
- Coordinate entry after operations are completed.
- There will be at least one attendant outside the permit space for the duration of entry operations.
- When a single attendant monitors multiple spaces, enable the attendant to respond to an emergency in one or more spaces without distraction from the attendant’s responsibilities.

## **Equipment**

Entrants, attendants, and any other support personnel will be provided with all equipment necessary to work in a confined space safely, at no cost to them. Following is a list of the type of equipment that will be provided as needed:

- Testing and monitoring equipment
- Ventilating equipment needed to obtain acceptable entry conditions
- Communications equipment
- Personal protective equipment if feasible engineering and work practice controls do not adequately protect employees
- Lighting equipment needed to enable employees to see well enough to work safely and to exit the space quickly in an emergency
- Barriers and shields as required
- Equipment, such as ladders, needed for safe entry and exit by authorized entrants
- Rescue and emergency equipment, except to the extent that the equipment is provided by rescue services

## Permit System

Before entry is authorized, Eric Fraser will prepare an entry permit that describes the means, procedures, and practices necessary for safe entry, including:

- Specifying acceptable entry conditions, including recording of gas detector readings;
- Isolating the permit space;
- Purging, flushing, or ventilating the permit space to eliminate or control atmospheric hazards;
- Providing barriers as necessary to protect entrants from external hazards; *and*
- Verifying that conditions in the permit space are acceptable for entry throughout the duration of an authorized entry.

Before entry, the entry supervisor will sign the permit to authorize entry. The completed permit will be made available to all authorized entrants to confirm that pre-entry preparations have been completed. The duration of the permit will not exceed the time required to complete the assigned task or job.

The entry supervisor will terminate entry and cancel the permit when:

- Operations have been completed; *or*
- A condition that is not allowed under the entry permit arises in or near the permit space.

The entry supervisor will retain each entry permit for at least 1 year to facilitate the review of the permit-required confined space program. Any problems encountered during an entry operation will be noted on the permit so that appropriate revisions to the plan can be made.

## Entry Permit

No one may enter a permit-required confined space except authorized entrants working under a valid permit. The entry permit that authorizes entry into a permit space will contain the following items:

- A description of the space to be entered
- The purpose of the entry
- The date and authorized duration of the entry
- The authorized entrants
- The personnel serving as attendants
- The individual serving as the entry supervisor
- The hazards of the permit space to be entered
- The measures used to isolate the space and eliminate or control hazards before entry

- The acceptable entry conditions
- The results of initial and periodic tests performed, including time of the test and initials of the testers and the following:
  - Test conditions in the permit space to determine if acceptable entry conditions exist before entry is authorized to begin, except that if isolation of the space is infeasible because the space is larger or is part of a continuous system (such as sewer), pre-entry testing will be performed to the extent feasible before entry is authorized and, if entry is authorized, entry conditions will be continuously monitored in the areas where authorized entrants are working.
  - Test or monitor the permit space as necessary to determine if acceptable entry conditions are being maintained during the course of entry operations.
  - When testing for atmospheric hazards, test first for oxygen, then for combustible gases and vapors, then for toxic gases and vapors.
- The rescue and emergency services that can be called and how to call them
- The communication procedures used by entrants and attendants to maintain contact with each other
- Equipment, such as testing equipment, to be provided for compliance with the confined space regulation
- Any other information necessary to ensure employee safety
- Any additional permits, such as hot work permits, issued for work in the space

**Permit duration.** The duration of the permit will not exceed the time required to complete the assigned task or job identified on the permit.

### **Canceled Permit**

The entry supervisor will cancel entry permits when work in the confined space is completed or when a condition exists in the space that is not allowed by the permit. New conditions will be noted on the canceled permit and used in revising the permit space program. **Eric Fraser** will keep all canceled entry permits for at least 1 year.

### **Contractors**

**Eric Fraser** will ensure that each contractor or subcontractor hired to enter a confined space is:

- Informed that the workplace contains permit spaces and that permit space entry is allowed only through compliance with a permit space program
- Trained to enter the space
- Aware of all hazards associated with the space
- Given a copy of the permit entry requirements

- Provided with all the precautions and procedures to be followed when in or near a confined space
- Coordinating entry operations with the contractor, when both host employer personnel and contractor personnel will be working in or near permit spaces
- Debriefed at the conclusion of the entry operations concerning the permit space program and about any hazards confronted or created in permit spaces during entry operations

Each contractor that performs permit-required confined space entry will:

- Obtain any available information regarding permit space hazards and entry operations.
- Coordinate entry operations with **Eric Fraser** when company employees and contractor personnel jointly work in or near permit spaces.
- Inform Eric Fraser of the permit space program that the contractor will follow and of any hazards confronted or created in permit spaces.

## **Employee Training**

**KWT and RSC** will provide training so that employees acquire the understanding, knowledge, and skills necessary for the safe performance of the duties assigned while working in or near confined spaces.

### **General Training**

Training will be provided to all employees whose work is regulated by the confined space plan:

- Before the employee is first assigned confined space duties
- Before there is a change in assigned duties
- Before there is a change in permit space operation that presents a hazard about which an employee has not previously been trained
- Whenever the employer has reason to believe there are deviations from the confined space procedures or inadequacies in the employee's knowledge of the procedures

The training will establish employees' proficiency in their duties and introduce new or revised procedures, as necessary, to comply with the confined space rules.

**Specific training program elements.** A training program has been established for:

- Entrants
- Attendants
- Entry supervisors
- Rescue teams

Training will cover the duties for each type of authorized confined space worker. See the **Duties of Entry Personnel** section for the specific duties.

### **Contractor Training**

Contractors, subcontractors, and employees of contractors must receive the same level of training appropriate to their duties as required for employees of **KWT and RSC**. No contractors will be allowed to enter or work near confined spaces without the required training.

### **Rescue Team Training**

In addition to the specific duties, rescue team members will be trained to:

- Understand the rescue plan and procedures for each type of confined space at the facility.
- Learn the access ways and configurations of confined spaces in order to minimize response time.

All rescue team members will be certified in first aid and CPR.

### **Trainee Certification**

Eric Fraser will certify that the training required has been accomplished and that the employee is proficient in his or her authorized duties. The certification will contain each employee's name, the signatures or initials of the trainers, and the dates of training. It will be available for inspection by employees and their authorized representatives.

### **Training Program Assessment**

Assessments of the effectiveness of employee training will be periodically conducted by **Eric Fraser**. Copies of the assessments will be maintained for 2 years.

### **Refresher Training**

Refresher training will be provided as needed to maintain employee proficiency in entry procedures and safety.

## **Duties of Entry Personnel**

### **Authorized Entrants**

All authorized entrants will:

- Know the hazards that may be faced during entry, including information on the mode, signs or symptoms, and consequences of the exposure.
- Properly use testing, monitoring, ventilating, communications, lighting, and personal protective equipment, barriers and shields, ladders, and any other equipment necessary for safe entry and exit.

- Communicate with the attendant as necessary to enable the attendant to monitor entrant status and to enable the attendant to alert entrants of the need to evacuate the space.
- Alert the attendant whenever he or she recognizes any warning sign or symptom of exposure to a dangerous situation, or detects a prohibited condition.
- Request the space to be reevaluated before entry if they feel it necessary
- Leave the permit space as quickly as possible whenever:
  - An order to evacuate is given by the attendant or the entry supervisor.
  - The entrant recognizes any warning sign or symptom of exposure to a dangerous situation.
  - The entrant detects a prohibited condition.
  - An evacuation alarm is activated.
  - The attendant can no longer perform his or her duties due to injury, illness, or other emergency.
  - A condition outside the confined space exists that could endanger the entrant.

## **Attendants**

All attendants will:

- Know the hazards that may be faced during entry, including information on the mode, signs or symptoms, and consequences of the exposure.
- Know the behavioral effects of the hazards on entrants.
- Keep an accurate count of how many entrants are in a permit space at any given time, and ensure an accurate means of identifying a specific entrant who is in the space.
- Remain outside the permit space when operations are under way until relieved by another attendant.
- Enter the space for rescue only if trained and equipped for rescue operations and if relieved by another attendant.
- Communicate with entrant(s) as necessary.
- Monitor activities inside and outside the permit space to determine if it is becoming dangerous, and order the entrant(s) to evacuate if:
  - A prohibited condition is detected;
  - The entrant shows behavioral effects of hazard exposure;
  - A situation outside the space could endanger the entrant(s); *or*
  - The attendant cannot safely perform all his or her duties.



- Summon rescue and emergency services if the entrant needs help to escape the confined space.
- Take the following steps when unauthorized persons attempt to enter the confined space:
  - Warn such persons away from the area;
  - Advise the unauthorized person(s) to exit the space if they have entered it; *or*
  - Inform authorized entrants and the entry supervisor that an unauthorized person has entered the space.
- Perform non-entry rescues as specified under the rescue procedures (see the **Rescue Services** section).
- Perform no other activities that might interfere with the primary duty of monitoring and protecting authorized entrants.

## **Entry Supervisors**

Each entry supervisor will:

- Know and understand the hazards that may be faced during entry.
- Verify, by checking that the appropriate entries have been made on the permit, that all tests specified by the permit have been conducted and that all procedures and equipment specified by the permit are in place before endorsing the permit and allowing entry to begin.
- Terminate the entry and cancel the permit as required by this program.
- Verify that rescue services are available and that the means for summoning them are operable.
- Remove unauthorized individuals who enter or attempt to enter the permit space during operations.
- Determine that entry operations remain consistent with terms of the entry permit and that acceptable entry conditions are maintained.

## **Rescue Services**

### **Rescue Requirements for KWT and RSC Employees**

The following requirements apply when employees of **KWT and RSC** enter permit-required confined spaces to perform rescue services:

- Members of the rescue team will be provided with and trained to use PPE necessary for making rescues.
- Each member will be trained to perform assigned rescue duties. They will also receive the training required of authorized entrants under this plan.
- Each member will practice making rescues at least once every 12 months.

- Each member will be trained in basic first aid and CPR.
- KWT and RSC does not operate in confined spaces when IDLH conditions are present

### **Rescue Requirements for Contract Services**

When **KWT and RSC** arranges to have an off-site rescue service perform rescue operations, **Eric Fraser** will:

- Inform the rescue service of the hazards they may confront when called on to perform a rescue, *and*
- Provide the rescue service with access to all permit spaces from which rescue may be necessary to allow them to develop rescue plans and practice rescues.

### **Entrant Retrieval System**

In order to facilitate non-entry rescue, retrieval systems or methods will be used whenever an authorized entrant enters a permit space, unless this would increase risk or would not assist the rescue. Each authorized entrant will use a chest or full-body harness with a retrieval line. Wristlets may be used in lieu of a harness if it can be demonstrated that they are a safer, more effective alternative. The other end of the retrieval line will be attached to a mechanical device or fixed point outside the permit space so that rescue can begin as soon as it becomes necessary.

### **Attendant Responsibilities**

Attendants may attempt a non-entry rescue using the retrieval system to remove an entrant from the confined space only if all the following conditions apply:

- The entrant is unable to self-rescue.
- A life-threatening danger to the entrant is imminent.
- The attendant remains outside the confined space at all times.
- The entrant is attached to the retrieval system.
- The attendant can visually or verbally confirm from outside the confined space that the retrieval system is disentangled from objects in the confined space and free of other obstructions.

### **Medical Treatment for Chemical Exposure**

If an injured entrant is exposed to a substance for which a material safety data sheet (MSDS) or other similar written information is required, the MSDS or written information will be made available to the medical facility treating the exposed entrant

### **Noncompliance**

Any KWT or RSC employee found not complying with this policy will be disciplined according to the Disciplinary Program. Confined Space Entry (Permit) is a zero tolerance policy.

## References

29 CFR 1910.146

### *KWT and RSC Disciplinary Policy*

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The president of KWT, Eric Fraser or his job site designee will be responsible for monitoring the compliance to the procedures and policies in the KWT and RSC Safety Policy and Procedures Manual. (SPPM). Daily inspections of the job site will be required of Eric Fraser or his designee.

If at any time the KWT or RSC employee violates the policies or procedures in this SPPM or Federal (OSHA), State or Local laws or regulations the following discipline may be enforced.

Each safety infraction will be evaluated individually and discipline will be based on risk levels (High, Medium and Low). The enforcement measures range from a verbal warning at low-medium risk levels to immediate expulsion from the job site and possible termination of employment for violation at the “Zero tolerance” risk level.

Any infraction that falls within the scope of the “Zero tolerance” risk level will result in the immediate review of the case by KWT management and possible expulsion of the employee from the job site and possible expulsion of the employee’s immediate supervisor. KWT management will decide upon the final disciplinary action.

#### Disciplinary Process

<b>Zero Tolerance</b>	<b>High Severity</b>	<b>Medium Severity</b>	<b>Low Severity</b>
Immediate Site Expulsion	1 <sup>st</sup> Written Warning	1 <sup>st</sup> Verbal Warning	1 <sup>st</sup> Verbal Warning
Possible Termination of Employment	2 <sup>nd</sup> Suspension at Site	2 <sup>nd</sup> Written Warning	2 <sup>nd</sup> Additional Training
	Possible Termination of Employment	3 <sup>rd</sup> Additional Training	3 <sup>rd</sup> Written Warning
		4 <sup>th</sup> Suspension at Site	4 <sup>th</sup> Suspension at Site

#### Example Risk Levels for KWT and RSC Typical Work Activities

<b>Zero Tolerance</b>	<b>High</b>	<b>Medium</b>	<b>Low</b>
Fall Protection working at heights	Use of Ladders	PPE including: eye protection, skin and face protection when handling water treatment chemicals or as	Dust mask use when in dusty environment, and handling dusty water treatment chemicals

		required by customer safety plans. Follow SDS guidelines. Steel toed shoes, safety glasses and hard hats when required at customer sites.	
Lockout/Tagout	Confined Space (Non Permit)	Proper ventilation when handling volatile water treatment chemicals	Material handling without proper lifting
Confined Space (Permit)		Improper or inadequate labeling of water treatment chemicals	Fire Protection , including failure to maintain fire extinguishing equipment in work areas
		Failure to comply with Job Safety Analyses Procedures for new activities or failure to review or consider existing JSAs.	Improper labeling or failure to follow SDS use of testing reagents
			Failure to maintain site specific SDS for KWT and RSC products
			Failure to do tailgate safety meetings

### *KWT and RSC Safety Fall Protection Policy*

KWT AND RSC employees do consulting and water sampling and analyses for water related systems. If KWT AND RSC employees are exposed to conditions where the potential for falling off a structure to a level of 4 feet below the structure fall protection

is required. If adequate safeguards including guardrails are not in place fall protection must be addressed and fall protection provided. A few examples of where this would be necessary include:

1. Inspecting cooling tower structures. Guardrails should be inspected and in place. Safety Harnesses may be required.
2. Working on a manlift or bucket truck to inspect air strippers or to install temporary cleaning equipment. Safety Harness would be required
3. Inspecting rooftop exhaust or deaerator vent equipment. Safety Harness may be required.
4. Inspecting boiler equipment. Guardrails should be inspected. Safety Harnesses may be required.

Fall protection is required whenever employees are potentially exposed to falls from heights that exceed applicable regulatory thresholds. Guard rails, safety nets, or personal or fall arrest systems should be used.

All accidents or near falls will be investigated and procedures corrected.

All fall prevention equipment including safety harnesses will be ANSI, ASTM or OSHA approved.

Rescue of any fallen employee will be the immediate priority.

In most cases site specific fall prevention plans will be provided by our customers. We will assure that these plans are provided by a qualified person. KWT AND RSC employees will at a minimum following these plans. In the event that these plans are not available or not adequate KWT AND RSC employees will develop their own fall protection plans as part of the Job Safety Analysis Program that we follow. These plans will be reviewed by a qualified person.

KWT AND RSC employees will be required to receive training from a qualified person in identifying potential fall hazards. They shall receive training in proper safeguards to prevent falls. They shall receive training when and how to use safety harnesses. The training will be documented. Retraining will be required when new fall hazards are identified or after near falls or preventable accidents occur, or new fall prevention equipment is put into service.

#### References applicable to KWT AND RSC Employees

- General Industry 29 CFR 1910.23(b) - Protection for wall openings and holes. Every wall opening from which there is a drop of more than 4 feet shall be guarded.

- Construction Industry 29 CFR 1926.501 (b) (1) - Unprotected sides and edges. Each employee on a walking/working surface (horizontal and vertical surface) with an unprotected side or edge which is 6 feet (1.8 m) or more above a lower level shall be protected from falling by the use of guardrail systems, safety net systems, or personal fall arrest systems.

# *KWT and RSC Fire Protection and Extinguishers*

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## Fire Prevention Plan

### **Purpose**

OSHA's Fire Prevention Plan regulation, found at 29 CFR 1910.39 and 29 CFR 1910.157 requires Kanas Water Technologies, to have a written Fire Prevention Plan (FPP) and use of fire extinguishers. This plan applies to all operations in our company where employees may encounter a fire.

This Fire Prevention Plan (FPP) is in place at this company to control and reduce the possibility of fire and to specify the type of equipment to use in case of fire. This plan addresses the following issues:

Under this plan, our employees will be informed of the plan's purpose, preferred means of reporting fires and other emergencies, types of evacuations to be used in various emergency situations, and the alarm system. Most of our exposure to potential fires would occur at our customer facilities. We will acquaint ourselves to the fire prevention plan at our customer worksites.

Eric Fraser is the Plan Coordinator. The written plan is kept in Company Mainframe Computer and employees' mobile devices computers. Eric Fraser will review and update the plan as necessary. Copies of this plan may be obtained from Eric Fraser in the KWT office.

The FPP communicates to employees, policies and procedures to follow when fires erupt. This written plan is available, upon request, to employees, their designated representatives, and any OSHA officials who ask to see it.

If after reading this plan, you find that improvements can be made, please contact the Plan Coordinator, Eric Fraser. We encourage all suggestions because we are committed to the success of our Fire Prevention Plan. We strive for clear understanding, safe behavior, and involvement in the plan from every level of the company.

### **Plan Coordinator Responsibilities**

Here at Kanas Water Technologies, the Plan Coordinator is responsible for the following activities. He or she must:

1. Train designated employees in the use of fire extinguishers and the application of medical first-aid techniques.
2. Decide to have employees and non-employees remain in or evacuate the facility in the event of a fire.

3. If evacuation is deemed necessary, the Plan Coordinator ensures that:
  - All employees are notified and evacuated and a head count is taken to confirm total evacuation of all employees.
  - When practical, equipment is placed and locked in storage rooms or desks for protection.
  - In locations where the building owner/superintendent is not available, security measures to protect employee records and property are arranged as necessary.

### **Fire Hazards**

On occasion we may use a heat source to heat chemical tests. We have elected to use hot plates to prevent flames at our workplace. We have a “no workplace smoking” policy except in designated smoking areas in our customer plants.

Fire prevention measures involving proper handling and storage of hazardous materials have been developed. These include:

We store flammable materials in approved containers in areas free of debris.

Fuel is used throughout the facility as an energy source for various systems or equipment. This fuel can be a significant fire hazard and must be monitored and controlled.

We have fuel stored in our porch area. It is used for the gas powered high pressure water sprayer. This fuel is isolated from other debris and fuel and ignition sources.

#### *Potential Ignition Sources*

Flammable or combustible materials and other fuel sources may not ignite on their own without an external source of ignition. The following procedures are used to control known ignition sources at this company: (enter your answer)

### **Fire Protection Equipment**

Fire protection equipment, selected and purchased by Eric Fraser, in use at this company includes the following extinguishers:

We will have a portable ABC fire extinguisher in each of our service vehicles. We will have a portable ABC fire extinguisher in our office area at our laboratory and storage areas.

We will be aware of fire extinguisher equipment on our customer's property and be aware of potential fire hazards on our customer worksite. If allowed by customer policy we may assist customers by using fire extinguishers at their workplace.

### **Maintenance of Equipment/Systems**

Our procedures for maintaining equipment/systems is as follows:

We will maintain our fire extinguisher equipment routinely with monthly inspection in our service vehicles and our office and lab and storage areas. There also be an annual maintenance check of the fire extinguishers.

### **Housekeeping Procedures**

Our company controls accumulations of flammable and combustible waste materials and residues so that they do not contribute to a fire.

The following procedures have been developed to eliminate or minimize the risk of fire due to improperly stored or disposed of materials.

We will properly store flammable materials in our lab area.

We will properly use flammable testing reagents at our customer facilities

### **Training**

#### *General*

Training of employees with respect to this FPP policy will be prior to initial assignment and at least annually.

#### *Fire Prevention Plan*

At our customer locations we will be aware of their site specific FPP and where fire extinguisher are located if they allow our assistance. We will be aware of the evacuation procedures and policies of our customers with regard to fire prevention and fire alarms.

At our office and lab or storage facilities the employees will be aware of the following:

- Fire hazards to which an employee is exposed
- What to do if employee discovers a fire
- Demonstration of alarm, if more than one type exists
- How to recognize fire exits



- Evacuation routes
- Measures to contain fire (e.g., closing office doors, windows, etc. in immediate vicinity)
- Head count procedures (see EAP for details)
- Return to building after the "all-clear" signal
- Those parts of the Fire Prevention Plan necessary for self-protection

Our work is primarily in our customer facilities. We will be aware and follow our customer's fire prevention plans.

Any employee who does not comply with this plan will be disciplined according to the Disciplinary Policy.

### *Fire Protection Equipment*

The Plan Coordinator provides training for each employee who is required to use fire protection equipment. Employees shall not use fire protection equipment without appropriate training. Training, before an individual is assigned responsibility to fight a fire, includes:

- Types of fires
- Types of fire prevention equipment
- Location of fire prevention equipment
- How to use fire prevention equipment
- Limitations of fire prevention equipment
- Proper care and maintenance of assigned fire prevention equipment and
- We provide fire extinguisher training.

### *KWT and RSC First Aid Policy*

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As KWT and RSC employees are often visitors we will rely on the facility first aid for the majority of our work. We ensure all sites we visit have easily accessible first aid kits that contain appropriate supplies for the area we are working in. We also ensure all facilities have eye wash stations with visible signage and emergency showers where appropriate. All KWT and RSC vehicles have first aid kits. All first aid kits will be checked every 6 months to insure the contents are up-to-date and adequate for providing first aid.

Training on eye wash and emergency shower stations is given to all KWT and RSC employees, this training is reviewed on a yearly basis or as needed.

When injuries occur only persons with a valid certificate in first aid training are allowed to render first aid when medical assistance is not readily available. This certificate must be obtained from the American Red Cross or a similarly rigorous training and be

documented. Any KWT and RSC employee with such training will have documentation on our mobile computing devices. Except in the utmost extreme circumstances, as determined by Eric Fraser, KWT and RSC vehicles are not to be used to transport injured persons to a hospital or other care facility, ambulances are the preferred method for transporting the injured.

Any time KWT and RSC employees are providing first aid they will always use nitrile or latex gloves to protect against blood borne pathogens. Blood born pathogen training is provided to each employee.

## **Noncompliance**

Any KWT and RSC employee that does not comply with this safety program are disciplined according to the Disciplinary Policy.

## **References**

29 CFR 1910.151

## ***KWT and RSC HazCom Policy***

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The purpose of this program is to inform interested persons, including employees, that Kansas Water Technologies and Remediation Services Company is complying with the OSHA Hazard Communication Standard, Title 29 Code of Federal Regulations 1910.1200, by compiling a hazardous chemicals list, using safety data sheets (SDSs), ensuring that containers are labeled or provided other forms of warning, and training for our employees.

This program applies to all work of Kansas Water Technologies and Remediation Services Company where employees may be exposed to hazardous chemicals under normal working conditions or during an emergency situation. Our employees will be informed of the contents of the Hazard Communication Standard, the hazards of chemicals with which they work, safe handling procedures, and measures to take to protect themselves from these chemicals, among other training elements.

We will inform our employees and the employees of our customers and employees of other companies working near us of the hazards of the products that we use. We will do this through our Job Safety Analyses Program, our tailgate safety meeting program and our training program.

Eric Fraser, the Hazard Communication Program Coordinator, has overall responsibility for the program, including to review and update the program, as necessary. Copies of this written program may be obtained from Eric Fraser who keeps the program on the company's Mainframe computer under the KWT "Safety Policy" file. Moreover, all employees, or their designated representatives, may obtain further information about

this written program, the Hazard Communication Standard, applicable SDSs, and our chemical list from Eric Fraser or Eric Fraser.

### **List of Hazardous Chemicals**

Our "chemical inventory" is a list of SDS of potentially hazardous chemicals known to be present at our workplace. The list is organized in subfiles as KWT Products, RSC Products and Reagents. Anyone who comes in contact with the hazardous chemicals on the list needs to know what those chemicals are and how to protect themselves. Eric Fraser updates the hazardous chemical inventory as necessary.

The inventory is attached to this written Hazard Communication Program. However, the Program Coordinator also keeps a copy of the chemical inventory list located On the KWT company's mainframe where it is accessible during work hours. The list is also maintained on the employees mobile computers so that our employees have ready access to the list as they work in customer facilities.

### **Safety Data Sheets (SDSs)**

SDSs are basically fact sheets for chemicals that pose a physical or health hazard in the workplace. These sheets provide our employees with specific information on the chemicals in their work areas.

Eric Fraser is responsible for obtaining and maintaining the SDSs at our workplace and will contact the chemical manufacturer or vendor if additional chemical information is needed. All new procurements for the company must be cleared by Eric Fraser.

SDSs are kept readily accessible to all employees during each work shift at the following location(s): SDS are located on the KWT company's mainframe and on the employee's personal computers. The SDS' are in separate files for KWT products, RSC products and Reagents. Reagents are those chemical products used for testing by both RSC and KWT.

If the SDS does not accompany the first shipment, we check to see if were sent previously. If no SDS is on file the SDS will be requested immediately from the supplier.

We develop our SDS for some of our chemicals. Most are generated by our suppliers. Each SDS is provided in English and includes the sections required by OSHA in the order listed in the Hazard Communication Standard. The procedure we use to update these SDSs when new and significant health information is found is: We will update the SDS immediately when new or significant health information is found.

Generally the SDSs that our company generates are sent by internet unless otherwise requested by our customers.

## **Labels and Other Forms of Warning**

In most cases, hazardous chemical containers at the workplace must be clearly labeled, tagged, or marked in accordance with the Hazard Communication Standard, either with:

- The product identifier, signal word, hazard statement(s), pictogram(s), and precautionary statement(s); or
- The product identifier and words, pictures, symbols, or combination thereof, which provide at least "general" information regarding the hazards of the chemicals, and which, in conjunction with the other information immediately available to employees under the Hazard Communication Program, will provide employees with the "specific" information regarding the physical and health hazards of the hazardous chemical.

While not required for in-house labeling, the name and address of the manufacturer, importer, or other responsible party may also be found on the label, tag, or marking because shipped containers of hazardous chemicals must bear this information. Hazards not otherwise classified, if any, do not have to be addressed on a container but must be addressed on the SDS.

Because the product identifier is found on the label, the SDS, and our chemical inventory, the product identifier links these three sources of information, permitting cross-referencing. The product identifier used by the supplier may be a common or trade name, a chemical name, or a number. Employees should be aware that label information can be verified by referring to the corresponding SDS.

Eric Fraser is responsible for ensuring that all hazardous chemicals in containers at the workplace have proper labels or other forms of warning that are legible, in English (although other languages may also be included), and displayed clearly on the container or readily available in the work area throughout each work shift, as required. This person will update labels, as necessary. Eric Fraser also ensures that newly purchased chemicals are checked for labels when containers are received.

Eric Fraser is responsible for ensuring the proper labeling, tagging, or marking of any shipped containers leaving the workplace. These labels, tags, or marks must provide not only the product identifier, signal word, hazard statement(s), pictogram(s), and precautionary statement(s) but also the name, address, and telephone number of the chemical manufacturer, importer, or other responsible party.

If employees transfer chemicals from a labeled container to a portable, secondary container that is intended only for their IMMEDIATE use, no labels, tags, or markings are required on the portable container. Otherwise portable containers must be labeled, tagged, or marked in accordance with our in-house labeling system for workplace containers.

In-house we label our testing reagents and a limited amount of treatment chemicals in accordance with OSHA hazcom and GHS compliant labeling standards

Finally, the following procedures are used to review and update label information when necessary, to ensure that labels that fall off or become unreadable are immediately replaced: (enter your answer).

### **Training**

RSC AND KWT employees provide consulting services and water treatment chemicals to their customers. Knowing and communicating chemical hazards is an important part of our job. Prevention of acute or chronic injuries for our employees and our customers due to over exposure of chemical that we handle and sell is a daily concern in our jobs.

KWT AND RSC employees will be given the most current information of the hazards of the chemicals that they handle. They will be given training on reading and understanding SDS, Chemical packaging labels, and DOT labels. They will be given copies of the SDS for the chemicals that they sell to others and the SDS for the chemicals they use in their water treatment analytical work.

### **Training Materials**

KWT AND RSC employees will be trained using the following materials:

“Safe Handling of Industrial and Commercial Water Treatment Chemicals” – Association of Water Technologists

“Introduction to GHS” – Marcom

“Introduction to GHS Safety Data Sheets” - Marcom

“Introduction to GHS Container Labeling” – Marcom

Alternate training for Hazcom may be obtained through 8 Hr. hazwoper refresher training or MSHA 8 Hr. miner refresher training if the competent person in charge of company training confirms that Hazcom training from these alternate sources is adequate.

Everyone who works with or is potentially "exposed" to hazardous chemicals on the job will receive initial training on the Hazard Communication Standard and the safe use of those hazardous chemicals before starting work. "Exposure" means that "an employee is subjected in the course of employment to a chemical that is a physical or health hazard, and includes potential (e.g., accidental or possible) exposure." Whenever a new

chemical hazard is introduced or an old hazard changes, additional training is provided. All training is conducted by Eric Fraser.

Effective information and training is a critical part of the Hazard Communication Program. We train our employees to read and understand the information on labels and SDSs, determine how the information can be obtained and used in their own work areas, and understand the risks of exposure to the chemicals in their work areas, as well as ways to protect themselves. Our goal is to ensure employees know that they are exposed to hazardous chemicals, have the skills to read and use labels and SDSs, and understand how to appropriately follow the protective measures we have established. We urge our employees to ask Eric Fraser questions for greater comprehension.

All employees receive training for hazard communication.

### Training Content

Training is organized as below. Employees are trained on the specific hazardous chemicals present. The format of the training program used is Audio visual with some classroom instruction.

The training program emphasizes these elements:

4. Summary of the Hazard Communication Standard.
5. What hazardous chemicals are present in operations in employee work areas?
6. Chemical and physical properties of hazardous chemicals (e.g., flash point, reactivity, etc.) and how to detect the presence or release of these chemicals (including chemicals in unlabeled pipes).
7. Physical hazards of chemicals (e.g., potential for fire, explosion, etc.).
8. Health hazards, including signs and symptoms of overexposure, associated with exposure to chemicals and any medical condition known to be aggravated by exposure to them.
9. Any simple asphyxiation, combustible dust, and pyrophoric hazards, as well as hazards not otherwise classified, of chemicals in work areas.
10. Any steps the company has taken to reduce or prevent exposure to hazardous chemicals, such as engineering controls.
11. Procedures to protect against hazards and exposure (e.g., work practices or methods to assure proper use and handling of chemicals and any required personal protective equipment and its proper use and maintenance).
12. Procedures for reporting and responding to chemical emergencies.
13. How to read and use both the workplace labeling system and labels received on shipped containers.
14. The order of information found on SDSs and how to read the information and what it means.

15. How to access SDSs and the written Hazard Communication Program, including the chemical inventory.

The procedure to train new employees at the time of their initial assignment is new employees will be required to view the previously referenced videos and take and pass a test about safe handling of water treatment chemicals. Classroom instruction about the specific hazards of chemicals on site will also be given. We train employees when a new hazard is introduced by Employees which have previously been trained will be required to have classroom instruction of the hazards of new chemicals to which they may be exposed..

We document all hazard communication retraining using our "Safety Training Summary" and file this documentation in our company's mainframe under the "Safety Policy" file.

Training logs are signed by employees upon completion of their training and are kept by Eric Fraser.

### **Hazards of Nonroutine Tasks**

Periodically, employees are required to perform nonroutine tasks that involve hazardous chemicals. When employees will be required to perform hazardous nonroutine tasks, such as Chemical cleaning of water related equipment, repairing chemical feed systems, and filling chemical feed tanks., that have the potential to expose employees to hazardous chemicals, we inform them of these hazards by: During our initial Hazcom training, monthly safety meetings, Job Safety analyses development, and tailgate safety meetings..

### **Hazards of Unlabeled Pipes**

Our work activities are sometimes performed by employees in areas where hazardous chemicals are transferred through unlabeled pipes. We inform employees of the hazards of chemicals contained in unlabeled pipes in their work areas. Chemicals in unlabeled pipes on our customer properties must be identified by our customer and the hazards evaluated. If additional PPE is required this will be identified in our JSA process.

### **Appendix**

We have attached to this written program our chemical inventory and other information to ensure better understanding of our program.

### **Non Compliance**

Non Compliance with this policy and other KWT and RSC policies is discussed in Disciplinary Section of our Safety Policy Manual.

## References

### **CFR 1910.1200 Hazard communication.**

<u>§1910.1200</u>	Hazard communication.
<u>§1910.1200</u>	Appendix A to §1910.1200—Health Hazard Criteria (Mandatory)
<u>§1910.1200</u>	Appendix B to §1910.1200—Physical criteria (mandatory)
<u>§1910.1200</u>	Appendix C to §1910.1200—Allocation of label elements (Mandatory)
<u>§1910.1200</u>	Appendix D to §1910.1200—Safety Data Sheets (Mandatory)
<u>§1910.1200</u>	Appendix E to §1910.1200—Definition of “trade secret” (mandatory)

## *KWT and RSC Ladder Safety*

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KWT AND RSC employees consult with customers about water systems. They sample and analyze water samples. On occasion they may inspect elevated equipment or sample lines that are above ground level. On occasion they may use ladders in the course of these activities.

### Ladder Safety Procedures

The following procedures should be followed when using a ladder.

1. Three points of contacts should be maintained to the ladder at all times.
2. If the employee is on the ladder above 2 feet off the ground the employee will have a safety harness safely secured above the work area.
3. The employee will not carry anything whose weight may cause damage or injury to the employee on the ladder or anyone working below the ladder.
4. The ladder shall be inspected for damage by a competent person, any damage to the ladder rungs or structure shall deem the ladder unfit for use. The ladder should be tagged as unusable. The ladder should be inspected before every use at a minimum daily.
5. The top two rungs of the ladder should not be used for stepping.
6. The employee should face the ladder when ascending or descending the ladder.
7. The ladder should be tied off to a stable structure before using for work.
8. The ladder should extend a minimum of 3 feet above the top landing or other stable structure at the work area.



9. Extension ladders should be used at a 4:1 ratio of working length of the ladder over distance from the foot of the ladder to the structure upon which the ladder rests.

#### Training

KWT AND RSC employees will have ladder safety training including the above procedures. The training will be documented in the company's safety training file.

#### Compliance and Non Compliance

1. When Job Safety Analyses include use of ladders the above procedures will be referred to and included as necessary job steps.
2. Failure of compliance to these procedures will result in a verbal reminder, followed by a written warning, followed by mandatory training and written test of understanding, followed by a written warning of termination of employment, followed by termination of employment.

#### References

29 CFR 1910.119 (h) (3) (v)

## *KWT and RSC Lockout/Tagout Policy*

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### **Training**

Before working in the field all employees of KWT and RSC undergo lockout/tagout training. This training addresses recognition of hazardous energy sources commonly encountered in our work, including electrical, chemical, steam, thermal and mechanical potential. Training also covers stored energy and reaccumulation of energy while working. All lockout/tagout tags will be identified with the name and picture of the employee who has applied the lockout/tagout tag and is the only employee authorized to remove the lockout/tagout tag.

### **Retraining**

Retraining occurs whenever: there is a change in job assignment, change in process, new hazards arise, a change in energy control procedures, or if KWT and RSC feel that an employee's knowledge or use of lockout/tagout is inadequate.

### **Training/Retraining Certification**

We certify all lockout/tagout general and specific training and retraining. All training and retraining is documented and signed and kept on our mobile computing devices.

### **Customer Relations**

Due to the nature of KWT and RSC work, employees of KWT and RSC do not engage in the following processes of lockout/tagout procedures:

- Shutdown preparation

- Shutdown
- Isolation

These steps are to be taken prior to KWT and RSC arrival at the facility. Before beginning work KWT and RSC employees will verify isolation with their escort and facility supervisors/shift leads. KWT and RSC employees do not have personal lockout/tagout tags as the employees of KWT and RSC are always guests in the facility where they are performing work and the facility should be performing the shutdown, isolation and lockout/tagout on the processes.

### **Group Lockout**

Whenever multiple departments or crews are servicing a process a group lockout procedure will be followed. This group lockout will give continual protection at the levels that each group working will need. Eric Fraser is our authorized employee for group lockout scenarios and will oversee that KWT and RSC employees get the level of protection they need.

### **Noncompliance**

Any KWT and RSC employee that does not comply with this safety program are disciplined according to the Disciplinary Policy. Lockout/Tagout is a zero tolerance policy.

### **References**

29 CFR 1910.147

## ***KWT and RSC Noise Exposure and Protection Plan***

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KWT and RSC employees will be trained on noise and hearing protection at least annually but will receive additional training as PPE and process change over time. All employees are given hearing protection free of charge and carry them to each site we visit. Training is still given to each employee on the proper usage of hearing protection. Training records are kept on our server mainframe and can be accessed at any time on our mobile computing devices. At any time if hearing protection is not adequate refitting or resizing of the equipment can be done at a safe location.

When working in areas where high noise levels are expected all employees will use their hearing protection. If KWT and RSC employees are exposed to noise levels above 85 dB or higher for an 8 hour time weighted period it a hearing conservation program is enacted. This program requires the employee to have a baseline audiometric test performed within 6 months of the exposure with a period of 14 hours of without exposure prior to the test. After the baseline audiogram annual audiograms will be conducted. These annual audiograms will be compared to the employee's initial audiogram and if a deviation from the standard threshold occurs the employee will be

notified within 21 days in writing. If a deviation from the standard threshold occurs the employee will have their hearing protection inspected and refitted as necessary and medical examinations will be provided.

Noise protection area's will be established and measured using NIOSH Method 2, any attenuation measurements will be made with the same method.

## **Noncompliance**

Any KWT and RSC employee that does not comply with this safety program are disciplined according to the Disciplinary Policy.

## **References**

29 CFR 1910.95

29 CFR 1910.95 Appendix B

## ***KWT and RSC PPE Policy***

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KWT and RSC employees consult with customers about water systems. They sample and analyze water samples. They help customers apply water treatment chemicals. As part of our work activities we work in some process areas of our customers' plants and often at or near their utilities' operations. Because of the nature of our work we will not normally be working in areas where basic PPE is required and on occasion additional PPE is required. PPE is addressed in our job safety analyses and in our tailgate safety meetings.

Our minimum PPE requirements are as follows:

Steel toed safety shoes are required for our visits at customer facilities

Safety glasses are required PPE for our on-site visits at customer facilities. This may include prescription safety glasses with shields, Non-prescription safety glasses or safety goggles.

Hearing protection as required in our customer plants or when the noise level is at or above 85 decibels.

Fluorescent safety vests as required by our customers or when necessary when working in areas when our presence needs to be established and recognized for safety.

Fire Retardant Safety clothing as required by our customers or when necessary for additional fire safety.

### Training

All employees who need to wear PPE will be properly trained in its use.

Retraining will be done when conditions change at our work requiring changes to the PPE or when employees demonstrate lack of knowledge or understanding of the use of the PPE or fail to use the PPE properly.

This training or retraining will be documented and will occur at least annually.

The PPE will be provided (except otherwise stated) by KWT and RSC and be properly maintained and kept clean and ready for future use.

If the PPE is owned by our employees (i.e. safety shoes or prescription safety glasses) its maintenance is required in proper working condition is the responsibility of the employee.

KWT and RSC will provide any additional required PPE to our employees at no cost to the employees.

The Job Safety Analyses addresses when and what PPE is required as each task is analyzed. This form is reviewed and signed by all affected employees and the site KWT or RSC manager who have developed the JSA.

The PPE shall be fit properly to the individual employees.

All defective PPE shall be disposed of immediately.

## *KWT and RSC Process Safety Management*

KWT and RSC employees consult with customers about water systems. They sample and analyze water samples. They help customers apply water treatment chemicals. As part of our work activities we work in some process areas of our customers' plants and often at or near their utilities' operations. Because of the nature of our work we are near many process hazards.

### Training and use of Job Safety Analyses and Tailgate Safety Meetings

All of our employees will receive training regarding our work and specifically the hazards which they will encounter at our customer plants. These hazards may include chemical exposure hazards, mechanical hazards, electrical hazards, steam hazards, fire hazards, toxic release hazards or other process related hazards. The chemical exposure hazards could be from the products we sell, the reagents we use for testing, or the chemicals used or produced by our customers. Specifics of this training will include but not be limited to:

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1. This training will be documented through the training requirements found throughout this KWT and RSC Safety Policy and Procedures Manual (SPPM). Examples of the training include training for Confined Space, Lockout/Tagout, Hazcom, Hazwoper, Fall Protection, Ladder Safety, First Aid, Hearing Protection, Eye Protection and other process related training. The training documentation will be updated quarterly and reviewed annually. Eric Fraser is responsible for maintaining this training documentation.
2. Additional training will be provided so that each employee will be required to understand and be able to complete with their coworkers and customers Job Safety Analyses regarding their work assignments. The JSA process also provides an opportunity to confirm and document understanding of the relevant safety policies and procedures as they relate to specific work tasks. Process Safety Management concerns are an important part of JSA. Specifically the JSA will address how to prevent or mitigate the potential of toxic or reactive chemical releases and explosion or fire hazards.
3. Additional documented training will occur during tailgate safety meetings to assure that KWT and RSC employees and related customer or other contractors' employees are aware of the Process Safety Management concerns of the daily work activities. Process Safety Management Procedures

Additional PSM procedures include but are not limited to include:

1. Confined Space Entry (Permitted and Non Permitted Spaces) (See Confined Space Entry Policy as part of the SPPM)
2. Lockout/Tagout ( See Lockout/Tagout Policy as part of the SPPM)
3. Awareness of contents and hazards of process lines. Safe opening of process lines, vessels or containers.
4. Our employees will be responsible to notify our customers of any unique hazards that may be caused by our activities or encountered as part of our work activities.
5. We will control access to our work area when conducting any potentially hazardous activities.
6. KWT and RSC will not be involved in "hot work" activities requiring a hot work permit. We will be aware of the hot work activities of those near our work areas.
7. KWT and RSC Employees will immediately report all accidents, injuries and near misses. An incident investigation must be initiated within 48 hours. Resolutions and corrective actions will be documented and maintained for 5 years.
8. All customers' trade secrets or proprietary process or business information will be maintained confidential by KWT and RSC employees.

Reference: CFR 1910.119

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## KWT and RSC Respiratory Protection Policy

KWT and RSC employees consult with customers about water systems. They sample and analyze water samples. They help customers apply water treatment chemicals. As part of our work activities we work in some process areas of our customers' plants and often at or near their utilities' operations. Because of the nature of our work we will not normally be working in areas where respiratory protection is necessary. If other areas where we may work require respirators we will either implement engineering controls to eliminate the hazard or will leave the area until the area is deemed safe to work without respiratory protection.

In some cases where we may be handling powdered chemicals our employees may use dust masks. Our employees will not be allowed to work in IDLH conditions.

Eric Fraser is designated as the respiratory protection program administrator for our company. Training Regardless of the fact that we will not be working in areas that require respirators we will receive training regarding respiratory protection for the following reasons:

1. We will know what environments that we cannot safely work and exit the area.
2. We will know when and how we need to implement engineering controls to safely work in a particular environment
3. We will know how to monitor an area to assure it is safe to work.
4. We will be aware when toxic chemical releases may have occurred so that we can safely and quickly leave the area.

The Respiratory Protection Training will be provided initially to all employees and thereafter annually to all of our employees and will be documented. This training will be a part of the Hazwoper 8 hr. refresher training that we receive annually. Respiratory protection considerations will be part of the Job Safety Analyses and Tailgate Safety Meetings that we conduct as part of our work activities.

Reference: CFR 1910.134

## *KWT and RSC Electric Safety Policy*

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### **Electric Safety**

KWT and RSC employee's main safety concern is water we are working with coming in contact with an energized source. To keep all employees safe electric safety training is given to all employees as pertaining to their job duties. This training will include work practices to prevent shock such as proper nonconductive footwear and other apparel (unless covered or otherwise insulated), GFCI use, and nonconductive side rails on portable ladders.

KWT and RSC employees are to treat any equipment that is not locked out/tagged out as if it were energized even if they have been deenergized. For more information about

KWT and RSC lockout/tagout procedures and policy see the lockout/tagout portion of our safety policies. KWT and RSC employees are only authorized to work on energized parts if they are qualified and have proper documentation. Work near energized parts is to be limited and monitored to ensure safety of employees.

## **Electric Tools**

All KWT and RSC tools and extension cords are inspected prior to use, after repair, and every three months to ensure that no cord damage, bent prongs, damage to attachment cap, or any other defects. If a tool or cord is found to not be safe for use it is immediately tagged and put aside for repair and may not be used. Records of all repairs are kept on our home mainframe and can be accessed on our mobile computing devices.

## **Overhead Power Lines**

KWT and RSC employees are not expected to be working near overhead power lines. If employees need to be near overhead power lines the following safety precautions are to be used:

- Power lines are to be deenergized and grounded if at all possible.
- Maintain 10 feet away from power lines at all times
- All employees are NOT qualified to work nearer than 10 feet to a power line. If employees do become qualified they will adhere to Table S5 for their distance regulations.
- Any vehicle shall be operated in such a way that 10 feet of clearance is maintained from overhead power lines.

## **Confined Space**

KWT and RSC employees follow the confined space entry plan contained in our safety policy. In addition employees are not to enter confined space that has a potential for energized equipment unless proper illumination is available to ensure safety of employees. When working in confined space proper barriers and insulation must be used to reduce the chance of electric shock.

## **Noncompliance**

Any KWT and RSC employee that does not comply with this safety program are disciplined according to the Disciplinary Policy.

## **References**

29 CFR 1910.333

## *KWT and RSC Hand and Power Tool Policy*

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### **Tool Maintenance**

All hand and power tools used by KWT and RSC employees are to be maintained in a safe condition. The inspection of tools before use, and every month when not in use, will ensure that the tools are in safe working condition. These inspections include accessories for the tools including compressed air hoses, chemical feed hoses, power cords, and any safe guards or shields the tools has.

### **Guards and PPE**

All needed guards will be installed on the tool and are not to be tampered, forced, or otherwise manipulated in ways that will render the guard ineffective at providing safety. All guards must meet ANSI B15.1 regulations.

Personal Protective Equipment for use on any hand or power tool will be provided by KWT and RSC free of charge and will provide safe use of the tool from chemical backsplash, harmful vapors, abrasion, noise, or any other hazard posed by the tool.

### **Unsafe Tools**

Any tool that has failed inspection or is otherwise noncompliant as outlined here will not be available for use until repairs or correction has been undertaken. These tools will be tagged and locked out of use until further inspection qualifies them for use.

### **Noncompliance**

Any KWT and RSC employee found to be not complying with these policies will be disciplined according to the Disciplinary Program.

### **References**

29 CFR 1926.300

29 CFR 1910.243

29 CFR 1910.242

29 CFR 1910.132