

Job Safety Analysis		Date:
Job/Operation Title:		
Project Name and Number:		
Location(s):		
Person(s) Performing This Job:		Supervisor:
		Job Start Date:
		Duration:
		Expiration Time:
Recommended Safe Job Procedures	<input type="checkbox"/> Identify all other pipeline/Utilities <input type="checkbox"/> Be aware potential exists for explosive atmosphere-use monitor, use all senses, pay attention to wind direction, scan the area, park a safe distance from all equipment, check site for hazards <input type="checkbox"/> All tools, equipment and machinery properly maintained <input type="checkbox"/> Remove hazards, minimize hazards, use safe working practices, lift properly, good solid footing, use awareness around equipment and or all devices on job site <input type="checkbox"/> Employees are trained, warning devices, inspect all safety gear daily, PPE required is last line of defense <input type="checkbox"/> Be aware of all utilities above and below ground <input type="checkbox"/> Use safety when crossing roads. Workplaces will be kept clean and safe. Each worker will be provided with all reasonable safeguards adequate for the type of work they perform. Employees will be trained in proper work procedures.	
Potential Hazards of This Job		
Physical Hazards	Consequences	
<input type="checkbox"/> Aerial work equipment (scissor lifts, boom lifts, personnel lifts)	<input type="checkbox"/> Lifting equipment (forklifts, hoists)	<input type="checkbox"/> Awkward or static position
	<input type="checkbox"/> Light (optical) radiation (i.e. welding operations)	<input type="checkbox"/> Caught in or between a stationary/moving object
	<input type="checkbox"/> Noise (Sound Pressure Level), dBA	
<input type="checkbox"/> Automobiles and light trucks	<input type="checkbox"/> Overhead utilities (electrical, gas, water, etc.)	<input type="checkbox"/> Collision between moving vehicles and/or equipment
<input type="checkbox"/> Block and tackle, chains or pulleys	<input type="checkbox"/> Pipelines – aboveground (hazardous materials)	<input type="checkbox"/> Contact overhead power lines or pipelines
<input type="checkbox"/> Cold weather	<input type="checkbox"/> Pipelines – underground (hazardous materials)	<input type="checkbox"/> Drowning
<input type="checkbox"/> Combustible materials	<input type="checkbox"/> Poor Housekeeping	<input type="checkbox"/> Electrocution or shock
<input type="checkbox"/> Compaction equipment	<input type="checkbox"/> Power tools (electric, gas, hydraulic, pneumatic)	<input type="checkbox"/> Excessive lifting, twisting, pushing, pulling, reaching, or bending
<input type="checkbox"/> Compressed gas	<input type="checkbox"/> Pressure washers	<input type="checkbox"/> Exposure (inhaling, swallowing, or absorbing) to harmful levels of gases, vapors, aerosols, liquids, fumes, or dust)
<input type="checkbox"/> Compressors (air, gas)	<input type="checkbox"/> Ramps	
<input type="checkbox"/> Confined space	<input type="checkbox"/> Remote location	
<input type="checkbox"/> Construction materials (wet cement, epoxy resins, cement dusts, alcohols, lime, toluene, metalworking fluids, turpentine, paints, xylene adhesives)	<input type="checkbox"/> Rolling or pinching objects	
	<input type="checkbox"/> Rotating equipment	
	<input type="checkbox"/> Rough terrain	
<input type="checkbox"/> Containers (drums, roll-off, super sac)	<input type="checkbox"/> Sharp objects	<input type="checkbox"/> Exposure to cold or heat
<input type="checkbox"/> Conveyors – Material (conveyor belts, bucket conveyors)	<input type="checkbox"/> Slippery surfaces (water, ice, snow)	<input type="checkbox"/> Exposure to excessive light (welding)
<input type="checkbox"/> Earthmoving equipment (dozers, graders, excavators, trenchers, rollers, compactors, backhoe, skip loader)	<input type="checkbox"/> Trenches and trench shoring	<input type="checkbox"/> Exposure to excessive noise (damage to hearing)
<input type="checkbox"/> Electrical equipment (transformers, switching gear, breakers, high voltage lines)	<input type="checkbox"/> Trucks, tractors, and semi-trailers	<input type="checkbox"/> Exposure to excessive vibrations
<input type="checkbox"/> Elevated loads	<input type="checkbox"/> Uneven surfaces (curbs, gutters, drains, etc.)	<input type="checkbox"/> Falling (< 6 feet), tripping, or slipping
<input type="checkbox"/> Excavations/trenches	<input type="checkbox"/> Utilities – aboveground (power, natural gas, water, etc.)	<input type="checkbox"/> Fatigue
<input type="checkbox"/> Flammable materials and liquids	<input type="checkbox"/> Utilities – overhead (power, natural gas, water, etc.)	<input type="checkbox"/> Frostbite
<input type="checkbox"/> Excavations/trenches	<input type="checkbox"/> Utilities – underground (power, natural gas, water, etc.)	<input type="checkbox"/> Fungal infection caused by excessive wetness
<input type="checkbox"/> Flammable materials and liquids	<input type="checkbox"/> Welding/Cutting/Burning Equipment	<input type="checkbox"/> Heat exhaustion
<input type="checkbox"/> Generators (electrical)	<input type="checkbox"/> Wires, cables, hoses	<input type="checkbox"/> Heat stroke
<input type="checkbox"/> Hand tools	<input type="checkbox"/> Work around, in, and/or over water	<input type="checkbox"/> Hypothermia
<input type="checkbox"/> Heaters and boilers (steam)		<input type="checkbox"/> Overcome by (harmful levels of gases, vapors, aerosols, fumes, or dust)
<input type="checkbox"/> Heavy manual lifting/moving		<input type="checkbox"/> Overexertion
<input type="checkbox"/> Heaters and boilers (steam)		<input type="checkbox"/> Overturning equipment
<input type="checkbox"/> Heavy manual lifting/moving		<input type="checkbox"/> Penetration by sharp object
<input type="checkbox"/> High pressure water or air use		<input type="checkbox"/> Splashed by
<input type="checkbox"/> Hot or cold surfaces		<input type="checkbox"/> Struck by falling or flying object
<input type="checkbox"/> High pressure water or air use		<input type="checkbox"/> Struck by moving vehicle or equipment
<input type="checkbox"/> Hot or cold surfaces		<input type="checkbox"/> Struck by uncontrolled pressure release
<input type="checkbox"/> Hot weather		<input type="checkbox"/> Suffocation
<input type="checkbox"/> Ignitable materials and liquids		<input type="checkbox"/> Thermal Burns
<input type="checkbox"/> Inadequate lighting		
<input type="checkbox"/> Inclement weather – lightning, high wind, snow, rain, sleet		
<input type="checkbox"/> Ladders (portable, fixed)		

Chemical Hazard	Description/Health Hazards
2-Methoxy-2-Methyl Propane (1634-04-4)	A colorless liquid with a distinctive anesthetic-like odor. Vapors are heavier than air and narcotic. Boiling point 131°F. Flash point 18°F. Less dense than water and miscible in water. Used as an octane booster in gasoline. (REACTIVITY, 2003) <b>Inhalation:</b> May cause dizziness or suffocation. Contact may irritate or burn eyes or skin. May be harmful if swallowed. (USCG, 1999)
Lime (1305-78-8)	An odorless, white or gray-white solid in the form of hard lumps. A strong irritant to skin, eyes and mucous membranes. Used in insecticides and fertilizers (REACTIVITY, 2003) Causes burns on mucous membrane and skin. Inhalation of dust causes sneezing. (USCG, 1999)
Fuel Oil (Diesel) (68334-30-5)	A straw yellow to dark colored liquid with a petroleum-like odor. Flash point below 141°F. Less dense than water and insoluble in water. Hence floats on water. Vapors heavier than air. Saturated aliphatic hydrocarbons, which are contained in FUEL OIL, [Diesel], may be incompatible with strong oxidizing agents like nitric acid. Charring of the hydrocarbon may occur followed by ignition of unreacted hydrocarbon and other nearby combustibles. In other settings, aliphatic saturated hydrocarbons are mostly unreactive. They are not affected by aqueous solutions of acids, alkalis, most oxidizing agents, and most reducing agents. When heated sufficiently or when ignited in the presence of air, oxygen or strong oxidizing agents, they burn exothermically to produce carbon dioxide and water. May be ignited by strong oxidizers.
Kerosene (8008-20-6)	A clear colorless to light amber liquid with a petroleum odor. Flash point 100°F. Less dense than water and insoluble in water. Vapors are heavier than air. Saturated aliphatic hydrocarbons, contained in Kerosene, may be incompatible with strong oxidizing agents like nitric acid. Charring of the hydrocarbon may occur followed by ignition of unreacted hydrocarbon and other nearby combustibles. In other settings, aliphatic saturated hydrocarbons are mostly unreactive. They are not affected by aqueous solutions of acids, alkalis, most oxidizing agents, and most reducing agents.
Gasoline (8006-61-9)	A clear colorless to amber colored, volatile liquid with a petroleum-like odor. Flash point below 0°F. Less dense than water and insoluble in water. Hence floats on water. Vapors heavier than air. Leaked vapors may travel to a source of ignition and then flash back to the source. Gasoline may be incompatible with strong oxidizing agents such as nitric acid, peroxides, and perchlorates. Charring may occur followed by ignition of unreacted hydrocarbon and other nearby combustibles. In other settings, mostly unreactive. Not affected by aqueous solutions of acids, alkalis, most oxidizing agents, and most reducing agents. When heated sufficiently or when ignited in the presence of air, oxygen or strong oxidizing agents, burns exothermically to produce carbon dioxide and water.

#### Hazard Control Measures Used for this Job

Administrative Controls:		Required Training:
<input type="checkbox"/> Audits (site or Job)	<input type="checkbox"/> Safety meetings – on-going (e.g., daily or weekly tailgate safety)	<input type="checkbox"/> Commercial driving operations
<input type="checkbox"/> Competent Person	<input type="checkbox"/> Underground utilities (e.g., use Dig Alert, Dig-Safe)	<input type="checkbox"/> Confined space
<input type="checkbox"/> Confined space procedures	<input type="checkbox"/> Weapons policy	<input type="checkbox"/> Electrical safety
<input type="checkbox"/> Drug and alcohol policy	<input type="checkbox"/> Work Practices	<input type="checkbox"/> Emergency plans and fire prevention plans
<input type="checkbox"/> Emergency procedures		<input type="checkbox"/> Energy isolation (lock-out/tag-out)
<input type="checkbox"/> Equipment maintenance and servicing manual		<input type="checkbox"/> Excavation & trenching
<input type="checkbox"/> Federal, state, and local regulations		<input type="checkbox"/> Fire protection (extinguishers)
<input type="checkbox"/> Fire protection program		<input type="checkbox"/> First aid/CPR
<input type="checkbox"/> Fire watch		<input type="checkbox"/> General safety
<input type="checkbox"/> Housekeeping practices		<input type="checkbox"/> Hearing protection
<input type="checkbox"/> Inspections (ongoing) – work areas, equipment, tools, etc.		<input type="checkbox"/> Injury illness prevention
<input type="checkbox"/> Inspections (pre-job) – work areas, equipment, tools, etc.		<input type="checkbox"/> Machinery and machine guarding
<input type="checkbox"/> Lifting techniques (safe lifting)		<input type="checkbox"/> Materials handling and storage
<input type="checkbox"/> Material handling procedures		<input type="checkbox"/> Orientation (site or job)
<input type="checkbox"/> Monitoring (hazardous atmospheres)		<input type="checkbox"/> Personal protective equipment (PPE)
<input type="checkbox"/> Notification and communication procedures		<input type="checkbox"/> Process safety management
<input type="checkbox"/> Operating instructions (equipment)		<input type="checkbox"/> Tools
<input type="checkbox"/> Operating procedures (process)		<input type="checkbox"/> Welding, cutting, and brazing
<input type="checkbox"/> Policy or policies		
<input type="checkbox"/> Precautionary tape or barriers		
<input type="checkbox"/> Procedures and/or guidelines (general)		
<input type="checkbox"/> Procedures and/or guidelines (job or activity)		
<input type="checkbox"/> Respirator protection program		
<input type="checkbox"/> Rest breaks		
<input type="checkbox"/> Safety and health plan (site specific)		
<input type="checkbox"/> Safety and health program		
<input type="checkbox"/> Safety and occupational health manual		
<input type="checkbox"/> Safety checklists (use to document inspections)		
Engineering Controls	Required PPE:	Required Permit(s):
<input type="checkbox"/> Barriers or fencing	<input type="checkbox"/> Boots – steel toe and shank, appropriate soles	<input type="checkbox"/> Excavation and trenching
<input type="checkbox"/> Enclosures	<input type="checkbox"/> Clothing – fire resistant	<input type="checkbox"/> Fire and safe work permit
<input type="checkbox"/> Lighting improvement	<input type="checkbox"/> Clothing – long pants	<input type="checkbox"/> Ground disturbance
<input type="checkbox"/> Machinery guarding	<input type="checkbox"/> Clothing – long sleeve shirt	<input type="checkbox"/> Hot work permit
<input type="checkbox"/> Roll-over protection	<input type="checkbox"/> Gloves – work gloves	<input type="checkbox"/> Lifting operations
<input type="checkbox"/> Shoring	<input type="checkbox"/> Hard hat	
<input type="checkbox"/> Work process change	<input type="checkbox"/> Hearing protection	
<input type="checkbox"/> Work surfaces improvement	<input type="checkbox"/> Personal protective equipment	
<input type="checkbox"/> Work tools or equipment replacement	<input type="checkbox"/> Safety glasses	
	<input type="checkbox"/> Side shield	

#### Description of Work

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