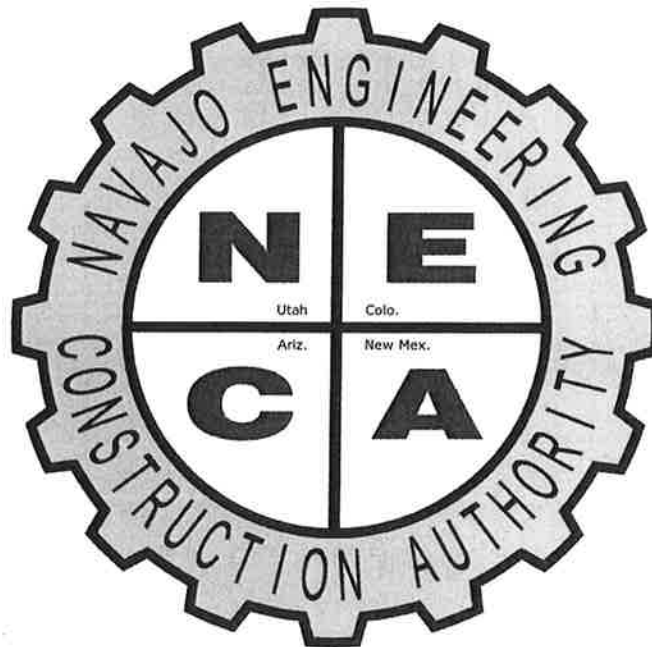


# NAVAJO ENGINEERING & CONSTRUCTION AUTHORITY

AN ENTERPRISE OF THE NAVAJO NATION



## SAFETY POLICY MANUAL

REVISED July 2014

EFFECTIVE August 1, 2014



# NAVAJO ENGINEERING AND CONSTRUCTION AUTHORITY

## SAFETY POLICY

### TABLE OF CONTENTS

INTRODUCTION AND FORWARD	3
I. MANAGEMENT	3
Activities to Build Safe Attitudes	4
II. ASSIGNMENT OF AUTHORITY	4
Safety Manager	4
Field Safety Officers	4
General Manager and Operations Manager	4
General Superintendents and Field Superintendents	5
Foremen	5
Subcontractors	6
III. MAINTIANING SAFE WORKING CONDITIONS	6
Safety Planning	6
Job Observation	7
Field Safety Officers	7
IV. ESTABLISHMENT OF SAFETY TRAINING	7
Field Superintendent and Foremen	7
Employees	7
Accident and Injury Reporting	8
V. SAFETY POLICIES	8
Hazardous Energy Control (Lockout/Tagout)	9
Hearing Protection	10
Equipment	11
Job Site Safety	11
Air Compressors	11
Crane Safety	12
Crane Signals	14
Crane Inspection Form	15
Motor Vehicles	16

## **SAFETY POLICY**

### **TABLE OF CONTENTS (Continued)**

Transport Trucks – 2 Ton and above, including trailers	16
Hand-Held Cell Phones While Driving or Operating Any	
Company Vehicle and Equipment Policy	17
Excavation and Trenching	17
Blasting and the Use of Explosives	21
Housekeeping	24
Personal Protective Equipment	25
Scaffolding	26
Underground Utilities	27
Fall Protection	28
Work Zone Traffic Control	29
Safety Meeting Topics	38
Mechanical Shop Safety	38
Battery Storage	39
Extension Cords	39
Stairways	40
Tools	40
Welding	42
Fuel Storage Facilities	44
Spill Incident Summary Form	46
Monthly Visual Inspection Form	47

### **APPENDIXES:**

Appendix A – Safety Meeting Topics	48
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## **INTRODUCTION**

NECA's *Safety Policy Manual* is intended to provide information on safe work practices. The information provided can help prevent injuries and property loss. This safety policy alone will not prevent injuries or property loss, nor does it cover all of the scenarios that may result in an injury or property loss that may result in an injury and accident. It simply emphasizes certain instances and practices as a minimum to be followed as an employee of NECA.

Safety and the well-being of all employees are first and foremost at Navajo Engineering and Construction Authority (NECA). NECA has **ZERO TOLERANCE** for unsafe acts or actions that place individuals and equipment in harm's way. Anyone who knowingly places people and or equipment in harm's way will be terminated immediately.

Being employed at NECA you accept the responsibility to strive towards an accident free environment. It is your responsibility to protect yourself and fellow employees from common workplace hazards.

No employee is required to perform work that is unsafe or dangerous to life and health. Each employee's ability in detecting hazards, reporting unsafe conditions and controlling workplace hazard is a condition of employment. It is each employee's responsibility to immediately inform his/her supervisor about situations that need to be corrected. There shall be no retaliation to employees for reporting a safety violation.

The Safety Policy Manual shall be reviewed continuously and may change as safety regulations change. All suggestions will be considered and reviewed and all revisions shall be approved by management and disseminated to all NECA employees.

## **FORWARD**

Being an enterprise of the Navajo Nation, NECA shall comply with all regulations set forth by the Navajo Occupational Safety and Health Act of 2000 and **enforced by the Navajo Nation Occupational Safety and Health Administration (NNOSHA)**, including policies governing the safety and health of our employees and the safe operation of NECA.

Whenever an employee is uncertain about how to do a job safely, it is his/her responsibility to ask a qualified person for assistance.

### **I. MANAGEMENT**

The management of Navajo Engineering and Construction Authority hereby pledges its support and interest in an accident and injury control program and continues to solicit employees' cooperation and participation in the Safety Program.

All management and supervisory personnel shall fully cooperate with the Safety Department Manager and implement his recommendations and policies set forth in this manual.

The employee shall start learning about his/her job and develop attitudes about many things – including SAFETY on the first day. Therefore, much of the effort put into NECA Safety Program will be directed toward education and influencing the employee's safety behavior.

#### Activities to Build Safe Attitudes

- A. Encourage the employees to actively participate in the Safety Program.
- B. Formally train and educate the employees in safe practices as required or necessary.
- C. Post safety notices for the employees and promote safety in the communities.
- D. Reward employees through the Safety Incentive Program.

## **II. ASSIGNMENT OF AUTHORITY**

The NECA Safety Manager shall be responsible for NECA's Safety Program.

### **Safety Manager**

The Safety Manager will be in charge of the Safety Department. He will supervise the Field Safety Officers to whom he may delegate the authority for activities.

### **Safety Officers**

The Safety Officer must be able to determine:

- A. Assist the foreman on how to remove physical hazards from work areas.
- B. Assist the foreman on how to substitute safe practices for the unsafe practice of employees.
- C. Promote safety, by attending field safety meetings.
- D. That safety practices and conditions are observed throughout the projects.
- E. Review that proper arrangement is made for treating and transporting injured personnel.
- F. Review all accident reports and assist the foremen in developing a plan to eliminate unsafe practices or conditions from recurrence by stopping all job activities to conduct post incident safety meeting as required or necessary.

**Failure to adhere to A-F of this section will result in immediate disciplinary action, up to and including termination.**

### **General Manager and Operations Manager**

The General Manager and Operations Manager shall ensure the safety program is adhered to by all NECA Employees.

### **General Superintendents and Field Superintendents**

General Superintendent and Field Superintendents shall be responsible for carrying out the following:

- A. Promote safety, by attending field safety meetings.
- B. Determine that safety practices and conditions are observed throughout the entire assigned project.
- C. See that proper arrangements are made for treating and transporting injured personnel.
- D. Review all accident reports and review disciplinary action taken by the foremen and take steps to eliminate unsafe practices or conditions from recurrence by stopping all job activities to conduct post incident safety meeting as required or necessary.
- E. Insure that all subcontract work is completed in a safe manner and require all subcontractors to comply with NECA Safety Program and all governmental regulations pertaining thereto.
- F. Enforce all contents of this manual to insure contracting agency personnel and the Office of Environmental Health participate in NECA Safety Program.

**Failure to adhere to A-F of this section will result in immediate disciplinary action, up to and including termination.**

### **Foremen**

The Foremen is responsible for safe work conditions and practices of their crews by complying with the following:

- A. Orientate all new employees of NECA by clearly explaining and reviewing the *NECA Safety Policy Manual* at the time of sign-up and document the orientation. Documentation of the orientation shall be forwarded to the Safety Department Manager.
- B. Conduct a weekly project wide Safety Meeting and document the meeting on the appropriate form. A copy of the meeting minutes shall be forwarded to the Safety Manager for review.
- C. Insures that Tailgate Safety Meetings are conducted at the beginning of each work day and/or when confronted with a new task during the work day for each affected project crew. A copy of the meeting minutes shall be forwarded to the Safety Manager for review.
- D. Completes a Job Hazard Analysis (JHA) for task requiring such documentation. A copy of the JHA shall be forwarded to the Safety Manager for review.
- E. See that all injuries are properly cared for and the proper documents are filled out for the incident; conduct an immediate investigation of the accident causing an injury, and report the same to his/her immediate supervisor and Safety Department.
- F. Plan for the transportation and setting up of temporary traffic control devices.

- G. Provide required personal protective clothing and equipment and insure employees utilize and maintain them correctly. Insures that all subcontractors on his/her worksite adhere to the Subcontractor's section of this policy.

**Failure to adhere to A-G of this section will result in immediate disciplinary action, up to and including termination.**

### **Subcontractors**

All subcontractors are informed that the construction phases of each project falls under the jurisdiction of the Navajo Occupational Safety and Health Administration. No subcontractor shall allow any employee to work in surroundings or under working conditions which are unsanitary, hazardous, or dangerous to his/her health or safety as determined under construction safety and health standards (Title 29, Labor, Code of Federal Regulations Chapter IVII, Part 1926 of the Federal Register) as adopted by the Navajo Nation.

Subcontractors are further advised that sand and gravel or other mining phases of this project falls under the jurisdiction of the Navajo Nation Mine Safety and Health Administration (NNMSHA). It is the Subcontractor's obligation to conduct his operations on the project in accordance with the applicable NNMSHA Health and Safety standards.

Subcontractor's personnel are required to wear all required personal protective equipment at all times while on any NECA premises as directed by the applicable NOSHA standard(s) or directed by the NECA Project Superintendent/Foreman.

All costs to NECA resulting from citations caused by a subcontractor's failure to comply with applicable health and safety standards shall be borne by the subcontractor.

## **III. MAINTAINING SAFE WORKING CONDITIONS**

### **Safety Planning**

Safety planning shall be a part of everyday NECA activities and shall be included in all NECA pre-construction conferences with consideration given to the following:

- A. Proper training of the assigned employees.
- B. Availability of emergency and first aid services and equipment. Telephone numbers of police, fire department, hospital, clinics, etc. must be known and displayed at all times.
- C. Sanitation facilities shall be provided.
- D. On the job safety planning shall be a daily operation.
- E. Drinking water should be made available to the crews at all times.



### **Job Observation**

A safety inspection of work practices shall require the active participation of all supervisory personnel. The inspection shall be a safety observation plan by which Superintendents and Foremen observe work as it is in progress. The observation shall include the use of tools, materials and equipment, as well as any unsafe method(s) or order of procedure in performing an act that indicates or lack of planning or failure to take into account all the circumstances surrounding the particular job. If any deficiencies are found, immediate corrections shall be made.

### **Field Safety Officers**

The Field Safety Officers shall inspect work locations on regular intervals. Inspections shall be documented on the approved inspection form. The Field Superintendent or Foreman shall be informed of any deficiencies in their area.

The Safety Officer shall re-inspect the area in question within a reasonable amount of time to determine compliance. Inspections indicating immediate danger to life or health shall be grounds for shut down of the operation.

It is the responsibility of the project superintendent or foreman to correct all deficiencies.

The Project Superintendent and Foreman shall keep a record of deficiencies to determine whether deficiencies are recurring.

**Failure to adhere to this section will result in immediate disciplinary action, up to and including termination.**

## **IV. ESTABLISHMENT OF SAFETY TRAINING**

### **Project Superintendents and Foremen**

- A. Shall devote a portion of each production meeting to safety.
- B. Shall participate in various safety training sessions required by NECA, equipment and suppliers/dealers, and insurance services.
- C. Shall be trained in first aid, CPR and AED procedures.

### **Employees**

The training of employees shall begin the first day he/she goes to work.

- A. Shall review and understand the *Field Employee's Handbook* and this safety policy with the immediate supervisor.
- B. Each employee shall receive a copy of *NECA Field Employee's Handbook* which contains work rules, policies, procedures and Safety Program at the time of sign-up.

- C. Signs and posters describing NECA Safety Program shall be posted on bulletin boards and adhered to.
- D. Shall attend Weekly Safety Meetings.
- E. Shall adhere to the foreman's instructions concerning the safe performance of his/her job.
- F. Shall receive task training for specific circumstances that require such training.
- G. Each employee shall perform a hazardous analysis of their immediate worksite and surroundings.
- H. Every employee is responsible for housekeeping duties that affect their worksite.
- I. All injuries that occur on the job must be reported to the supervisor immediately.

**Failure to adhere to A-I of this section will result in immediate disciplinary action, up to and including termination.**

#### **Accident and Injury Reporting**

Every accident that occurs will be thoroughly investigated as soon as possible to find its cause and to prevent recurrence.

- A. **ALL** accidents, property damages and injuries shall be reported by the foreman/supervisor immediately following the accident;
- B. The worker is responsible to immediately report his/her injury to his/her supervisor and the safety department.
- C. The supervisor is responsible to complete the report, including photographs, statements, and arrange for estimates for repair, etc.
- D. Upon completion of the investigation the Safety Officer shall review the accident report and work with all employees involved in devising a means to prevent recurrence.
- E. All accidents, property damages and injuries shall be reported to the NECA Safety Department.
- F. Safety Department shall maintain monthly job reports concerning injuries, accident, property damage and safety meeting minutes.
- G. Safety Department shall also maintain annual Occupational Injury and Illness Records per Occupational Safety and Health Act (OHSA) regulations.

**Failure to adhere to A-G of this section will result in immediate disciplinary action, up to and including termination.**

#### **V. SAFETY POLICIES**

No employee of NECA shall work in surroundings or under working conditions which are unsanitary, hazardous, or dangerous to his/her health or safety as determined under rules promulgated in the Navajo Occupational Safety and Health Act (NOHSA).

Safe work performance is the first and the utmost concern of NECA. Safety is every employee's responsibility. Each and every employee is expected to work in a safe manner, both for self-protection and that of co-workers. When it is determined by the immediate supervisor or the Safety Department that a worker is **deliberately** disobeying the Safety Program and where he/she continues through unsafe acts to endanger his/her own life and the lives of others, **will result in immediate disciplinary action, up to and including termination.**

### **Hazardous Energy Control (Lockout/Tagout)**

These procedures will apply to the control of energy when installing, removing, servicing, connecting into existing utility systems, or maintaining machines and equipment. These procedures will be utilized to prevent unexpected energization, start up, or release of stored energy that may cause injuries to employees. The energy source can be electrical, mechanical, hydraulic, pneumatic, chemical, or other sources. Employees will be trained to perform and abide by Lockout/Tagout controls. Authorized employees will document energy control procedures and make sure that the controls are communicated to other employees. Inspections shall be performed to ensure the effectiveness of the hazardous energy control system.

- A. The NECA lockout device shall be standardized and have one or more of the following including a tagout indicating the reason for lockout.
  - 1. **DO NOT START**
  - 2. **DO NOT OPEN**
  - 3. **DO NOT OPERATE**
  - 4. **DO NOT CLOSE**
  - 5. **DO NOT ENERGIZE***Each lockout device shall have a tagout device attached.*
- B. The Lockout/Tagout device(s) shall indicate the identity of the employee applying the device(s).
- C. Lockout/Tagout device(s) will be placed on the energy source that controls the machine or equipment. If more than one energy source exists, all sources will be isolated with the Lockout/Tagout devices.
- D. Authorized employees are required to test Lockout/Tagout devices to ensure that all energy sources are disabled and the machine or equipment cannot be operated.
- E. Lockout/Tagout devices shall not be used for any other purpose, but to control hazardous energy.
- F. Lockout/Tagout devices shall be capable of withstanding the environment to which they are exposed for the minimum period of time that exposure is expected.
- G. Lockout devices shall be substantial enough to prevent removal without the use of excessive force or unusual techniques, such as with the use of bolt cutters or other metal cutting tools.

- H. Tagout devices shall be able to withstand accidental or inadvertent removal. Attaching material should be non-reusable, self-locking, and non-releasable with a minimum unlocking strength of no less than 50 pounds.

### **Release from Lockout/Tagout**

Before removing any Lockout/Tagout devices, these procedures shall be followed:

- A. The work area shall be inspected to ensure that all nonessential items and that all employees are safely positioned or removed.
- B. All components of the machine or equipment have to be operationally intact.

Each Lockout/Tagout device shall be removed from each energy controlling device by the employee who applied the device. If the employee who applied the device is not available, this employee needs to be contacted and notified that the device is being removed. If this person is not contacted, only the supervisors or the safety representative will have the authority of removing the device(s). The authorized employee who applied the Lockout/Tagout devices shall be notified that his or her devices were removed when he or she returns to the work area. This shall include documentation of such removal.

### **Hearing Protection:**

- 1. The NECA shall make ANSI approved hearing protectors available to all employees at no cost. Employees exposed to an eight (8) hour time – weighted average of 85 decibels or greater are required to use hearing protection. Hearing protection shall be replaced as necessary.
- 2. Protection against the effects of noise exposure shall be provided when the sound levels exceed those shown in the table when measured on the A - scale of a standard sound level meter at slow response.
- 3. When employees are subjected to sound levels exceeding those listed in the table, feasible administrative or engineering controls shall be utilized. If such controls fail to reduce sound levels within the levels of the table, personal protective equipment shall be provided and used to reduce sound levels within the levels of the table.

Permissible Noise Exposure:  
Duration Per Day (hours)

Sound Level dBA slow  
response

8	90
6	92
4	95
3	97
2	100
1 – ½	102
1	105
½	110
¼ or less	115

- 4. Any machine that creates excessive noise shall be equipped with mufflers.

### **Equipment**

The following inspections shall be made before any equipment/vehicle is operated. Each assigned equipment must have.

- A. A fire extinguisher in good working condition with unbroken seal.
- B. An operating horn.
- C. Operating brakes, operating headlights lights, directional lights, and beacon if the equipment is equipped with such devices.
- D. A working back up alarm (if equipped).
- E. Seat belts.

If any of the above items are not present or not in working order the vehicle **shall not** be operated until repairs are made. The supervisor shall be notified immediately of any discrepancies.

All rubber tire heavy equipment shall be escorted by a company vehicle with flashers and beacon when traveling on any public roadway.

### **Job Site Safety**

- A. The use of cellular phones (except in an emergency situation), MP3 players, iPods or other devices that may distract an employee is prohibited on any jobsite unless it is job related. At which time the employee shall go to the nearest safe spot to complete the call.
- B. Be constantly alert.
- C. Stand in the clear where the operator can see you.
- D. Stay out from under heavy loads and away from equipment travel patterns.
- E. No passenger is allowed to be with the operator on any moving equipment.
- F. Do not measure work, oil, verify quantity or adjust equipment while it is in motion.
- G. Do not speed when driving heavy equipment.
- H. No improper parking.
- I. Ground all the moving parts when not operating.
- J. All motor vehicles must be parked out and away from the work area.
- K. Foreman, grade-checker and anyone arriving at the heavy construction site must wear the required personal protective equipment.

### **Air Compressors**

- A. Employees shall wear safety-toed shoes or metal toe guards when operating pneumatic tampers, jackhammers, or spades.
- B. Eye protection shall be worn when employees are operating pavement breakers, chippers, concrete saws, buffers or grinders.
- C. At no time during its operation shall an employee point a portable tool at anyone.
- D. Loose or bulky clothing shall not be worn when operating portable air drills, reamers, hammers, tampers, etc.
- E. Tools shall be kept in good condition with all bits correctly grounded.
- F. All cutting air tools should be returned to the shop for grinding.

- G. Employee shall verify that safety set screws are installed and maintained on all shaft collars. All shaft collars shall be kept tight while the machine is operating or when it is being carried to and from the job.
- H. The hose and all connections attached to compressed air equipment shall be checked for defects, wear, and loose connections before they are used. The nozzle on the air hose shall be under control before the air pressure is turned on. Serious injuries can result from the whipping action of a nozzle that gets out of control.
- I. All outgoing hoses from the compressor and tools/equipment shall have a whip check and safety pins in place prior to use.
- J. When an air hammer is not to be used for an extended period, the air shall be shut off at the compressor and the pressure released at the hammer.
- K. Dust respirator should be worn when operating an air compressor. If the operation requires the use of dust suppression, the Safety Officer shall determine the type of respirator required.
- L. Two (2) employees shall be present when air compressors are in use.
- M. Ear protection shall be provided for and used by those employees working around air compressors.
- N. Compressed air used for blowing or cleaning parts shall be regulated down to no more than 30 psi.

**SEE ALSO, pages 41 and 42 on Pneumatic Tools**

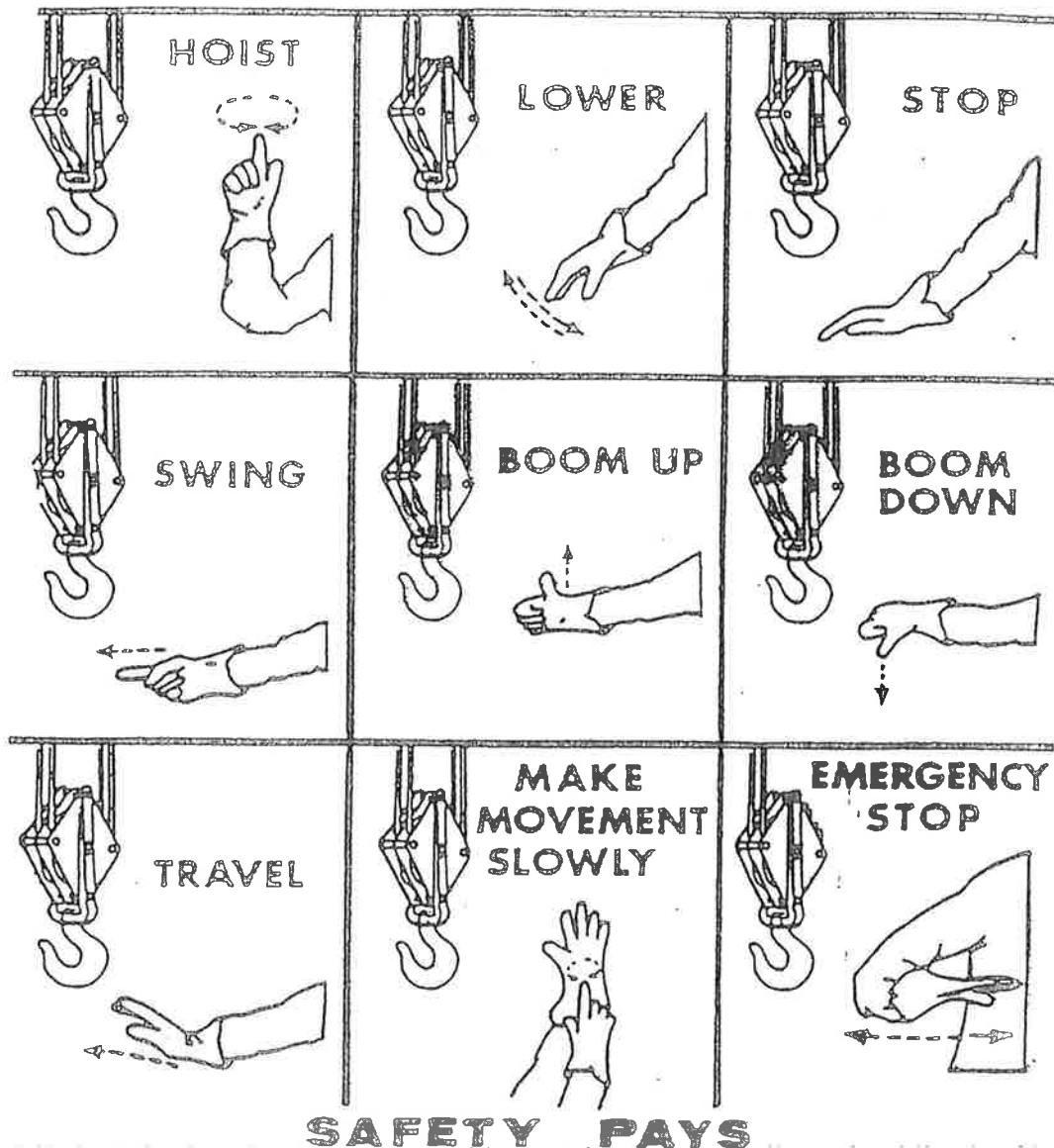
### **Crane Safety**

The following rules must be followed when working around cranes;

- A. Only authorized employees will be allowed to operate all crane or hoisting devices on any NECA premises.
- B. All crane operators must have an updated Crane Operator's certification or license in possession while operating the crane.
- C. Rated load capacities and special warning or instructions shall be conspicuously posted on all cranes. These instructions or warnings shall be visible to the operator while he is at his control stations.
- D. Each crane shall be inspected before each use and all needed repairs shall be made prior to use. The qualified operator, with his immediate supervisor, shall make the inspection before making the first pick. The Equipment Manager shall provide all necessary checklist/inspection forms.
  - 1. Check slings, hooks and shackles for condition. DESTROY all slings that are kinked and frayed. If three (3) wires are broken in one strand or six (6) wires in one rope lay then destroy it. DESTROY all hooks and shackles that are distorted or that are worn more than 20% in a critical area.
  - 2. Replace any cable that has been kinked or has visible damage.
  - 3. Replace worn or rusty hoist and boom cables. Cables should be replaced if the wear on outer wires is 25% of the diameter or if three (3) wires are broken on one strand or six (6) wires in one rope lay.
- E. Give proper consideration to positioning the crane. Decisions regarding positioning are always the certified operator's responsibility.
- F. Cranes must be located so that no part of the rig can come within 10 feet of any energized power line, or as required by law.

- G. When it is necessary to work in close proximity to power lines, consideration should be given to minimize the hazards by:
  - 1. Having lines moved or de-energized.
  - 2. Using boom insulator, insulated hooks, or other safety devices.
  - 3. Use standard crane signals given by **only one person**. The signalman must remain visible to the operator and provide signals through completion of the picking cycle
- H. Never add extra counterweight or tie down the back of the crane. This overloads component parts, and while damage may not be apparent, eventually something will fail.
- I. The operator shall never leave the cab with the load SUSPENDED and NEVER LEAVE the crane cab when the crane engine is running.
- J. The certified operator and immediate supervisor must take all of the preceding safety into consideration while preparing a Job Hazard Analysis (JHA) for each crane set up and pick. Each JHA must be reviewed by all of the employees that are involved during the pick. No crane setup or hoisting is allowed without a specific JHA and pre-pick meeting. The pre-pick meeting is to inform all personnel involved about the specific JHA.

# CRANE SIGNALS





## **SAFETY PAYS**

### **CRANE INSPECTION FORM**

	<u><b>ACCEPT</b></u>	<u><b>REJECT</b></u>	<u><b>REMARKS</b></u>
(A) Deformed, cracked or corroded members	_____	_____	_____
(B) Loose bolts or rivets	_____	_____	_____
(C) Cracked or worn sheaves and drums	_____	_____	_____
(D) Worn, cracked or distorted parts (Pins, bearings, shafts, gears, rollers, etc.)	_____	_____	_____
(E) Excessive wear on brake system parts, linings, pawls, and ratchets	_____	_____	_____
(F) Load, wind and other indicators over their full range for significant inaccuracies	_____	_____	_____
(G) Gasoline, diesel, electric or other power plants for improper performance	_____	_____	_____
(H) Excessive wear of chain drive sprockets and excessive chain stretch	_____	_____	_____
(I) Crane hooks (magnetic particle or other suitable crack detecting methods)	_____	_____	_____
(J) Electrical apparatus	_____	_____	_____

**NOTE:** Any unsafe conditions disclosed by the inspection requirements of this procedure shall be corrected before operation of the crane is resumed. Qualified personnel shall make all corrections and repairs.

\_\_\_\_\_  
**Signature:**

\_\_\_\_\_  
**Date:**

### Motor Vehicles

- A. No employee is allowed to ride in the bed of the pickup truck.
- B. The parking brake must be set whenever the vehicle is parked.
- C. No employee is permitted to ride on loads, fenders, running boards or tailgates
- D. Drivers must not move vehicles until riders comply with all safety precautions adhered to and all passengers are properly situated in the cab of the vehicle.
- E. All NECA vehicles that are smaller than a two ton truck will reverse into parking spaces. All company vehicles will honk their horn twice before moving in reverse. All company vehicles will honk their horn once before moving forward.
- F. All employees on the work site are to walk around their entire vehicle before entering,
- G. All vehicles will be parked away from the work area and hazards.
- H. All employees operating a NECA company vehicle must possess a valid driver's license and adhere to NECA's Vehicle Operator's Policy Manual.
- I. Any traffic violation causing an accident shall result in immediate termination

### Transport Trucks – 2 Ton and above, including trailers

Supervisors are responsible for going over *specific hazards on every job* with their truck drivers. All NECA drivers must conform to the safe driving precautions listed below

- A. Know the local, state and federal traffic rules and regulations. Comply fully. Any traffic violation causing an accident shall result in immediate termination.
- B. Be familiar with the operation of the truck assigned to you. Know what it can do and cannot do.
- C. Keep your vehicle mechanically sound. Report unsafe conditions and have them corrected at once.
- D. Be considerate and use common sense with respect to the protection and rights of other drivers and pedestrians.
- E. When mechanical trouble develops and you must stop on the side of the road. Put up warning devices immediately in accordance with regulations.
- F. Adapt vehicle speed to weather, road conditions, traffic and visibility. Never exceed posted speed limits.
- G. Stop at **STOP** signs and signals. Rolling stops are not permitted and will result in disciplinary action.
- H. Stay alert; Keep your eyes on the road ahead and moving from right to left, so you are aware of traffic approaching on side roads. When you are uncertain of a driver's intentions, slow down.
- I. **REPORT ALL ACCIDENTS IMMEDIATELY**. Failure to do so will result in termination. Use accident forms located in glove box.
- J. Have current CDL license and medical card in possession while operating.
- K. The parking brake must be set whenever the vehicle is parked. Vehicles parked on an incline must have the wheels chocked.
- L. See Safety Department Manager for Commercial Drivers Policy

### **Hand-Held Cell Phones While Driving or Operating any Company Vehicle and Equipment Policy**

NECA will not tolerate texting or talking on any (personal or company issued) hand-held cellular phone while operating any company issued vehicle or equipment. This includes, but is not limited to, answering or making phone calls, engaging in phone conversations, reading or responding to e-mails and text messages.

The following are recommendations to eliminate the use of cellular phones while operating any company issued vehicle or equipment:

- A. Turn cell phones off or put on silent or vibrate before starting the vehicle.
- B. Pull over to a safe place if a call must be made or received while on the road.
- C. Modify voice mail greeting to indicate that you are unavailable to answer calls or return messages while driving.
- D. Inform clients, associates and business partners of this policy as an explanation of why calls may not be returned immediately.

NECA is concerned about the safety of its employees. It is our goal that if we lead by example, the practice of no texting or talking on hand-held cell phones while behind the wheel will spread throughout the community.

**Violation of this policy will result in immediate disciplinary action, up to and including termination.**

### **Excavation and Trenching**

Navajo Engineering and Construction Authority's (NECA) written Trenching & Excavation Program is designed for all excavation employees. It is the policy of NECA to permit only trained and authorized personnel to create or work in excavations.

The Safety Department is responsible for developing and maintaining the written Trenching & Excavation Program. This program is administered under the direction of the Safety Manager or designated person(s).

#### **Before Excavating**

Before any excavating begins, the following steps shall be followed:

- A. Mark the proposed excavation site or route with white flags.
- B. Contact the state's 811 Center to request a utilities locate. Documentation of this request shall be on site at all times throughout the duration of the project site.
- C. Contact the utility companies or property owners and request companies or owners find the exact location of the underground installations in the area.

- D. If the utility companies or owners do not respond within 48 hours, or the period established by law or ordinance, or if they cannot establish the location of the utility lines, the excavation may proceed with caution.
- E. Remove, or adequately support, the following objects buildings, trees, rocks, and sidewalks in the excavation area that could create a hazard to employees.
- F. Using Appendix A to 29 CFR 1926, Subpart P, classify the type of soil and rock deposits at the site as either stable rock, Type A, Type B, or Type C soil. The soil classification is based on the results of at least one visual and at least one manual analysis conducted by a competent person. Details of the acceptable visual and manual analyses are to be found in Appendix A of 29 CFR 1926, Subpart P.
- G. NOTE: Soil classification is not necessary if the excavation will be sloped to an angle of one and one-half horizontal to one vertical.
- H. Have the competent person choose the appropriate method for protective support systems, as necessary. See the Protective Support Systems section for the procedures used for selecting this system.

### **Soil Classifications**

- A. Stable Rock refers to natural solid mineral matter which can be excavated with vertical sides and remain intact while exposed. Stable rock can be excavated at vertical slope (90°)
- B. Type A Soil is cohesive with an unconfined compressive strength of 1.5 tons per square foot (tsf). Type A soils include clay, silty clay, sandy clay, clay loam, caliche, hardpan, and sometimes-silty clay loam and sandy clay loam. No soil should be classified as Type A if it is fissured; subject to vibration from traffic, pile driving, or similar effects; previously disturbed; or part of a sloped, layered system where the slope is four horizontal to one vertical or greater. This type of soil shall be sloped or benched at 3/4H: 1V (53°).
- C. Type B Soil is cohesive soil with an unconfined compressive strength greater than .5 tsf but less than 1.5 tsf. Type B soils include granular cohesion less soils like angular gravel, silt, silt loam, sandy loam, and sometimes silty clay loam and sandy clay loam; previously disturbed soils that are not Type C fissured soils and soils subject to vibration that would otherwise be classified as Type A; dry rock that is not stable; and material that is part of a sloped, layered system where the layers dip on a slope less steep than four horizontal to one vertical. This type of soil shall be sloped or benched at 1H: 1V (45°).
- D. TYPE C SOIL is cohesive soil with an unconfined compressive strength of .5 tsf or less. Type C soils include granular soils such as gravel, sand, and loamy sand; submerged soil; soil from which water is freely seeping; submerged rock that is not stable; or material in a sloped, layered system where the layers dip into the excavation at a slope of four horizontal to one vertical or steeper. This type of soil shall be sloped at 1 1/2H: 1V (34°). No benching is allowed in this type of soil.

### **Protective Support Systems**

NECA will protect each employee from cave-ins during an excavation by an adequate protective system designed in accordance with the Occupational Safety & Health Administration (OSHA) standards, as adopted by the Navajo Safety and Health Administration.

NECA has standard operating procedures regarding protective support systems for excavations which are in accordance with safe practices and procedures and OSHA excavation regulations, as adopted by the Navajo Safety and Health Administration.

**Protective systems for use in excavations more than 20 feet in depth must be designed by a registered professional engineer, as adopted by the Navajo Safety and Health Administration.**

### **General Requirements for Excavations**

The following rules are to be followed at all times by all employees working on, in, or near excavations, as applicable:

- A. All employees on all excavation projects shall wear warning vests or other suitable garments made of reflectorized or high-visibility material.
- B. All excavations must be sloped to the angle of maximum allowable slope, based on the soil type.
- C. Trenches four (4) feet or deeper must be shored, sloped or benched to the angle of maximum allowable slope or as conditions warrant.
- D. A warning system shall be used to alert operators of heavy equipment and other employees at the work site of the edge of an excavation.
- E. Adequate protection shall be provided to protect employees from falling rock, soil, or other materials and equipment. Protection is provided by placing and keeping such materials or equipment at least 2 feet from the edge of excavations, or by the use of retaining devices that are sufficient to prevent materials or equipment from falling or rolling into excavations, or by a combination of both if necessary.
- F. Where equipment operates near excavations or trenches, the sides of the excavation must be shored or braced as necessary to withstand forces exerted by the superimposed load. Stop logs or other secure barricades, at least half the height of the largest machine's tire, must be installed at the edges of such excavations.
- G. Materials used for sheeting, shoring or bracing must be in good condition.
- H. Employees are not permitted under loads that are handled by lifting or digging equipment.
- I. Employees are not allowed to work in the excavation above other employees unless the lower level employees are adequately protected.
- J. While the excavation is open, underground installations are protected, supported, or removed as necessary, to safeguard employees. Adjacent structures are supported to prevent possible collapse.

- K. Employees are not permitted to work in excavations where water has accumulated or is accumulating unless adequate precautions have been taken. Diversion ditches, dikes, or other means are used to prevent surface water from entering an excavation and to provide drainage to the adjacent area.
- L. Sufficient means for exiting excavations 4 feet deep or more are provided, and are within 25 feet of lateral travel for employees.
- M. Guardrails are provided if there are walkways or bridges crossing over an excavation.
- N. Any open trench, manhole, floor opening or like hazard shall be barricaded so that employees and members of the public cannot fall into them.
- O. Any open trench, manhole, and floor opening or like hazard exposed **3 days or more** shall be barricaded so that employees and members of the public cannot fall into them in accordance with the Traffic Control Policy.

### **Inspection Procedures**

- A. Before any employee enters an excavation greater than 4 feet in depth, the competent person shall test the atmosphere where oxygen deficiency or a hazardous atmosphere exists or could reasonably exist (i.e., excavations in landfill areas or excavations in areas where hazardous substances are stored nearby). Emergency rescue equipment shall be readily available and attended when hazardous atmospheric conditions exist or may develop.
- B. The competent person shall inspect the excavation and the adjacent areas on a daily basis for possible cave-ins, failure of protective systems and equipment, hazardous atmospheres or other hazardous conditions. Inspections are also required after the occurrence of any natural (such as rain) or man-made events (such as blasting) that could increase the potential for hazards. Employees may not begin work until after being informed by the competent person that these inspections are complete.
- C. A NECA Competent Person shall inspect excavations daily and during poor weather or when circumstances change. The NECA inspection checklist is included in this policy.

### **Training**

The Program Administrator and supervisor will identify all employees who need either Competent Person Training (8 Hours) or Employee Awareness Training (2 Hours Minimum). Training records of attendees shall be kept on file in the NECA Safety Department for a period of five (5) years.

For employees who don't work in or around excavations but who may become bystanders, NECA require that they attend an Awareness Training.

Updated trainings shall be done every two (2) years or as necessary.

**Failure to adhere to this section will result in immediate disciplinary action, up to and including termination.**

## **Blasting and the Use of Explosives**

### **General Provisions**

Whenever NECA is working with explosives the following policy shall apply and adhered to by all affected employees.

The RESPONSIBLE PERSON directs the management and policies of the applicant pertaining to explosive materials. The Responsible Person is responsible for the purchase of all explosive materials. When necessary, the Responsible Person may request the vendor to deliver the explosives to the jobsite. Technical assistance from outside sources may be requested or needed for larger and more difficult shots.

The POSSESSOR (Blaster) is responsible for the physical inventory and inspections of all explosive materials. The Possessor will determine which explosives are in good condition and safe to keep and which explosives need to be removed and discarded.

- A. NECA shall permit only authorized and qualified persons to handle and use explosives.
- B. The blaster-in-charge and loading crew shall inspect the blast site before loading begins.
- C. The blast site shall be clearly marked and all non-essential equipment and people shall not be allowed on the blast site once the hole loading begins, or be no less than 50 feet from a loaded hole.
- D. Smoking, firearms, matches, open flame lamps, and other fires, flame or heat producing devices and sparks shall be prohibited in or near explosive magazines or while explosives are being handled, transported or used.
- E. No person shall be allowed to handle or use explosives while under the influence of intoxicating liquors, narcotics, or other dangerous drugs.
- F. All explosives shall be accounted for at all times. Explosives not being used shall be kept in a locked magazine, unavailable to persons not authorized to handle them. The employer shall maintain an inventory and use record of all explosives. Appropriate authorities shall be notified of any loss, theft, or unauthorized entry into a magazine.
- G. No explosives or blasting agents shall be abandoned.
- H. No fire shall be fought where the fire is in imminent danger of contact with explosives. All employees shall be removed to a safe area, 2,500 feet away.
- I. Original containers, or Class II magazines, shall be used for taking detonators and other explosives from storage magazines to the blasting area.
- J. When blasting is done in congested areas or in proximity to structure, railway, or highways, or any other installation that may be damaged, the blaster shall take special precautions in the loading, delaying, initiation, and confinement of each blast with mats or other methods so as to control the throw of fragments, and thus prevent bodily injury to employees.
- K. Employees authorized to prepare explosive charges or conduct blasting operations shall use every reasonable precaution including, but not limited to,

visual and audible warning signals, flags, or barricades, to ensure employee safety.

- L. Insofar as possible, blasting operations above ground shall be conducted between sunup and sundown.
- M. Due precautions shall be taken to prevent accidental discharge of electric blasting caps from current induced by radar, radio transmitters, lightning, adjacent power lines, dust storms, or other sources of unrelated electricity. These precautions shall include:
  - 1. Detonators shall be short circuited in holes which have been primed and shunted until wired into the blasting circuit.
  - 2. The suspension of all blasting operations and removal of persons from the blasting area during the approach and progress of an electric storm;
  - 3. The prominent display of adequate signs, warning against the use of mobile radio transmitters, on all roads within 1,000 feet of blasting operations
  - 4. Ensuring that mobile radio transmitters which are less than 100 feet away from the blasting shall be off.
  - 5. Empty boxes and paper and fiber packing materials, which have previously contained high explosives shall not be used again for any purpose, but shall be destroyed by burning at an approved location
  - 6. Explosives, blasting agents, and blasting supplies that are obviously deteriorated or damaged shall not be used.
  - 7. Blasting operations in the proximity of overhead power lines, communication lines, utility services, or other services and structures shall not be carried on until the operators and/or owners have been notified and measures for safe control have been taken.

#### **Blaster Qualification**

The blaster shall be responsible for all blasting activities and shall have final say to such activities. All employees on sites of blasting activities or handling any explosives shall be under the direct supervision of the blaster.

- A. The blaster shall be able to understand and give written and oral orders.
- B. The blaster shall be in good physical condition and not be addicted to narcotics, intoxicants, or similar types of drugs.
- C. The blaster shall be qualified, by reason of training, knowledge, or experience, in the field of transporting, storing, handling, and use of explosives, and have a working knowledge of state and local laws and regulations which pertain to explosives.
- D. Any person performing blasting activities must have a valid, current blaster's certificate acceptable by the United States Department of Justice Bureau of Alcohol, Tobacco, Firearms and Explosives.
- E. The blaster certification shall be carried by the blaster or shall be on file at the office or at the blasting area during the blasting operation.
- F. Only those individuals listed as RESPONSIBLE PERSONS and EMPLOYEE POSSESSORS with a background clearance status of 'CLEARED' are



authorized to transport, ship, receive, or possess explosive materials in the course of employment with NECA.

### **Planning**

A request for blasting will be done in writing and addressed to the Possessor.

- A. The request will be made by the Supervisor of the Foreman or Management. The request will include the name of the Foreman, Job Number, location of area in request, and the approximate date the blasting will commence.
- B. The Possessor will do a Preliminary Site Assessment.
- C. The Possessor will create a Blasting Plan that will be reviewed and followed by the individuals involved on the day of the blasting.
- D. The Possessor will do a Post Site Assessment.
- E. Each Assessment will include photographs, diagrams and distances from the blast area to homes, utilities and highways.

### **Types of magazines**

- A. Type 1 magazine. Permanent magazines of the storage of high explosive
- B. Type 2 magazines. Mobile and portable indoor and outdoor magazines for the storage of high explosives.
- C. Type 3 magazines. Portable outdoor magazines for the temporary storage of high explosives while attended (for example, a "day-box"), subject to the limitations.
- D. Type 4 magazines. Magazines for the storage of low explosives
- E. Type 5 magazines. Magazines for the storage of blasting agents

### **Smoking and Open Flames**

Smoking, matches, open flames, and spark producing devices are not permitted:

- A. In any magazine
- B. Within 50 feet of any outdoor magazine
- C. Within any room containing an indoor magazine

### **Misfires**

- A. An explosive charge or any part of an explosive charge that fails to detonate after initiation shall be considered a misfire.
- B. If a misfire occurs, the blaster shall note the location of the misfired explosive, and shall not approach the misfired explosive for at least one hour.
- C. Explosives which are aflame or emitting smoke shall not be approached for at least one hour after evidence of combustion ceases.
- D. The area shall remain guarded or closed until a search of the area has been done and the misfire hazard is removed, or the blaster-in-charge pronounces the area safe.
- E. Misfires shall be handled by the blaster-in-charge and only those employees necessary to remove the hazard and guard the area shall remain in the area.
- F. Impact to explosive materials shall be avoided when searching for non-visible misfired charges.

- G. A misfired armed charge shall be disposed of where it is found with a secondary charge.

### **Transportation**

Transportation of explosives, blasting agents, and blasting supplies on public highways shall be in accordance with the provisions of 1926.900, Subpart U.

### **Housekeeping**

Magazines are to be kept clean, dry, and free of grit, paper, empty packages and containers, and rubbish. Floors are to be regularly swept. Brooms and other utensils used in cleaning and maintenance of magazines must have no spark-producing metal parts.

When any explosive material has deteriorated it is to be destroyed in accordance with the advice or instructions of the manufacturer.

The area surrounding magazines is to be kept clear of rubbish, brush, dry grass, or trees for not less than 25 feet in all directions.

Volatile (gas) materials are to be kept a distance of not less than 50 feet from outdoor magazines.

Living foliage which is used to stabilize the earthen covering of a magazine need not be removed.

Cleaning equipment shall not be stored or left in the explosive magazines.

### **Lighting**

Only battery-activated safety lights or battery-activated safety lanterns may be used in explosives storage magazines.

**Failure to adhere to this section will result in immediate disciplinary action, up to and including termination.**

### **Housekeeping**

Housekeeping is everyone's responsibility; therefore, all areas shall be maintained and kept free of hazards and debris. Good housekeeping prevents serious slips, trips, falls and the possibility of starting a fire. Each employee is responsible for;

- A. Wiping up spills immediately.
- B. Returning equipment after using it.
- C. Keeping cabinets used for storage closed.
- D. Disposing of trash and waste promptly.

## Personal Protective Equipment

Required personal protective equipment in accordance to OSHA Standards will be provided by NECA at no cost to the employees. Hard-hats eye and face protection, safety belts, harnesses, lifelines, dust mask/respirators, and hearing protection shall be used by all employees whenever a hazard exists which warrants such use.

- A. Hard-hat: A head protection device to shield the worker's head from impact, flying particles, electric shock, overhead spills, and entanglement of hair in machinery.
  - 1. Hard hats are to be worn properly in the manner specifically intended (bill to the front), unless approved by the manufacturer.
  - 2. No bandanas, hoods, caps or hats of any types shall be worn under hard hats, unless approved by the manufacturer.
- B. Safety glasses, goggles, face shield: An eye protection device to shield the workers' eyes from flying objects, chemical splashes, harmful radiation, and dust.
  - 1. Safety glasses are used for work requiring only frontal protection.
  - 2. Goggles and certain types of safety glasses are designed to provide frontal and peripheral shielding from flying objects. The proper dark or clear safety glasses shall be worn dependent of lighting. Dark glasses shall be removed when indoor.
  - 3. Face shield is used for work involving hazards that not only endanger eyesight but also may disfigure the face. As a rule, this type of face protection should be worn over basic eye protection device such as safety glasses or goggles.
  - 4. Welding helmet is used to protect the head and face from flying particles, hot metal, sparks, and intense radiant energy. It is equipped with filter lenses to protect the welder's eyes from harmful UV radiation.
- C. Ear plug/foams: Hearing protection devices shall be used by the affected employee to protect him/her from exposure to excessive noise levels which may cause permanent hearing loss.
- D. Respiratory Protection: Each worksite condition shall be evaluated by the affected supervisor and the Safety Officer to determine the proper selection of respiratory protection. Some tasks may require using of an N-95 respirator for various situations. Bandanas are not to be used in place of dust mask.
- E. Belts, harnesses, and lifelines: They are designed to be worn by workers in locations where there is danger of falling, or when the employee is exposed to a confined space with a hazardous atmosphere.
  - 1. Class I, body belts – Restrict a worker to a particular area and aid in preventing falls.
  - 2. Class II, chest harnesses – Allow freedom of movement where fall hazards is slight.
  - 3. Class III, body harnesses – Used when movement at dangerous heights is necessary.
  - 4. Class IV, suspension belts – Used where work cannot be performed from a fixed surface and the worker must be suspended entirely.
- F. Hand Protection: Gloves are the primary type of industrial hand protection from pinch points, sharp edges, and abrasive surfaces. A wide range of devices are available that offer specific protection against particular hazards such as temperature extremes, caustics, water, chemicals, electricity, and radiation.

**Every employee on a jobsite or designated area shall have a pair of gloves on when outside the cab of any vehicle or equipment. Gloves are required at all times and will be provided by NECA as a part of standard issued PPE.**

- G. Foot protection: Safety toe shoes and boots are the types of footwear that protects the employee's feet from hazards such as compression and impact. Heavy materials, chemicals, temperature extremes, water, greases, static electricity, and molten metal are among the hazards that require protective footwear.
  - a. All employees on construction work sites shall wear durable slip resistant and at least, ankle length leather work boots with soles that are resistant to nails or penetrating objects.
  - b. All employees operating or working near compaction equipment are required to wear either steel toed safety boots or metatarsal protection equipment.
- H. Miscellaneous equipment: Life jacket or buoyant work vest (U.S. Coast Guard approved) shall be worn by employees working over or near water, or where the danger of drowning exists. Ring buoys with at least 90 feet of line shall be provided and readily available for emergency rescue operations. At least one life saving boat shall be immediately available at locations where employees are working over water.
- I. NECA is not required to pay for: Everyday clothing, such as long-sleeve shirts, long pants, street shoes, and normal work boots; or ordinary clothing, skin creams, or other items, used solely for protection from weather, such as winter coats, jackets, gloves, parkas, rubber boots, hats, raincoats, ordinary sunglasses, and sunscreen.
- J. Any personal protective equipment that is purchased by an employee must meet the requirements for the job at hand. Any PPE that is purchased must first be inspected by the immediate supervisor or Program Administrator to assure the equipment is adequate for the work to be conducted. Employees will be shown the proper maintenance and cleaning of the equipment by the Program Administrator or designee.
- K. NECA is not responsible to replace any employee purchased PPE. The supervisor has the final decision in allowing the employee to utilize an acceptable employee purchased PPE.
- L. NECA will only replace company issued PPE, except when the employee has lost or intentionally damaged the PPE.

**Violation of this policy will result in immediate disciplinary action, up to and including termination.**

### **Scaffolding**

Employees working on scaffolds shall be made aware of the hazards associated with scaffolds. The two basic safety hazards are falls and injuries from falling objects. These steps are to be followed:

- A. Each scaffold must be inspected, approved, and erected by a competent person prior to initial use, and at the beginning of every shift.

- B. If alterations are made, the entire system must be inspected , approved , and erected by a competent person
- C. Scaffolds and their components shall be capable of supporting without failure at least 4 times the maximum intended load. All planking shall be Scaffold Grades, or equivalent, Guardrails, mid-rails and toe boards must be installed on all open sides of scaffolds that are more than six feet in height, or on any scaffold less than 48 inches wide.
- D. Guardrails, mid-rails and toe boards should be constructed from components furnished by the manufacturer. Where this is not possible, use 2 x 4 inch lumber for the guardrails and 1 x 4 inch lumber for the mid-rails and toe boards.
- E. Scaffold planks must be clear and must extend beyond the end supports at least six inches, but not more than 12 inches.
- F. All scaffolds must be fully planked. No employee may work from a single plank.
- G. Scaffold planks must be visually inspected before each use. Damaged scaffold planks must be DESTROYED immediately.
- H. Do not overload scaffolds. Materials should be brought up as needed and removed when the work or task is completed.

#### **Rolling Scaffolds**

Riding rolling scaffolds is prohibited.

#### **Underground Utilities**

The Navajo Nation, Federal and State laws require that the owners, of any and all underground utilities (water, sewer, gas or oil, telephone or electrical) be notified prior to excavation in any area. The Safety Department shall be notified of any gas line crossing prior to excavating. This will offer the owner of the utilities an opportunity to locate them for your safety and convenience to prevent any damage. Notify anyone and everyone whom you even remotely (i.e., NTUA, Frontier, etc.) suspect may have underground utilities in any area before you dig. Make a note of the date, time, means of communications, and above all, the name of the person you spoke to. Damaging underground utilities is a dangerous and hazardous task, which is expensive and for the most part, unnecessary.

Prior to any excavation, an up-to-date One Call shall be in place and on site. If you should happen to break or damage a utility line notify the owner immediately or call Base 5 for assistance in contacting the owner.

If you should cause a gas pipeline break you should do the following:

- A. Immediately shut off the equipment.
- B. Abandon equipment.
- C. Leave the area quickly.
- D. Warn others.
- E. Seek the aid of local authorities.
- F. Notify the pipeline owner or call Base 5 for assistance in contacting the owner.

From the moment of the break, the action the superintendent/foreman takes will determine the outcome of the accident.

### **Fall Protection**

To prevent employees from falling off, onto, or through working levels and to protect employees from being struck by falling objects, the following systems and procedures shall be followed;

The foreman will assess the workplace to determine if the walking and working surface on which employees are to work have the strength and structural integrity to support workers safely. Employees are not permitted to work on those surfaces until it is determined the surface has the requisite strength and structural integrity to support them.

Once the foreman determined that the surface is safe for employees to work on, he must select one of the options listed below for the work operation 6 feet or more above lower level;

- A. Guard Rails Systems
- B. Safety Net Systems
- C. Personal Fall Arrest Systems

When working with fall protection, NECA requires that the affected employee utilize 100% tie-off.

If **Guardrails Systems** are used the top edge height of the rails must be 42 inches plus or minus 3 inches above the walking/working level. If wire rope is used as guardrail it must be one-quarter inch nominal diameter or thickness and be flagged at not more than 6 feet intervals with high – visibility material.

Covers or guardrail systems shall be erected around holes. Guardrails are not to be used as an anchor for personal fall arrest systems.

If **Safety Net Systems** are used the nets must be installed as close as practicable under the walking/working surface on which employees are working and never more than 30 feet below such levels.

Safety nets shall be inspected at least once a week for wear, damage and other deterioration. Defective nets shall not be used.

Safety nets shall be installed with sufficient clearance underneath to prevent contact with the surface or structure below.

If Personal **Fall Arrest Systems** are used the anchorage shall be designed, installed, and used under the direction of a competent person. Anchorage used to attach personal fall arrest systems shall be independent of any anchorage being used to support or suspend platforms.

Positioning device systems are full body harness systems. They are to set up so that workers can free fall no farther than 2 feet. They shall be secured to an anchorage capable of supporting at least twice the potential impact load. Snap hooks, dee-rings and other connectors used with positioning devices systems must be inspected before each use. Any defective items must be put out of service immediately.

Non-locking snap hooks shall not be used for fall arrest systems.

Body belts for fall arrest systems shall not be used.

Lifeline shall be protected against being cut or abraded. A self-retracting lifelines and lanyards that automatically limit free fall distance to two feet or less should be used. Lanyards and vertical lifelines must be free of cuts or knots. Any defective lifeline must be put out of service immediately.

To protect employees working below from falling objects excess mortar, broken or scattered masonry units and all other materials and debris shall be kept clear of the working area by removal at regular intervals.

Only employees engaged in the construction will be authorized in the walking/working zone except those inspecting, investigating, or assessing workplace condition prior to the actual start of work or after all work has been completed.

Employees will be trained in the proper selection, use and maintenance protection systems. The safety department will prepare a written Hazard Training Certification that identifies the employee trained and the date of training. The employee and trainer must sign the certification record.

### **Work Zone Traffic Control**

The most current edition of the *Manual on Uniform Traffic Control Devices*, (MUTCD) shall be followed on all highway/road construction, utility work, maintenance operations, and the management of traffic incidents.

**Temporary Traffic Control (TTC)** shall be an integral and high-priority element of every project from planning through design and construction. The primary function of TTC is to move vehicles and pedestrians safely and expeditiously through or around work zones while protecting on-site workers and equipment.

A Temporary Traffic Control Plan shall be prepared and understood by all responsible parties before a worksite is occupied.

A certified Traffic Control Supervisor (TCS) shall be assigned to all aspects of traffic control management and supervision. The TCS shall have a set of traffic control plans and a current copy of the MUTCD readily available at all times. The TCS shall maintain and sign a project traffic control diary. The TCS shall have in their possession at all times, a valid driver's license, valid ID, and TCS certification card.

A TCS shall only assign a certified Traffic Control Technician (TCT) to assist with the placement, inspection and maintenance of traffic control signs and devices. All other non-certified personnel are prohibited from such duties. A TCS shall be readily available within one hour of work zone should a TCT need the assistance of a TCS. The TCT shall have in their possession at all times, a valid driver's license, valid ID, and TCS certification card.

Good public relations shall be maintained. Road user movements shall be inhibited as little as practical. Motorist, bicyclists and pedestrians should be guided in a clear and positive manner.

### **Flagging**

Because flagging is one of the most hazardous activities on the roadway, each person assigned to this task shall be adequately trained and certified. The TCS or TCT shall make sure each flagger has in their possession at all times, a valid ID and traffic control flagger certification card.

**Exemptions:** Personnel that have not completed a flagger-training course may be assigned duties as flagger only during emergencies.

Emergency assignments are temporary and last only until a certified flagger can be put into that position.

Flaggers should be able to satisfactorily demonstrate the following abilities:

- A. Ability to receive and communicate specific instructions clearly, firmly and courteously.
- B. Ability to move and maneuver quickly in order to avoid danger from errant vehicles.
- C. Ability to control signaling devices (such as paddles and flags) in order to provide clear and positive guidance to drivers.
- D. Ability to understand and apply safe traffic control practices, sometimes in stressful or emergency situations.
- E. Ability to recognize dangerous traffic situations and warn workers in sufficient time to avoid injury.

To distinguish between the Flaggers and other employees on any worksite:

- A. Flaggers shall utilize Class 2 fluorescent yellow-green safety vest.
- B. All non-traffic control personnel shall wear Class 2 fluorescent orange-red safety apparel.

For the purpose of nighttime flagging, hours of darkness means one-half hour before sunset to one-half hour after sunrise. Nighttime flaggers shall wear a combination of Class 3 fluorescent yellow-green safety vest and pant. Flagger stations shall be illuminated, except in emergencies.

Flagger stations shall be located such that approaching road users will have sufficient sight distance so as to stop at the intended stopping point. Except in emergency situations, flagger stations shall be preceded by Advanced Warning Signs.

Flaggers shall face their traffic at all times. Position flaggers so they are not exposed to traffic or equipment approaching from behind.

Flaggers shall stand alone, away from other workers, work vehicles, or equipment. Flaggers shall be clearly visible to the first approaching road user at all times.



The use of cellular phones, Mp3 players, iPods, tablets or other similar devices shall not be utilized while performing flagman operations. Flaggers shall be issued a hand-held radio as needed. Hand-held radios should be able to transmit a signal at least one mile with decent to clear communication.

**Exemptions:** Cellular phones may only be utilized for emergency communications only.

**Hand-signaling devices (Figure 6E-3)**

The STOP/SLOW paddle shall be the primary and preferred hand-held signaling device because paddles give road users more positive guidance than orange flags. Paddles shall be at least 18 inches wide with letters at least 6 inches high.

The use of orange flags shall be limited to emergency situations only. Flags, when used, shall be a minimum of 24 inches square and securely fastened to a staff approximately 36 inches in length.

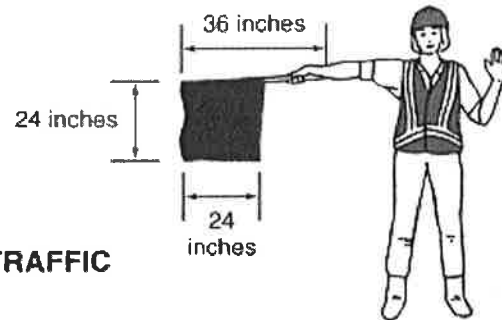
For nighttime flagging, the STOP/SLOW paddle or flag shall be retro-reflectorized.

Flaggers may use a wand in an emergency situation to supplement the STOP/SLOW paddle or flag.

**Figure 6E-3. Use of Hand-Signaling Devices by Flaggers**

**PREFERRED METHOD  
STOP/SLOW Paddle**

**EMERGENCY SITUATIONS ONLY  
Red Flag**



**TO STOP TRAFFIC**



**TO LET  
TRAFFIC PROCEED**



**TO ALERT AND  
SLOW TRAFFIC**

**Traffic Control Devices**

Traffic control devices such as signs, vertical panels, barricades, arrow boards, drums, cones and other similar devices shall be used when workers and/or equipment are exposed to vehicular traffic.

### **Advanced warning signs**

Advanced warning signs shall be utilized to warn and alert drivers of hazards created by construction, maintenance or utility activities on or within highway right of way.

Advanced warning signs shall be placed on the right-hand side of the road unless otherwise provided by the MUTCD manual.

Signs shall be maintained for cleanliness, visibility and correct positioning. Signs that have lost significant legibility shall be promptly replaced.

**Sign spacing shall follow Table 6C-1 below.** 500 feet spacing is generally appropriate for rural roads.

**Table 6C-1. Recommended Advance Warning Sign Minimum Spacing**

Road Type	Distance Between Signs**		
	A	B	C
Urban (low speed)*	100 feet	100 feet	100 feet
Urban (high speed)*	350 feet	350 feet	350 feet
Rural	500 feet	500 feet	500 feet
Expressway / Freeway	1,000 feet	1,500 feet	2,840 feet

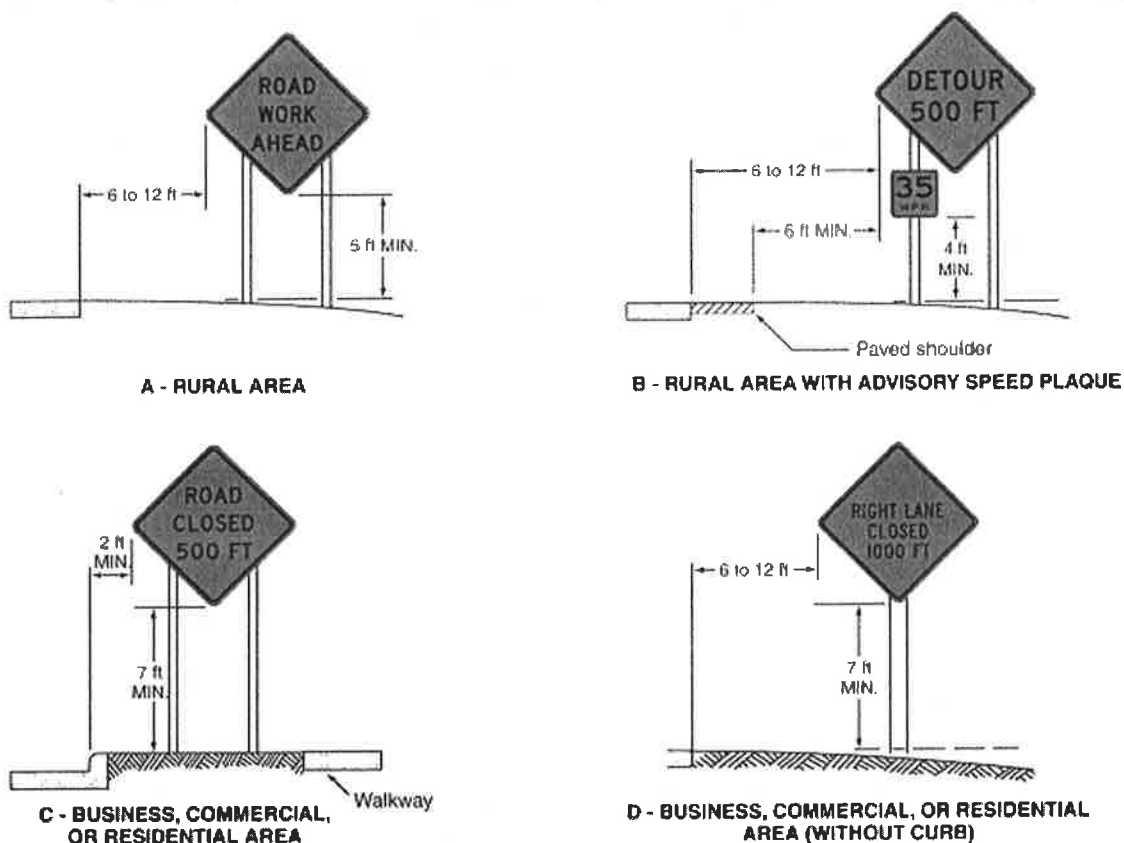
\* Speed category to be determined by the highway agency

\*\* The column headings A, B, and C are the dimensions shown in Figures 6H-1 through 6H-48. The A dimension is the distance from the transition or point of restriction to the first sign. The B dimension is the distance between the first and second signs. The C dimension is the distance between the second and third signs. (The "first sign" is the sign in a three-sign series that is closest to the TTC zone. The "third sign" is the sign that is furthest upstream from the TTC zone.)

**Ground-mounted sign** installation shall follow Figure 6F-1. Ground-mounted signs installed at the side of the road in rural areas shall be mounted at a height at least 5 feet, measured from the bottom of the sign to the near edge of the pavement.

All ground-mounted sign supports shall be crashworthy.

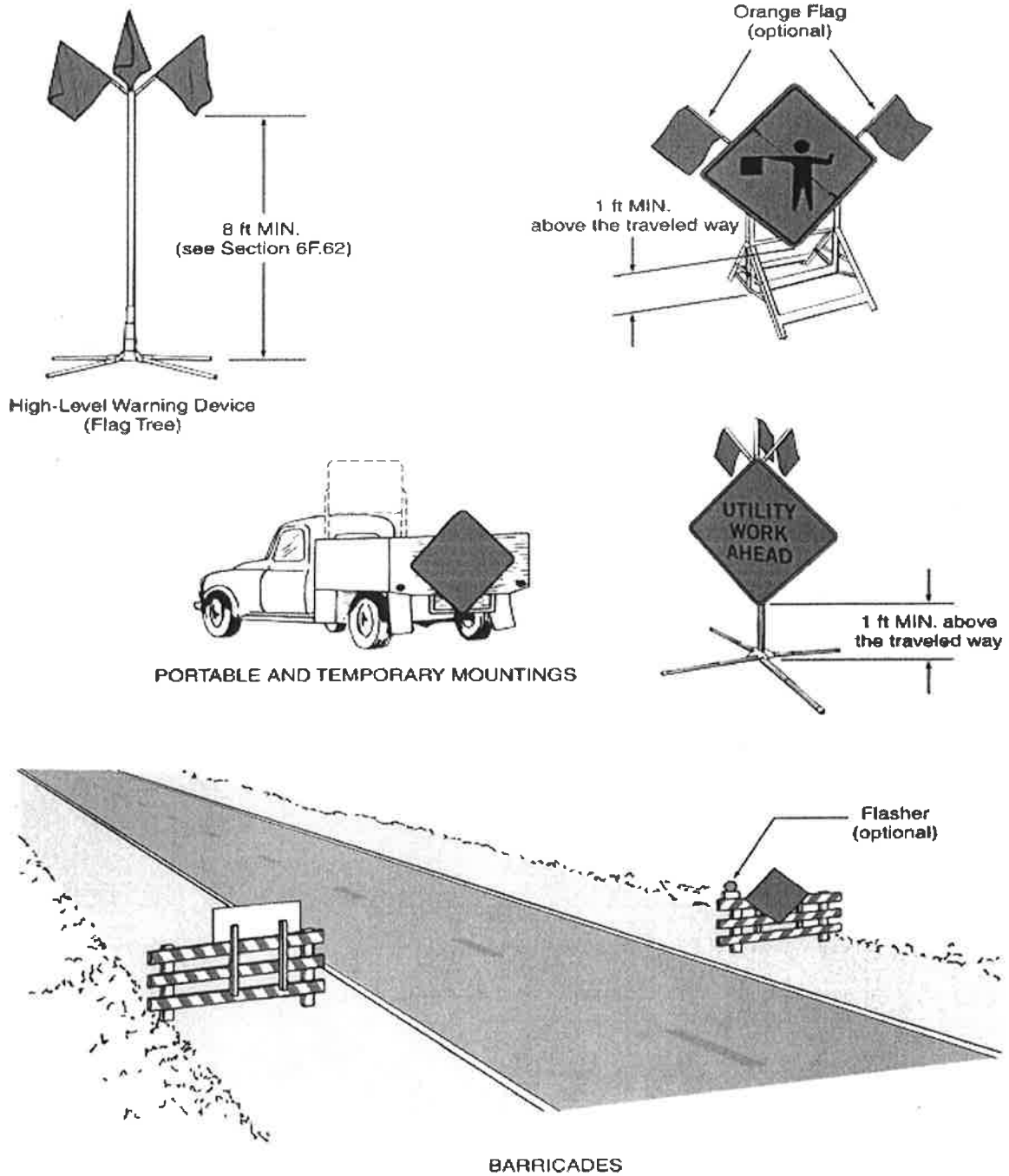
**Figure 6F-1. Height and Lateral Location of Signs—Typical Installations**



Signs mounted on portable supports (such as sign stands) shall be at least 1 foot above the traveled way (refer to Figure 6F-2). All portable supports shall be crashworthy. Any alterations made to portable supports that have not been successfully crash tested shall be considered “not crashworthy.”

For mobile operations, a sign may be mounted on a work vehicle, a shadow vehicle or a trailer stationed in advance of the work zone or moving along side it.

**Figure 6F-2. Methods of Mounting Signs Other Than on Posts**



### **Channelizing Devices**

Channelizing devices include drums (orange barrels), vertical panels, cones, tubular markers, longitudinal channelizing devices and barricades. (See Figure 6F-7)

Channelizing devices provide for smooth and gradual vehicular traffic flow from one lane to another, onto a bypass or detour, or into a narrower traveled way. Channelizing devices are also used to channelize traffic away from work areas, pavement drop-offs, pedestrian paths, open trenches or opposing directions of traffic.

Channelizing devices shall be crashworthy.

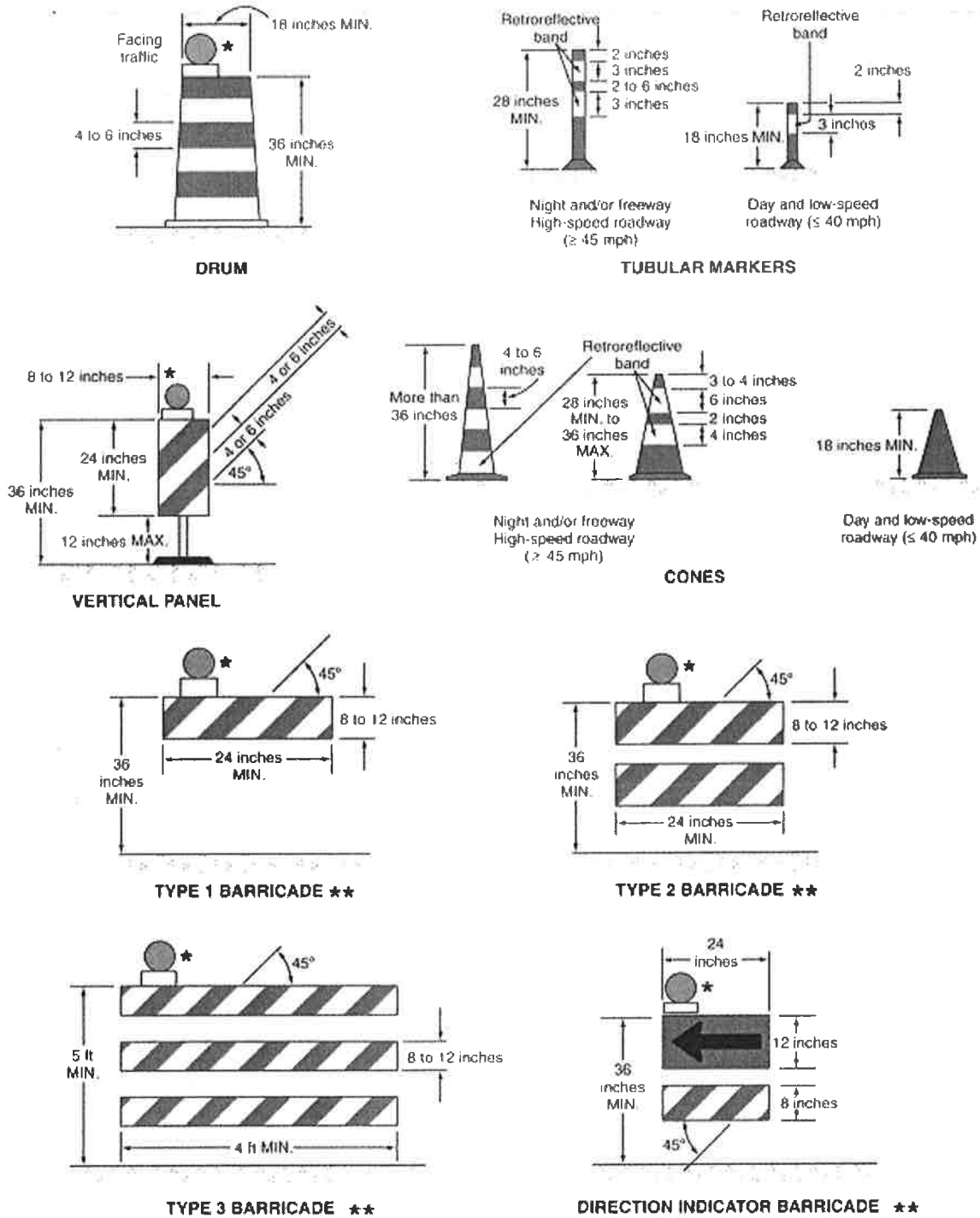
Channelizing devices shall be kept clean, visible, and properly positioned at all times. Devices that are damaged or have lost significant amount of retro reflectivity and effectiveness shall be replaced.

Spacing between channelizing devices:

- A. For transition taper channelization, the spacing between devices shall not exceed 1.0 times the speed limit in mph.
- B. For tangent (centerline) channelization, the spacing between devices shall not exceed 2.0 times the speed in mph.
- C. For downstream taper channelization, the spacing between devices shall not exceed 2.0 times the speed in mph.

The maximum and minimum heights of channelizing devices shall follow Figure 6F-7.

Figure 6F-7. Channelizing Devices



\* Warning lights (optional)

\*\* Rail stripe widths shall be 6 inches, except that 4-inch wide stripes may be used if rail lengths are less than 36 inches. The sides of barricades facing traffic shall have retroreflective rail faces.

Before any new detour or temporary route is opened to traffic, all necessary signs shall be in place. All TTC devices shall be removed as soon as practical when they are no longer needed.

If there is an approved Traffic Control Plan that adheres or is more stringent than the MUTCD Manual illustrations, that plan shall be followed.

**Addition of Typical Application diagrams:**

- A. Work beyond the Shoulder (TA-1)
- B. Work on the Shoulder (TA-3)
- C. Lane Closure on a Two-Lane Road using Flaggers (TA-10)
- D. Haul Road Crossing (TA-14)
- E. Short-Duration or Mobile Operations on a shoulder (TA-4)

**Safety Meetings Topics**

Please see Safety Meeting Topics in Appendix A.

**Mechanical Shop Safety**

Below is a list, at minimum, guidelines for the Mechanic Shop to be aware of but not limited to:

- A. Forced ventilation shall be provided for exhaust fumes and hose attachments shall be affixed to tailpipes.
- B. Ventilation fans shall be used during any welding operations inside buildings or as required in confined spaces. Oxygen tanks are not to be used in place of ventilation fans.
- C. Overhead doors shall be maintained on a regular basis to insure proper safe working condition.
- D. Housekeeping shall be kept up with at all times.
- E. Electrical cords and pneumatic hoses shall not be laid on the floor to present a tripping hazard.
- F. Oil, grease, etc., shall be cleaned up immediately when spilled.
- G. Fire extinguisher shall be located in a conspicuous location for easy access and use.
- H. Tires being installed on 2 – piece rims shall be inflated only with the use of tire cages.
- I. Proper inflation of tires shall be pressurized at the manufacturer's specifications.
- J. Electrically powered tools shall be grounded.
- K. Stationary grinding wheels shall be secured to a table or floor.
  - 1. Worn wheels shall be replaced.
  - 2. Prior to use, grinding wheels shall be inspected for damage, wear, and in good working condition.
  - 3. Each affected employee utilizing a grinder shall protect their face and eyes with a face shield. A shield shall be maintained over the grinding wheel to control sparks.



- L. The hooks and chains of the hoist shall be verified every three (3) months to insure the tag/certification is attached and legible. This shall be performed by the competent person.

### **Battery Storage**

- A. Lead acid batteries shall be stored in a separate area and shall be marked: "DANGER: ACID". A suitable facility for quick drenching or flushing of the eyes and body shall be provided within the work area for immediate emergency use.
- B. When working with storage or storing batteries, employees shall wear rubber gloves and aprons to protect themselves from accidental spills and splashes.
- C. Suitable eye protection shall be worn when working with batteries.
- D. No smoking shall be permitted within buildings or storage areas where batteries are housed.
- E. The storage area for wet cells shall be well ventilated.
- F. A soda solution to a neutralize spill shall be stored in the general area where lead acid batteries.
- G. Initial charging and any work performed on batteries shall be in accordance with instructions set forth by the manufacturer's recommendations.
- H. Acid shall never be poured into water.
- I. Distilled water shall be stored in glass, plastic, or rubber containers.
- J. Battery connections should be clean, bright, and free of corrosion.
- K. An ABC extinguisher in working condition shall be located in the general area for fire control.
- L. Objects, especially metal shall never be placed on top or across cells.
- M. Gas escape holes in cell caps shall be open and clear. Caps shall never be cleaned while they are on the cell.
- N. Material should not be stored in front of batteries.
- O. A hanger should be provided for the rubber aprons and gloves.
- P. Cells shall not be over filled.
- Q. Plates shall always be kept covered with fluids to the waterline mark.
- R. A non-metallic flashlight shall be available for battery inspection.
- S. All battery connections should be tight to avoid sparking.
- T. All lists of these rules shall be posted by all wet cells.
- U. Only approved wrenches shall be used on battery connections.
- V. Pliers, channel lock pliers, pipe wrenches, etc., shall never be used.

### **Extension Cords**

- A. Only approved commercial grade and inspected extension cords shall be used.
- B. Both the cord and the connection should be examined carefully before being used.
- C. Extension cords shall be suspended over aisles or working areas where possible in order to prevent tripping hazards.
- D. Extension cords shall not be hung over nails or other sharp edges nor shall they be kinked or left where a vehicle may run over them.
- E. Extension cords shall not be allowed to come in contact with oil, hot surfaces, or chemicals.

- F. An extension cord shall never have any defect in the insulation if so, it shall be replaced.
- G. Extension cords shall be stored in a clean, dry place where they can lie loosely coiled.
- H. The cord shall not be used as a line to raise or lower the tool from one elevation to another.

### **Stairways**

- A. Stairways with four (4) steps or more shall have a handrail. This also applies to field living vans.
- B. Stairways more than 42 inches wide shall have two (2) handrails.
- C. Handrail shall be 42 inches high,  $\pm$  3 inches.

### **Tools**

#### **Chains**

- A. Care shall be taken not to overload a chain. All lifting chains shall have a load rating tag attached.
- B. The links of a chain under load are subjected to severe bending action when in contact with sharp corners or edges. Appropriate materials shall be used as a guard or weight-bearing surface to prevent nicking the chain.
- C. Employees shall not kink a chain in order to shorten it.
- D. When a load is to be lifted, the slack shall be taken up and the load started slowly and uniformly.
- E. A chain shall not be used if an inspection reveals a fracture, insecure weld, missing load rating tag, or other defects.
- F. Chains shall be stored in a dry area in order to prevent rusting.

#### **Chain Saws**

- A. Saws shall be stopped for re-fueling or servicing.
- B. Chain saws shall not be used in enclosed spaces.
- C. The blade shall be covered in a sheath when not in use.
- D. Only those employees having previous experience with a chain saw shall be allowed to operate the saw unless under the direct supervision of one having had experience.
- E. P.P.E. such as non-slip sole work shoes, gloves, safety glasses, face guard, chaps, and earplugs shall be utilized.
- F. No loose clothing shall be worn while operating a chain saw.

#### **Electrical Hand Tools**

- A. Tools shall be kept in safe condition, cleaned, oiled, and repaired.
- B. Electric hand tools shall be grounded when in use.
- C. Only approved and inspected extension cords shall be used.
- D. Both the cord and the connections should be examined carefully before being used.
- E. Extension cords shall be suspended over aisles or working areas where possible in order to prevent tripping hazards.

- F. Extension cords shall not be hung over nails or other sharp edges, shall not be kinked, or left where a vehicle may run over them.
- G. Extension cords shall never be allowed to come in contact with oil, hot surfaces, or chemicals.
- H. An extension cord shall never have any defect in the insulation if so, it shall be replaced.
- I. Goggles or a face shield shall be worn while using electric hand tools if there is any danger of flying particles.
- J. Pneumatic hand tools rather than electric ones shall be used in the presence of flammable vapors or gases.
- K. Extension cords shall be stored in a clean, dry place where they can lie loosely coiled.
- L. The flexible shaft of an electric hand tool shall never be allowed to form a loop as this will make a knot, jerking the tool out of the operator's hand.
- M. Goggles shall always be worn when using a portable grinder; the operator shall keep out of line with the wheel.
- N. Adequate respiratory protection shall be used when operating portable grinders or buffers on toxic material, such as lead, zinc, brass or paint.
- O. Loose clothing shall not be worn when work is being done with any portable electric tool.
- P. Nails or other objects shall not be inserted in the ventilating openings to stop the fan while tightening the chuck or performing any other operations.
- Q. Tools shall be handled carefully to avoid dropping them.
- R. The cord shall not be used as a line to raise or lower a tool from one elevation to another.
- S. Belts, gears, shafts, pulleys, sprockets, spindles, drums, fly wheels, chains, or other reciprocating, rotating, or moving parts of equipment shall be guarded if such parts are exposed to contact with employees or otherwise create a hazard.
- T. All hand held powered platen sanders, grinders with wheels two (2) inches in diameter or less, routers, planers, laminated trimmers, nibblers, shears, scroll saws, and jigsaws with blade shanks one-fourth (1/4) of an inch wide or less may be equipped with only a positive "on-off" control.
- U. All hand-held powered drills, tappers, fastener drivers, horizontal, vertical, and angle grinders with wheels greater than two (2) inches in diameter, disc sanders, belt sanders, reciprocating saws saber saws, and other similar operating powered tools shall be equipped with a momentary contact "on-off" control and may have a lock-on control provided that turn off can be accomplished by a single motion of the same finger or fingers that turn it on.
- V. All other hand-held powered tools, such as circular saws, chain saws, and percussion tools without positive accessory holding means, shall be equipped with a constant pressure switch that will shut off the power when the pressure is released.

### **Pneumatic Tools**

- A. Pneumatic power tools shall be secured to the hose or whip by some positive means to prevent the tool from becoming accidentally disconnected.

- B. Safety clips or retainers shall be securely installed and maintained on pneumatic impact (percussion) tools to prevent attachments from being accidentally expelled.
- C. Compressed air shall not be used for cleaning purposes except where reduced to less than 30 psi and then only with effective chip guarding and personal protective equipment, such as head, eye, face, and ear protection. The 30 psi requirement does not apply to concrete form, mill scale, and similar cleaning purposes.
- D. The manufacturer's safe operating pressure for hoses, pipes, valves, filters, and other fittings shall not be exceeded.
- E. The use of hoses for hoisting and lowering tools shall not be permitted.
- F. All hoses exceeding ½ - inch inside diameter shall have a safety device at the source of supply or branch line to reduce pressure in case of hose failure.
- G. Hoses should be protected from traffic and pedestrians.
- H. Hoses shall be placed so that no tripping hazard is created.
- I. Loose clothing should not be worn while operating a pneumatic tool.
- J. In order to prevent the bit from sticking, employees should avoid feeding the machine too fast.
- K. Drills should be lined up straight with the hole. If tipped, the bit is almost sure to stick.
- L. Two (2) employees shall be present during the operation of the larger tamping machines.
- M. Safety set screws shall be installed and maintained on all shaft collars.
- N. Compressed air shall not be used to dust off clothing or any part of the body. Such practice is dangerous because the air may enter the tissues or a body opening and cause serious consequences.
- O. All hose clamps shall be checked routinely for tightness.

### **Personal Tools**

Any personal hand/power or electrical tools brought on any NECA worksite by an employee shall be inspected and approved by the immediate supervisor.

### **Welding**

- A. Prior to any welding a Hot Works Permit shall be completed.
- B. Toxic preservative coatings shall be scraped four (4) inches from the area of heat application, or air-line respirators shall be used.
- C. Only goggles, spectacles, and helmets in excellent condition shall be used.
- D. Any faulty or defective equipment shall be reported to the supervisor and replaced immediately.
- E. When welding or cutting on walls, floors, and/or ceiling, etc., employees shall inspect the opposite side of the wall for any fire hazard.
- F. When practical, objects to be welded, cut or heated shall be moved to a designated safe location, or, if the objects to be welded, cut, or heated cannot be readily moved, all movable fire hazards in the vicinity shall be taken to a safe place or otherwise protected.
- G. If the object to be welded, cut, or heated cannot be moved and if all the fire hazards cannot be removed, positive means shall be taken to confine the heat and sparks and to protect the immovable fire hazards from them.

- H. No welding, cutting, or heating shall be done where the application of flammable paints, the presence of other flammable compounds or heavy dust concentrations.
- I. Suitable fire extinguishing equipment shall be immediately available in a state of readiness for instant use.
- J. Drums or barrels that had contained a flammable substances; oil, grease, solvent, thinner, etc., shall not be cut with a torch.
- K. No welding shall be done in an atmosphere-lacking proper ventilation.
- L. All welders shall wear flameproof gauntlet gloves, and shoulder covers shall be worn for overhead welding.
- M. There shall be no leaks of cooling water, shielding gas, or engine fuel on welding trucks or equipment.
- N. If welding in a tank or sub-surface structure, employees shall wear a lifeline, and the Confined Space Entry Program shall be followed.
- O. Welder's clothing shall be free from oil and grease.

### **Gas Welding**

- A. Acetylene cylinder valves shall not be opened more than ½ turn and preferably no more than 3/4 – turn.
- B. Approved flash arrestors shall be installed between the torch and hoses.
- C. Only proper tools shall be used to clean torches.
- D. Matches and hot spots from previous work shall not be used to ignite acetylene torches.
- E. Torches shall be inspected before each use.
- F. If gauges are found not working correctly, they shall be taken out of service and replaced immediately.
- G. Hose connections shall be kept free of oil and grease.
- H. A single hose having more than one (1) gas passage shall not be used. When taping hoses together, not more than four (4) inches out of 12 shall be taped.
- I. Hoses shall be inspected daily before use. Hoses in doubtful condition shall not be used and replaced immediately.
- J. Hose couplings shall be of the type that cannot be unlocked by means of a straight pull without rotary motion.
- K. Boxes used for storage of hoses shall be ventilated.
- L. Hoses shall be laid out so that they will not create a tripping hazard.
- M. Valves shall be “cracked” before regular hook-ups are attempted. Operators should stand clear and crack valves away from sources of ignition.
- N. Cylinder valves shall be opened slowly.
- O. Special wrenches should be left in place so that the gas may be shut off quickly.
- P. Regulators shall be used on all fuel gas cylinders.
- Q. Cylinder valves shall be closed and gas shall be released from the regulator before the regulator is removed.
- R. If a cylinder is found to be leaking and cannot be repaired by tightening connections, it shall be tagged and removed to a safe area immediately.
- S. All gauges should be removed from oxygen and acetylene cylinders while being transported.

- T. Stored oxygen cylinders must be separated from stored acetylene cylinders or combustible materials (especially oil or grease) by at least 20 feet or separated by a non-combustible barrier.
- U. All pressurized gas cylinders in transport shall be transported in an upright secured position. The hoses and gauges must be removed and the cylinder must be capped.

### **Electric Welding**

- A. When welding is being done near other employees, welders shall use a shield or screen.
- B. The frames of all arc-welding units shall be grounded.
- C. When electrode holders are left unattended, the electrodes shall be removed and the holders shall be placed and protected that they cannot make electrical contact with employees or conducting objects.
- D. Hot electrode holders shall not be dipped in water. To do so may expose the arc welder or cutter to electric shock.
- E. When the arc welder or cutter has to leave his work or to stop for any appreciable length of time, or when the arc welding or cutting machine is to be moved, the power supply switch to the equipment shall be opened.
- F. Any faulty or defective equipment shall be reported to the supervisor immediately.
- G. Whenever practicable, all arc welding and cutting operations shall be shielded by non-combustible screen which will protect employees and other persons working in the vicinity from the direct rays of the arc.
- H. Normally two (2) men shall be present. The helper shall maintain a constant watch for fire hazards.
- I. All electrode holders shall be of ample capacity.
- J. Current-carrying parts held by the arc welder shall be insulated.
- K. Cables shall be of ample capacity and shall be fully insulated.
- L. When using a pipeline as a ground return circuit, employees shall determine that an electrical contact exists at all joints. If the pipeline is used continuously, the joints shall be bonded, and in this case, periodic inspections shall be made for electrolysis and fire hazards.
- M. Chains, wire ropes, cranes, hoists and elevators shall not be used to carry welding current.
- N. Machines shall be dry before they are used.

### **Indoor Welding**

General mechanical ventilation shall be of sufficient capacity and so arranged as to produce the number of air changes necessary to maintain welding fumes and smoke within safe limits. This calls for freely movable bonds to be placed closed to the work area so that fumes and smoke will be removed properly. Fumes shall be exhausted to a safe area.

### **Fuel Storage Facilities**

- A. Fuel and other petroleum products stored on the project are to be located inside a lined retention area surrounded by berms of adequate height to contain a fuel spill.

The berm shall be one and a half (1 ½) times the largest tank's volume in the retention area.

- B. All drivers are required to exercise extreme caution when filling their vehicles, to avoid spills and overflows.
- C. Engine must be turned off before fueling.
- D. NOTE – add fuel storage drawing,

NAVAJO ENGINEERING AND CONSTRUCTION AUTHORITY

P O Box 969  
Shiprock, New Mexico 87420  
(505) 368-5151

**SPILL INCIDENT SUMMARY FORM**

This form must be completed for any reportable spills of Petroleum Products or Chemical spills that occur in NECA Yard or out on the NECA Project sites. Call NECA Safety Department immediately after the spill.

Location of spill: \_\_\_\_\_ Date: \_\_\_\_\_

Time: \_\_\_\_\_ Total amount of spill: \_\_\_\_\_

What caused the spill:

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Corrective Action Taken:

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Plans for preventing recurrence:

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Foreman (Print)

Signature

Title

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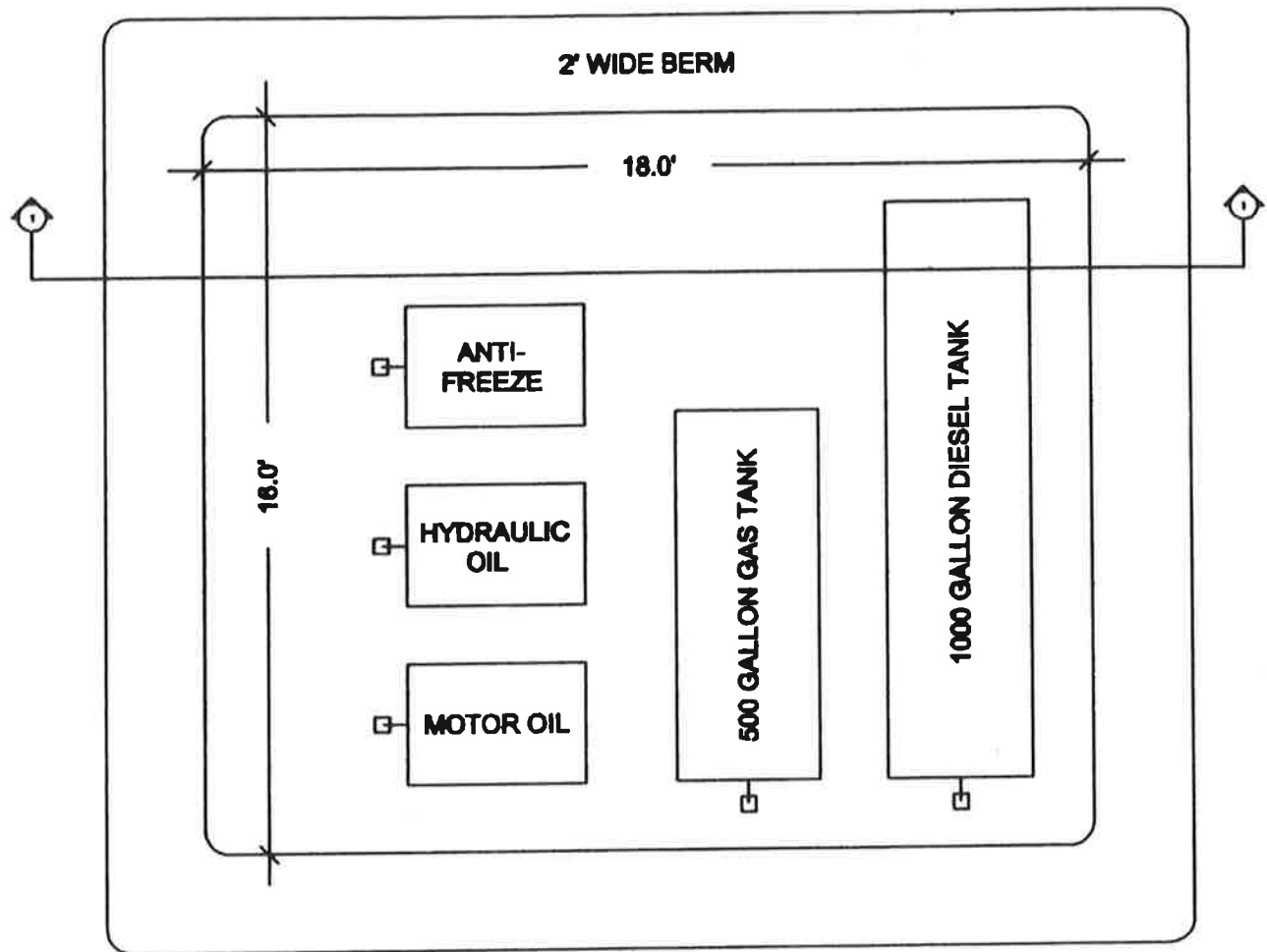
Supervisor (Print)

Signature

Title



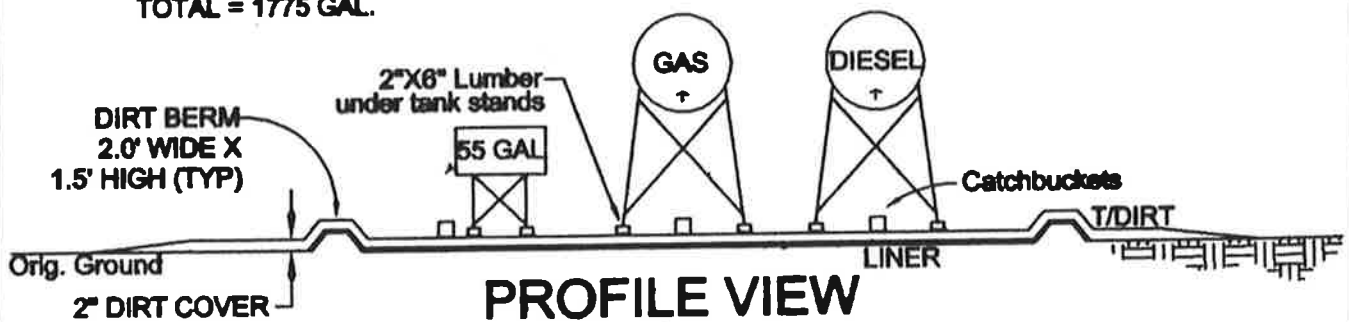
# PLAN VIEW



TOTAL LINER SIZE = 27' X 25'

DIESEL = 1000  
GASOLINE = 500  
OILS = 275  
TOTAL = 1775 GAL.

TOTAL BERM CAPACITY: 3,230 GAL.  
TOTAL TANK CAPACITY: 1,775 GAL.



## PROFILE VIEW

SECTION

STANDARD DETAIL FUEL STORAGE LOCATION: NECA YARDS	Designed by: W. Beqau	Checked by: W. Beqau
	Not to Scale: Use plan dimensions.	
	DATE: September 9, 1998 (Original Design)	
	REVISION: 2 10-30-98	SHEET 1 OF 1
NAVAJO ENGINEERING AND CONSTRUCTION AUTHORITY PDH	CONTAINMENT PLAN	



# NAVAJO ENGINEERING AND CONSTRUCTION AUTHORITY

P O BOX 969

SHIPROCK, NEW MEXICO 87420

(505) 368-5151

## ABOVE STORAGE TANKS AND FIRE SAFETY MONTHLY VISUAL INSPECTION FORM

Project Name: \_\_\_\_\_ Date: \_\_\_\_\_

Location of Tanks: \_\_\_\_\_

DESCRIPTION	STORAGE TANK 1	STORAGE TANK 2	STORAGE TANK 3	STORAGE TANK 4	OIL DRUMS	OTHER
AST ONLY						
SIZE OF TANK						
PRODUCT						

### PUMPS

Corrosion						
Hose						
Leakage						
Nozzle						
Pump Condition						

### SECONDARY CONTAINMENT

Plastic Liner						
Dirt Dike						
Fence						

### FIRE SAFETY

Fire Extinguisher						
No Smoking Sign						
Placard						
Locks						
Security						

Keep this document for your records for three years.

## **APPENDIX A.**

### **Safety Meetings Topics**

The topics listed below are basic suggestions for safety discussions that can be presented at safety meetings. However, additional topics may be introduced at any time during the safety meeting. Each Superintendent/Foreman shall conduct the Field Safety Meeting in a manner that invites input and participation from the crew.

1. Trenching Operations and Hazards
2. Blasting Operations and Hazards
3. Machinery Operations and Hazards
4. Personal Protective Equipment
5. Environment Factors and Hazards
6. Insects, dogs, and snakes
7. Heat stress
8. Snow, rain, ice and dust
9. Accident and Injury Reporting
10. First Aid
11. Confined spaces
12. Use of Scaffolding and ladders
13. Use of seat belts
14. Sandblasting and painting
15. Welding and grinding
16. Employee responsibilities
17. Safety belts and lifelines
18. Hand tools
19. Machine guards
20. Housekeeping
21. Flagging and signing
22. Lifting and carrying
23. Crane safety
24. Electrical safety
25. Fire prevention
26. Spill Prevention Control Countermeasure Plan (SPCCP)
27. Drug and Alcohol free work place.





# NAVAJO ENGINEERING AND CONSTRUCTION AUTHORITY'S SAFETY POLICY MANUAL

## ACKNOWLEDGEMENT FORM

I hereby acknowledge that I have been orientated on *Navajo Engineering and Construction Authority's Safety Policy Manual*. I fully understand that I must have a thorough understanding of the Manual. I will abide by these instructions and practices.

I acknowledge that NECA safety rules and regulations are instituted for the benefit of all parties to ensure a safe and healthful working environment.

I further acknowledge adherence to these rules and regulations is a condition of my employment with NECA.

I also understand that failure to adhere to NECA Safety Policies will result in immediate disciplinary action, up to and including termination.

By signing below, indicates that I have been made aware of NECA's safety policies and procedures and I was given the opportunity to ask questions concerning the *NECA's Safety Policy Manual*.

\_\_\_\_\_  
Employee Signature

\_\_\_\_\_  
Supervisor Signature

\_\_\_\_\_  
Employee Print Name

\_\_\_\_\_  
Supervisor Print Name

\_\_\_\_\_  
Date Signed

\_\_\_\_\_  
Date Signed

