

Redwood City	Roseville	Irvine	San Diego
	Confined Sp	ace Entry	
	<u>Pre-Task Meeti</u>	ing Checklist	
Date / / Project	Name	Project #	
This Pre-Task meetin	g is being conducted by	y:	
Print:	Sign:		
Title: Company:			
Location of Activity: _			
Activity Start Time	Comj	pletion Time	

PURPOSE –To identify hazards associated with the above referenced task and the methods that will be used to eliminate those hazards.

ATTENDEES:

NAME	SIGNATURE	COMPANY



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Pre-Task Checklist for Confined Space

A. PURPOSE AND SCOPE

The confined space entry procedure is designed to ensure a safe work environment when work is performed in a confined space. Personnel roles, responsibilities, hazards, communications and emergency procedures must be fully understood by all persons working in and supporting the operation.

Confined spaces are inherently dangerous to workers and rescuers. Comprehensive safety procedures must be developed, implemented, understood and followed by all personnel working in and supporting "confined space operations."

Contact the Rudolph and Sletten Inc. Safety Department prior to entering any confined space that has been determined to have a potential of being Immediately Dangerous to Life or Health (IDLH)

Immediately Dangerous to Life or Health (IDLH) is any condition that poses an immediate or delayed threat to life, causes irreversible adverse health effects, or interferes with an individual's ability to escape unaided from a permit space

The Rudolph and Sletten Confined Space Pre-Task Checklist must be completed and a Confined Space Permit issued prior to entering any confined space.

B. Confined Space Location;

OSHA defines a confined space as a space that:

- 1. Is large enough and so configured that an employee can bodily enter and perform assigned work; and
- 2. Has limited or restricted means for entry or exit (for example, tanks, vessels, silos, storage bins, hoppers, vaults, and pits are spaces that may have limited means of entry.); and
- 3. Is not designed for continuous employee occupancy.

A permit-required confined space (permit space) means a confined space that has one or more of the following characteristics:

- 1. Contains or has a potential to contain a hazardous atmosphere;
- 2. Contains a material that has the potential for engulfing an entrant;
- 3. Has an internal configuration such that an entrant could be trapped or asphyxiated by inwardly converging walls or by a floor which slopes downward and tapers to a smaller cross-section; or



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4. Contains any other recognized serious safety or health hazard.

C. Hazard Assessment

All confined space areas must be assessed by a knowledgeable Supervisor who must determine if a "danger to workers exists. The assessment must include the nature of the chemical/hazard history of the space, and the operations to take place in the confined space.

No entry will be allowed by a craftsman unless there has been a complete assessment of the space. If a potential hazard exists, the space is then considered a "permitted confined space and additional precautions must be issued utilizing Rudolph and Sletten's "Confined Space Entry Permit."

Name of knowledgeable supervisor responsible for the complete assessment of the space.

Print Name:	
Sign:	
5	
Title:	
Company:	

D. CONFINED SPACE ENTRY PERMIT

A "confined space entry permit" will only be issued by the Rudolph and Sletten, Inc. Superintendent or a Safety Coordinator after the work area has been properly tested, evaluated, workers trained in the necessary safety precautions, and personnel have been assigned and understand their roles and responsibilities in supporting "safe confined space" procedures.

The Foreman (subcontractor supervisor) must check the permit and assure full compliance with all of the applicable requirements. Upon completion of the work, the permit must be marked complete and returned to the Rudolph and Sletten, Inc. Superintendent.

It will be the crafts supervisor's responsibility to include any required safety precautions in his daily instructions (training) to all personnel involved in the work, BEFORE the work begins, and to assure compliance with the terms of the permit.

Work permits will be issued prior to entry of any permitted confined space. The duration of the work permit will be determined solely by the Rudolph and Sletten, Inc. Superintendent and/or the Rudolph and Sletten Safety Department. The onsite jobsite Safety Coordinator will insure that all personnel will comply with the terms and conditions of the permit. All non-complying activities will be stopped immediately and will not commence until corrective actions have been taken.



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E. TRAINING

All employees required to enter into confined or enclosed space shall be TRAINED so they will understand:

- 1. The nature of the potential hazards involved. (Review of MSDS, history of the space, and surrounding hazards.)
- 2. The necessary precautions to be taken. (Equipment, test gear, lockout, tagout, communications, blanking and the disconnecting of piping, electrical and mechanical systems, ventilation systems)
- 3. The required use of protective equipment and their location.
- 4. Emergency Response Procedures.

F. RESPONSIBILITIES

1. ENTRY SUPERVISOR

The Rudolph and Sletten Superintendent shall ensure that each entry supervisor:

- a. Knows the hazards that may be faced during entry, including information on the mode, signs or symptoms, and consequences of the exposure.
- b. Verifies, 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.
- c. Terminates the entry and cancels the permit when;
- d. The entry operations covered by the entry permit have been completed; or
 - 1) A condition that is not allowed under the entry permit arises in or near the permit space.
- e. Verifies that rescue services are available and that the means for summoning additional services are operable.
- f. Removes unauthorized individuals who enter or who attempt to enter the permit space during entry operations.
- g. Determines, whenever responsibility for a permit space entry operation is transferred and at intervals dictated by the hazards and operations performed within the space, which entry operations remain consistent with terms of the entry permit and that acceptable entry conditions are maintained.

2. DUTIES OF ATTENDANTS

The Rudolph and Sletten Superintendent shall ensure that each attendant:

- 1. Knows the hazards that may be faced during entry, including information on the mode, signs or symptoms, and consequences of any potential exposure.
- 2. Is aware of possible behavioral effects of hazard exposure in authorized entrants.
- 3. Continuously maintains an accurate log with a count of authorized entrants in the permit space and ensures that the means used to identify authorized entrants accurately identifies who is in the confined space.
- 4. Log the authorized entrants time in and out of the confined space.
- 5. Log actual readings of air sampling.



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- 6. Log air sampling times.
- 7. Remains outside the permit space during entry operations until relieved by another Authorized Attendant.
- 8. Communicates with authorized entrants as necessary to monitor entrant status and to alert entrants of the need to evacuate the space.
- 9. Monitors activities inside and outside the space to determine if it is safe for entrants to remain in the space and will order the authorized entrants to evacuate the permit space immediately under any of the following conditions;
 - If the attendant detects a prohibited condition;
 - If the attendant detects the behavioral effects of a hazards exposure in an authorized entrant;
 - If the attendant detects a situation outside the space that could endanger the authorized entrants;
 - If the attendant cannot effectively and safely perform all the duties required.
- 10. Understands and initiates job-site rescue procedures and, if necessary, summon additional rescue and other emergency services as soon as the attendant determines that authorized entrants may need assistance to escape from permit space hazards.
- 11. Takes the following actions when unauthorized persons approach or enter a permit space while entry is underway:
 - Warn the unauthorized persons that they must stay away from the permit space;
 - Advise the unauthorized persons that they must exit immediately if they have entered the permit space; and
 - Inform the authorized entrants and the entry supervisor if unauthorized persons have entered the permit space.
- 12. Performs non-entry rescues or other rescue services as part of the employer's onsite rescue procedure.
- 13. Performs no duties that might interfere with the attendant's primary duty to monitor and protect the authorized entrants.

3. DUTIES OF AUTHORIZED ENTRANTS

The Rudolph and Sletten Superintendent shall ensure that all authorized entrants:

- 1. Know the hazards that may be faced during entry, including information on the mode, signs or symptoms, and consequences of the exposure;
- 2. Properly use equipment as required:
 - Testing and monitoring equipment.
 - Ventilating equipment needed to obtain acceptable entry conditions.
 - Communications equipment.
 - Personal protective equipment.



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- Lighting equipment needed to enable employees to see well enough to work safely and to exit the space quickly in an emergency.
- Equipment, such as ladders, needed for safe ingress and egress by authorized entrants.
- 3. 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 when needed.
- 4. Alert the attendant whenever:
 - The entrant recognizes any warning sign or symptom of exposure to a dangerous situation, or
 - The entrant detects a prohibited condition.
- 5. Exit from 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, or
 - An evacuation alarm is activated.

G. TESTING

<u>BEFORE ENTRY</u> into any confined or enclosed space suspected of having a hazardous atmosphere, appropriate test of the atmosphere must be conducted. Flammable limits must be below 10% of the lower explosive limit (LEL). Toxic limits must not be exceeded, and the oxygen concentration shall not be below 19.5% or above 22.5% of the total air mixture. The space must be made safe prior to entry.

In addition, a carbon monoxide test will be conducted whenever hot work is anticipated or gas, diesel, or propane engines are being used in close proximity to the confined area.

During inert gas welding in confined spaces, portable or fixed oxygen analyzers with visual and/or audible alarms shall be provided in areas where an oxygen deficient atmosphere may occur.

All monitoring and air sampling equipment will be checked and calibrated prior to any entry or at least two times daily for continuous operation.

Any confined space suspected of having an oxygen enriched or deficient, toxic or flammable atmosphere shall be:

- 1. Evacuated immediately.
- 2. Promptly reported to the Rudolph and Sletten, Inc. Superintendent/Safety Coordinator.
- 3. Posted with appropriate WARNING SIGNS (i.e., KEEP OUT, FLAMMABLE, TOXIC, ETC.)
- 4. Ventilated/Exhausted.
- 5. Decontaminated if possible.
- 6. Rechecked by approved methods prior to entry.



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H. PERSONAL PROTECIVE EQUIPMENT

Suitable and necessary work/rescue equipment, including lifelines, harnesses, hoists, etc., shall be used as necessary. This equipment shall be selected with the potential hazards or possible contingencies anticipated during the work operations. People going into a "permitted confined space7' must be equipped with a safety harness/extraction belt which is attached to a safety line to the outside.

Appropriate clothing, eye, face and ear protection shall be worn by all employees. Respirator protection: Where air testing has determined that flammable or toxic limits have been exceeded or an oxygen deficiency exists, and accepted engineering control measures such as general and local ventilation are not feasible, respiratory protection (air filtration or air line respirators, etc.) shall be worn. Respiratory protection shall be suitable for the identified air contaminates. If a potential "IDLH" (immediately dangerous to life and health) condition exists, only airline respirators equipped with a 5 minute escape cylinder will be used. Respirators will be utilized by only trained and fit tested personnel in accordance with Rudolph and Sletten, Inc. respirator program. Subcontractors must provide a copy of their respirator program will serve as guideline for comparing adequacy of subcontractor's program.

I. VENTILATION

Mechanical ventilation is the preferred method in reducing concentrations of flammable and toxic contaminates.

- Ventilation exhaust systems must be designed, constructed, maintained and operated so as to ensure the required protection. These systems must maintain a volume and velocity of exhaust air sufficient to gather dust, fumes, vapors or gases from the confined or enclosed space and to convey them to suitable points of safe disposal or filtration. The system should prevent the dispersion of harmful concentrations into work areas where nearby employees may be working.
- 2. Air sampling for flammable, toxic materials and oxygen content must be done BEFORE, and during operation where employees are assigned to work in confined or enclosed spaces to ensure that a safe environment is maintained.
- 3. The Rudolph and Sletten, Inc. Superintendent is responsible for conducting the appropriate tests.
- 4. All heat producing and/or oxygen consuming equipment must not be allowed in the confined space until a thorough safety review of the process and equipment is made. The review will be conducted by the Rudolph and Sletten, Inc. Superintendent and/or his Jobsite Safety Coordinator or designee.

J. ELECTRICAL LIGHTING

- 1. Lighting will be provided in areas where sufficient natural light does not meet requirements.
- 2. For any work areas that may contain flammable air concentrations, explosion proof fixtures and equipment designed for explosive atmospheres will be used.



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- 3. Emergency lighting shall be provided at all points of access and egress. When this is not practical, explosion proof flashlights shall be provided to persons required to enter confined or enclosed spaces which are subject to blackout.
- 4. All electrical equipment will be on ground fault interrupters, including generator supplied power.

K. COMMUNICATIONS

Communications outlined by the "Confined Space Entry Permit" shall be MAINTAINED with all personnel in the enclosed or confined space by personnel outside those areas. This shall be accomplished by utilizing one or more of the following:

- 1. Visual contact
- 2. Voice
- 3. Two-way radio

Communications must be maintained between personnel working in the permitted space, monitoring/support personnel and personnel capable of summoning emergency response personnel.

L. FIRE PROTECTION

The following conditions shall be maintained in confined spaces at all times:

- 1. Emergency access and egress.
- 2. Flammable liquids will be allowed in the confined space only in quantities sufficient to perform the daily tasks. All flammables will be reduced to the smallest quantities possible to support daily tasks.
- 3. BC or better rated fire extinguishers shall be immediately available.
- 4. Compressed gas cylinders, except SCBA's, are forbidden to be within the confined space without R&S Safety Department approval.
- 5. All rags, brushes, gloves, etc., shall be stored in metal containers with lids.
- 6. All flammable gas equipment, hoses, torches, etc., shall be free of defects and inspected by the crew foreman and user prior to such operations.
- 7. A trained fire watch shall be present at all times during welding, burning or heating operations to monitor for fires, and will ensure that for a thirty minute period after "hot" work has stopped.

M. LOCKOUT AND TAGOUT PROCEDURES

All lines, pipes, ductwork, where flammable and or toxic materials are carried shall be positively double blinded, locked out and tagged. All mechanical systems such as mixers, conveyors, or fans will be locked out to prevent their movement. Any stored energy should be released from these devices.

All electrical equipment, motors, fans, etc., not necessarily for supporting confined space operation will be locked out and tagged.



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Before any lockout tags are removed and systems reactivated, communication to the R&S Superintendent or his designee will be made to assure all personnel are out of the space and the equipment is safe to restart.

N. EMERGENCY PROCEDURES

Important - the monitor/outside person will not go into the confined space, unless:

- 1. Properly equipped with all required personal protective equipment and trained in its use.
- 2. Has let others know that an emergency exists and has confirmed that outside rescue services have been notified.
- 3. A 3rd person is available and is acting as the confined space monitor/assistant for the rescuer.
- 4. Can enter the confined space to affect the rescue without endangerment.

<u>NOTE</u>: There must be a CPR/First Aid trained responder immediately available while conducting confined space work.

CHECKLIST:

DEFINITION

A confined or enclosed space is any space having limited means of access and egress, such as a tank manhole, vault, or other restricted opening. Confined or enclosed spaces include, but are not limited to storage tanks, vessels, bins, boilers, ducts, sewers, underground utility vaults, tunnels, pipelines, and open top spaces more than 4' in depth, such as pits, trench or excavation, tubs, vaults caissons and vessels or any other space which is subject to the accumulation of toxic or flammable contaminates or has the potential for oxygen deficient or enriched atmosphere. Also, space not intended for continued human occupancy.

List known confined spaces to be worked:

PROCEDURE

No entry or work will be allowed by a craftsman unless a valid R&S Confined Space Permit has been issued and is current and conspicuously displayed in the work area. The permit must be properly completed with all appropriate boxes and blanks filled in.

List Persons:

PERMIT



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A "permit" will only be issued by the Rudolph and Sletten, Inc. Superintendent or a Safety Coordinator after the work area has been properly tested. See R&S Confined Space Entry Permit.

The Foreman (subcontractor supervisor) must check the permit to ensure full compliance with all of the applicable requirements. Upon completion of the work, the permit must be marked complete and returned to the Rudolph and Sletten, Inc. Superintendent.

It will be the crafts supervisor's responsibility to include any required safety precautions in his daily instructions (training) to all personnel involved in the work, BEFORE the work begins, and to ensure compliance with the terms of the permit.

Permits will be issued prior to entry of any confined space. The length of the work permit duration will be determined solely by the Rudolph and Sletten, Inc. Superintendent or Main Office Safety Personnel. The onsite Safety Coordinator will ensure compliance of all personnel with the terms and conditions of the permit.



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All non-complying activities will be stopped immediately and will not recommence until corrective actions have been made.

TRAINING

Employee required to enter into confined or enclosed spaces shall be TRAINED, and UNDERSTAND:

The nature of the potential hazards involved. (Review of MSDS) The necessary precautions to be taken. The required use of protective and emergency equipment and its location (equipment, test gear)

ENVIRONMENTAL TESTING

BEFORE ENTRY into any confined or enclosed space suspected of having flammable or toxic concentrations or oxygen enriched or deficient atmospheres, appropriate test of the atmosphere must be taken to ensure that explosive or toxic limits are not exceeded, or the oxygen concentration is not below 19.5% or above 22.5% of the total air mixture.

In addition carbon monoxide tests will be taken whenever "hot work" is anticipated or gas, propane, or diesel engines are being used in close proximity to the confined area.

During inert gas welding in confined spaces, portable and or fixed oxygen analyzers with visual and/or audible alarms shall be used.

Any confined space found to have or suspected of having an oxygen deficiency, carbon monoxide (CO) contamination, or exceeding toxic or flammable limits shall be:

- A. Evacuated immediately.
- B. Promptly reported to the Rudolph and Sletten, Inc. Superintendent/Safety Coordinator.
- C. Posted with appropriate WARNING SIGNS (i.e., KEEP OUT, FLAMMABLE, TOXIC, ETC.)
- D. Ventilated/Exhausted. (Is this equipment explosion proof?)
- E. The source of contamination isolated or removed if possible.
- F. Rechecked by approved methods prior to entry.
- G. Additional safety precautions implemented as needed.



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All monitoring and air sampling equipment will be checked and calibrated prior to any entry and at least two times daily when used for continuous operation.

VENTILATION

Mechanical ventilation is the preferred method in reducing concentrations of flammable and toxic contaminates.

1. Ventilation exhaust systems must be designed, constructed, and operated so as to ensure the required protection by maintaining a volume and velocity of exhaust air sufficient to gather dust, fumes, vapors or gases from the confined or enclosed space to convey them to suitable points of safe disposal, thereby preventing their dispersion in harmful concentrations into atmospheres where nearby employees may be working during

ventilation operations. Exhausted contaminants should be discharged away from employees/workers to an open area (outside building, if possible).

2. Periodic air sampling for flammable, toxic, and oxygen deficient atmospheres should be done BEFORE, and during employee work assignments in confined or enclosed spaces to ensure that toxic limits are not exceeded..

3. The Rudolph and Sletten, Inc. Superintendent is responsible for making appropriate tests.

4. The use of any heat producing and/or oxygen consuming equipment must be reviewed and approved by the Rudolph and Sletten, Inc. Superintendent or his jobsite Safety Coordinator.

PERSONAL PROTECTIVE EQUIPMENT

Suitable and necessary work/rescue equipment, including lifelines, harnesses, or hoists, etc., shall be immediately available at all times. This equipment shall be selected with the potential hazards or possible contingencies anticipated during the work operation.

Appropriate clothing, eye, face and ear protection shall be work by all employees.



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Respiratory protection: Where air sampling has determined that toxic limits have been exceeded or an oxygen deficiency exists, and accepted engineering control measures such as general and local ventilation are not feasible, respiratory protection (cartridge masks, air line respirators, etc.) shall be worn, which are applicable and suitable for the identified air contaminates, and as stipulated in the work permit. Respirators will be utilized only by trained personnel in accordance with the Rudolph and Sletten, Inc. Respiratory Protection Program. Subcontractors must provide a copy of their respirator training program and personal fit test record prior to use. Rudolph and Sletten, Inc. respirator program will serve as a guideline for comparing adequacy of subcontractor's program.

ELECTRICAL LIGHTING

1. Lighting will be provided in areas where sufficient natural light does not meet requirements.

2. In work areas where flammable air concentrations may exceed explosive limits, only explosion proof fixtures, or equipment otherwise designed for explosive atmospheres, shall be used.

3. Emergency lighting shall be provided at all points of access and egress. When this is not practical, explosion proof flashlights shall be provided to persons required to enter confined or enclosed spaces which are subject to blackout.

4. All electrical equipment will be on "ground fault" interrupters including generator supplied power.

COMMUNICATIONS

Communications as stipulated by the Permit shall be MAINTAINED between all personnel in the enclosed or confined space and personnel outside those areas. This shall be accomplished by utilizing one or more of the following:

- 1. Visual contact
- 2. Voice
- 3. Two-way radio
- 4. Motion detector/proximity alarm (PAL alarm)



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FIRE PROTECTION

The following conditions shall be maintained in confined spaces at all times.

1. Emergency access and egress.

2. All flammable liquids will be reduced to the smallest quantities possible.

3. 20BC or better rated fire extinguishers shall be immediately available.

4. Compressed gas cylinders except SCBA's are forbidden to be within the confined space without Main Office Safety approval.

5. All rags, brushes, gloves, etc., shall be stored in metal containers with lids.

6. Trained personnel assigned to fire watch shall be present at all times during welding, burning and heating operations and ensure that no fire conditions exist for a thirty minute period after work has ceased.

7. All flammable gas equipment, hoses, torches, etc., shall be free of defects and inspected by the crew foreman prior to use during such operations.

LOCK-OUT AND TAG-OUT PROCEDURES

All lines, pipes or ductwork where flammable and or toxic materials are carried shall be positively double blinded, locked out and tagged.

All electrical equipment, motors, fans, etc., not necessary for supporting confined space operation will be locked out and tagged.

All equipment which can move, fall, or crush must be blocked and secured from moving.



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OTHER ITEMS DISCUSSED

A CPR/First Aid certified person will be onsite and readily available during confined space operations. List: _____

Refer to the Rudolph and Sletten Confined Space Program

This checklist with added notes serves as the meeting minutes for this pre-task meeting. Notify the Rudolph and Sletten Supervisor listed below immediately if any corrections are required.

Respectfully Submitted

RUDOLPH AND SLETTEN, INC.

R&S Supervisor

Distribution:



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CONFINED SPACE ENTRY PERMIT (valid for one shift only)

ite: Time:			
Location:			
Crew Size:	Contractor Names: List Names: Responsibilities & Location		
Work Activity/Description:			
1. Review MSDS prior to entry	Yes List		
IDLH potential:	Yes		
2. List personnel protective equipment rec	quired		
Respirator	Safety Belt with Lifeline Motion Alarm		
Hardhat	Protective Clothing		
Mechanical Ventilation	List		
3. Communications to the outside			
Radio	Visual Other		
Outside person/monitor	Yes Name		
4. TESTING (list actual readings)	Emergency #		
	No.		
Equipment calibrated No	Yes		
	onnel will work in an oxygen atmosphere that isn't between		
19.5 and 22.5%.			
Carbon Monoxide	H²SLEL		
List other substances			



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6.	FIRST AID First Aid/CPR train Name:	ed person with valid card readil	y available	Yes		
7.	OTHER		_			
	A. Access/egress p	oints clear and passable		Yes		
	B. Fire extinguisher	s readily available		Yes		
	C. All electrical circu	uits and lighting GFI protected		Yes		
	D. Explosion proof	electrical required & inspected p	rior to use	Yes		
	E. All equipment, va	alves, pipes locked out, tagged,	disconnected,	& made safe		Yes
	F. Warning signs po	osted		Yes		
8.	All safety procedure	s understood & being followed		Yes		
		OREMAN SIGNATURE EN, INC. SUPERINTENDENT'S	S SIGNATURE	<u> </u>		_