NICHOLS CONTRACTING, INC.

SAFETY MANUAL

Project Name
Project Address

TABLE OF CONTENTS

		PAGE #
PROJECT SAFETY STATEMENT		
INTRODUCTION		**6 – 9**
SECTION 1 – ADMINISTRATIVE		**10**
1.01	**SAFETY OBJECTIVES**	**10**
1.02	**DEFINITIONS**	**12**
1.03	**ABBREVIATIONS**	**13**
1.04	**SAFETY RESPONSIBILITIES**	**14**
	A. Construction Manager	**14 – 15**
	B. Subcontractors	**16 - 20**
	C. Sub-subcontractors	**20 - 31**
SECTION 2 - SITE SAFETY PROGRAMS		**32**
2.01	**POINTS OF CONTACT FOR EMERGENCIES**	**32**
	Points of Contact for Emergencies	**32 - 35**
2.02	**EMPLOYEE SAFETY ORIENTATION**	**36**
2.03	**FIRST AID AND MEDICAL SERVICES**	**37**
	A. General	**37**
	Medical Authorization Form & Directions	**38 - 41**
2.04	**EMERGENCY PROCEDURES PLAN**	**42**
	A. Introduction and Purpose	**42**
	B. Location of Plan	**42**
	C. Basic Emergency Procedures	**42**
	Emergency Response Procedures	**43 - 44**
	D. Worker Injuries	**45**
	E. Fires and Spills	**45**
	F. Government Building Evacuation	**46**
	G. Bomb Threat Procedures	**46 - 48**
	Bomb Threat Incident Report	**49 - 50**
	H. Storm Conditions	**51**
2.05	**RETURN-TO-WORK PROGRAM**	**52**
	A. Modified Duty Program	**52**
	B. Focus on Ability — Not Disability	**52**
	C. Work is the Best Medicine	**52**
	D. Management Commitment to Immediate Accommodation	**52 - 54**
	E. Relationship with Treatment Center and Physicians' Panel	**55 - 56**
2.06	**SUBSTANCE ABUSE POLICY**	**57 - 62**
2.07	**SAFETY AND PUBLIC RELATIONS**	**63**
2.08	**PROJECT TOURS AND VISITORS**	**63**

	A.	Project Tours	63
	B.	Visitors	63 - 65
2.09	PROTECTION OF THE PUBLIC		66 - 67
2.10	OSHA INSPECTIONS		68 - 87
2.11	SITE ACCESS CONTROL		88
SECTION 3- SUB-SUB CONTRACTOR & SUBCONTRACTOR SAFETY MANAGEMENT			**89**
3.01	SAFETY MONTITORIING		89
	A.	Project Safety Committee (PSC)	89
	B.	Project Safety Goals	90
3.02	SAFETY COMPLIANCE		91
	A.	General Safety Compliance	91
	B.	Project Disciplinary Program	91
		Disciplinary Action Notice	93 - 94
		Field Observation Report	95
SECTION 4- SAFETY TRAINING			**96**
4.01	GENERAL		97
4.02	TRAINING CRITERIA		97
4.03	WEEKLY JOB SITE SAFETY MEETINGS		98
		Toolbox Meeting Report	99 - 111
SECTION 5- REPORTING REQUIREMENTS, PROCEDURES, AND POSTINGS			**112**
5.01	ACCIDENT OR INCIDENT REPORTING AND INVESTIGATION		112
	A.	Employee Injuries	112
		First Report of Injury	114
		Injury Investigation Report	120
5.02	SAFETY RELATED REPORTING		115
	A.	Safety Surveys	115
SECTION 6- SITE-SPECIFIC SAFETY STANDARDS			**121**
6.01	COMPETENT PERSONS		122
		Designation of Competent Persons	123-123
6.02	PERSONAL PROTECTIVE EQUIPMENT		125
		Respiratory Protection	126-143
6.03	FALL PROTECTION PLAN		144
	A.	DEFINITIONS	144
	B.	HAZARDS	144-146
	C.	TYPES OF EQUIPMENT	147
	D.	METHODS OF FALL ARREST AND FALL RESTRAINT	147

	E. PROCEDURES FOR THE MAINTENANCE AND INSPECTION OF FALL PROTECTION SYSTEMS	149
	F. PROCEDURES FOR HANDLING, STORING AND SECURING TOOLS AND MATERIALS	147
	G. OVERHEAD PROTECTION FOR WORKERS PASSING BELOW	147
	H. SPECIFIC SAFETY REQUIREMENTS (IN ADDITION TO MANUFACTURER AND OSHA STANDARDS)	148-150
	I. SITE-SPECIFIC FALL PROTECTION PLAN	151
	J. FALL PROTECTION PLAN TRAINING PROCEDURES	151-153
6.04	EQUIPMENT AND MOTOR VEHICLES	154
6.05	CONFINED SPACE	154
	Confined Space Entry Checklist	155-163
	Confined Space Entry Permit	164-176
6.06	LADDERS	177
6.07	HAZARD COMMUNICATION PROGRAM RESPONSIBILITIES	186
6.08	SIGNS, SIGNALS & BARRICADES	186
6.09	FLOOR OPENINGS	186
6.10	TASKLIGHTING	186
6.11	HOUSEKEEPING	187
	Housekeeping Directive	188
6.12	MOBILE AND TOWER CRANE SAFETY	191-192
6.13	REINFORCED STEEL (REBAR)	193
6.14	POWDER ACTUATED EQUIPMENT	193
6.15	RIGGING REQUIREMENTS	193-201
6.16	COMBUSTION ENGINES	202
6.17	SUBCONTRACTOR AFTER-HOURS EMERGENCY DIRECTORY	202
	Subcontractor After -Hours Emergency Directory	203
6.18	DANGER ZONE AWARENESS	204
	Daily Job Hazard Analysis Meeting	
6.19	PROJECT RADIO FREQUENCIES AND ASSIGNMENTS	205
	Project Radio Channels	
6.20	Forklift Operators	205
6.21	Lockout Tag out Procedure	206
	A. Identification Tags	206
	B. Locks	206
	C. Training	206-207
	D. Company Representative	208
	E. Notification of Live Energy Source	208
	F. Administrative Lockouts/Tag outs	209
	G. Re-Energizing	210-211
	Lockout / Tag out Log	210-211
SECTION 7- PROJECT SAFETY RULES AND DISCIPLINARY PROGRAM		212
7.01	SAFETY RULES AND DISCIPLINARY PROGRAM	212-217
7.02	RULES FOR DELIVERIES	218
SECTION 8 - CODE OF FEDERAL REGULATIONS (CFR) 29		220
8.01	Requirement to Stay Informed	220
8.02	Requirement fir Compliance	220

SECTION 9- REFERENCES **220**

9.01 Federal References **220**
9.02 Other References **220**

SECTION 10 SAFETY MANUAL SUPPLEMENTS, REVISIONS, ADDITIONS AND BULLETINS **222**

10.01 Safety Manual Revisions **222**
10.02 Safety Manual References **222**

SECTION 11 - DISCLAIMERS **223**

11.01 Project Safety Manual **223**
11.02 General **223**

Project Name

PROJECT SAFETY STATEMENT

The Project Safety Manual has been established to coordinate all available means of eliminating or controlling hazards and risks associated with the construction of the Project Name.

Safety must be an integral part of each job. Full participation, cooperation, and support are necessary and required to ensure the safety and health of all persons and property involved in the Project Name. We ask your cooperation in making this an accident-free project.

All subcontractors are charged with the responsibility for conducting their operations in a manner that will provide safe working conditions for all their employees, protection of the public and all others who may come in contact with or be exposed to this project. Nothing contained in this manual is intended to relieve any trade or subcontractor of the obligations assumed by the trade or subcontractor under their subcontract with Nichols Contracting, Inc. or by law, for the Project Name.

It is our intent to provide support, direction and to assist all trades and subcontractors in their loss prevention and safety efforts.

Thank You,

Frederick A. Nichols
President

NICHOLS CONTRACTING, INC.

A vital aspect of this challenging project, and one that involves every one of its participants, is creating and maintaining a safe work environment. NICHOLS CONTRACTING, INC. has emphasized its commitment to jobsite safety from the early planning stages of the project by establishing a committing to a drug-free workplace, and involving experienced and dedicated personnel in the area of safety, such as the Construction Manager, and Safety Manager. We expect each person's commitment to adopt a daily safe-work philosophy and to abide by the attached Project Safety Manual; we look forward to working with you to maintain a safety record of which we all can be proud.

PROJECT SAFETY STATEMENT

The Project Safety Manual has been established to coordinate all available means of eliminating or controlling hazards and risks associated with the Project Name.

Safety must be an integral part of each job. Full participation, cooperation, and support are necessary and required to ensure the safety and health of all persons and property involved in the Project Name. We ask your cooperation in making this project an accident-free project.

All Subcontractors are charged with the responsibility for conducting their operations in a manner that will provide safe working conditions for all of their employees, the protection of the public, and all others who may come in contact with, or be exposed to, the Project Name.

Nothing contained in this manual is intended to relieve any Subcontractor of the obligations assumed by the Subcontractors, or under their contract with NICHOLS CONTRACTING, INC., or by law.

It is our intent to provide support, direction, and to assist all Subcontractors in their loss prevention and safety efforts.

Thank you.

Nichols Contracting, Inc.

NCI Safety Officer
Safety Director

INTRODUCTION

This manual has been developed to provide information and guidelines to all Subcontractors and Sub-subcontractors on the requirements and procedures for accident prevention, safety, reporting, and other responsibilities for safety associated with the Project Name. The sections of this manual are structured and organized so the Subcontractors or Sub-subcontractor's managers can easily reference a particular subject.

Section 1 contains the program objectives, definitions (of the major entities), abbreviations, and safety responsibilities of the entities on-site. You must know your responsibilities and how they interface with others.

Section 2 is a guideline for the Site-Specific Safety Programs developed for the Project Name. This section includes First Aid and Medical Services, Emergency Procedures, and Emergency and Non-Emergency Contacts.

Section 3 addresses Safety Management and the Project Safety Person. This section also has Safety Compliance guidelines outlining a disciplinary procedure you and your company will be subject to should your safety performance be deficient. We have incorporated the project goals, how these goals relate to your performance, and how we will monitor your performance

Section 4 outlines the on-site training and the criteria for such.

Section 5 outlines the reporting requirements for Accidents, Injuries, toolbox talks, and Safety Surveys. Timely reporting of all accidents and injuries, including immediate reporting to the site superintendent, must be observed. Late reporting will not be tolerated. Weekly took box talks and inspection reports are required. The safety person will assist you if you have any comments or questions.

Sections 6 &7 highlight site-specific safety standards and project safety rules. Sections 8, 9, 10 are the Construction Safety Standards to be used for this project.

REMEMBER, THE SAFETY PERSON IS AVAILABLE TO ASSIST YOU.

SECTION 1
ADMINISTRATIVE

1.01 SAFETY OBJECTIVES

This Project Safety Manual has been established to coordinate the available means of eliminating or controlling hazards and risks associated with the development of the Project and specifically to:

(1) Minimize personal injuries,

(2) Maximize property conservation,

(3) Achieve greater efficiency,

(4) Reduce direct and indirect costs,

(5) Establish a drug-free and alcohol-free worksite, and

(6) Protect the general public.

The effectiveness of the safety program will depend upon the active participation and sincere cooperation of all parties to the Development Agreement including the Developer, Design Professionals, Construction Manager, Government Agencies, and their Consultants, Subcontractors, Sub-subcontractors, Supervisors and employees, and the coordination of their efforts in carrying out the following basic responsibilities:

(1) Plan all work to minimize bodily injury, property damage, and loss of productive time,

(2) Maintain a system of prompt detection and correction of unsafe practices and conditions,

(3) Plan for the protection of adjacent public property for the safety of the public at all times, and

(4) Establish and conduct an education program to stimulate and maintain interest and participation of all subcontractors and Sub-subcontractors through:

(a) Holding regular safety meetings and Safety communications,

(b) Investigation of all accidents and serious potential incidents to determine cause and to take necessary corrective action to eliminate future potential losses,

(c) Use of proper work methods, personal protective equipment, and mechanical guards,

(d) Making employee safety instructions applicable to all assigned work,

(e) Establishing safety training programs, and

(f) Reviewing accident and incident experience summaries.

(5) Plan for continuous monitoring of the workplace to identify potentially unsafe conditions and to initiate correction of these before an occurrence.

(6) Make safe work habits a condition of employment.

Project Managers, Superintendents, Subcontractors, Supervisors and Safety Representatives, as well as government representatives assigned to the **Project Name**, have specific authority to stop any work, or notify the Construction Manager or Superintendent of the need to stop work, which appears to them to present an imminent danger that could result in death or serious injury.

1.02 DEFINITIONS

Construction Manager (CM)	Nichols Contracting, Inc.
Developer	Maryland Stadium Authority
General Superintendent	Senior field person for the Construction Manager.
Government Regulations or Requirements	Federal, State and local statutes, ordinances, rules, regulations, orders, directives, requirements, policies, procedures, and guidelines applicable to the Project.
Job-Site	As defined in the Subcontractor Contract and known as the **Project Name**.
Owner	Maryland Stadium Authority
Project	**Project Name**
Project Director	Senior on-site manager of the Construction Manager.
Project Safety Manager	The representative of the Construction Manager responsible for the direct enforcement and management of the project safety program and manual.
Project Safety Program	The safety and loss control program established to minimize and control the hazards and risks associated with the project as outlined in the Safety Manual and the Subcontractor Contract Agreements.
Representative	Subcontractor responsible for safety management of the Sub-subcontractor and compliance with the safety programs.
Safety Manual	This manual
Subcontractor Safety Program	The detailed safety program developed by the Subcontractors and Sub-subcontractor specific to their respective work.
Subcontractor Safety Representative	The designated representative of the Subcontractor.
Work	Means the operations conducted at the job site.

1.03 ABBREVIATIONS

From time to time, certain entities, programs, or policies may be referenced by abbreviation or initials as follows:

Construction Manager/ General Contractor INC."	CM/GC or "NICHOLS CONTRACTING,
Developer	Maryland Stadium Authority
Government Regulations or Requirements	"REGS"
Project Name	**Project Name**
Project Director	PD
Project Manager	PM
Project Safety Manager	PSM or "Safety Manager"
Project Safety Program	PSP
Project Superintendent	PS
Safety Manual	SM or "Manual"
Subcontractor Safety Program	SCSP or "Trade Program"
Subcontractor Safety Representative	SSR or "Sub Safety Rep"

1.04 SAFETY RESPONSIBILITIES

A. Construction Manager/General Contractor

(1) NICHOLS CONTRACTING, INC. PROJECT DIRECTOR (PD)

(a) The Project Director will provide the leadership essential to reinforce the principle that safety is a top priority responsibility. He will be responsible for providing the support to the Project Manager, Superintendent, and Project Safety Manager in carrying out the implementation and enforcement of the Project Safety Program.

(b) In the event of a conflict or ambiguity between safety statutes or requirements, the decision of the Project Director will be final.

(2) PROJECT MANAGER (PM) AND SUPERINTENDENT (PS)

(a) Take an active part in all supervisory safety meetings, including the review of all accident experience and corrective actions.

(b) Show a personal interest by setting an example through actions and attitude.

(c) Direct immediate action to correct all substandard safety conditions brought to his attention.

(d) Provide the Project Safety Manager with support in carrying out the duties and responsibilities of that position.

(3) PROJECT SAFETY MANAGER (PSM)

(a) The PSM is responsible for the management of the Project Safety Program-and the related safety requirements.

(b) The Project Safety Manager's duties include, but are not limited to the following:

Review Subcontractor's safety plans and programs, descriptions of the hazards peculiar to their work, and their nominees for the Safety Representative position as required by contract.

NICHOLS CONTRACTING, INC. will maintain a first aid log for all personal injuries occurring at the site. Accident reports, OSHA 300s, etc. will be maintained by the appropriate Subcontractor, with a copy forwarded to the PSM as soon as possible.

(c) Conduct periodic safety meetings with all Subcontractor Safety Representatives.

(d) Organize and conduct safety training as necessary.

(e) Conduct Safety Surveys to ensure the Subcontractor provides effective safety enforcement on the project. The PSM will request -corrective action when unsafe conditions are detected.

(f) Investigate serious accidents to determine cause and to eliminate future potential losses.

(g) Coordinate safety activities with Maryland Stadium Authority, representatives of the government, insurance Safety Representatives, field superintendents, Subcontractor Superintendents and Safety Representatives, and emergency response personnel or vehicles.

(h) The PSM is authorized to stop any construction activity or task, which, in his judgment, constitutes an immediate or evolving situation of imminent danger. In the event of a conflict or ambiguity between safety statues or requirements, the decision -of the Project Director will be final.

(i) The PSM is responsible for the coordination of all administrative aspects of the Project Safety Manual in cooperation with the Project Manager and Maryland Stadium Authority.

(j) The PSM shall be responsible for monitoring the effectiveness of the safety program and to formulate recommendations for improvement.

(k) Assist in establishing a preferred medical treatment facility, and assist in establishing a safety incentive program (if used).

(4) FIELD SUPERVISORS

(a) Participate with the PSM and the Project Manager in making a (pre-job) Safety Survey before commencement of the job and Subcontractor’s work.

(b) Perform and or assist in accident investigations and documentation.

(c) Report unsafe acts or conditions observed to the responsible Subcontractor and Sub-subcontractor (if applicable) for corrective action. Report any non-compliance to the General Superintendent and Safety Manager of the appropriate contract.

(d) Periodically attend Subcontractor and Sub-subcontractor’s toolbox meetings to ensure compliance.

(e) Ensure that the Subcontractor and Sub-Subcontractors are in compliance and keep records of conditions found and corrective action taken.

B. Subcontractors

(1) Responsibilities

Total management of their employees, equipment, and Sub-subcontractors

(a) The Subcontractor is contractually obligated to comply with the Project Safety Program, all Federal, State, and local laws, regulations and industry standards, statutory requirements, and contract specifications. These combined safety requirements constitute the minimum performance expected from each Subcontractor. The Subcontractor is responsible for accident prevention and investigation, and job site safety. The Trade Agreement requires the active participation and cooperation of all Subcontractors (including compliance with the above mentioned 7 programs). However, ultimate compliance for the Project Safety Program cannot be delegated. Responsibility for Sub-subcontractor compliance will be the responsibility of the Subcontractor.

(b) Within fifteen (15) days after notification of the contract award, submit a detailed site-specific safety and Hazcom program to the CM for review. The safety program is to conform to the project, Federal, State, and local safety requirements, and to contain a disciplinary program that is at a minimum, equivalent to the Project Safety Program. Review and approval of the site-specific program by the Construction Manager shall not relieve the Subcontractor of its responsibilities for safety. Nor shall such approval be construed as limiting in any manner the Subcontractor's obligation to undertake any action, which may be necessary or required to establish and maintain safe working conditions at the Maryland Stadium Authority.

(c) Designation of a Safety Representative: The Subcontractor shall designate a competent supervisor, as the Safety Representative, to carry out the project safety responsibilities. The Subcontractor shall submit the designated Safety Representative's qualifications, including a copy of a current First Aid card and an OSHA 10-hour course card, for review and approval by PSM. The CM may require a full-time qualified Safety Professional as the Safety Representative, depending on the scope of work. A personal interview of the proposed Safety Representative may be required.

(2) SUBCONTRACTOR'S PROJECT MANAGER AND SUPERINTENDENT

(a) The Subcontractor's Project Manager and Superintendent will ensure compliance with all provisions of the contract including the Project Safety Program, OSHA, and other agency and industry safety requirements and standards. Additional duties of this position shall include the following:

(b) Review and direct immediate action to correct all substandard conditions brought to his or her attention

(c) The designated Safety Representative shall be required to review and acknowledge receipt of the Project Safety Manual, which will be provided to the Subcontractor and explained to the Project Superintendent and Safety Representative upon contract award. The Subcontractor shall ensure no Sub- subcontractor starts work -on site before completing all personnel has received a Project Safety Orientation.

(d) The designated Safety Representative shall attend the pre- construction meeting and all regularly scheduled project site Safety-Meetings.

(e) The designated representative shall ensure that Material Safety Data Sheets (MSDS) for all materials to be brought on site are submitted to the CM. Substances that may cause odor problems, or toxic effects to occupants of surrounding government buildings and pedestrians in the vicinity, will have to be coordinated with the PSM before use.

(f) Maintain a safety orientation program for new employees, which will include a review of the **Project Name** Safety and Security Policies, including, but not limited to, the prohibited use or possession of alcoholic beverages, illegal drugs, firearms and gambling on the job site.

(g) Maintain accurate accident and injury reports, and furnish a summary of injuries and man-hours (by Subcontractor) to the PSM no later than the 10th of the following month.

(h) All accidents, with or without injuries, are to be reported immediately to the PSM. Copies of loss, accident investigation, etc., shall be forwarded to PSM immediately or upon discovery of the incident.

(i) Furnish the PSM a copy of all warnings or citations of safety violations that may have been issued by jurisdictional, OSHA Federal, State, or local enforcement agencies that are performing work on the **Project Name**.

(j) Ensure that all material handling equipment meets OSHA and manufacturer's requirements before use on site, i.e., back-up alarms, cranes have their latest annual Safety Inspection Certificate on file, and operators' permits are maintained as required.

(k) Be responsible for providing the PSM support in the elimination of safety problems.

(l) Take an active part in the discussion of observed unsafe work practices or conditions, and encourage safety suggestions from employees.

(m) Ensure that reports are submitted in a timely manner, i.e. toolbox reports and Safety Surveys every week.

(n) Ensure fire protection equipment and posting of safety signs are maintained.

(o) Ensure new-hire or newly assigned employees receive the project safety orientation.

(p) Ensure weekly toolbox talks and weekly safety inspection reports are forwarded to the CM within two working days.

(3) SUBCONTRACTOR'S FOREMEN

This position is an integral part of an effective safety program. The effort put into accident prevention on their daily assignments is a primary determinant of whether or not a good accident record is established and maintained. Responsibilities will include, but not be limited to, the following:

(a) Instructing personnel in safe work practices and work methods at the time work is assigned.

(b) Ensuring that employees have and use the proper protective equipment and suitable tools for the job to be performed.

(c) Continuously monitor to ensure that no unsafe practices or conditions are allowed to exist.

(d) Correct or report immediately to their supervisor (or the CM) any unsafe —conditions, practices or violations of job security.

(e) Perform a complete investigation of all accidents to prevent reoccurrence.

(f) Set a good example for employees.

(g) Hold weekly toolbox meetings to:

(h) Train employees on hazard recognition.

(i) Discuss unsafe work practices and or recent accidents,

(j) Review accident experience of the crew, and

(k) Encourage safety suggestions from employees and report their recommendations to your safety representative.

(l) See that first aid is promptly administered to an injured employee.

(m) Maintain conditions as required on work permits.

(n) Recognize and incorporate into the loss control program any requirements with respect to noise and air pollution and the potential hazards that may be at the Project site such as:

(o) Hazardous products and conditions,

(p) Excessive noise levels, or

(q) Protecting underground piping, sewers, and electrical systems.

(r) Personal protective equipment—subcontractor will:

(s) Evaluate the need for particular equipment,

(t) Provide the approved equipment,

(u) Train personnel in use of the equipment, and

(v) Enforce use of equipment.

(w) Reports to the Construction Manager/General Contractor

- Responsibility rests with each Subcontractor to ensure that all reports are forwarded to the PSM in timely manner. Subcontractor will also ensure that their Sub-subcontractor's reports are forwarded in a timely manner. These reports shall include, but not be limited to:

- Supervisor's accident investigation report,

- Notification of all incidents,

- Weekly safety and toolbox talk reports,

- Weekly Superintendent and Safety Representative Safety Surveys, and

- Monthly man-hour reports.

(4) SUBCONTRACTOR SAFETY REPRESENTATIVE

The Safety Representative or Safety Professional will perform daily safety inspections and surveys of their work area. The Safety Representative's responsibilities include, but are not limited to the following:

(a) Informing all employees of steps to take in the event of an accident or emergency, and the location of the first aid facilities.

(b) Investigating all accidents and implementing immediate corrective action, assisting in the preparation of all accident investigations, and reporting procedures.

(c) Providing Foremen with appropriate training material to conduct weekly toolbox meetings. Attend these meetings to evaluate theft effectiveness.

(d) Be responsible for the control, availability, and use of necessary personal protective equipment for employees.

(e) Coordinate safety activities with the CM/GC, and Safety Representatives, and take necessary steps to promptly implement safety recommendations.

(f) Attend safety meetings and training sessions. The Subcontractor's Safety Representative or safety superintendent is expected to participate.

(g) Provide the PSM with a copy of signed toolbox meeting reports.

(h) Provide the PSM with a copy of all First Reports of Injury and Accident Investigation Reports, including Subcontractor's reports, within 24 hours after the incident has occurred.

C. SUB-SUBCONTRACTORS

1. The Sub-subcontractor is contractually obligated, by the Subcontractor's contract, to comply with the Project Safety Manual, all statutory requirements, and the contract specifications. These combined safety requirements constitute the minimum performance expected from each Sub-subcontractor.

2. All reports, training, and other documentation required to be submitted by the Sub-subcontractor must be presented, and approved, by their Subcontractor before submission to NICHOLS CONTRACTING, INC..

JOB SAFETY INSPECTION

JOB NAME: **DATE:**
JOB NUMBER:
PROJECT MANAGER:
SUPERINTENDENT:

Mark box "OK" if no correction is needed; "check" if correction should be made; leave blank if item does not apply.

	OK	Check
1. Personal Protection – Hard hats, safety shoes, eye protection, gloves, respiration, etc.		
2. Walkways, Stairs and Ramps – Clear, adequate width, proper slope, in good repair, surface too slippery		
3. Floor or Other Openings – Covered, guardrails, toe boards, barricades, warning signs, Lighting		
4. Ladders – Sturdy construction, secured, proper angle, safety feet, etc.		
5. Scaffolds – Sturdy construction, anchored, guard rails, toe boards.		
6. Overhead Protection – Sidewalk, street work area protected from falling objects		
7. Housekeeping – Piling of new and used lumber, nails removed, other material piling and placement, tripping hazards		
8. Adequate Illumination – Halls, stairways, for equipment repair, etc.		
9. Power Tools and Equipment – Guarded – Extension Cords, Portable and table saws, Planners, conveyors, belts, and pulleys, sprockets and chains, gears		
10. Trenching and Excavation – Shored or back sloped, barricades, warning lights		
11. Heavy Equipment Safety – Operated safely; parked with blade, ball, boom, bucket etc., resting on ground; precautions when under repair, etc.		
12. Cranes and Hoists – Maintenance, cable condition, clamps, safety hooks, power Lines, "no riding" rules enforced		
13. Storage and handling of Flammables (Gasoline, oil, L.P.G., etc.) – Tanks, hoses Static and electric spark control, no smoking, no refueling with motor running, Cylinders supported, fire extinguishers		
14. Warning lights, signs, barricades, watchmen, flagmen, children, etc.		
15. Fire Extinguishers – Proper type and size, recharged		
16. First Aid Equipment – adequate		
17. Evidence of Drugs, Alcohol or Weapons		
18. Weekly Safety Meetings		
19. Electrical		

COMMENTS: _____

_____

_____
Inspectors Signature

NCI Safety Officer
Safety Director

CONSTRUCTION JOB CHECK LIST

A check in the "NO" column indicates non-conformance to an OSHA general policy or safety standard and user should refer to the published OSHA standard for specific detail for compliance.

User is cautioned that this check list does not apply to every type of operation and therefore does not list those items covering every hazard relating to a physical or occupational disease exposure. It contains those items where OSHA citations have been issued most frequently.

GENERAL	YES	NO	VIOLATION CORRECTED
Pre-job safety meeting held with subcontractor(s)			
Monthly safety meetings held with supervisor and subcontractors.			
Safety meetings held with work crews at least every ten working days.			
Competent contractor personnel assigned responsibility to inspect jobsite for safety.			
U.S. Department of Labor "Safety and Health Protection on the Job: poster posted.			
Management safety policy directives posted.			
Safety bulletins, accident prevention material posted.			
Copies of Lôg of Employee Injuries (OSHA Log No. 200) at jobsite.			
Copies of Supplemental Record of Job Injuries (OSHA Log No. 200) posted--when required			
Copies of Worker Injury Investigation Report kept at jobsite.			
Minutes of jobsite safety meetings recorded and kept at jobsite.			
Safety inspection reports by contractor personnel prepared and kept at jobsite.			
SANITATION, MISCELLANEOUS			
Portable containers used to dispense drinking water (required types). 1926.52-a-2			
Where single service cups are used for drinking water, are containers provided for new and used cups. 1926.51-a-6			
Adequate number of toilet facilities provided. 1926.51 Table D			
Special washing facilities provided for workers handling materials which may be harmful to their health. 1926.51-f			
Illumination in work areas (including offices, shops) adequate. 1926.56			
Required portable fire-fighting equipment available, properly located and maintained. 1926.150 C			
Approved metal safety cans used for handling and use of flammables. 1926.152 a			

GENERAL	YES	NO	VIOLATION CORRECTED
In areas where flammables are stored or where operations present a fire hazard. "NO Smoking or Open Flame" sign posted. 1926.151 a-3			
Indoor and outdoor storage of flammables in approved containers or cabinets with warning signs posted. 1926.152 a			
Form and scrap lumber, and all other debris kept clear from work areas. 1926.252 c			
Combustible scrap and debris removed from work areas at regular intervals. 1926.151 c-3			
Containers provided for collection, separation of waste, trash, oily and used rags. 1926.252 c-8			
Solvent waste, oily rags, and flammable liquids kept in fire resistant covered containers until removed from worksite. 1926.252 e			
PERSONAL PROTECTION			
Hearing protective devices provided for and worn by workers where noise levels are excessive. 1926.101			
Hard hats provided for and worn by workers. 1926.100			
Eye and face protection provided for and worn by workers where exposed to potential eye or face injury. 1926.102			
Workers required to wear footwear adequate for their assigned work. 1910.136			
Respiratory protective equipment provided and worn when workers exposed to harmful dusts, fumes, gases. 1926.103			
HAND AND POWER TOOLS			
Hand held powered tools (saws, air impact) equipped *only* with constant pressure switch. 1926.300 d-3			
Hand held powered tools (drills, tappers, fastener drivers, disc and belt sanders, angle grinders) provided with momentary contact "on-off" switch with lock-on control *only* if turnoff is by single motion of same finger/fingers that turn it on. 1926.300 d-2			
Devices provided on air power tools to prevent tools from becoming acci dentally disconnected from hose. 1926.302-b-1			
Air driven nailers operating more than 100psi provided with safety device on the muzzle to prevent ejection unless muzzle in contact with work surface. 1926.302-b-3			
Air hose connections secured across each such connection between air re ceiver and tool. 1926.302-b-1			
Airless spray guns (operating at 1000 psi) equipped with safety device preventing pulling of trigger until safety device is manually released. 1926.302-b-8			

GENERAL	YES	NO	VIOLATION CORRECTED
Powder actuated tools provided with safety shield/guard and operator has evidence of special training in their use. 1926.320-3-1 and 11			
Portable power circular saws provided with proper functioning automatic return lower guard and fixed upper guard. 1926.304 D			
All fixed power woodworking tools provided with a disconnect switch that can be locked or tagged in the off position. 1926.304 A			
Defective tools, equipment tagged as unsafe, or controls locked in off position, or physically removed from jobsite. 1926.20-b-3			
ELECTRICAL			
For power circuits, exposed or concealed, where accidental contact by tools/ equipment may be hazardous, warning signs posted and all workers advised of hazard. 1926.400-C-2			
Regular inspections made to assure effective grounding of noncurrent carrying metal parts of portable and/or plug connected equipment or GFCI's installed on all 110-120V temporary circuits. 1926.400 h			
Temporary lights equipped with guards to prevent accidental contact with bulb. 1926.401 5-1			
Receptacles, attachment plugs not interchangeable on circuits of different voltages, current ratings or types of current (AC or DC). 1926.402-a-2			
LADDERS			
Ladders regularly inspected and destroyed when found defective. 1926.450 a-2			
Side rails extend 36" above landing or provision of grab rails. 1926.450 a-9			
Top of ladders tied-in to prevent displacement. 1926.450 a-10			
Double cleat ladders provided for working area having 25 or more workers and two-way traffic is expected. 1926.450-b-1			
Double cleat ladders not exceeding 24 feet in length. 1926.450-b-2			
Single cleat ladders not exceeding 30 feet in length. 1926.450-b-3			
Cleats inset into edges of side rails or filler blocks used. 1926.450-b-12			
All job-built ladders constructed to conform with standards. 1926.450 Tables			
No metal ladders used within 10 Ft. of electrical lines. 1926.450-a-11			
Stepladders used only in full open position. 5-a-1			
Stepladders of sufficient height so that top two steps do not have to be used to perform work. 5-a-1			
All manufactured single and extension ladders equipped with ladder shoes. 1926.450 a-6			

GENERAL	YES	NO	VIOLATION CORRECTED
SCAFFOLDING All open sides and ends of platforms more than 10' above ground or floor level, provided with op rails, (42" high) midrails, toeboards (4" high). 1926.451 a-4			
Where workers pass or work under scaffolds, screens or other overhead protection provided. 1926.451-a-6			
Platform planks laid together tight preventing tools, etc., from falling through. 1926.451-b-11			
Scaffold guyed or tied to structure. 1926.451-b-4			
Scaffolding set plumb with adequate foundation bearing plates. 1926.451-a-2			
Platform planks extend over end supports not less than 6", nor more than 12". 1926.451-a-14			
Planks secured to prevent dislodgment. 1926.451-a-12			
Overhead protection on scaffolds where workers exposed to overhead hazards. 1926.451-a-16			
Ladders used to gain access to scaffold work platforms. 1926.451-a-13			
Horse scaffolds not more than two tiers or 10' in height. 1926.451-0-1			
Horse scaffolds speced not more than 5' for medium duty, not more than 8' for light duty. 1926.451-0-3			
Top rails, midrails, toeboards provided on horse scaffolds 10' above ground or floor level. 1926-451-0-7 **ROLLING SCAFFOLDS (Manually Propelled)** Wheel brakes set while in use. 1926.451 e-2			
No riders on work platform while moving. 1926.451 e-7			
Work levels 10' or more above ground or floor level have guard rails and toeboards. 1926.451 e-10			
All cross and diagonal bracing in place and properly connected. 1926.451-e-9			
Height does not exceed 4 times least base dimension unless outriggers are used. 1926.451-3-1			
Ladder access to work platform. 1926.451-e-5 **SWINGING SCAFFOLDS--2 Point Suspension** Roof hooks or irons securely installed and anchored to a sound structural part of the building. (Beware of ornamental parapets) 1926.451-i-4			
Sheaves fit size of rope used. 1926.451-i-6			
Equipped with standard guard rails and toe boards. 1926.451-i-2			
Load limit marked on each scaffold. 1926.451-i-8			

GENERAL	YES	NO	VIOLATION CORRECTED
Annual inspection made of crane hoisting machinery and record kept of dates and results. 1926.550-a-6			
On tower cranes, daily inspections made of rigging. 1926.550-a-5			
On tower cranes, weekly inspections made of supporting parts, safety appliances and record kept of repairs required. 1926.550-c-5			
No part of a crane or its load closer to energized electrical lines than the following distances: For lines rated 50 KV or below -- 10 feet. For lines rated over 50 KV -- 10 feet plus 0.4 inch for each 1 KV over 50 KV or twice the length of the line insulator not less than 10 feet. 1926.550-a-15-i-ii			
Cranes in transit with no load and boom lowered, equipment clearance not less than 6 feet for voltages less than 50KV; 10 feet for voltages over 50 KV -- 345 KV; and 16 feet for voltages up to 750 KV. 1926.550-a-15-iii			
EXCAVATIONS, TRENCHING & SHORING Excavated material effectively stored and retained at least 2 feet or more from edge of excavations. 1926-651-i-1			
Utility company contacted and advised of proposed excavation work to determine underground utility exposures or when overhead power lines are involved. 1926.651-a			
Substantial stop logs or barricades installed when mobile equipment working adjacent to excavation. 1926.651-s			
Trenches over 5' in depth shored to standard, laid back to stable slopes or provided with other equivalent protection where hazard of moving ground exists. 1926.652-a			
Trenches less than 5 feet protected where hazardous ground movement exists. 1926.652-a			
Trenches in hard or compact soil shored to standard when depth is more than 5 feet and 8 feet or more in length. 1926.652-c			
In lieu of shoring in hard or compact soil, trench above the 5-foot level sloped (slope not steeper than a 1-foot rise to each ½ foot horizontal). 1926.652-c			
Trenches 4' deep or more provided with ladder located no more than 25' of lateral travel. 1926.652-H			
WELDING, CUTTING, BURNING Proper personnel protective equipment provided, in good condition and being used. 1926.353-e-2			
All oxygen and acetylene cylinders secured properly in upright position. 1926.350-2-9			
All oxygen and acetylene gauges in working condition. 1926.350-h			

GENERAL	YES	NO	VIOLATION CORRECTED
All oxygen and acetylene hoses in good condition and free of grease and oil. 1926.350-f			
Mechanical lighters used for lighting torches -- No cigarette lighters or matches. 1926.350-g-3			
Oxygen and acetylene cylinders stored in upright position in designated areas with caps in place. 1926.350-a-9			
Oxygen and acetylene hoses properly located so as not be damaged by moving equipment or creating a tripping hazard. 350-f-7 1926.350-f-7			
Electric arc welding cables in good condition and properly attached by lugs to welding machine. 1926.351-b-1-2			
Rod holders in good condition. 1926.351-a-1			
Shields provided to protect other workers from flash burns. 1926.351-e			
Welders' shields and helpers' goggles in good condition and equipped with proper lenses. 1926.353-c-3			
Fire extinguishers provided with 25 feet of welding, cutting or bunting operations. 1926.352-d			
All flammable material removed from welding, cutting and burning operations area. 1926.352-a			
Protection provided to prevent slag, etc., from falling on workers below. 1926.350-j			
All welding cable positioned to eliminate tripping hazards. 1926.351-d-5			
ROOFING Pitched roofs over 4/1 pitch 1926 451-u-3			
Safety belts and life lines or catch platform. 1926.451-u-2			
Roofing bracket scaffolds secured. 1926.451-u-2			
Crawl or chicken ladders secured and with evenly spaced cleats. 1926.451-v			
Ladders extend 36" above eaves and secured top and bottom. 1926.450-a-9			
Flat and Low Pitch Roofs Less Than 4/1 Pitch Warning line 6 ft. from roof edge in the work area. 1926.500			
Safety belts and lines in use at perimeter or standard handrails or equivalent. 1926.500			
Protective equipment when handling hot pitch. 1926.500			
Ladder access same as for pitched roofs. 1926.450-a-9			
Materials stored 6 ft. from edge.			
All openings covered or protected by guardrails. 1926-500-a-4			

GENERAL	YES	NO	VIOLATION CORRECTED
CONCRETE FORMING AND POURING			
Vertical re-steel protected by covering when employees working above. 1926.700-b-2			
Employees wearing safety belts or equivalent when 6 ft. or more above adjacent work surfaces. 1926.700-b-1			
Walk and standing boards when pouring horizontal surfaces on re-steel. 5-a-1			
Employees provided with and using personnel protective equipment, while pouring concrete. 5-a-1			
No riding concrete buckets. 1926.700-d-7-ii			
All pump crete lines secured at all joints. 1926.700-d-6			
Concrete trucks blocked when discharging on a slope. 1926-700-d-8			
Shoring and re-shoring adequate for support. 1926.701-a-1			
Properly guarded work platform for walls, columns, beams, etc. 5-a-1			
Power troweling machines equipped with positive on/off switch. 1926.700-d-4			
STEEL ERECTION			
Decking or safety nets 2 stories or no more than 30 ft. where erection is being performed. 1926.750-b-2-i			
No riding of steel or the hook. 5-a-1			
Safety railing of no less than ½ inch wire rope 42 inches high around perimeter of all temporary planked or metal decked floors. 1926.750-b-1-ii			
Employees working on float scaffolds provided with safety belts. 1926.752-k			
DEMOLITION			
Dust controlled by wetting. 5-a-1			
Employees provided with dust respirators and goggles. 5-a-1			
Chutes properly erected and drop area barricaded off. 1926.852			
Floor openings protected. 1926.850-J			
Employee access to building provided with overhead protection. 1926-850-K			
Stairways in building used for access properly lighted, and maintained. 1926-851-c			
BLASTING			
Certified blaster in charge 1926.901-c			
Storage and handling of explosives conforms to Federal requirements and all local ordinances. 1926.904-a			

GENERAL	YES	NO	VIOLATION CORRECTED
Excess explosives, caps, det-cord, etc., removed to approved storage area prior to blast. 1926-905-d			
Standard warning system used. 1926.909-a			
Two-way radios turned off. 1926.900-k			
Signs posted.			
No other work within 100 ft. of loading area. 1926.900-k-3			
Wood poles used for tamping. 1926.905-c			
Blasting machines only used in electric blasting. 1926-906-D			
Waste explosives and containers disposed of as required by regulations. 1926.900-L			
Record of all explosives kept. 1926.905-T			
Post blast inspection completed. 1926.910			
Misfires handled as specified by regulations. 1926.911			
Access to work area controlled. 1926.905-i			

Notice of Safety Violation

Violation(s):

1)

2)

3)

4)

Comments:

Action:

Notice by: _____ Date: _____

cc: **Project Safety Manager**
Project Manager
Project Superintendent

NICHOLS CONTRACTING, INC.

Project Name

Tool Box Meeting Report

COMPANY: _____ **DATE:** _____

FOREMAN / SUPERINTENDENT: _____

TYPE OF WORK: _____

SUBJECT OF MEETING: _____

ATTENDANCE: (names): _____

_____

_____

_____

TOTAL ATTENDANCE: _____

SECTION 2
SITE SAFETY PROGRAMS

2.01 POINTS OF CONTACT FOR EMERGENCIES

Project personnel, Subcontractors, and Sub-subcontractors shall reference the following points of contact for emergencies.

NICHOLS CONTRACTING, INC.

Project Name

Points of Contact for Emergencies
(Routine numbers are included)

POLICE, FIRE RESCUE AND ENVIRONMENTAL

EMERGENCY NUMBER:

202-633-3980 (NASM Security Office)

During normal working hours (M-F, 7-4) notify NASM Security Office

Non-emergency numbers:

POLICE 911

Fire Prevention 911

Environmental Protection 911

NICHOLS CONTRACTING, INC.

Project Name

Medical Authorization

Date: _____ Time: _____

Name of Worker: _____ Home Telephone #: _____

Type of Injury: _____

Contractor: _____ Policy: _____

Insurance Carrier: _____ Company Name _____

Mailing Address: _____ Office Phone #: _____

_____ Fax #: _____

Physician Evaluation

Diagnosis / Treatment:_____

_____

Worker is fit to return to full-duty work today: YES ☐ NO ☐

Days on full disability (no work): _____

Days on light duty: _____

Light duty limitation: _____

Light duty limitation (restrictions): _____

Return to work: _____

Drug test conducted: YES ☐ NO ☐

Physician's Signature _____

Medical Follow-Up

When:_____

WithWhom:_____

Where:_____

2.02 EMPLOYEE SAFETY ORIENTATION

Introductory safety training should familiarize new employees with the common types of hazards that can be found at their work site and precautions that they are expected or required to observe. Such training should also cover project specific safety requirements.

Each tradesman that works on this project shall attend a Project Safety Orientation on his first day on this site, typically at 7:00 am. If preferred and scheduled in advance, orientations can be held the day before the worker's start date between 7:00 a.m and 2:00 p.m Included in the orientation will be the viewing of Safety videos and a review of the Project Safety Program. These training sessions will last a minimum of one hour. Subcontractors will ensure that they also brief employees on site-specific safety issues and requirements.

2.03 FIRST AID AND MEDICAL SERVICES

GENERAL

NASM Security Office will provide on-site first aid services and arrange for emergency transportation of employees who sustain occupational injuries or illnesses.

(1) FIRST AID FACILITIES

(a) The first aid service will be under the direction of the PSM.

(b) A log of the occupational injury or illness will be completed on all personnel who report to the first aid service for treatment. This log will be completed by the attending medical personnel, assisted by the Subcontractor supervisor or employee.

(c) Medical cases requiring treatment beyond the scope of the first aid service will be referred to an off-site physician or hospital.

(2) TRANSPORTATION OF INJURED OR ILL EMPLOYEES

(a) Non-Emergency. The Subcontractor shall have the employee transported to the appropriate medical facility.

(b) Emergency PHONE NUMBER must be contacted for emergency medical treatment and transportation. NICHOLS CONTRACTING, INC. will normally arrange for this transportation.

(3) RECOMMENDED OFF-SITE FACILITIES

Primary Emergency Service: Mercy Medical Center
Hours: 24 hour EMERGENCY SERVICE
Phone Number: EMERGENCY ROOM (PHONE NUMBER)
ER ADMIN: (Phone Number), Gen. Information or Operator
Alternative Facilities: (NAME) Ambulatory Care Center & Address

NICHOLS CONTRACTING, INC.

Project Name

Medical Authorization

Date: _____ Time: _____

Name of Worker: _____ Home Phone #: _____

Type of Injury: _____

Contractor: _____

Insurance Carrier: _____ Telephone #: _____

Fax #: _____

Physician's Evaluation

Diagnosis / Treatment: _____

Worker is fit to return to full-duty work today? Yes ☐ **No** ☐

Days on it!! disability (no work): _____

Days on light duty: _____

Light duty limitation: _____

Light duty limitation (Restrictions): _____

Regular work return day: _____

Drug test conducted: Yes ☐ **No** ☐

Physician's Signature _____

Medical Follow-Up

When: _____

With Whom : _____

Where:_____

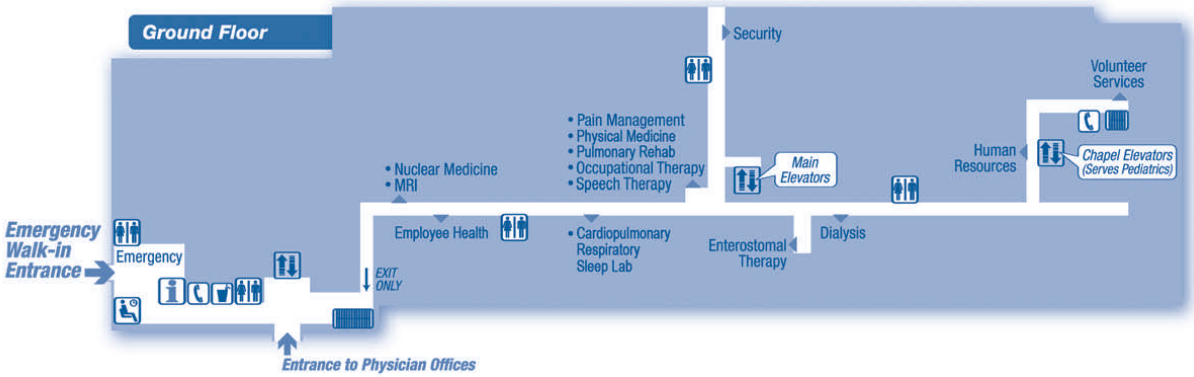
Hospital Information

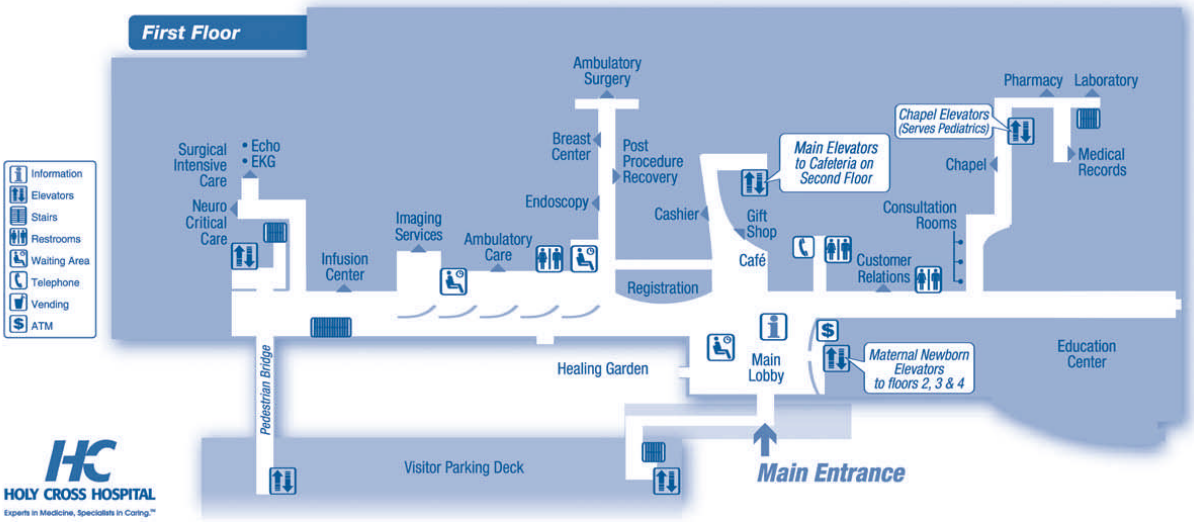
Holy Cross Hospital is located at 1500 Forest Glen Road in Silver Spring, Maryland.

The hospital is just north of Washington, D.C., and near the Capital Beltway and Metro.

Holy Cross Hospital primarily serves residents of the state's two largest jurisdictions, Montgomery and Prince George's counties.

For general information, please call **301-754-7000**.





Hospital Parking & Directions

Our parking garage is located to the left of the main hospital entrance. Valet parking is available at the main entrance.

Holy Cross Hospital charges for parking on our campus, Monday through Friday. Patients and visitors receive the first hour of parking free up to a maximum of $6 per day. Parking on the weekends is free.

Patients and visitors who require longer-term parking because of an extended inpatient stay may purchase a weekday pass for $10, valid for seven days from date of purchase. The pass allows unlimited entry and exit from the garage and is available for purchase from the hospital cashier during main business hours (Monday through Friday, 7:30 a.m. to 7:30 p.m., and on Saturday and Sunday from 8:30 a.m. to 4 p.m.).

Please be aware that street parking in the community surrounding the hospital is by resident permit only. Hospital patients, visitors and meeting participants who park on the community streets risk being ticketed or towed by the county.

For additional information about parking, contact our Security Department at **301-754-7070**

HOLY CROSS HOSPITAL
1500 FOREST GLEN ROAD
SILVER SPRING, MD
301-654-0606

- **DRUG SCREENING** _____
- **WORKER'S COMP** _____
- **COMPANY NAME** _____
- **COMPANY CONTACT** _____
- **FAX NUMBER** _____

DIRECTIONS TO OUR CLINIC: FROM JOB-SITE TURN LEFT ON OLD GEORGETOWN ROAD. CONTINUE ON OLD GEORGETOWN ROAD INTO BETHESDA. MAKE A LEFT ONTO WOODMONT AVE. GO THROUGH ONE LIGHT, AND BEAR TO YOUR RIGHT AT NEXT INTERSECTION. GO TO SECOND LIGHT. THIS IS WISCONSIN AVE. CROSS OVER THIS INTERSECTION, AND YOU ARE THEN ON MONTGOMERY AVE. GO THROUGH TWO LIGHTS, AND THEN WE ARE ABOUT 2 BLOCKS DOWN ON THE RIGHT HAND SIDE. PARKING IN THE BACK.

2.04 EMERGENCY PROCEDURES PLAN

(A) Introduction and Purpose

Procedures governing actions to be taken in the event of serious injury, property damage, or catastrophic incident must be established and updated or expanded as the work progresses. Emergency procedures will include necessary actions to be taken, who will take them, names of persons to be notified, and locations of emergency equipment and supplies.

(B) Location of Plan

The Emergency Action Plan can be found at the work site or office of each Subcontractor. Upon request, an OSHA representative may obtain a copy of the plan from the Project Safety Manager.

(C) Basic Emergency Procedures

All procedures should take place concurrently, in accordance with the attached Emergency Response Procedure. The on-site First Aid staff will treat lacerations, small cuts, and small injuries. Patients with severe injuries will not be moved.

- Immediately notify the First Aid Station
- State your name, your company, and the incident location.
- State the emergency, e.g., fire, injured worker.
- Be prepared to answer questions.

(1) ALL SUPERVISORS WILL:

- Move uninjured personnel away from the area.
- Standby to assist if requested.
- Keep access and egress clear for emergency personnel and vehicles.
- Secure communication systems for emergency use until emergency has ended.
- Responsible Subcontractor is to investigate immediately.

NICHOLS CONTRACTING, INC.

Project Name

Emergency Response Procedures

Emergency Response Team Members are*:*

_____

_____

_____

1. The EMT, Safety Manager, and one member of the NICHOLS CONTRACTING, INC. First Response Team will go directly to the location of the incident.

2. The EMT shall assess the patient(s), determine the severity of the incident, communicate that determination to the Incident Coordinator, request additional resources, and treat the patient(s) within his or her level of medical certification until relieved by someone of equal or higher certification.

3. Once the severity of the incident is determined, the remainder of the Emergency Response Team may be called upon to assist in the emergency.

4. One member of the NICHOLS CONTRACTING, INC. Safety team will direct the emergency vehicles and escort emergency personnel and equipment to the incident location.

5. All personnel are to remain in their positions until all emergency equipment and vehicles have left the site, the emergency has been terminated, or until relieved

6. Safety Manager, will act as the Incident Coordinator for all emergencies. In the event that he is not available, Duties include interviewing witnesses and take statements, ensuring that photographs are taken of appropriate areas, first report information is gathered, etc. The Incident Coordinator/EMT will ensure the area is cleaned of body fluids and are properly disposed of after the incident.

7. Photos will be taken by one of the Photo Team Members, as required by the Incident Coordinator.

8. The Project Executive or Safety Director are the only personnel authorized to speak to the media.

NICHOLS CONTRACTING, INC.

Project Name

FIRE ACTION PLAN
IN THE EVENT OF A FIRE DIAL 911

The Nearest fire department

Engine #: _____ Phone #: _____

Address: _____

Superintendent or foreman to establish whether the fire can be put out with an extinguisher or whether a fire crew is required.

The nearest EMT:

_____

_____

The nearest meeting location for employees:

_____

_____

Superintendent or Forman to get employees out of the danger area.

D. Worker Injuries

(1) Ambulatory -
All ambulatory injured employees are to report to the first aid station for treatment.

(2) Serious -
Supervisor is to contact the first aid station and describe the employee's injuries and state if injured is conscious or unconscious, breathing or not breathing.

E. Fires and Spills

All fires must be reported to NICHOLS CONTRACTING, INC. immediately. Dry chemical A-B-C rated extinguishers can be used for most solid, liquid, and electrical fires. Initially, all Subcontractors shall:

(1) Make a safe attempt to extinguish fire, if it is small.

(2) Contact Field Supervision immediately (if possible) and identify the location and material that is burning.

(3) Clear the area of non-essential personnel.

(4) Contact project Safety Personnel

(5) Fuel containers (liquid or gas)

DO NOT ATTEMPT TO EXTINGUISH.
CLEAR THE AREA.
CONTACT SAFETY PERSONNEL.

(6) Chemical fires (adhesives, epoxy, and special compounds)

- Subcontractor and Sub-subcontractors: Supervisor is to clear the area, to prevent employees from smoke inhalation.

- Subcontractor is to provide MSDS sheet on material burning for any toxic effects.

- Attempt to extinguish the fire all safety conditions are met according to the manufacturer's MSDS.

DO NOT ATTEMPT TO EXTINGUISH FIRES WHEN IN A CONFINED SPACE. CONTACT SAFETY PERSONNELAND PROVIDE MSDS TO THE FIRE DEPARTMENT UPON THEIR ARRIVAL.

(7) Personnel trained in first aid shall stand-by at the first aid station or at a designated location.

(8) The ranking supervisor shall inform the Fire Chief of:

(9) The probable number (until head count is completed) of missing or injured employees; and

(10) Existing hazards that would prevent immediate rescue, e.g. weak support system, unstable soil, explosive material, etc.

(11) As soon as is practical, assist and cooperate with the investigating authorities such as the Fire Department, Construction Managers, and OSHA. Eyewitness employees shall be asked for statements on what they observed before, during, and after the accident occurred and such information shall be documented.

DUE TO THE POTENTIAL SEVERITY OF ALL EXCAVATION CAVEINS, A STRICT ENFORCEMENT POLICY WILL BE OBSERVED.

F. Government Building Evacuation

If any of the Government buildings adjacent to the construction site are forced to evacuate, i.e. fire or bomb scare, all project personnel must exit doorways leading to the streets or to the fire lanes surrounding the project. The ranking Subcontractor or Sub-subcontractor's Supervisor shall assist the CM personnel by:

(1) Helping to secure all operations in progress that could affect pedestrian access.

(2) Clearing fire lanes of obstructions for emergency vehicles and pedestrian access.

(3) Assisting Government officials and fire and rescue efforts in directing pedestrians away from or around the construction site.

(4) Direct their personnel to conduct a head-count to ensure all personnel are accounted for. As part of the Subcontractor's site orientation for new employees, personnel will be briefed on the location and procedures to be followed for such an evacuation.

G. Bomb Threat Procedures

(1) General Information

In order to determine which type of bomb threat applies, and to afford maximum protection for employees and the project, it is essential that all available information be forwarded to the CM as soon as possible.

Bomb threats are of three types:

Actual Warning - in which a bomb has been placed and a humanitarian or extortion notice is given.

Harassment - in which the goal is to disrupt operations or to impose economic hardship. Hoax in which the desired result is personal gratification of the individual.

All Subcontractors should ensure that appropriate personnel are thoroughly familiar with the action to take upon receipt of a bomb threat. The person receiving the call shall complete a Bomb Threat Incident Report using it as a guide to the conversation. Information is to be forwarded immediately to the Project Safety Manager.

In no event shall a project employee, subcontractor, consultant, or subcontractor employee participate in the search of the project.

Employees shall be instructed not to discuss the bomb threat with outsiders, especially the news media.

Upon evaluation by law enforcement personnel, should it be determined that evacuation is warranted, NICHOLS CONTRACTING, INC. shall advise all Subcontractors and have the project site evacuated in an orderly manner.

NICHOLS CONTRACTING, INC. may direct employees to return to their workstations only after the premises have been declared available by law enforcement personnel.

(2) Bomb Threat Procedures:

Keep the caller on the line as long as possible. Ask him or her to repeat the message. Write or record words spoken by the person as completely as possible. Complete the Bomb Threat Incident Report.

If the caller does indicate the location of the bomb or the time of possible detonation, ask him or her for this information.

Inform the caller that the detonation of a bomb could result in death or serious injury to many people.

Pay particular attention to background noises such as motors running, background music, and any other noise that may give a clue as to where the call is being made from.

Listen clearly to the voice (male or female), voice quality (calm, excited), accents, and speech impediments.

Subcontractors or Sub-subcontractor employees who receive bomb threats regarding the **Project Name** or adjacent government buildings are to immediately notify the NICHOLS CONTRACTING, INC. Project Safety Manager or other NICHOLS CONTRACTING, INC. personnel.

The Bomb Threat Incident Report shall then be completed and forwarded immediately to the Project Safety Manager.

NICHOLS CONTRACTING, INC.

Project Name

Bomb Threat Incident Report

PERSON WHO RECEIVED CALL: _____ DATE:_____

TIME: _____ (a.m./p.m.) LOCATION (call was received): _____

ORIGIN OF CALL: ☐ LOCAL ☐ LONG DISTANCE ☐ BOOTH ☐ INTERNAL

TIME CALLER HUNG UP: _____ (a.m./p.m.)

CALLER: TRY TO HOLD CALLER ON LINE AND GET AS MUCH INFORMATION AS POSSIBLE REGARDING:

TIME BOMB WILL EXPLODE: _____

WHAT BOMB LOOKS LIKE: _____

HOW IS BOMB ACTIVATED: _____

WHERE IS BOMB LOCATED: _____

REASON FOR INITATING BOMB: _____

EXACT WORDS OF CALLER: _____

_____

_____

_____

CALLER'S NAME: _____

MALE: ☐ FEMALE ☐

SOUND OF VOICE: CHILD ☐ ADULT ☐ APPROXIMATE AGE _____

ACCENT OR DIALECT: LOCAL ☐ NOT LOCAL ☐ FOREIGN ☐

REGIONAL CHARACTERISTICS (specify) _____

OTHER (specify) _____

TONE: LOUD ☐ SOFT ☐ HIGH PITCH ☐ LOW PITCH ☐

RASPY ☐ PLEASANT ☐ RATIONAL ☐ IRRATIONAL ☐

CALM ☐

SPEECH: COHERENT ☐ INCOHERENT ☐ RIGHTEOUS ☐

EMOTIONAL ☐ FAST ☐ SLOW ☐

INSTINCT ☐ DISTORTED ☐ STUTTER ☐

LANGUAGE: EXCELLENT ☐ GOOD ☐ FAIR ☐ POOR ☐

H. Storm Conditions

During the course of construction, the weather bureau may issue weather warnings (hurricanes, highways, etc.). In the event of a severe weather warning, all Subcontractors shall be notified by the CM/GC or General Superintendent and directed as to the appropriate action to protect and to secure the project.

2.05 RETURN-TO-WORK PROGRAM

A. Modified Duty Program

To the extent that work is reasonably available, Subcontractor Superintendents are expected to aggressively identify and provide modified duty assignments on their project for injured employees who have been released to work with physical limitations. The Subcontractor Project Manager will support this effort to ensure that meaningful work is found and to reiterate to the employee that they are a vital part of the team. These duties may well be extended to another jobsite, office-related positions, or alternate jobs not related to construction. It is not mandatory, however, to create jobs solely to meet this requirement. It is important to understand that returning employees to work under this modified duty program is in the interest of both the employee and employer.

B. Focus On Ability — Not Disability

Successful return-to-work programs start by changing the focus from the negative, "what the employee can't do," to the positive, "what the employee can do." Once an employee's abilities are identified, it is much easier to identify tasks that fit the abilities.

C. Work is the Best Medicine

A positive self-image and hope for the future are critical to a speedy recovery. Each day of dependency on others undermines an employee's self image and hope. Each day of positive contribution back on the job rebuilds self-confidence and a positive outlook. The longer an employee is off work, the lower the chance he or she will ever return. Once employees return to work, their frequency of needed medical treatment is drastically reduced.

D. Management Commitment to Immediate Accommodation

Management must make a positive commitment to their employees to provide them the opportunity to return to the work force just as soon as their abilities can make a positive contribution to the organization. A goal should be set in each case to return the employee to work Within 72 hours of the injury or release from the hospital. Obviously, this goal will not be reached in every case. However, without a goal, many employees that could be returned to work will end up staying out longer than necessary simply because their case was not addressed. Most importantly, this goal requires a view of people as important resources, not as expendable commodities. The following items will be observed when dealing with workers compensation claims:

All employees who sustain injuries will be treated with dignity and respect.

NICHOLS CONTRACTING, INC.

Project Name

Medical Authorization

Date: _____ Time: _____

Name of Worker: _____ Home Phone #: _____

Type of Injury: _____

Contractor: _____ Policy: _____

Insurance Carrier: _____ Oriole Park at Camden Yards:_____

Mailing Address: _____ Office Telephone #: _____

_____ Fax #: _____

Physician Evaluation

Diagnosis / Treatment: _____

Worker is fit to return to full-duty work today? Yes ☐ No ☐

Days on it!! disability (no work): _____

Days on light duty: _____

Light duty limitation: _____

Light duty limitation (Restrictions): _____

Regular work return day: _____

Drug test conducted: Yes ☐ No ☐

Physician's Signature _____

Medical Follow-Up

When: _____

With Whom : _____

Where: _____

Management must make a positive commitment to their employees to provide them the opportunity to return to work force just as soon as their abilities can make a positive contribution to the organization. A goal should be set in each case to return the employee to work within 72 hours of the injury or release from the hospital. Obviously, this goal will not be reached in every case. However, without a goal, many employees that could be returned to work will end up staying out longer than necessary simply because their case was not as expendable commodities. The following items will be observed when dealing with workers compensation claims:

(1) All employees who sustain injuries will be treated with dignity and respect.

(2) All employees will be given appropriate practical medical care in order to speed recovery and return to work.

(3) The rapid and efficient return of the worker to his or her original job is the goal of the recovery effort.

(4) All injuries will be treated as legitimate until evidence reveals otherwise.

This program must be followed and maintained by each team member having supervisory responsibilities.

E. Relationship with Treatment Center and Physician's Panel

We have made a concerted effort to obtain reputable, fair medical providers in our local area. Hospital Emergency Room will see our employees for emergency medical treatment. The Ambulatory Care Center will handle non-emergency treatment and follow-up for emergency medical treatment.

NICHOLS CONTRACTING, INC.

Project Name

Medical Authorization

Date: _____ Time: _____

Name of Worker: _____ Home Phone #: _____

Type of Injury: _____

Contractor: _____ Policy: _____

Insurance Carrier: _____ **Project Name**

Mailing Address: _____ Office Telephone #: _____

_____ Fax #: _____

Physician Evaluation

Diagnosis / Treatment: _____

Worker is fit to return to full-duty work today? Yes ☐ **No** ☐

Days on it!! disability (no work): _____

Days on light duty: _____

Light duty limitation: _____

Light duty limitation (Restrictions): _____

Regular work return day: _____

Drug test conducted: Yes ☐ **No** ☐

Physician's Signature _____

Medical Follow-Up

When: _____

With Whom : _____

Where: _____

2.06 SUBSTANCE ABUSE POLICY

In order to reduce the possibility of accidents that result in personal injury, death, or property damage, the project site will be off limits to controlled substances or alcohol and to persons with detectable levels of certain drugs, alcohol, or other substances in their system. The Subcontractor, including Sub-subcontractors, consultants, and vendors shall provide project site personnel who are free of controlled substances and alcohol.

If a Subcontractor has a more stringent policy that meets or exceeds the Project substance abuse policy, the following policy can be disregarded upon approval of NICHOLS CONTRACTING, INC..

A. DEFINITIONS

To aid in understanding and administrating this policy, the following definitions apply:

"Employee" – Means all employees not covered by a collective barging agreement unless the Company has the right to implement this policy with respect to those employees. Employees that are covered by a collective bargaining agreement that contains a drug-testing program are subject to specific terms of that agreement.

"Company Property", "Company Premises" – includes all property owned, leased, used or under the control of NICHOLS CONTRACTING, INC., its affiliates and subsidiaries, including, but not limited to the job site of a customer, structures, building, offices, facilitates and installations, automobiles and equipment, and any location at which an employee is performing duties on behalf of NICHOLS CONTRACTING, INC..

"Detectable Levels", "Identifiable Trace Quantities" The measurable presence, as determined by a (Gas Chromatography or Mass Spectrometry (GCIMS) confirmation test, of an illegal, prohibited or unauthorized drug or substance found in the body fluids at levels of detection above the lowest cutoff levels as established by analytical methods used by the testing laboratory. The following are examples of levels above these cutoffs that will result in a positive reading, as established at the time of issuance of this policy:

Amphetamines	**1000 ng/nt**	**Barbiturates**	**300 nglmL**
Benzoylecgonine (Cocaine)	**300 ng/mL**	**Benzodiazepines**	**300 ng/mL**
Marijuana (THC)	**50 ng/mL**	**Methamphetamine**	**1000 ng/ml**
Methadone	**300 ng/mL**	**Morphine**	**100 ng/mL**
Phencyclidine (PCP)	***25* ng/mL**	**Tricyclic Antidepressants**	**1000 ng/niL**

The foregoing is not intended to be an exclusive listing of illegal or unauthorized substances.
The measurable presence levels are subject to change based on NICHOLS CONTRACTING, INC.'s discretion and applicable technology.

"Illegal or Unauthorized Drug" – Means any drug (I) which is not legally obtainable, or (2) which is legally obtainable but has not been legally obtained or which is not being used in the prescribed or indicated manner or amount. The term includes prescribed drugs not legally obtained and prescribed drugs not being used for prescribed purposes. It also includes marijuana purposes. However, if this test shows a positive, the sample shall be forwarded for a second test performed by Gas Chromatography or Mass Spectrometry (GUMS).

The Subcontractor shall provide to the Construction Manager within 90 days after commencement of work an audit conducted by an independent organization approved in advance by the Construction Manager stating that personnel employed by the Subcontractor on this project are not in violation of this policy.

The Construction Manager shall be authorized at any time during contract performance to compare the Subcontractor's list of personnel certified to enter the project against the Subcontractor's payroll. Failure to cure discrepancies within (4) working days of written notification by the Construction Manager shall constitute grounds for termination of the Subcontractor for default.

The Subcontractor shall publish a Statement notifying personnel that:

(a) The unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance, or the use of alcohol, is prohibited by personnel employed at the Project site,

(b) Entry on the Project site when one's abilities are impaired by the use of controlled substances or alcohol is prohibited,

(c) Violation of this prohibition will result in suspension of an employee's certification to enter the site to work, and

(d) All full-time personnel are subject to "pre-site-entry" testing, and all personnel are subject to "post-accident" drug testing.

(e) The Subcontractor shall establish an awareness program that, at a minimum, informs Project Site personnel about:

(f) The dangers of using illegal drugs and alcohol in the workplace.

(g) The requirement that personnel employed at the project site be free of illegal drugs and alcohol, and

(h) The requirement to enter the Project Site to work may be withheld or withdrawn from any person found in violation of the illegal drug and alcoholic beverage use prohibition.

(i) The Subcontractor shall bear all costs associated with its substance abuse policy, pre-entry, and post accident or near miss testing. The Subcontractor shall indemnify, defend, and hold harmless the indemnified parties (as defined in the contract) from and against any and all suites, Claims, or actions, which arise in any manner What so ever as a result of this substance abuse policy.

(j) All positive drug tests will be confirmed by a second test performed by Gas Chromatography or Mass Spectrometry (GCIMS). No drug test will be considered "positive" unless or until it has been confirmed by GC/MS. Employees may, at their own choice and expense, arrange for a third confirmation test from the same sample. The Company will consider the results of any such retest.

(k) If a current employee tests positive, he or she will be required to participate in a company-approved rehabilitation program. Employees will be responsible for the cost of such a program Non-participation or incomplete participation in a rehabilitative program will result in immediate termination.

(l) A second confirmed positive after participation in a rehabilitation program will result in termination.

(m) Urine sampling for alcohol is not an authorized method for determining an employee's blood alcohol level. Accordingly, a blood sample or Breathalyzer test will be required for determining an employee's fitness for duty. Alcohol categories are established as follows:

(n) Category I: 0.02-0.39 blood alcohol percent by volume. Employee is removed from site for 24 hours and is counseled by employer that another positive Category I will result in removal from all NICHOLS CONTRACTING, INC. projects for one year.

(o) Category II: 0.40 or more blood alcohol percent by volume. Immediate removal from all NICHOLS CONTRACTING, INC. projects for one year.

(p) Current employees shall have the right to voluntarily request rehabilitation on one occasion, if the request is prior to the existence of reasonable suspicion.

B. POST ACCIDENT OR NEAR MISS

Testing will be required following an on-the-job injury requiring medical treatment or following a potentially serious incident, including near misses, in which safety precautions were violated, unsafe instructions or orders were given, potentially serious accidents occurred where vehicles, equipment, or property were damaged, unusually careless acts were performed, or where the cause was due to failure to wear prescribed personal protective equipment. Employees involved in, or who may have contributed to, the incident may also have their urine or blood tested. If it is impossible or impractical to give a urine sample or blood sample, because of the physical condition of the individual(s) involved in the accident, and Win subsequent medical treatment that person's blood or other bodily fluid will be drawn, then the blood or other bodily fluids will be analyzed for prohibited substances. A letter confirming that the involved employee(s) was (were) tested in accordance with the Project Safety Program will be sent to NICHOLS CONTRACTING, INC. not later than seven (7) calendar days after the injury. The letter shall state the employee's drug test date and the status of employment.

C. REASONABLE SUSPICION

In cases in which an employee is acting in an abnormal manner or a subcontractor representative has reasonable suspicion to believe that the employee is or was under the influence of controlled substances, NICHOLS CONTRACTING, INC. may require the employee to provide urine or blood specimens for laboratory testing. Reasonable suspicion means suspicion based on specific personal observations that the employer representative can describe concerning the appearance, behavior, speech, or breath odor of the employee. Suspicion is not reasonable and thus not a basis for testing if it is based solely on third ($_3$rd) party observation and reports.

D. MEDICAL REVIEW

A physician or other qualified professional must medically review the results to determine if the laboratory evidence indicating the use of illegal or unauthorized drugs is justified. In brief, the medical reviewer determines whether some reason other than illegal or unauthorized drug use explains a positive test result. If the medical reviewer verifies illegal or unauthorized drug use, the case is referred to the appropriate Subcontractor or Sub-subcontractor management official. If illegal or unauthorized drug use is not verified, the test result is deemed negative, the Subcontractor or Sub-subcontractor is informed, and no further action is taken. In reviewing the laboratory results, the medical reviewer may conduct a medical interview with the individual, review the individual's medical history, or review any other relevant biomedical factors. Cooperation with the medical reviewer is a condition of employment.

E. EMPLOYEE TESTING POSITIVE

If an employee tests positive, the employer must provide the employee, within 30 days of the test with a copy of: (I) the written policy, (2) the test results, (3) a notice of availability of re-testing at the employee's expense, and (4) the anticipated disciplinary action. Release of information by the medical reviewer to the employer regarding the use of a non-prescription drug, other than alcohol, that is not prohibited under Maryland law, or regarding the use of a prescription drug, which was prescribed in accordance with Maryland law, is prohibited. However, this information may be disclosed if necessary to comply with the Federal Commercial Motor Vehicle Act and other Federal motor carrier safety regulations. Employers will take immediate action to remove workers from the Project once notified of a confirmed positive test. Employees found in violation of this policy will be removed a minimum of one year from all NICHOLS CONTRACTING, INC. Projects.

NICHOLS CONTRACTING, INC.

Project Name

Disciplinary Action Notice

Subcontractor _____ **Date:** _____

Observed By:_____ **Trade:**_____

Employee Name: _____

Employee Signature: _____

THE ABOVE STATED EMPLOYEE WAS OBSERVED NOT COMPLYING WITH THIS PROJECT'S SAFETY POLICY. VERBAL WARNINGS WERE GIVEN AT PROJECT ORIENTATION BY EMPLOYER (SUBCONTRACTOR). DEPENDING UPON THE SITUATION, SUPERVISOR AND/OR NICHOLS CONTRACTING, INC. MAY REQUIRE IMMEDIATE SUSPENSION OF THE EMPLOYEE(S) FROM THE PROJECT.

VIOLATION:

A. ***First Violation***

( ) Written warning and repeat of safety orientation.

B. ***Second Violation***

( ) Immediate two-day suspension in addition to the rest of the current workday.

( ) Attend project orientation

C. ***Third or Imminent Danger Violation***

( ) Immediate suspension from the project

Location of observed violation: _____

Description: _____

_____

Reviewed by: (Signature Required)

_____, Project Manager

cc: Project Director
Project Safety Manager

2.07 SAFETY AND PUBLIC RELATIONS

(1) Inquiries from the press or persons not connected with this project regarding emergencies such as accidents, fires, explosions, etc., shall be immediately referred to NICHOLS CONTRACTING, INC. for action.

(2) This procedure should also be followed in connection with any news release or announcements related to the job, requests for photograph locations, press inquiries, or other information releases.

2.08 PROJECT TOURS AND VISITORS

A. Project Tours

(1) It is the utmost importance that a high degree of protection be afforded all persons touring the construction site. The majority of tours will be conducted after work hours so as not to disrupt work and for general safety reasons.

(2) It is important therefore that the Subcontractors and the Sub-subcontractors leave their respective work areas free of debris. Walkways must be visible and all tools and equipment stored or sectioned off so as not to permit access.

B. Visitors

Only persons calling on company business may be permitted inside the work area. Exceptions can be made if the visitor receives approval from COTR.

VISITOR'S GENERAL RELEASE AGREEMENT

Project Name: _____

Project Location: _____

General Contractor: Nichols Contracting, Inc./NICHOLS CONTRACTING, INC. Corporation

Project Owner: _____

CONSTRUCTION SITES CAN BE HAZARDOUS!

EXPRESS ASSUMPTION OF RISK AND RESPONSIBILITY: I agree to visit the above cited project construction site at my own risk and understand that injuries can occur at construction sites. I understand the dangers inherent with construction activities, including the risk of death or permanent injury. I assume all risk and responsibility for ANY INJURIES OR DEATH I may sustain and any damage I may cause in whole or in part at the construction site.

RELEASE AND DISCHARGE: In consideration of permission granted to the undersigned to enter and inspect the above-named project whereon construction-related work is in process, I hereby agree that I will and DO HEREBY RELEASE AND) FOREVER DISCHARGE the Owner, the General Contractor (Nichols Contracting, Inc./NICHOLS CONTRACTING, INC. Corporation), and their subcontractors who may be performing work on the project FROM ANY AND ALL CLAIMS, AC'IIONS OR CAUSES OF ACTION which I shall or may have BECAUSE OF BODILY INJURY, DEATH OR DAMAGE TO PROPERTY WHICH I MAY SUiit~R WHILE ON OR ABOUT THE SAID PREMISES RESULTING FROM ANY ACT, OMISSION OR OCCURRENCE ON OR ABOUT THE PREMISES EXPRESSLY INCLUDING. BUT NOT LIMITED TO. INJURY. DEATH OR DAMAGE DUE. OR ALLEGEDLY DUE. TO ANY NEGLIGENCE OR OMISSION of the Owner, General Contractor or Subcontractors or any of their agents, employees and representatives.

DEGREE OF CARE: I agree to exercise the highest degree of care and prudence in accordance with construction industry standards to avoid injury, death or property damage and agree to obey the directions and instructions of responsible job site supervisory personnel and to observe and follow the procedures indicated by any warning signs or safety instructions posted on or about the premises.

BINDING EFFECT: I agree and understand that this release agreement is binding upon my heirs, executors, administrators, assigns and legal representatives; that this Agreement releases all directors, officers, shareholders, employees, agents, successors, assigns and legal representatives of Nichols Contracting, Inc./NICHOLS CONTRACTING, INC. Corporation, the Owner, and other General Contractors and Subcontractors and their agents, employees and representatives. I understand that this release agreement is a legally binding document which I willingly accept in order to enter and inspect the above-named project construction site.

SEVERABILITY: If any provision of this Agreement is held invalid or unenforceable, all of the remaining provisions shall, nevertheless, continue in full force and effect.

NAME: _____ COMPANY: _____ DATE: _____

_____

_____

_____

_____

_____

2.09 PROTECTION OF THE PUBLIC

(1) All necessary precautions shall be taken to prevent injury to the public or damage to property of others.

(2) Precautions to be taken shall include, but not be limited to, the following:

(3) Work shall not be performed in any area occupied by the public unless specifically permitted by the contract or in writing by NICHOLS CONTRACTING, INC.. Cables and hoses crossing sidewalks must be either ramped or positioned overhead. Consideration must be given to the handicapped.

(4) When it is necessary to maintain public use of work areas involving sidewalks, entrances or buildings, lobbies, corridors, aisles, stairways and vehicular roadways, the Subcontractor shall protect the public with appropriate guardrail, barricades, temporary fences, overhead protection, temporary partitions, shields, and adequate visibility.

(5) Sidewalks, entrances to buildings, lobbies, corridors, aisles, doors, or exits shall be kept clear of obstructions to permit safe entrance and exit of the public at all times.

(6) Appropriate warnings and instructional safety signs shall be conspicuously posted. Each Subcontractor shall provide a signal person who shall control the movement of motorized equipment in areas where the public may be endangered. When it is necessary to maintain public pedestrian traffic adjacent to the construction, demolition, or structural alterations to building exteriors, then sidewalk sheds, canopies, catch platforms, and fences shall be provided by the Subcontractor performing the work.

(7) A temporary fence shall be provided around the perimeter of aboveground operations adjacent to public areas. Perimeter fences shall be in accordance with OSHA requirements.

(8) Guardrails shall be provided on both sides of vehicular and pedestrian bridges, ramps, runways, and platforms. Pedestrian walkways elevated above adjoining surfaces, or walkways within six (6) feet of the top of excavated slopes or vertical banks shall be protected with guardrails. Guardrails shall be made of rigid materials capable of withstanding a force of at least two hundred (200) pounds applied in any direction at any point in their structure. Their height shall be approximately forty-two (42) inches. Cable handrails may be used, however their use and location must be coordinated with the Project Safety Manager. Top rails and post may be two (2) inches by four (4) inches dressed wood or equal. Intermediate horizontal rails at mid-height and toe boards at platform level may be one (1) inch by six (6) inch wood or equal. Post shall not be over eight (8) feet apart.

(9) Barricades meeting local requirements shall be provided where sidewalk shed, fences, or guardrails, as referenced above, are not required between areas and pedestrian walkways, roadways, or occupied buildings. Barricades shall be secured against accidental displacement and shall be maintained in place except where temporary removal is necessary to perform the work. During the period a barricade is temporarily removed, for the purpose of work, the Subcontractor performing the work shall place a watchman at all openings.

(10) Temporary sidewalks shall be provided by the Subcontractor performing the work when a permanent sidewalk is obstructed by the Subcontractor's operations. They shall be in accordance with the requirements of the applicable local laws. Guardrails shall be provided on both sides of temporary sidewalks.

(11) Warning signs and electric lights, meeting local requirements shall be maintained from dusk to sunrise along guardrail, barricades, and temporary sidewalks and at every obstruction to the public. They shall be placed at both ends of such protection or obstructions and not over twenty (20) feet apart alongside of such protection or obstruction.

2.10 OSHA INSPECTIONS

You are obligated at all times to conduct your operations in such a fashion that your company is in compliance with the Regulations adopted under The Occupational Safety and Health Act. The Standards under which the construction industry falls are contained in Section 29 of the Code of Federal Regulations, Parts 1926 & 1910.

Generally:

(1) The OSHA Compliance Officer has a responsibility to show proper identification when he or she first arrives on the project.

(2) The Compliance Officer is required to state the purpose of the visit. They may request an opening conference be held with representatives of the Subcontractors and the Construction Manager for general inspection.

(3) They will generally discuss the purpose of the OSHA Act, its sanctions, and the authority vested in them by the Act.

(4) The Compliance Officer is authorized to enter the worksite without delay at any reasonable time without advance notice. If the compliance officer shows up on site or at the gate, contact the CM/GC & PSM immediately

(5) The Compliance Officer will normally lead the party on the inspection.

(6) Following the inspection, the Compliance Officer will hold a closing conference at which time he or she will review his or her findings.

INSPECTIONS

JOB SAFETY INSPECTION

JOB NAME:

JOB NUMBER: DATE: _____

SUPERINTENDENT:

Mark box "OK" if no correction is needed; "✓" if correction should be made; leave blank if item does not apply.

1. Personal Protection - Hard hats, safety shoes, eye protection, gloves, respirators, etc. ..... ☐
2. Walkways, Stairs and Ramps - Clear, adequate width, proper slope, in good repair, surface too slippery. ..... ☐
3. Floor or Other Openings - Covered, guardrails, toeboards, barricades, warning signs, lighting. ..... ☐
4. Ladders - Sturdy construction, secured, proper angle, safety feet, etc. ..... ☐
5. Scaffolds - Sturdy construction, anchored, guard rails, toeboards. ..... ☐
6. Overhead Protection - Sidewalk, street work area protected from falling objects. ..... ☐
7. Housekeeping - Piling of new and used lumber, nails removed, other material piling and placement, tripping hazards. ..... ☐
8. Adequate Illumination - Halls, stairways, for equipment repair, etc. ..... ☐
9. Power Tools and Equipment - Guarded - Extension Cords, Portable and table saws, planers, coveyors, belts, and pulleys, sprockets and chains, gears. ..... ☐
10. Trenching and Excavation - Shored or back sloped, barricades, warning lights. ..... ☐
11. Heavy Equipment Safety - Operated safely; parked with blade, ball, boom, bucket, etc., resting on ground; precautions when under repair, etc. ..... ☐
12. Cranes and Hoists - Maintenance, cable condition, clamps, safety hooks, power lines, "no riding" rules enforced. ..... ☐
13. Storage and handling of Flammables (Gasoline, oil, L.P.G., etc.) - Tanks, hoses static and electric spark control, no smoking, no refueling with motor running, cylinders supported, fire extinguishers. ..... ☐
14. Warning lights, signs, barricades, watchmen, flagmen, children, etc. ..... ☐
15. Fire Extinguishers - Proper type and size, recharged. ..... ☐
16. First Aid Equipment - adequate. ..... ☐
17. Evidence of Drugs, Alcohol or Weapons. ..... ☐
18. Weekly Safety Meetings. ..... ☐

COMMENTS: _____

_____

_____ _____

Inspectors Signature

SAFETY DIRECTOR

CONSTRUCTION JOB CHECK LIST

A check in the "NO" column indicates non-conformance to an OSHA general policy or safety standard and user should refer to the published OSHA standard for specific detail for compliance.

User is cautioned that this check list does not apply to every type of operation and therefore does not list those items covering every hazard relating to a physical or occupational disease exposure. It contains those items where OSHA citations have been issued most frequently.

GENERAL	YES	NO	VIOLATION CORRECTED
Pre-job safety meeting held with subcontractor(s)			
Monthly safety meetings held with supervisor and subcontractors.			
Safety meetings held with work crews at least every ten working days.			
Competent contractor personnel assigned responsibility to inspect jobsite for safety.			
U.S. Department of Labor "Safety and Health Protection on the Job: poster posted.			
Management safety policy directives posted.			
Safety bulletins, accident prevention material posted.			
Copies of Lôg of Employee Injuries (OSHA Log No. 200) at jobsite.			
Copies of Supplemental Record of Job Injuries (OSHA Log No. 200) posted--when required			
Copies of Worker Injury Investigation Report kept at jobsite.			
Minutes of jobsite safety meetings recorded and kept at jobsite.			
Safety inspection reports by contractor personnel prepared and kept at jobsite.			
SANITATION, MISCELLANEOUS			
Portable containers used to dispense drinking water (required types). 1926.52-a-2			
Where single service cups are used for drinking water, are containers provided for new and used cups. 1926.51-a-6			
Adequate number of toilet facilities provided. 1926.51 Table D			
Special washing facilities provided for workers handling materials which may be harmful to their health. 1926.51-f			
Illumination in work areas (including offices, shops) adequate. 1926.56			
Required portable fire-fighting equipment available, properly located and maintained. 1926.150 C			
Approved metal safety cans used for handling and use of flammables. 1926.152 a			

GENERAL	YES	NO	VIOLATION CORRECTED
In areas where flammables are stored or where operations present a fire hazard. "NO Smoking or Open Flame" sign posted. 1926.151 a-3			
Indoor and outdoor storage of flammables in approved containers or cabinets with warning signs posted. 1926.152 a			
Form and scrap lumber, and all other debris kept clear from work areas. 1926.252 c			
Combustible scrap and debris removed from work areas at regular intervals. 1926.151 c-3			
Containers provided for collection, separation of waste, trash, oily and used rags. 1926.252 c-8			
Solvent waste, oily rags, and flammable liquids kept in fire resistant covered containers until removed from worksite. 1926.252 e			
PERSONAL PROTECTION			
Hearing protective devices provided for and worn by workers where noise levels are excessive. 1926.101			
Hard hats provided for and worn by workers. 1926.100			
Eye and face protection provided for and worn by workers where exposed to potential eye or face injury. 1926.102			
Workers required to wear footwear adequate for their assigned work. 1910.136			
Respiratory protective equipment provided and worn when workers exposed to harmful dusts, fumes, gases. 1926.103			
HAND AND POWER TOOLS			
Hand held powered tools (saws, air impact) equipped *only* with constant pressure switch. 1926.300 d-3			
Hand held powered tools (drills, tappers, fastener drivers, disc and belt sanders, angle grinders) provided with momentary contact "on-off" switch with lock-on control *only* if turnoff is by single motion of same finger/fingers that turn it on. 1926.300 d-2			
Devices provided on air power tools to prevent tools from becoming acci dentally disconnected from hose. 1926.302-b-1			
Air driven nailers operating more than 100psi provided with safety device on the muzzle to prevent ejection unless muzzle in contact with work surface. 1926.302-b-3			
Air hose connections secured across each such connection between air re ceiver and tool. 1926.302-b-1			
Airless spray guns (operating at 1000 psi) equipped with safety device preventing pulling of trigger until safety device is manually released. 1926.302-b-8			

GENERAL	YES	NO	VIOLATION CORRECTED
Powder actuated tools provided with safety shield/guard and operator has evidence of special training in their use. 1926.320-3-1 and 11			
Portable power circular saws provided with proper functioning automatic return lower guard and fixed upper guard. 1926.304 D			
All fixed power woodworking tools provided with a disconnect switch that can be locked or tagged in the off position. 1926.304 A			
Defective tools, equipment tagged as unsafe, or controls locked in off position, or physically removed from jobsite. 1926.20-b-3			
ELECTRICAL			
For power circuits, exposed or concealed, where accidental contact by tools/ equipment may be hazardous, warning signs posted and all workers advised of hazard. 1926.400-C-2			
Regular inspections made to assure effective grounding of noncurrent carrying metal parts of portable and/or plug connected equipment or GFCI's installed on all 110-120V temporary circuits. 1926.400 h			
Temporary lights equipped with guards to prevent accidental contact with bulb. 1926.401 5-1			
Receptacles, attachment plugs not interchangeable on circuits of different voltages, current ratings or types of current (AC or DC). 1926.402-a-2			
LADDERS			
Ladders regularly inspected and destroyed when found defective. 1926.450 a-2			
Side rails extend 36" above landing or provision of grab rails. 1926.450 a-9			
Top of ladders tied-in to prevent displacement. 1926.450 a-10			
Double cleat ladders provided for working area having 25 or more workers and two-way traffic is expected. 1926.450-b-1			
Double cleat ladders not exceeding 24 feet in length. 1926.450-b-2			
Single cleat ladders not exceeding 30 feet in length. 1926.450-b-3			
Cleats inset into edges of side rails or filler blocks used. 1926.450-b-12			
All job-built ladders constructed to conform with standards. 1926.450 Tables			
No metal ladders used within 10 Ft. of electrical lines. 1926.450-a-11			
Stepladders used only in full open position. 5-a-1			
Stepladders of sufficient height so that top two steps do not have to be used to perform work. 5-a-1			
All manufactured single and extension ladders equipped with ladder shoes. 1926.450 a-6			

GENERAL	YES	NO	VIOLATION CORRECTED
SCAFFOLDING All open sides and ends of platforms more than 10' above ground or floor level, provided with op rails, (42" high) midrails, toeboards (4" high). 1926.451 a-4			
Where workers pass or work under scaffolds, screens or other overhead protection provided. 1926.451-a-6			
Platform planks laid together tight preventing tools, etc., from falling through. 1926.451-b-11			
Scaffold guyed or tied to structure. 1926.451-b-4			
Scaffolding set plumb with adequate foundation bearing plates. 1926.451-a-2			
Platform planks extend over end supports not less than 6", nor more than 12". 1926.451-a-14			
Planks secured to prevent dislodgment. 1926.451-a-12			
Overhead protection on scaffolds where workers exposed to overhead hazards. 1926.451-a-16			
Ladders used to gain access to scaffold work platforms. 1926.451-a-13			
Horse scaffolds not more than two tiers or 10' in height. 1926.451-0-1			
Horse scaffolds speced not more than 5' for medium duty, not more than 8' for light duty. 1926.451-0-3			
Top rails, midrails, toeboards provided on horse scaffolds 10' above ground or floor level. 1926-451-0-7 **ROLLING SCAFFOLDS (Manually Propelled)** Wheel brakes set while in use. 1926.451 e-2			
No riders on work platform while moving. 1926.451 e-7			
Work levels 10' or more above ground or floor level have guard rails and toeboards. 1926.451 e-10			
All cross and diagonal bracing in place and properly connected. 1926.451-e-9			
Height does not exceed 4 times least base dimension unless outriggers are used. 1926.451-3-1			
Ladder access to work platform. 1926.451-e-5 **SWINGING SCAFFOLDS--2 Point Suspension** Roof hooks or irons securely installed and anchored to a sound structural part of the building. (Beware of ornamental parapets) 1926.451-i-4			
Sheaves fit size of rope used. 1926.451-i-6			
Equipped with standard guard rails and toe boards. 1926.451-i-2			
Load limit marked on each scaffold. 1926.451-i-8			

GENERAL	YES	NO	VIOLATION CORRECTED
Annual inspection made of crane hoisting machinery and record kept of dates and results. 1926.550-a-6			
On tower cranes, daily inspections made of rigging. 1926.550-a-5			
On tower cranes, weekly inspections made of supporting parts, safety appliances and record kept of repairs required. 1926.550-c-5			
No part of a crane or its load closer to energized electrical lines than the following distances: For lines rated 50 KV or below -- 10 feet. For lines rated over 50 KV -- 10 feet plus 0.4 inch for each 1 KV over 50 KV or twice the length of the line insulator not less than 10 feet. 1926.550-a-15-i-ii			
Cranes in transit with no load and boom lowered, equipment clearance not less than 6 feet for voltages less than 50KV; 10 feet for voltages over 50 KV -- 345 KV; and 16 feet for voltages up to 750 KV. 1926.550-a-15-iii			
EXCAVATIONS, TRENCHING & SHORING			
Excavated material effectively stored and retained at least 2 feet or more from edge of excavations. 1926-651-i-1			
Utility company contacted and advised of proposed excavation work to determine underground utility exposures or when overhead power lines are involved. 1926.651-a			
Substantial stop logs or barricades installed when mobile equipment working adjacent to excavation. 1926.651-s			
Trenches over 5' in depth shored to standard, laid back to stable slopes or provided with other equivalent protection where hazard of moving ground exists. 1926.652-a			
Trenches less than 5 feet protected where hazardous ground movement exists. 1926.652-a			
Trenches in hard or compact soil shored to standard when depth is more than 5 feet and 8 feet or more in length. 1926.652-c			
In lieu of shoring in hard or compact soil, trench above the 5-foot level sloped (slope not steeper than a 1-foot rise to each ½ foot horizontal). 1926.652-c			
Trenches 4' deep or more provided with ladder located no more than 25' of lateral travel. 1926.652-H			
WELDING, CUTTING, BURNING			
Proper personnel protective equipment provided, in good condition and being used. 1926.353-e-2			
All oxygen and acetylene cylinders secured properly in upright position. 1926.350-2-9			
All oxygen and acetylene gauges in working condition. 1926.350-h			

GENERAL	YES	NO	VIOLATION CORRECTED
All oxygen and acetylene hoses in good condition and free of grease and oil. 1926.350-f			
Mechanical lighters used for lighting torches -- No cigarette lighters or matches. 1926.350-g-3			
Oxygen and acetylene cylinders stored in upright position in designated areas with caps in place. 1926.350-a-9			
Oxygen and acetylene hoses properly located so as not be damaged by moving equipment or creating a tripping hazard. 350-f-7 1926.350-f-7			
Electric arc welding cables in good condition and properly attached by lugs to welding machine. 1926.351-b-1-2			
Rod holders in good condition. 1926.351-a-1			
Shields provided to protect other workers from flash burns. 1926.351-e			
Welders' shields and helpers' goggles in good condition and equipped with proper lenses. 1926.353-c-3			
Fire extinguishers provided with 25 feet of welding, cutting or bunting operations. 1926.352-d			
All flammable material removed from welding, cutting and burning operations area. 1926.352-a			
Protection provided to prevent slag, etc., from falling on workers below. 1926.350-j			
All welding cable positioned to eliminate tripping hazards. 1926.351-d-5			
ROOFING Pitched roofs over 4/1 pitch 1926 451-u-3			
Safety belts and life lines or catch platform. 1926.451-u-2			
Roofing bracket scaffolds secured. 1926.451-u-2			
Crawl or chicken ladders secured and with evenly spaced cleats. 1926.451-v			
Ladders extend 36" above eaves and secured top and bottom. 1926.450-a-9			
Flat and Low Pitch Roofs Less Than 4/1 Pitch Warning line 6 ft. from roof edge in the work area. 1926.500			
Safety belts and lines in use at perimeter or standard handrails or equivalent. 1926.500			
Protective equipment when handling hot pitch. 1926.500			
Ladder access same as for pitched roofs. 1926.450-a-9			
Materials stored 6 ft. from edge.			
All openings covered or protected by guardrails. 1926-500-a-4			

GENERAL	YES	NO	VIOLATION CORRECTED
CONCRETE FORMING AND POURING			
Vertical re-steel protected by covering when employees working above. 1926.700-b-2			
Employees wearing safety belts or equivalent when 6 ft. or more above adjacent work surfaces. 1926.700-b-1			
Walk and standing boards when pouring horizontal surfaces on re-steel. 5-a-1			
Employees provided with and using personnel protective equipment, while pouring concrete. 5-a-1			
No riding concrete buckets. 1926.700-d-7-ii			
All pump crete lines secured at all joints. 1926.700-d-6			
Concrete trucks blocked when discharging on a slope. 1926-700-d-8			
Shoring and re-shoring adequate for support. 1926.701-a-1			
Properly guarded work platform for walls, columns, beams, etc. 5-a-1			
Power troweling machines equipped with positive on/off switch. 1926.700-d-4			
STEEL ERECTION			
Decking or safety nets 2 stories or no more than 30 ft. where erection is being performed. 1926.750-b-2-i			
No riding of steel or the hook. 5-a-1			
Safety railing of no less than ½ inch wire rope 42 inches high around perimeter of all temporary planked or metal decked floors. 1926.750-b-1-ii			
Employees working on float scaffolds provided with safety belts. 1926.752-k			
DEMOLITION			
Dust controlled by wetting. 5-a-1			
Employees provided with dust respirators and goggles. 5-a-1			
Chutes properly erected and drop area barricaded off. 1926.852			
Floor openings protected. 1926.850-J			
Employee access to building provided with overhead protection. 1926-850-K			
Stairways in building used for access properly lighted, and maintained. 1926-851-c			
BLASTING			
Certified blaster in charge 1926.901-c			
Storage and handling of explosives conforms to Federal requirements and all local ordinances. 1926.904-a			

GENERAL	YES	NO	VIOLATION CORRECTED
Excess explosives, caps, det-cord, etc., removed to approved storage area prior to blast. 1926-905-d			
Standard warning system used. 1926.909-a			
Two-way radios turned off. 1926.900-k			
Signs posted.			
No other work within 100 ft. of loading area. 1926.900-k-3			
Wood poles used for tamping. 1926.905-c			
Blasting machines only used in electric blasting. 1926-906-D			
Waste explosives and containers disposed of as required by regulations. 1926.900-L			
Record of all explosives kept. 1926.905-T			
Post blast inspection completed. 1926.910			
Misfires handled as specified by regulations. 1926.911			
Access to work area controlled. 1926.905-i			

CONSTRUCTION JOB CHECK LIST

A check in the "NO" column indicates non-conformance to an OSHA general policy or safety standard and user should refer to the published OSHA standard for specific detail for compliance.

User is cautioned that this check list does not apply to every type of operation and therefore does not list those items covering every hazard relating to a physical or occupational disease exposure. It contains those items where OSHA citations have been issued most frequently.

GENERAL	YES	NO	VIOLATION CORRECTED
Pre-job safety meeting held with subcontractor(s)			
Monthly safety meetings held with supervisor and subcontractors.			
Safety meetings held with work crews at least every ten working days.			
Competent contractor personnel assigned responsibility to inspect jobsite for safety.			
U.S. Department of Labor "Safety and Health Protection on the Job: poster posted.			
Management safety policy directives posted.			
Safety bulletins, accident prevention material posted.			
Copies of Log of Employee Injuries (OSHA Log No. 200) at jobsite.			
Copies of Supplemental Record of Job Injuries (OSHA Log No. 200) posted--when required			
Copies of Worker Injury Investigation Report kept at jobsite.			
Minutes of jobsite safety meetings recorded and kept at jobsite.			
Safety inspection reports by contractor personnel prepared and kept at jobsite.			
SANITATION, MISCELLANEOUS			
Portable containers used to dispense drinking water (required types). 1926.52-a-2			
Where single service cups are used for drinking water, are containers provided for new and used cups. 1926.51-a-6			
Adequate number of toilet facilities provided. 1926.51 Table D			
Special washing facilities provided for workers handling materials which may be harmful to their health. 1926.51-f			
Illumination in work areas (including offices, shops) adequate. 1926.56			
Required portable fire-fighting equipment available, properly located and maintained. 1926.150 C			
Approved metal safety cans used for handling and use of flammables. 1926.152 a			

GENERAL	YES	NO	CORRECTED
In areas where flammables are stored or where operations present a fire hazard. "NO Smoking or Open Flame" sign posted. 1926.151 a-3			
Indoor and outdoor storage of flammables in approved containers or cabinets with warning signs posted. 1926.152 a			
Form and scrap lumber, and all other debris kept clear from work areas. 1926.252 c			
Combustible scrap and debris removed from work areas at regular intervals. 1926.151 c-3			
Containers provided for collection, separation of waste, trash, oily and used rags. 1926.252 c-8			
Solvent waste, oily rags, and flammable liquids kept in fire resistant covered containers until removed from worksite. 1926.252 e			
PERSONAL PROTECTION			
Hearing protective devices provided for and worn by workers where noise levels are excessive. 1926.101			
Hard hats provided for and worn by workers. 1926.100			
Eye and face protection provided for and worn by workers where exposed to potential eye or face injury. 1926.102			
Workers required to wear footwear adequate for their assigned work. 1910.136			
Respiratory protective equipment provided and worn when workers exposed to harmful dusts, fumes, gases. 1926.103			
HAND AND POWER TOOLS			
Hand held powered tools (saws, air impact) equipped *only* with constant pressure switch. 1926.300 d-3			
Hand held powered tools (drills, tappers, fastener drivers, disc and belt sanders, angle grinders) provided with momentary contact "on-off" switch with lock-on control *only* if turnoff is by single motion of same finger/fingers that turn it on. 1926.300 d-2			
Devices provided on air power tools to prevent tools from becoming accidentally disconnected from hose. 1926.302-b-1			
Air driven nailers operating more than 100psi provided with safety device on the muzzle to prevent ejection unless muzzle in contact with work surface. 1926.302-b-3			
Air hose connections secured across each such connection between air receiver and tool. 1926.302-b-1			
Airless spray guns (operating at 1000 psi) equipped with safety device preventing pulling of trigger until safety device is manually released. 1926.302-b-8			

GENERAL	YES	NO	VIOLATION CORRECTED
Powder actuated tools provided with safety shield/guard and operator has evidence of special training in their use. 1926.320-3-1 and 11			
Portable power circular saws provided with proper functioning automatic return lower guard and fixed upper guard. 1926.304 D			
All fixed power woodworking tools provided with a disconnect switch that can be locked or tagged in the off position. 1926.304 A			
Defective tools, equipment tagged as unsafe, or controls locked in off position, or physically removed from jobsite. 1926.20-b-3			
ELECTRICAL			
For power circuits, exposed or concealed, where accidental contact by tools/ equipment may be hazardous, warning signs posted and all workers advised of hazard. 1926.400-C-2			
Regular inspections made to assure effective grounding of noncurrent carrying metal parts of portable and/or plug connected equipment or GFCI's installed on all 110-120V temporary circuits. 1926.400 h			
Temporary lights equipped with guards to prevent accidental contact with bulb. 1926.401 5-1			
Receptacles, attachment plugs not interchangeable on circuits of different voltages, current ratings or types of current (AC or DC). 1926.402-a-2			
LADDERS			
Ladders regularly inspected and destroyed when found defective. 1926.450 a-2			
Side rails extend 36" above landing or provision of grab rails. 1926.450 a-9			
Top of ladders tied-in to prevent displacement. 1926.450 a-10			
Double cleat ladders provided for working area having 25 or more workers and two-way traffic is expected. 1926.450-b-1			
Double cleat ladders not exceeding 24 feet in length. 1926.450-b-2			
Single cleat ladders not exceeding 30 feet in length. 1926.450-b-3			
Cleats inset into edges of side rails or filler blocks used. 1926.450-b-12			
All job-built ladders constructed to conform with standards. 1926.450 Tables			
No metal ladders used within 10 Ft. of electrical lines. 1926.450-a-11			
Stepladders used only in full open position. 5-a-1			
Stepladders of sufficient height so that top two steps do not have to be used to perform work. 5-a-1			
All manufactured single and extension ladders equipped with ladder shoes. 1926.450 a-6			

GENERAL	YES	NO	VIOLATION CORRECTED
SCAFFOLDING All open sides and ends of platforms more than 10' above ground or floor level, provided with op rails, (42" high) midrails, toeboards (4" high). 1926.451 a-4			
Where workers pass or work under scaffolds, screens or other overhead protection provided. 1926.451-a-6			
Platform planks laid together tight preventing tools, etc., from falling through. 1926.451-b-11			
Scaffold guyed or tied to structure. 1926.451-b-4			
Scaffolding set plumb with adequate foundation bearing plates. 1926.451-a-2			
Platform planks extend over end supports not less than 6", nor more than 12". 1926.451-a-14			
Planks secured to prevent dislodgment. 1926.451-a-12			
Overhead protection on scaffolds where workers exposed to overhead hazards. 1926.451-a-16			
Ladders used to gain access to scaffold work platforms. 1926.451-a-13			
Horse scaffolds not more than two tiers or 10' in height. 1926.451-0-1			
Horse scaffolds speced not more than 5' for medium duty, not more than 8' for light duty. 1926.451-0-3			
Top rails, midrails, toeboards provided on horse scaffolds 10' above ground or floor level. 1926-451-0-7 **ROLLING SCAFFOLDS (Manually Propelled)** Wheel brakes set while in use. 1926.451 e-2			
No riders on work platform while moving. 1926.451 e-7			
Work levels 10' or more above ground or floor level have guard rails and toeboards. 1926.451 e-10			
All cross and diagonal bracing in place and properly connected. 1926.451-e-9			
Height does not exceed 4 times least base dimension unless outriggers are used. 1926.451-3-1			
Ladder access to work platform. 1926.451-e-5 **SWINGING SCAFFOLDS--2 Point Suspension** Roof hooks or irons securely installed and anchored to a sound structural part of the building. (Beware of ornamental parapets) 1926.451-i-4			
Sheaves fit size of rope used. 1926.451-i-6			
Equipped with standard guard rails and toe boards. 1926.451-i-2			
Load limit marked on each scaffold. 1926.451-i-8			

GENERAL	YES	NO	VIOLATION CORRECTED
Suspension lines inspected before first use and frequently during use. (Record of inspections kept) 1926.451-i-7			
Each employee equipped with safety belt attached to life lines. 1926.451-i-8			
Life line attached at top to independent support and extending to ground level. 1926.451-i-8			
Suspension lines capable of supporting six times rated load. 1926.451-i-5			
Power cables for electric hoist machines secured to platform to prevent snagging or excess tension and located so as to prevent snagging between power supply point and platform. 1926.451-i-3			
PUMP JACK SCAFFOLDS			
Poles not greater than 30 ft. H. 1926.451-y-4-ii			
Poles rigidly supported at top and bottom by triangular bracing and at midpoints as necessary. 1926.451-y-5			
Poles bear on firm level foundation. 1926.451-y-4-iv			
No more than two persons on the scaffold between supports. 1926.451-y-10			
Equipped with standard guard rail or workers have safety belts attached to life lines. 1926.451-y-11			
FLOOR AND WALL OPENINGS			
Wall openings (30" high, 18" wide or greater) from which there is a drop of 4 feet or more and bottom of opening less than 3' above working surface provided with guardrails. 1926.500-c-1			
Bottom of wall openings less than 4" above work surface provided with standard toeboard (4" high) 1926.500-c-1-ii			
Open sided floors 6 feet or more above floor or ground level provided with standard railing and toeboard or other equivalent perimeter protection. 1926.500-d-1			
Stairways when used during construction have handrails on all open sides, guardrails at landings and filler blocks in all recessed treads. 1926.500-e-f			
During construction, stairways provided with standard railings and guardrails at floor opening. 1926.500-e			
MATERIAL HANDLING EQUIPMENT			
Approved canopy guards on fork lift trucks and roll-over protection on all earth moving equipment. 1926.602-c-v			
Rated capacity posted on all lifting hoisting equipment clearly visible to the operator. 1926.550-2			
Where mobile cranes are regularly used, daily inspections made of critical items and records kept. 1926.550-a-5			

GENERAL	YES	NO	VIOLATION CORRECTED
Annual inspection made of crane hoisting machinery and record kept of dates and results. 1926.550-a-6			
On tower cranes, daily inspections made of rigging. 1926.550-a-5			
On tower cranes, weekly inspections made of supporting parts, safety appliances and record kept of repairs required. 1926.550-c-5			
No part of a crane or its load closer to energized electrical lines than the following distances: For lines rated 50 KV or below -- 10 feet. For lines rated over 50 KV -- 10 feet plus 0.4 inch for each 1 KV over 50 KV or twice the length of the line insulator not less than 10 feet. 1926.550-a-15-i-ii			
Cranes in transit with no load and boom lowered, equipment clearance not less than 6 feet for voltages less than 50KV; 10 feet for voltages over 50 KV -- 345 KV; and 16 feet for voltages up to 750 KV. 1926.550-a-15-iii			
EXCAVATIONS, TRENCHING & SHORING Excavated material effectively stored and retained at least 2 feet or more from edge of excavations. 1926-651-i-1			
Utility company contacted and advised of proposed excavation work to determine underground utility exposures or when overhead power lines are involved. 1926.651-a			
Substantial stop logs or barricades installed when mobile equipment working adjacent to excavation. 1926.651-s			
Trenches over 5' in depth shored to standard, laid back to stable slopes or provided with other equivalent protection where hazard of moving ground exists. 1926.652-a			
Trenches less than 5 feet protected where hazardous ground movement exists. 1926.652-a			
Trenches in hard or compact soil shored to standard when depth is more than 5 feet and 8 feet or more in length. 1926.652-c			
In lieu of shoring in hard or compact soil, trench above the 5-foot level sloped (slope not steeper than a 1-foot rise to each ½ foot horizontal). 1926.652-c			
Trenches 4' deep or more provided with ladder located no more than 25' of lateral travel. 1926.652-H			
WELDING, CUTTING, BURNING Proper personnel protective equipment provided, in good condition and being used. 1926.353-e-2			
All oxygen and acetylene cylinders secured properly in upright position. 1926.350-2-9			
All oxygen and acetylene gauges in working condition. 1926.350-h			

GENERAL	YES	NO	VIOLATION CORRECTED
All oxygen and acetylene hoses in good condition and free of grease and oil. 1926.350-f			
Mechanical lighters used for lighting torches -- No cigarette lighters or matches. 1926.350-g-3			
Oxygen and acetylene cylinders stored in upright position in designated areas with caps in place. 1926.350-a-9			
Oxygen and acetylene hoses properly located so as not be damaged by moving equipment or creating a tripping hazard. 350-f-7 1926.350-f-7			
Electric arc welding cables in good condition and properly attached by lugs to welding machine. 1926.351-b-1-2			
Rod holders in good condition. 1926.351-a-1			
Shields provided to protect other workers from flash burns. 1926.351-e			
Welders' shields and helpers' goggles in good condition and equipped with proper lenses. 1926.353-c-3			
Fire extinguishers provided with 25 feet of welding, cutting or bunting operations. 1926.352-d			
All flammable material removed from welding, cutting and burning operations area. 1926.352-a			
Protection provided to prevent slag, etc., from falling on workers below. 1926.350-j			
All welding cable positioned to eliminate tripping hazards. 1926.351-d-5			
ROOFING			
Pitched roofs over 4/1 pitch 1926 451-u-3			
Safety belts and life lines or catch platform. 1926.451-u-2			
Roofing bracket scaffolds secured. 1926.451-u-2			
Crawl or chicken ladders secured and with evenly spaced cleats. 1926.451-v			
Ladders extend 36" above eaves and secured top and bottom. 1926.450-a-9			
Flat and Low Pitch Roofs Less Than 4/1 Pitch			
Warning line 6 ft. from roof edge in the work area. 1926.500			
Safety belts and lines in use at perimeter or standard handrails or equivalent. 1926.500			
Protective equipment when handling hot pitch. 1926.500			
Ladder access same as for pitched roofs. 1926.450-a-9			
Materials stored 6 ft. from edge.			
All openings covered or protected by guardrails. 1926-500-a-4			

GENERAL	YES	NO	VIOLATION CORRECTED
CONCRETE FORMING AND POURING Vertical re-steel protected by covering when employees working above. 1926.700-b-2			
Employees wearing safety belts or equivalent when 6 ft. or more above adjacent work surfaces. 1926.700-b-1			
Walk and standing boards when pouring horizontal surfaces on re-steel. 5-a-1			
Employees provided with and using personnel protective equipment, while pouring concrete. 5-a-1			
No riding concrete buckets. 1926.700-d-7-ii			
All pump crete lines secured at all joints. 1926.700-d-6			
Concrete trucks blocked when discharging on a slope. 1926-700-d-8			
Shoring and re-shoring adequate for support. 1926.701-a-1			
Properly guarded work platform for walls, columns, beams, etc. 5-a-1			
Power troweling machines equipped with positive on/off switch. 1926.700-d-4 **STEEL ERECTION** Decking or safety nets 2 stories or no more than 30 ft. where erection is being performed. 1926.750-b-2-i			
No riding of steel or the hook. 5-a-1			
Safety railing of no less than ½ inch wire rope 42 inches high around perimeter of all temporary planked or metal decked floors. 1926.750-b-1-ii			
Employees working on float scaffolds provided with safety belts. 1926.752-k **DEMOLITION** Dust controlled by wetting. 5-a-1			
Employees provided with dust respirators and goggles. 5-a-1			
Chutes properly erected and drop area barricaded off. 1926.852			
Floor openings protected. 1926.850-J			
Employee access to building provided with overhead protection. 1926-850-K			
Stairways in building used for access properly lighted, and maintained. 1926-851-c **BLASTING** Certified blaster in charge 1926.901-c			
Storage and handling of explosives conforms to Federal requirements and all local ordinances. 1926.904-a			

GENERAL	YES	NO	VIOLATION CORRECTED
Excess explosives, caps, det-cord, etc., removed to approved storage area prior to blast. 1926-905-d			
Standard warning system used. 1926.909-a			
Two-way radios turned off. 1926.900-k			
Signs posted.			
No other work within 100 ft. of loading area. 1926.900-k-3			
Wood poles used for tamping. 1926.905-c			
Blasting machines only used in electric blasting. 1926-906-D			
Waste explosives and containers disposed of as required by regulations. 1926.900-L			
Record of all explosives kept. 1926.905-T			
Post blast inspection completed. 1926.910			
Misfires handled as specified by regulations. 1926.911			
Access to work area controlled. 1926.905-i			

2.11 SITE ACCESS CONTROL

All employees requiring access to the site must:

(1) Attend the Project Safety Orientation (annually),

(2) Be listed on a Subcontractor drug test certification letter, and

(3) Be listed on a Subcontractor site access letter (could be the same as above).

Employees that meet these requirements will be issued a site access sticker or badge. This sticker or badge will be affixed to the employee's hardhat or shirt. No employee is allowed on the Project site at any time without a valid site access sticker, except as provided herein. Gate guards will not allow employees to enter the job site without a valid sticker.

In the event that an employee has not completed the requirements for site access, another employee who has a valid site access sticker may serve as an escort. Escorted employees must remain within visual sight and contact of their escort at all times while on the project site. Escorted employees may not perform any work on the project.

Employees who lose their site access stickers may see the PSM for a replacement.

SECTION 3
SUB-SUB CONTRACTOR &-SUBCONTRACTOR SAFETY MANAGEMENT

3.01 SAFETY MONITORING

A. Project Safety Committee (PSC)

(1) GENERAL

A Project Safety Committee has been established for the **Project Name**. The Subcontractors will attend a quarterly meeting to discuss ongoing project safety issues and upcoming safety changes. The Project Safety Manager will chair the Project Safety Committee.

(2) COMMITTEE MEMBERS

The Committee consists of:

1. NICHOLS CONTRACTING, INC. PD, PM, and PSM
2. **Project Name** Representative(s)
3. PROJECT COMMENTARY AND OBSERVATIONS

The PSC welcomes comments and observations from all Subcontractors and Sub-subcontractors involved in the **Project Name**.

All comments or observations should be made in writing and sent to:

Nichols Contracting, Inc.
Project Safety Manager
18623 Brooke Road
Sandy Spring, MD 20860

B. Project Safety Goals

(1) Specific Goals

The project safety goals for the **Project Name** are three (3.0) LOST workday cases. The national average is 3.7 lost workday cases. To achieve the 3.0 goal, all Subcontractors of any tier shall conform, at a minimum, to safety requirements established in the Project Safety Manual and to their own safety programs.

(2) Safety Standard

Subcontractors that have two LOST time accidents in the same month shall have their safety program and activities reviewed in detail by the Project Safety Manager. All corrective actions and recommendations by the PSM shall be immediately complied with by the Subcontractor or by the Sub-subcontractor. The Subcontractor or Sub-subcontractor will acknowledge in writing the receipt of the recommendation and implementation of corrective actions.

Subcontractors that have a RECORDABLE incident rate of 7.5 total cases shall have their safety program and activities reviewed by the Project Safety Manager. The PSM shall have the right to review Subcontractor or Sub-subcontractor's safety programs following a significant accident or incident, or at any other time as the PSM deems a review is warranted. All corrective actions and suggestions by the PSM shall be complied with by the Subcontractor or the Sub-subcontractor.

(3) Non-Compliance

The PSM shall monitor the Subcontractor's compliance for all corrective actions and suggestions. If the PSM deems that the Subcontractor is not achieving the procedures outlined in the Safety Manual, then Section 3.02, Safety Compliance, shall immediately apply. Any Subcontractor or Sub-subcontractor who exceeds the established project lost-time goal of 3.0 percent for two consecutive months shall be deemed in non-compliance status unless exempted in writing by the NICHOLS CONTRACTING, INC. Project Director.

Any Subcontractor or Sub-subcontractor who exceeds the established project total case Recordable incident rate of 10.0 percent shall be deemed in non-compliance status unless exempted in writing by the NICHOLS CONTRACTING, INC. Project Director.

Any Subcontractor or Sub-subcontractor found to be in continuous violation of safety requirements, or that does not implement safety recommendations or corrective actions with appropriate speed, shall be deemed in non-compliance status.

3.02 SAFETY COMPLIANCE

A. General Safety Compliance

Compliance with the project safety requirements is mandatory. The Subcontractor's supervisory staff or Safety Representative who is unable or unwilling to ensure performance in compliance with the safety obligations will not be acceptable as supervisors and, if substandard performance warrants, shall be removed from the project.

The Subcontractor shall be held responsible for safety compliance of their Sub-subcontractor(s). Subcontractor or Sub-subcontractors whose employees fail to comply with the project safety requirements will be placed in non-compliance status.

(1) NON-COMPLIANCE

NICHOLS CONTRACTING, INC. will monitor the safety performance of the Subcontractor and their Sub-subcontractors. Observed safety violations shall be orally stated, if possible, followed by immediate corrective action. However, a Field Observation Report for failure to abate the violation shall be prepared by NICHOLS CONTRACTING, INC. for signature by the Project Director and Superintendent or the Project Safety Manager.

(2) FAILURE TO TAKE CORRECTIVE ACTION

If Adequate corrective action is not taken by the Subcontractor, or its Sub-subcontractor, within the abatement time in said notice, and Subcontractor or its Sub-subcontractor cannot agree on a course of action in a meeting with the CM General Superintendent, NICHOLS CONTRACTING, INC. shall perform, or cause to be performed, the necessary work and unilaterally backcharge the responsible Subcontractor.

(3) SUBCONTRACTOR ANALYSIS REPORT

In the event that a Subcontractor or Sub-subcontractor has been uncooperative on safety or contractual issues, the NICHOLS CONTRACTING, INC. Project Manager and the Project Safety Manager shall prepare a report documenting the problems encountered. This report will form a historical record, which will be available to determine the future course of action.

B. Project Disciplinary Program

(1) Responsibility

(a) SAFETY DISCIPLINE

The Safety Program mandates that all Subcontractor and Sub-subcontractors accept their responsibility for the prevention of accidents for work under their direction and be responsible for the safety training and instruction of employees under their direct supervision. These same Subcontractors and Sub-subcontractors are responsible for administering discipline when safety violations occur. Under all circumstances, the

Subcontractors and Sub-subcontractors shall follow this disciplinary procedure so that consistency and fairness can be maintained.

(b) Subcontractors are directly responsible for ensuring that discipline is administered in a fair and consistent manner.

(2) Procedure

In cases involving violations of the **Project Name** Safety Manual, it is suggested that the Subcontractor consider a philosophy of progressive, constructive discipline. What this means is that discipline should be administered for the purpose of producing a corrective change in the employer's future behavior, but if the change does not occur, then a more serious form of discipline will be administered.

The severity of a violation will determine the level of disciplinary action administered. Due to the imminent danger associated with fall protection, personal protection equipment and trenching or excavation violations, violation in these areas will start with the written reprimand, as described below. The typical disciplinary action pattern is as follows:

- **Verbal Reprimand -** The supervisor will inform the employee and company that he or she has committed a safety violation which, if repeated, could result in further disciplinary action.

- **Written Reprimand -** A written notice will be issued by the supervisor informing the employee and company of the safety violation and notifying the employee that future violations may result in suspension or discharge from work.

- **Suspension -** The supervisor will inform the employee and Subcontractor that he or she are suspended from the job for a specified period of time for a violation of safety rules or regulations, and those future violations may result in permanent discharge from the site and action taken against the company.

- **Discharge** The employee or company will be terminated because of a major safety violation or a pattern of safety violations.

(b) Whenever discipline is administered, proper documentation of the action taken should be maintained. The documentation shall state what Safety Rule was violated, the level of disciplinary action administered, and any other comments the supervisor wishes to note relative to the incident. Copies of these documents should be maintained by the Subcontractor and a copy is to be sent to the PSM, Subcontractors, and Sub-subcontractors as soon as possible.

(c) Rules of conduct have been established for project safety and must be followed by all Subcontractor and Sub-subcontractors. Violation of these rules, without appropriate disciplinary action on the part of the Subcontractor or Sub-subcontractor will result in a violation for noncompliance and for

failure to take correct action This can result in a required recommendation to remove an individual from the job-site or termination of the subcontract.

NICHOLS CONTRACTING, INC.

Project Name

Disciplinary Action Notice

Subcontractor: _____ Date: _____

Observed by: _____ Trade: _____

Employee Name: _____

Employee Signature: _____

THE ABOVE STATED EMPLOYEE WAS OBSERVED NOT COMPLYING WITH THISPROJECT'S SAFETY POLICY. VERBAL WARNINGS WERE GWEN AT PROJECT OR[ENTATION BY EMPLOYER (SUBCONTRACTOR). DEPENDING UPON THESITUATION, SUPERVISOR AND/OR NICHOLS CONTRACTING, INC. MAY REQUIRE IMMEDIATESUSPENSION OF THE EMPLOYEE(S) FROM THE PROJECT.

VIOLATIONS

A. *First Violation*

( ) Written warning and repeat of safety orientation.

B. *Second Violation*

( ) Immediate two-day suspension in addition to the rest of the current workday.

( ) Attend project orientation

D. *Third or Imminent Danger Violation*

( ) Immediate suspension from the project

Location of observed violation: _____

Description: _____

_____

Reviewed by: (Signature Required)

_____, Project Manager

cc: Project Director
Project Safety Manager

NICHOLS CONTRACTING, INC.

Project Name

Field Observation Report

Project: Project Name

To: **Issue Date:**

THE FOLLOWING OBSERVATIONS:

CORRECTIVE ACTION ☐ **SAFETY** ☐ **QUALITY** ☐ **HOUSEKEEPING** ☐

AT ONCE ☐ **BY DATE** ☐

HAVE BEEN NOTED DURING THE REVIEW OF YOUR WORK:

You are hereby instructed to make noted correction(s) at the above described area(s) as required by your subcontract. if same is not completed within hours, Nichols Contracting, Inc. may perform said work at your expense.

Signature: **Date:**

Project Safety Manager

CORRECTION COMPLETE:

Subcontractor **Date:**

SECTION 4
SAFETY TRAINING

4.01 GENERAL

Safety Training for the Project Name will take many forms including, but not limited, to the following:

(a) Safety Bulletins

(b) Project-sponsored training, such as:

(c) Film programs

(d) Educational brochures and posters

(e) General safety classes

(f) Seminars

(g) Quarterly Safety Representative meetings

(h) 10 Hour OSHA classes

4.02 TRAINING CRITERIA

Three (3) guidelines have been established to facilitate the **Project Name** Safety Training, they are:

(1) Planned

Training planned in anticipation of the work progression and as part of the loss prevention measures needed to prevent losses on the job site.

(2) Convenience

Training classes will be scheduled with convenience in mind. Dates and times will be established and remain consistent throughout the project.

(3) Documentation

Each training session shall be documented with those participating by signing an attendance log.

4.03 WEEKLY JOB SITE SAFETY MEETINGS

A safety toolbox talk should be given to all employees each week by the project Subcontractor Project Manager, Superintendent, Safety Manager, or Direct Supervisor. The talk should be approximately ten to fifteen minutes in length. The topic should be relevant to the current phase of construction.

Topics and discussion ideas may be obtained from several sources. Sample toolbox talks are available from the NICHOLS CONTRACTING, INC. Safety Manager.

Once a toolbox talk topic has been selected and the meeting scheduled, a record of the meeting must be prepared. The Tool Box Meeting Report will be filled out, with the original retained by the Subcontractor and a copy forwarded to the Project Safety Manager.

Performance of toolbox talk training and the completion of the related forms are required by OSHA and other regulatory agencies.

NICHOLS CONTRACTING, INC.

Project Name

Tool Box Meeting Report

COMPANY: _____ **DATE**: _____

FORMAN / SUPERINTENDENT: _____

TYPE OF WORK: _____

SUBJECT OF MEETING: _____

ATTENDANCE: (names): _____

_____

_____

_____

_____

Total Attendance: _____

WEEKLY SAFETY MEETING

FOR THE CONSTRUCTION INDUSTRY

© SAFETY MEETING OUTLINES PO Box 700, Frankfort, IL 60423 815-464-0200 Vol. 26 No. 48 Week of 12/1/2003

Company Name _____ Job Name _____ Date _____

PORTABLE HEATERS

Portable heaters make it possible for you to work more effectively in cold weather. They provide comfortable working conditions and allow you to continue on schedule. But if portable heaters are used improperly they can be dangerous. With the winter season upon us, it's important to review some guidelines for the safe use of portable heaters in order to prevent fires, burns, explosions, shock, and carbon monoxide poisoning.

Whether you use a fuel-burning heater or an electric heater, think about safety **before** you begin to use it. Read and follow all of the manufacturer's recommendations. Instructions will not be the same for all heaters. Use extreme caution when selecting a location for the unit. Do not place a heater in a hallway, doorway, or any other walkway where it is likely to be bumped and tipped over. Also, be sure the heater is on solid footing. Keep a fire extinguisher near, but not right next to, each portable heater. Never leave an operating heater unattended. Keep heaters away from combustible or flammable materials including clothing, walls, curtains, and scrap material. All portable heaters should be kept **at least three feet** from everything around them. Never throw combustibles into or onto a heater.

Electric heaters:

Check the power cord for damage. If the cord is frayed or cracked, do not use the heater. Plug heaters directly into a wall outlet. The large power load could cause an extension cord to overheat and start a fire. Never touch an electric heater if you are wet or have wet hands and don't use an electric heater in a damp or wet area. Unplug the heater when it is not in use and before making any repairs.

Fuel-burning heaters:

Be sure you provide ample fresh air and good ventilation. This will allow enough oxygen for efficient combustion and to prevent the buildup of harmful gases. Never store bottled gas products, petroleum, or fuels near a heater. A spill, leak, or overheated container could cause a fire or explosion. Always allow the heater to cool down before attempting to refuel it. Clean up fuel spills immediately. Never have a flame large enough to throw sparks.

Careless use of portable heaters can lead to injuries and deadly fires. Use portable heaters safely.

SAFETY REMINDER

Carbon monoxide is a killer!
Use a fuel-burning heater in a closed space
and your kids may not see you for Christmas.

Special Topics For Your Project _____

Employee Safety Recommendations _____

Reviewed MSDS # _____ Subject _____

Meeting Attended By _____

Supervisor's Signature _____

These instructions do not supersede local, state, or federal regulations.

WEEKLY SAFETY MEETING

FOR THE CONSTRUCTION INDUSTRY

© SAFETY MEETING OUTLINES PO Box 700, Frankfort, IL 60423 815-464-0200 Vol. 26 No. 48 Week of 12/1/2003

Company Name _____ Job Name _____ Date _____

(Portable Heaters)

CALENTADORES PORTÁTILES

Los calentadores portátiles hacen posible que usted trabaje con más eficiencia cuando hace mucho frío. Proporcionan condiciones de trabajo cómodas y le permiten continuar con su trabajo programado. Pero si los calentadores portátiles son usados indebidamente, pueden ser peligrosos. Con la temporada de invierno encima, es importante repasar algunos lineamientos para el uso seguro de los calentadores portátiles para evitar los incendios, quemaduras, explosiones, choques eléctricos, y envenenamiento con monóxido de carbono.

Ya sea que use un calentador que quema combustible o un calentador eléctrico, piense en la seguridad **antes** de comenzar a usarlo. Lea y siga todas las recomendaciones del fabricante. Las instrucciones no serán iguales para todos los calentadores. Tenga mucho cuidado al seleccionar el lugar en donde colocar la unidad. Nunca coloque un calentador en un pasillo, entrada, u otro lugar en donde exista la posibilidad de que sea golpeado y tirado. Asimismo, asegúrese que el calentador descanse encima de una superficie sólida. Mantenga un extinguidor de incendios cerca, pero no justo al lado de cada calentador portátil. Nunca deje sin atender un calentador en funcionamiento. Mantenga los calentadores lejos de materiales combustibles o inflamables incluyendo ropa, paredes, cortinas, y material de desperdicio. Todos los calentadores portátiles deben colocarse **por lo menos a tres pies** de distancia de cualquier cosa a su alrededor. Nunca tire materiales combustibles hacia o adentro de un calentador.

Calentadores eléctricos:
Inspeccione el cable eléctrico para asegurar que no esté dañado. No use el calentador si el cable está deshilachado o agrietado. Conecte los calentadores directamente al enchufe de la pared. Mucha carga eléctrica en un cable de extensión puede causar el sobrecalentamiento e iniciar un incendio. Nunca toque un calentador eléctrico si usted está mojado o tiene las manos mojadas, y no use un calentador eléctrico en un área húmeda o mojada. Desconecte el calentador cuando no lo está usando y antes de efectuar cualquier reparación.

Calentadores que queman combustible:
Asegúrese de tener suficiente aire fresco y buena ventilación. Esto permitirá suficiente oxígeno para la combustión eficiente y para evitar una acumulación de gases dañinos. Nunca almacene productos de gas embotellado, petróleo, o combustibles cerca de un calentador. Un derrame, fuga, o recipiente sobrecalentado pudiera causar un incendio o explosión. Siempre deje enfriar el calentador antes de tratar de ponerle combustible nuevamente. Limpie inmediatamente los derrames de combustible. Nunca tenga una llama lo suficiente grande que eche chispas.

El uso descuidado de los calentadores portátiles puede causar lesiones e incendios mortales. Use los calentadores portátiles en forma segura.

¡El monóxido de carbono mata!

SAFETY REMINDER Si usa un calentador que quema combustible en un espacio cerrado tal vez sus hijos no lo verán para Navidad.

Special Topics For Your Project _____

Employee Safety Recommendations _____

Reviewed MSDS # _____ Subject _____

Meeting Attended By _____

Supervisor's Signature _____

These instructions do not supersede local, state, or federal regulations

WEEKLY SAFETY MEETING

FOR THE CONSTRUCTION INDUSTRY

© SAFETY MEETING OUTLINES PO Box 700, Frankfort, IL 60423 815-464-0200 Vol. 26 No. 51 Week of 12/22/2003

Company Name _____ Job Name _____ Date _____

MATERIAL SAFETY DATA SHEETS

A Material Safety Data Sheet (MSDS) is designed to provide you with the proper procedures for handling and working with hazardous materials. An MSDS provides information you need to protect yourself, your co-workers, and the environment. Before you work with a new chemical or product, review the necessary MSDSs and make sure you understand them. Employers are required to label hazardous chemicals and make an MSDS available to you for each chemical you may be exposed to at your workplace.

It is important that you know where the MSDSs are located at each jobsite. MSDSs must be readily available to you at your work area in case of an emergency. They may be kept in a binder, in a file, on CD-ROM, on microfiche, or they may be obtained through the Internet. Ask your supervisor if you are not sure where and how to find them. It's also important that you learn how to read MSDSs. They won't be of any help to you if you don't understand what they are telling you. Again, your supervisor is the best person to talk to about training programs and tutorials.

Material Safety Data Sheets are the most comprehensive sources of information about each chemical. MSDSs give the chemical name of the substance, as well as the manufacturer's name, address, and emergency phone number. They provide specific information about each material including exposure limits, required personal protective equipment (PPE), health effects, and fire and explosion hazards. MSDSs also instruct you regarding specific procedures such as proper storage and disposal, first aid measures, and how to deal with spills and leaks.

MSDSs are often presented in different formats, but you can rely on them to:

- ✓ Be written in English (although they may also be available in other languages).
- ✓ Identify the chemical product and manufacturing/importing company.
- ✓ Describe the chemical's composition, ingredients, physical properties, stability, and reactivity.
- ✓ List potential hazards, toxicity, required PPE, and ecological considerations.
- ✓ List first-aid measures and fire-fighting measures.
- ✓ List instructions on handling, storage, disposal, and transport.
- ✓ Describe possible routes of entry, such as inhalation, ingestion, and skin absorption.

SAFETY REMINDER

Just because you don't feel any effects from chemical exposure today doesn't mean you're safe. Learn about the materials you use and how they can affect you.

Special Topics For Your Project _____

Employee Safety Recommendations _____

Reviewed MSDS # _____ Subject _____

Meeting Attended By _____

Supervisor's Signature _____

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WEEKLY SAFETY MEETING

FOR THE CONSTRUCTION INDUSTRY

© SAFETY MEETING OUTLINES PO Box 700, Frankfort, IL 60423 815-464-0200 Vol. 26 No. 51 Week of 12/22/2003

Company Name _____ Job Name _____ Date _____

(Material Safety Data Sheets)

HOJAS DE INFORMACIÓN DE SEGURIDAD DE LOS MATERIALES

Una Hoja de información de seguridad de los materiales (Hoja MSDS por sus siglas en inglés) está diseñada para proporcionarle los procedimientos correctos para manejar y trabajar con los materiales peligrosos. Una Hoja MSDS proporciona información que usted necesita para protegerse a sí mismo, sus compañeros de trabajo, así como al medio ambiente. Antes de trabajar con una nueva sustancia o producto químico, revise las Hojas MSDS correspondientes y asegúrese de entenderlas. Para cada sustancia química a la cual usted pudiera estar expuesto en su sitio de trabajo, se les obliga a los empleadores a colocar etiquetas en todos los productos químicos peligrosos y a tener las Hojas MSDS a las cuales pueda usted tener acceso.

Es importante que sepa dónde se encuentran las Hojas MSDS en cada sitio de trabajo. Las Hojas MSDS deben estar fácilmente disponibles a usted en su área de trabajo en caso de una emergencia. Se pueden guardar en una carpeta, en un archivero, en un formato electrónico en CD-ROM, en formato de microficha, o se pueden obtener a través del Internet. Si no está seguro en dónde están o cómo encontrarlas, hable con su supervisor. También es importante que sepa cómo leer las Hojas MSDS. No le ayudarán en lo más mínimo si no comprende lo que le están diciendo. Nuevamente, su supervisor es la mejor persona con quien hablar acerca de los programas de capacitación y guías didácticas.

Las Hojas de Información de Seguridad de los Materiales son las fuentes más completas de información acerca de cada sustancia química. Las Hojas MSDS proporcionan el nombre químico de la sustancia, así como el nombre del fabricante, su domicilio, y número telefónico de emergencia. Proporcionan información específica acerca de cada material incluyendo los límites de exposición, equipo de protección personal (EPP) requerido, efectos sobre la salud, y peligros de incendio y explosión. Las Hojas MSDS también lo instruyen en cuanto a procedimientos específicos tales como almacenamiento y desecho correcto, medidas de primeros auxilios, y cómo responder a derrames y fugas.

Las Hojas MSDS frecuentemente se presentan en diferentes formatos, pero usted puede confiar en ellas porque:

- ✓ Estarán escritas en inglés (aunque también pueden estar disponibles en otros idiomas).
- ✓ Identifican la sustancia o producto químico y la compañía fabricante/o importadora.
- ✓ Describen la composición del producto químico, sus ingredientes, propiedades físicas, estabilidad, y reactividad.
- ✓ Incluyen una lista de posibles peligros, toxicidad, EPP requerido, y consideraciones ecológicas.
- ✓ Incluyen medidas acerca de primeros auxilios y para combatir incendios.
- ✓ Incluyen una lista de instrucciones sobre el manejo, almacenamiento, transporte, y desecho.
- ✓ Describen las posibles vías de entrada, tal y como la inhalación, ingestión, y absorción a través de la piel.

SAFETY REMINDER

Aunque usted no sienta ningún efecto al estar expuesto un día a una sustancia química, no significa que usted está seguro o que no ha sucedido nada. Conozca y aprenda acerca de los materiales que usa y cómo lo afectan.

Special Topics For Your Project _____

Employee Safety Recommendations _____

Reviewed MSDS # _____ Subject _____

Meeting Attended By _____ _____

_____ _____

_____ _____

_____ _____

_____ _____

_____ _____

Supervisor's Signature _____

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WEEKLY SAFETY MEETING

FOR THE CONSTRUCTION INDUSTRY

© SAFETY MEETING OUTLINES PO Box 700, Frankfort, IL 60423 815-464-0200 Vol. 26 No. 50 Week of 12/15/2003

Company Name _____ Job Name _____ Date _____

SUBSTANCE ABUSE

Construction work presents enough safety hazards without the added danger of substance abuse. Whether you work with tools, heavy equipment, or on scaffolds, construction work requires that you be alert, observant, and ready to make decisions based on sound judgments. Drugs and alcohol can impair a person's perception, affect judgment, and slow reflexes and reaction times. Substance abuse creates a serious safety hazard for users and their co-workers and cannot be tolerated in the workplace.

According to the Institute for a Drug-Free Workplace, 73% of all drug users are employed. This means that drug abuse is not just a problem on the streets but is also a serious concern in the workplace. Additionally, 35% of workers have seen or heard of on-the-job drug use by co-workers. It is important that you report any instances of drug abuse to your supervisor so that substance abusers can be given help and are prevented from putting you and others in danger.

Even if you are not a user, substance abuse directly affects you. National statistics show that substance-abusing employees are almost three times more likely to injure themselves or a co-worker in a workplace accident. This means that no matter how careful you are, your safety may still be in the hands of a worker with impaired vision and judgment.

Prescription and over-the-counter drugs can also be dangerous and highly addictive if they are abused. When taking prescription drugs, always follow medication directions carefully. Don't increase or decrease doses without talking with your doctor. Be aware of the drug's effects on driving and other daily tasks. Learn about the drug's potential interactions with alcohol, other prescription medicines, and over-the-counter medicines. Never take another person's prescription medication and never share yours.

Talk to your children about drug and alcohol abuse. Good communication is the best way to help them avoid these problems. If you are having drug or alcohol abuse problems, there is help available for you. Check with your company employee assistance office, talk with your doctor, or contact your local chapter of Alcoholics Anonymous. You can also call the Substance Abuse and Mental Health Services Administration (1-800-662-HELP) or the National Clearinghouse for Alcohol and Drug Information (1-800-729-6686).

SAFETY REMINDER

There is no safe level of impairment.
Substance abusers put everyone at risk.

Special Topics For Your Project _____

Employee Safety Recommendations _____

Reviewed MSDS # _____ Subject _____

Meeting Attended By _____

Supervisor's Signature _____

These instructions do not supersede local, state, or federal regulations.

WEEKLY SAFETY MEETING

FOR THE CONSTRUCTION INDUSTRY

SAFETY MEETING OUTLINES PO Box 700, Frankfort, IL 60423 815-464-0200 Vol. 26 No. 50 Week of 12/15/2003

Company Name _____ Job Name _____ Date _____

(Substance Abuse)

ABUSO DE ALCOHOL Y DROGAS

El trabajo de la construcción presenta suficientes peligros de seguridad como para tener que añadir el peligro del abuso de alcohol y drogas. Ya sea que trabaje con herramientas, equipo pesado, o sobre un andamio, el trabajo de la construcción requiere que esté alerta, observador, y listo para tomar decisiones en base a su buen juicio. Las drogas y alcohol pueden perjudicar la percepción de una persona, afectar su buen juicio, y reducir sus reflejos y tiempos de reacción. El abuso de alcohol y drogas crea serios peligros de seguridad para los usuarios y sus compañeros de trabajo y no puede tolerarse en el lugar de trabajo.

De acuerdo al Instituto para un Ambiente de Trabajo Libre de Drogas, el 73% de todos los consumidores de drogas tienen un empleo. Esto significa que el abuso de drogas y alcohol no sólo es un problema en las calles sino también es un problema serio en el lugar de trabajo. Adicionalmente, el 35% de los trabajadores han visto o han escuchado açerca del uso en el trabajo de drogas por parte de otros compañeros de trabajo. Es importante que usted reporte cualquier caso de abuso de drogas o alcohol a su supervisor para que se le pueda proporcionar ayuda a la persona que abusa de dichas sustancias y de esta manera evitar que lo ponga a usted y a otros en peligro.

Aún si usted no es un consumidor, el abuso de alcohol y drogas lo afecta en forma directa. Las estadísticas nacionales muestran que los empleados que abusan del alcohol y drogas son casi tres veces más propensos a lesionarse a ellos mismos o a un compañero de trabajo en un accidente laboral. Esto significa que no importa que tan cuidadoso sea usted, su seguridad podrá estar aún en manos de un trabajador con la vista deteriorada y que no está usando su buen juicio.

Las medicinas de receta y de venta libre también pueden ser peligrosas y altamente adictivas si se abusa de ellas. Al tomar un medicamento recetado, siga siempre las instrucciones de la medicina en forma cuidadosa. No aumente o reduzca la dosis sin primero hablar con su médico. Esté enterado de los efectos de la medicina sobre sus efectos al manejar y al hacer otros deberes diarios. Entérese de las posibles interacciones de la medicina si es tomada con alcohol, con otras medicinas de receta o de venta libre. Nunca tome una medicina recetada a otra persona ni comparte la suya con nadie.

Hable con sus hijos sobre el abuso de drogas y alcohol. La buena comunicación es la mejor forma de ayudarles a evitar estos problemas. Si usted tiene problemas con las drogas o con el alcohol, hay ayuda disponible para usted. Hable con la oficina de ayuda para empleados de su compañía, con su médico, o póngase en contacto con su oficina local de Alcohólicos Anónimos. También puede llamar a la oficina de la Administración de Abuso de Alcohol y Drogas y Servicios de Salud Mental (1-800-662-HELP) o a la Cámara Nacional de Información sobre Alcohol y Drogas (1-800-729-6686).

SAFETY REMINDER

No hay un nivel seguro para estar bajo la influencia.
Las personas que abusan del alcohol y de las drogas ponen a todo mundo en peligro.

Special Topics For Your Project _____

Employee Safety Recommendations _____

Reviewed MSDS # _____ Subject _____

Meeting Attended By _____

Supervisor's Signature _____

These instructions do not supersede local, state, or federal regulations

WEEKLY SAFETY MEETING

FOR THE CONSTRUCTION INDUSTRY

© SAFETY MEETING OUTLINES PO Box 700, Frankfort, IL 60423 815-464-0200 Vol. 26 No. 49 Week of 12/8/2003

Company Name _____ Job Name _____ Date _____

HOUSEKEEPING

Just as you take pride in your work, you should take pride in your workspace by keeping it clean, neat, and organized. The cleanliness of a jobsite reflects the professionalism of the crew working on the site. But making a good impression is only one reason to keep your work area clean. Good housekeeping practices can also help prevent injuries and fires, reduce health hazards, increase productivity, and raise the morale of everyone on the site.

Many accidents and injuries occur as a result of poor housekeeping. A cluttered environment can lead to slips, trips, and falls when tools are left out or spills are ignored. Injuries can also occur when someone uses the wrong tool for the job because the proper one can't be found. A hammer or screwdriver left out of place on a roof or upper floor could fall and strike someone below.

Other dangers associated with poor housekeeping are health and fire hazards. Trash and debris including lunch bags, wrappers, soda cans, and other food scraps can become a health hazard and attract rodents and other vermin to your jobsite. A pile of soiled or oily rags can be a fire hazard. Improper storage of materials can block fire extinguishers, sprinkler heads, and exit doors.

With good housekeeping comes an increase in productivity. The cleaner you keep your work area, the less time you'll spend maneuvering over or around a mess, reporting accidents, and looking for misplaced tools or materials. A clean worksite can also improve employee morale. You will find your jobsite a more satisfying place to spend your time if you don't have to deal with a cluttered, messy, and disorganized work environment.

To maintain a clean and safe jobsite:

1) Keep your work area clean throughout the day so that clutter doesn't accumulate; this will save you time at the end of the day when you have to clean up anyway.
2) Properly dispose of combustibles and flammables to reduce the potential for a fire.
3) Keep trash and debris off the floors by using the appropriate trash bins.
4) Put your tools away after you have used them so that you will find them easily the next time you need them.
5) Stack materials and supplies properly and secure them so they will not fall, tip over, or slide.
6) If you find a problem you cannot fix, report it to your supervisor.

SAFETY REMINDER

Keep walkways safe!
...that not only means clear of cords and scrap;
it also means free from mud, snow, and ice.

Special Topics For Your Project _____

Employee Safety Recommendations _____

Reviewed MSDS # _____ Subject _____

Meeting Attended By _____

Supervisor's Signature _____

These instructions do not supersede local, state, or federal regulations.

WEEKLY SAFETY MEETING

FOR THE CONSTRUCTION INDUSTRY

© SAFETY MEETING OUTLINES PO Box 700, Frankfort, IL 60423 815-464-0200 Vol. 26 No. 49 Week of 12/8/2003

Company Name _____ Job Name _____ Date _____

(Housekeeping)

LIMPIEZA Y MANTENIMIENTO

Igual como usted tiene orgullo en su trabajo, usted debe tener orgullo de su lugar de trabajo al mantenerlo limpio, escombrado, y organizado. La limpieza de un sitio de trabajo refleja el profesionalismo de la cuadrilla que trabaja en dicho sitio. Sin embargo, la buena impresión es solamente una de las razones de mantener limpia su área de trabajo. Las buenas prácticas de limpieza y mantenimiento también pueden ayudar a prevenir las lesiones e incendios, reducir los riesgos a la salud, aumentar la productividad, y elevar el estado de ánimo de todos en la obra.

Muchos accidentes y lesiones suceden como resultado de la mala limpieza y mantenimiento. Un ambiente desordenado puede causar resbalones, tropezones, y caídas cuando las herramientas no son guardadas o si los derrames son ignorados. Las lesiones también pueden suceden cuando alguien usa la herramienta incorrecta para el trabajo porque no pudo localizar la correcta. Un martillo o destornillador dejado incorrectamente en un techo o piso superior puede caer y golpear a alguien abajo.

Otros peligros asociados con la mala limpieza y mantenimiento son los riesgos a la salud y de incendio. La basura y los desperdicios incluyendo las bolsas de comida, envolturas, latas de bebidas, y otros desperdicios de comida pueden convertirse en un riesgo para la salud y atraer roedores y otros bichos a su sitio de trabajo. Los trapos con aceite o tierra amontonados pueden representar un peligro de incendio. El almacenamiento incorrecto de los materiales puede obstruir los extinguidores de incendio, las cabezas del rociador automático, y las puertas de salida.

Con la buena limpieza y mantenimiento viene un aumento en la productividad. Entre más limpia mantenga su área de trabajo, menos tiempo pasará tratando de maniobrar encima o alrededor del desorden, reportando accidentes, y buscando las herramientas o materiales extraviados. Un sitio de trabajo limpio también puede mejorar el estado de ánimo de los empleados. Usted encontrará que su sitio de trabajo es un lugar más satisfactorio en donde pasar su tiempo si no tiene que preocuparse del ambiente de trabajo desordenado, sucio, y desorganizado.

Para mantener un sitio de trabajo limpio y seguro: 1) Mantenga su área de trabajo limpia todo el día para que el desorden no comience a acumularse; esto le ahorrará tiempo al final del día cuando tiene que limpiar de todas maneras. 2) Disponga correctamente de los materiales combustibles e inflamables para reducir la posibilidad de un incendio. 3) Levante la basura y los escombros de los pisos mediante el uso de los basureros correspondientes. 4) Guarde sus herramientas después de usarlas para que las encuentre fácilmente la próxima vez que las necesite. 5) Apile los materiales y provisiones correctamente y afiáncelas para que no se caigan, se ladeen, o se resbalen. 6) Si encuentra un problema que no puede solucionar, repórtelo a su supervisor.

SAFETY REMINDER

¡Mantenga los pasillos seguros!
...esto significa no sólo sin cables ni desperdicios;
sino también sin lodo, nieve, y hielo.

Special Topics For Your Project _____

Employee Safety Recommendations _____

Reviewed MSDS # _____ Subject _____

Meeting Attended By _____

Supervisor's Signature _____

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WEEKLY SAFETY MEETING

FOR THE CONSTRUCTION INDUSTRY

© SAFETY MEETING OUTLINES PO Box 700, Frankfort, IL 60423 815-464-0200 Vol. 26 No. 52 Week of 12/29/2003

Company Name _____ Job Name _____ Date _____

DEFENSIVE DRIVING

A vehicle can be a deadly weapon in the hands of a careless driver. More people are killed or injured in motor vehicle accidents than in any other type of incident, both on and off the job. To protect yourself and others, and to prevent yourself from becoming an accident statistic, you must drive defensively. A defensive driver constantly recognizes and evaluates situations that could result in an accident and avoids them before they occur.

A good driver always thinks ahead: Plan your travel route ahead of time so that you won't have to refer to a map while you drive. Schedule extra time for travel if you are driving an unfamiliar route or you anticipate foul weather. Consider such factors as weather conditions, road and traffic conditions, and how much daylight is remaining. Conduct a pre-trip inspection of your vehicle to ensure it is safe for the trip ahead: check your tires, lights, wipers, and mirrors.

A good driver is always prepared for the worst: Expect the other driver will always do the unexpected. Leave room for him to pass, change lanes, speed up, or slow down unexpectedly. Keep a safe stopping distance between you and the vehicle in front of you. Anticipate that pedestrians may step into your lane. Be prepared for mechanical failure. Carry emergency equipment including a flashlight, flares, a jack, and a first aid kit.

A good driver always keeps a cool head: Be willing to yield the right-of-way to prevent accidents. Never challenge another driver with words or gestures. Yield to drivers who are determined to get there first. Don't drive aggressively.

A good driver is always alert: Keep your mind on your driving. Don't be distracted by your car radio, cell phone, personal problems, or work-related issues. Always pay attention to the road and the vehicles around you. Be aware of traffic conditions as they change around you. Never drive if you are drowsy. Don't read a book or the paper. Don't shave or put on makeup. Your job is to drive safely, and it's a full-time position while you're behind the wheel.

A good driver obeys all traffic laws: Always wear your seat belt. Don't drink and drive. Follow the posted speed limit. Always use turn signals. Slow down in construction zones.

Reduce your chances of being in an accident or causing an accident; drive defensively and make safe driving practices habitual.

SAFETY REMINDER

An emotional driver is a dangerous driver.
Don't let anger or impatience distract you from driving safely.
What's more important, getting there or being right?

Special Topics For Your Project _____

Employee Safety Recommendations _____

Reviewed MSDS # _____ Subject _____

Meeting Attended By _____

Supervisor's Signature _____

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WEEKLY SAFETY MEETING

FOR THE CONSTRUCTION INDUSTRY

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Company Name _____ Job Name _____ Date _____

(Defensive Driving)

MANEJAR EN FORMA DEFENSIVA

Un vehículo puede ser un arma mortal en manos de un conductor descuidado. Un mayor número de personas mueren o se lesionan en accidentes automovilísticos que en cualquier otro tipo de incidente, tanto en el trabajo como fuera de el. Para protegerse usted y a los demás, y para evitar que sea usted una estadística más de accidentes, debe manejar en forma defensiva. Un conductor defensivo constantemente reconoce y evalúa las situaciones que pueden resultar en un accidente y las evita antes de que sucedan.

Un buen conductor siempre piensa en lo que puede suceder: Planee su ruta antes de viajar para que no tenga que consultar un mapa mientras está manejando. Dese más tiempo para viajar si está manejando en una ruta desconocida o anticipa condiciones climatológicas adversas. Considere factores tales como las condiciones climatológicas, las condiciones de la carretera y del tráfico, y cuánta luz del día aún queda. Lleve a cabo una inspección de su vehículo antes de viajar para asegurarse que está listo para el viaje: revise sus llantas, luces, limpiadores, y espejos.

Un buen conductor siempre está preparado para lo peor: Esté preparado de que el otro conductor siempre hará lo inesperado. Deje lugar para que lo pase, que cambie de carril, o aumente o reduzca la velocidad inesperadamente. Mantenga una distancia segura entre usted y el vehículo enfrente de usted para tener espacio para detenerse. Anticipe que un peatón puede entrar a su carril. Esté preparado para cualquier falla mecánica. Cargue con equipo de emergencia incluyendo una linterna, luces de bengala, gato, y botiquín de primeros auxilios.

Un buen conductor siempre mantiene la calma: Esté dispuesto a ceder el paso para evitar los accidentes. Nunca rete a otro conductor con palabras o gestos. Ceda el paso a los conductores quienes están determinados a llegar a su destino primero. No maneje en forma agresiva.

Un buen conductor siempre debe estar alerta: Concéntrese en su manejo. No se distraiga con su radio, teléfono celular, problemas personales, o temas relacionados con el trabajo. Siempre ponga atención en la carretera y en los vehículos a su alrededor. Esté alerta a las condiciones de tránsito puesto que cambian constantemente. Nunca maneje si tiene sueño. No lea libros ni periódicos. No se rasure ni se ponga maquillaje. Su trabajo es manejar en forma segura, y esto es un trabajo de tiempo completo mientras está detrás del volante.

Un buen conductor obedece todas las leyes de tránsito: Siempre use su cinturón de seguridad. No maneje bajo la influencia del alcohol. Obedezca el límite de velocidad anunciado. Ponga y use siempre las señales para dar vuelta. Reduzca la velocidad en zonas de construcción.

Reduzca sus posibilidades de involucrarse en un accidente o de causar uno; maneje en forma defensiva y haga una costumbre las buenas prácticas de manejar.

SAFETY REMINDER

Un conductor emocional es un conductor peligroso.
No deje que su enojo o impaciencia
lo distraiga de manejar con seguridad.
¿Qué es más importante, llegar a su destino o tener la razón?

Special Topics For Your Project _____

Employee Safety Recommendations _____

Reviewed MSDS # _____ Subject _____

Meeting Attended By _____

Supervisor's Signature _____

SECTION 5
REPORTING REQUIREMENTS, PROCEDURES, AND POSTINGS

5.01 ACCIDENT OR INCIDENT REPORTING AND INVESTIGATION

A. Employee Injuries

In the event of an injury to an employee, there are specific procedures that must be followed to allow treatment, proper filing of the claim, and ensure that a safety investigation is completed, the necessary forms and reports are:

- Medical Authorization Form (completed by (NICHOLS CONTRACTING, INC.)
- Injury Investigation Report (completed by Subcontractor and NICHOLS CONTRACTING, INC., if appropriate)
- Employer's First Report of Injury (completed by Subcontractor)

(1) Medical Authorization Form

A Medical Authorization form must be presented to the treatment & facility or physician to ensure payment of medical expense claims.

- Forms will be retained in the Project First Aid Station.
- Returning employee must bring the completed form to the NICHOLS CONTRACTING, INC. First Aid Station when re-entering the job-site. The First Aid Station will make a copy for the Construction Safety file.
- If light duty is required, the Subcontractors or Sub-subcontractor will make the appropriate accommodations. Personnel placed on light duty will be sent home only as a last resort, and after being coordinated with the Project Safety Manager.

(2) Injury Investigation Report

It is important to determine-the factors contributing (directly or indirectly) to the accident in order to identify potentially dangerous physical hazards or unsafe work practices and to correct them. This investigation is a part of the safety responsibilities and must be completed in

B. Accident or Damage to Persons, Equipment or Property-Reporting and Investigation

Injury Investigation Report

This form is to be completed for persons injured, as described above.

Equipment-Property Damage Investigation Report

This form must be used to report and investigate incidents or accidents resulting in damage to equipment or property.

It is extremely important that a complete and detailed report be made on all accidents. The following information should be included if possible:

- The names of witnesses along with their addresses, phone numbers, and relationship to the accident,
- A diagram demonstrating how the accident occurred, and
- Photos, if possible.

This report must be completed within 24 hours of the incident.

Sub-subcontractor reports must be filed with the Subcontractor.

The Subcontractor Representative must forward completed form(s) to the Project Safety Manager. (This includes reports from all tiers of Subcontractors.)

The Injury Investigation Report is to be used to record the results of the investigation, and must be completed within 24 hours of the accident.

Employer's First Report of Injury

This is the standard Maryland Employers First Report of Injury claim form.

Late reporting of injuries or potential claims is a violation of the Safety Program and will not be tolerated. In addition, Subcontractors may be subject to fines or penalties.

Workers Compensation Claim forms must be completed within 24 hours and filed as follows:

- Project Safety Manager

NICHOLS CONTRACTING, INC.

First Report of Injury

Project Location: _____ Date: _____ Time _____

Type of Care: Initial ☐ or Follow-up ☐

Accident Location _____

Description of Accident

SSN _____

Employee Name Phone Number_____

Craft _____

Age_____ **Date of Birth**_____**Employer**_____

Patient Address_____

Marital Status

_____ Foreman

Patient Complaint: _____

Witness accident _____

Patient Statement

Patient Assessment:

Allergies:_____ **Past Medical History:**_____

VITAL SIGNS

TIME	LOC	BLOOD PRESSURE	PULSE RATE	RESP RATE	LUNG SOUNDS

Care Provided

Patient Instructions

AUTHORIZATION FOR TREATMENT: I hereby authorize representatives of Nichols Contracting, Inc. to provide medical treatment as deemed necessary and release same from any and all claims of liability.

_____

REFUSAL OF TREATMENT: I hereby refuse treatment and ad acknowledge that such treatment was advised by the medical staff representing Nichols Contracting, Inc.. I release such persons from liability for respecting and following my express wishes. _____

Patient Disposition: _____**Return to Work** _____ **Went Home** _____ **Referred Out** _____
Referred to _____**By Whom** _____ **Time** _____
Drug Test _____ **Alcohol Test** _____ **Type** _____

Signature of EMS Provider _____

How long have you been with your present employer? _____
How long have you been assigned to this Project? _____
How long have you worked in the construction industry?_____

5.02 SAFETY RELATED REPORTING

A. Safety Surveys

Safety Survey General Procedures

- Number each item, beginning with #1 on each survey.
- Be specific on the description and location of the unsafe condition(s) or unsafe act(s) noted. Hazards deemed “not serious” that are corrected immediately should be noted on the survey as being “corrected”.
- When unsafe condition(s) or unsafe act(s) have the potential to cause bodily injury or property damage the hazard(s) should be classified as “imminent danger” or “serious”. In either case, immediate action ~h4fl be taken to correct the situation. A Safety Survey may be filed thereafter, with a note of the action taken.
- All portions of the Safety Survey that require a signature must be completed.
- Distribution of the completed form will be as follows:
- Original-Subcontractor
- Copy-Project Safety Manager
- Copy-Safety Survey Originator (when not a Sub-subcontractor)
- The Subcontractor Safety Representative performing a Safety Survey will:
- Follow all general procedures.
- Record unsafe conditions(s) or unsafe act(s).
- Correct or cause to be corrected the unsafe condition(s) or unsafe act(s).
- Submit one (1) Safety Survey per week to the Project Safety Manager.
- Follow-up to ensure corrective action is taken.
- The Subcontractor must reply to a Safety Survey presented by other entities (such as the Construction Manager, Insurance Representatives, etc.) by:
- Signing the Safety Survey presented.

- Correct or cause to be corrected the unsafe condition(s) or unsafe act(s) noted on the Safety Survey.

- Submit a copy of the Safety Survey with completed “Action Taken” to the Project Safety Manager.

- Follow-up to ensure corrective action is taken.

- Safety Survey Performed by Persons Representing an Entity other than the Subcontractor will:

- Follow all general procedures.

- Present items for correction verbally in the field and on the Safety Survey form to the Project Safety Manager for distribution to the Subcontractor or Sub-subcontractor.

- If immediate action is required, notify the PSM and then submit the completed survey form to the Project Safety Manager.

- Review the Safety Survey with the Subcontractor’s Safety Representative or Superintendent.

- The person(s) completing the survey shall follow-up with the Subcontractor and report further deficiencies by the Safety Survey form.

JOB SAFETY INSPECTION

JOB NAME:
DATE:
JOB NUMBER:
PROJECT MANAGER:
SUPERINTENDENT:

Mark box "OK" if no correction is needed; "check" if correction should be made; leave blank if item does not apply.

1.	Personal Protection – Hard hats, safety shoes, eye protection, gloves, respiration, etc.		☐
2.	Walkways, Stairs and Ramps – Clear, adequate width, proper slope, in good repair, surface too slippery		☐
3.	Floor or Other Openings – Covered, guardrails, toeboards, barricades, warning signs, lighting		☐
4.	Ladders – Sturdy construction, secured, proper angle, safety feet, etc.		☐
5.	Scaffolds – Sturdy construction, anchored, guard rails, toeboards		☐
6.	Overhead Protection – Sidewalk, street work area protected from falling objects		☐
7.	Housekeeping – Piling of new and used lumber, nails removed, other material piling and placement, tripping hazards		☐
8.	Adequate Illumination – Halls, stairways, for equipment repair, etc.		☐
9.	Power Tools and Equipment – Guarded – Extension Cords, Portable and table saws, planners, conveyors, belts, and pulleys, sprockets and chains, gears		☐
10.	Trenching and Excavation – Shored or back sloped, barricades, warning lights		☐
11.	Heavy Equipment Safety – Operated safely; parked with blade, ball, boom, bucket etc., resting on ground; precautions when under repair, etc.		☐
12.	Cranes and Hoists – Maintenance, cable condition, clamps, safety hooks, power Lines, "no riding" rules enforced		☐
13.	Storage and handling of Flammables (Gasoline, oil, L.P.G., etc.) – Tanks, hoses Static and electric spark control, no smoking, no refueling with motor running, Cylinders supported, fire extinguishers		☐
14.	Warning lights, signs, barricades, watchmen, flagmen, children, etc.		☐
15.	Fire Extinguishers – Proper type and size, recharged		☐
16.	First Aid Equipment – adequate		☐
17.	Evidence of Drugs, Alcohol or Weapons		☐
18.	Weekly Safety Meetings		☐

19. Electrical ☐ ☐

COMMENTS: _____ . _____

_____

_____ _____

Inspectors Signature

NCI Safety Officer
Safety Director

NICHOLS CONTRACTING, INC.

Project Name

Injury Investigation Report

SUB-CONTRADATE OF ACCIDENT: _____

PHONE NUMBER: _____ **TIME OF ACCIDENT:** _____ a.m./p.m.

SUPERVISOR OF INJURED: _____

NAME OF INJURED: _____ **MALE** ☐ **FEMALE** ☐

HOME ADDRESS: _____

HOME PHONE: _____

DATE OF BIRTH: _____

SOCIAL SECURITY NUMBER: _____

MARITAL STATUS: _____

ACTIVITY AT TIME OF ACCIDENT: _____

_____

OCCUPATION OF INJURED: _____

TYPE OF INJURY (Strain, Laceration, etc.): _____

PART OF BODY INJURED (be specific): _____

LOCATION OF ACCIDENT: (be specific): _____

_____

DESCRIBE HOW INJURY OCCURRED: _____

_____

_____

LIST CAUSE(S) OF THE ACCIDENT* (Poor Housekeeping, No Safety Glasses, etc.)

_____

_____

CONTRACTOR - HOW WILL YOU FOLLOW-UP TO PREVENT FUTURE OCCURRENCE?

_____

_____

FIRST AID: YES ☐ NO ☐ AMBULANCE? YES ☐ NO ☐

POLICE ON SCENE: YES ☐ NO ☐ REPORT NO. _____

WITNESS TO ACCIDENT AND PHONE NO: _____

WERE STATEMENTS OBTAINED FROM WITNESSES? YES ☐ NO ☐

ARE STATEMENTS ATTACHED? YES ☐ NO ☐

INJURED TAKEN TO: _____

REPORT PREPARED BY: _____ **TITLE:** _____

SIGNATURE: _____ **DATE:** _____

*** IF EQUIPMENT OR PROPERTY DAMAGE, COMPLETE THE "EQUIPMENT / PROPERTY DAMAGE INVESTIGATION REPORT".**

[COPY TO PROJECT SAFETY MANAGER]

SECTION 6
SITE-SPECIFIC SAFETY STANDARDS

All Subcontractors having labor on site, including all levels of Sub-subcontractors, shall submit the following to NICHOLS CONTRACTING, INC.'S Project Safety Manager for review and approval two weeks before starting work.

- Company's Site-Specific safety policy,
- Hazard Communication data including company policy, project-specific material inventory, and applicable MSDS information
- Lead Program- if applicable,
- Radiation Program- if applicable,
- Confined Space Program- if applicable,
- Fall Protection Program- if applicable,
- Designation of Competent Person worksheet,
- Subcontractor After-Hour Emergency Directory,
- Substance Abuse Program,
- Authorized Persons access roster and confirmation of drug-free status on company letterhead, signed by a company official,
- Letters stating the name of the Subcontractor's designated Safety Representative and Superintendent for the project, and
- Swing scaffold drawings and plan if applicable.

The Subcontractor Superintendent and Safety Representatives are required to have an OSHA 10-hour training card and have a current first aid card. Maintenance of first aid card currency is the Subcontractor's responsibility. If the designated Superintendent or Safety Representative is not present, then a temporary replacement must also have an OSHA 10-hour card and first aid card.

Subcontractor replaces the assigned competent person or requires them to receive additional training immediately to bring their performance up to acceptable levels.

6.01 COMPETENT PERSONS

All Subcontractors having labor on site, including all levels of Sub-subcontractors, shall submit information concerning competent persons to the Project Safety Manager. If individuals working for Subcontractors assigned with the responsibility of being their competent person do not demonstrate adequate knowledge of their responsibilities, NICHOLS CONTRACTING, INC. may request that the

NICHOLS CONTRACTING, INC.

Project Name

DESIGNATION OF COMPETENT PERSONS

Job No. _____ Job Name: _____ Date: _____

Contractor: _____ Scope of Work: _____

Completed By: _____

OSHA Standards	Applies To This Contractor (Y/N)	Designated competent Person (Employee Name)
Subpart C – General Provisions		
1962.20 General Provision	_____	_____
Subpart D – Health & Environmental Controls		
1926.53 Ionizing radiation.	_____	_____
1926.55 Gases, vapors, fumes, dust, mists	_____	_____
1926.58 Asbestos, tremolite, etc.	_____	_____
1926.59 Hazard Communication	_____	_____
1926.63 Cadmium	_____	_____
Subpart E – Personal Protective Equipment		
1926.101 Hearing Protection	_____	_____
Subpart H – Material Handling, Storage, etc.		
1926.251 Rigging equip. for material handling	_____	_____
Subpart J – Welding and Cutting		
1926.354 Welding, cutting and heating	_____	_____
Subpart K – Electrical		
1926.404 Wiring design and protection	_____	_____
Subpart L – Scaffolding		
1926.451 Scaffolding	_____	_____
Subpart M – Floors and Walls Openings		
1926.500 Guardrails, handrails, covers	_____	_____
1926.502 Definitions	_____	_____
1926.503 Training Requirements	_____	_____

OSHA Standards	Applies To This Contractor (Y/N)	Designated competent Person (Employee Name)
Subpart N – Cranes, Derricks, etc.		
1926.550 Cranes and derricks	_____	_____
1926.552 Hoists and elevators	_____	_____
Subpart O – Motor Vehicles and Equipment		
1926.601 Motor Vehicles	_____	_____
Subpart P – Excavations, Trenching, Shoring		
1926.651 General Requirements	_____	_____
1926.652 Protective systems	_____	_____
Subpart Q – Concrete and Masonry		
1926.703 Cast-in-place concrete	_____	_____
1926..705 Lift-slab operations	_____	_____
Subpart R – Steel Erection		
1926.752 Bolting, riveting, fitting-up, etc.	_____	_____
Subpart S – Tunnels, Shafts, Caisson, etc.		
1926.800 Tunnels and shafts	_____	_____
1926.803 Compressed air	_____	_____
Subpart T – Demolition		
1926.850 Preparatory operations	_____	_____
1926.852 Chutes	_____	_____
1926.859 Mechanical demolition	_____	_____
Subpart U – Blasting and Use of Explosives		
1926.900 General provisions	_____	_____
1926.901 Blaster qualifications	_____	_____
Subpart V – Power Transmission/Distribution		
1926.955 Overhead lines	_____	_____
Subpart X – Stairways and Ladders		
1926.1053 Ladders	_____	_____
1926.1060 Training requirements	_____	_____

6.02 PERSONAL PROTECTIVE EQUIPMENT

(1) Hard hats are required at all times, except in break areas, offices, canteens, or restrooms. Unaltered hard hats shall be worn with the bill in front to provide protection against falling trash. Contractors having the need to use a face shield, welding or cutting shield, or other such devices must provide and use the type that attach to hard hats so that helmets may be worn 100% of the time.

(2) Construction work shoes shall be worn at all times during the course of all construction activities. Tennis shoes, track shoes, sandals, loafers, and Hush Puppies are not considered proper footwear for a construction site.

(3) Safety glasses with side shields (per ANSI standards) are required at all times on the job sites; the only exceptions are: break areas, offices, canteens, or restrooms. Prescription glasses, when worn in lieu of safety glasses, must have impact resistant lenses and side guards and meet the appropriate ANSI Z87 standard. Full-face shields or goggles shall be worn for all grinding operations, sawing with abrasive cutting blades, overhead drilling, cutting with hacksaws or bandsaws, and entry process lines.

(4) Tank-tops, low-cut shirts and sleeveless shirts are prohibited on this project. Loose fitting garments, shirttails, or floppy sleeves must be contained. Necklaces, large earrings, and rings are not to be worn while working, except in the office area.

(5) Long pants are required at all times.

(6) Hearing and respiratory equipment shall be worn when required (in accordance with OSHA standards).

RESPIRATORY PROTECTION

(1) WHEN RESPIRATORS MAY BE REQUIRED

- when employee exposure to gases, vapors & dusts cannot be controlled by engineering or management controls

- while engineering controls are being implemented C. During emergency situations or upset conditions D. During non-routine maintenance operations

(2) EXAMPLE OF CONTAMINANTS THAT MAY REQUIRE RESPIRATORY PROTECTION

- Hydrogen Sulfide
- Benzene
- Liquefied Petroleum Gases
- Sulfuric Acid
- Sidica Sand (Sand Blaster's Sand)
- Chlorine
- Nitrogen
- Sulfur
- % Paints & Thinners

(3) RESPIRATORY HAZARDS

- Gaseous Contaminants
- Gases
- Vapors
- Particulate Contaminants
- Dusts
- Mists
- Fumes
- Oxygen Deficient Atmospheres

(4) EFFECTS OF OXYGEN DEFICIENCY

0 2 Vol% at Sea Level	-	Physiological Effect
16 – 12	-	Increased breathing volume, accelerated heartbeat, impaired attention and thinking, impaired coordination
14 – 10	-	Very faulty judgment, very poor muscular coordination, muscular exertion causes rapid fatigue that may cause permanent heart damage, intermittent respiration
10 – 6	-	Nausea, vomiting, inability to perform vigorous movement, or loss of all movement, unconsciousness followed by death
Less than 6	-	Spasmatic breathing, convulsive movements, death in minutes

(5) IMMEDIATELY DANGEROUS TO LIFE OR HEALTH (IDLH) ATMOSPHERES

- Cause serious injury or death within minutes (high concentrations of H2 S,
- Chlorine, CO, Nitrogen, Etc.)

- Cause serious delayed effects (Cancer-suspect agents, Radioactive materials)

(6) KEY TERMS

- mg/M3 - Milligrams of contaminant in air per cubic meter of air

- ppm - parts of contaminant in air per million parts of air

- TLVs - Threshold Limit Values - maximum concentration of airborne contaminants the average employee may be exposed to day after day without adverse effects

- Protection Factors - OSHA has yet to define

- Fit Factors - a quantitative estimate of the fit of a particular respirator to a specific individual and typically estimates the ratio of the concentration of a substance in ambient air to its concentration inside the respirator when worn.

(7) RESPIRATOR CLASSIFICATION

- Air purifying respirators - filter out or chemically remove the contaminants B. Air supplied respirators - provide fresh air to the user's breathing zone

(8) AIR PURIFYING RESPIRATORS

- Filter Masks
- Chemical Cartridges C. Gas Masks
- Removes/filters out specific <u>contaminants E. Do not supply oxygen</u>
- Used only with contaminants that have good warning properties
- Use only in atmospheres NOT immediately dangerous to life and health

(9) CHEMICAL CARTRIDGES OR CANISTERS SHOULD BE REPLACED WHEN:

- You smell or taste the contaminant
- You experience increased breathing resistance
- Incoming air suddenly becomes <u>much</u> warmer than usual
- Before the shelf life is exceeded

(10) COLORS ASSIGNED TO RESPIRATOR CANISTERS AND CARTRIDGES

Contaminant to be Protected Against	Color Assigned
Acid Gases	White
Organic Vapors	Black
Ammonia Gas	Green
Carbon Monoxide Gas	Blue
Acid Gases and Organic Vapors	Yellow
Acid Gases, Ammonia and Organic Vapors	Brown
Acid Gases, Ammonia, Carbon Dioxide and Organic Vapors	Red
Other Vapors and Gases not listed above	Olive
Radioactive Materials (except Tritium and Noble Gases)	Purple
Dusts, Fumes and Mists (other than radioactive Materials)	Orange

Notes:

A purple stripe identifies protection from radioactive materials in combination with any vapor or gas.

An orange stripe identifies protection from particulates in combination with any vapor or gas.

(11) AIR SUPPLIED RESPIRATORS

- Includes all devices that deliver air or oxygen to the user from an independent source
- Air supplied respirators are not supplied pure oxygen, they are supplied fresh
- breathing air

Two Broad Categories:
- Self Contained Breathing Apparatus
- Remote air supply respirators (Hoseline Mask)

(12) MEDICAL PROBLEMS WHICH MAY LIMIT RESPIRATOR USE

- Asthma
- Difficulty in breathing
- Lung Problems
- High blood pressure
- Artery Disease
- Heart Problems
- Missing or arthritic fingers
- Facial scars
- Claustrophobia
- Poor eyesight

(13) FACTORS WHICH CREATE SEALING PROBLEMS

- Beards
- Eyeglass temple pieces
- Facial scars
- Facial contours
- Dentures or missing teeth

(12) RESPIRATOR PROTECTION SUMMARY

The following information is from the NIOS14/OSHA/TJSCG/EPA Guidance Manual for Hazardous Waste Site Activities.

8. Personal Protective Equipment (PPE)

Contents

Introduction 8-1
Developing a PPE Program 8-1
Program Review and Evaluation 8-1
Selection of Respiratory Equipment 8-2
Protection Factor 8-4
Self-Contained Breathing Apparatus (SCBA) 8-5
Supplied-Air Respirators (SARs) 8-6
Combination SCBA/SAR 8-6
Air-Purifying Respirators 8-7
Selection of Protective Clothing and Accessories 8-8
Selection of Chemical-Protective Clothing (CPC) 8-8
Permeation and Degradation 8-8
Heat Transfer Characteristics 8-13
Other Considerations 8-13
Special Conditions 8-13
Selection of Ensembles 8-13
Level of Protection 8-13
PPE Use 8-14
Training 8-15
Work Mission Duration 8-16
Personal Use Factors 8-16
Donning an Ensemble 8-17
Respirator Fit Testing 8-18
In-Use Monitoring 8-18
Doffing an Ensemble 8-18
Clothing Reuse 8-18
Inspection 8-19
Storage 8-19
Maintenance 8-20
Heat Stress and Other Physiological Factors 8-20
Monitoring 8-20
Prevention 8-21
Other Factors 8-21
References 8-23

Introduction

Anyone entering a hazardous waste site must be protected against potential hazards. The purpose of personal protective clothing and equipment (PPE)[1] is to shield or isolate individuals from the chemical, physical, and biologic hazards that may be encountered at a hazardous waste site. Careful selection and use of adequate PPE should protect the respiratory system, skin, eyes, face, hands, feet, head, body, and hearing. This chapter describes the various types of PPE that are appropriate for use at hazardous waste sites, and provides guidance in their selection and use. The final section discusses heat stress and other key physiological factors that must be considered in connection with PPE use.

[1]The term PPE is used in this manual to refer to both personal protective clothing and equipment.

Use of PPE is required by Occupational Safety and Health Administration (OSHA) regulations in 29 CFR Part 1910 (see Table 8-1) and reinforced by U.S. Environmental Protection Agency (EPA) regulations in 40 CFR Part 300 which include requirements for all private contractors working on Superfund sites to conform to applicable OSHA provisions and any other federal or state safety requirements deemed necessary by the lead agency overseeing the activities.

No single combination of protective equipment and clothing is capable of protecting against all hazards. Thus PPE should be used in conjunction with other protective methods. The use of PPE can itself create significant worker hazards, such as heat stress, physical and psychological stress, and impaired vision, mobility, and communication. In general, the greater the level of PPE protection, the greater are the associated risks. For any given situation, equipment and clothing should be selected that provide an adequate level of protection. Over-protection as well as under-protection can be hazardous and should be avoided.

Developing a PPE Program

A written PPE program should be established for work at all hazardous waste sites. (OSHA requires a written program for selection and use of respirators [29 CFR Part 1910.134].) Some of the relevant regulations, listed in Table 8-1, are cited throughout the text. The word "shall" is used only when the procedure is mandated by law.

The two basic objectives of any PPE program should be to protect the wearer from safety and health hazards, and to prevent injury to the wearer from incorrect use and/or malfunction of the PPE. To accomplish these goals, a comprehensive PPE program should include hazard identification; medical monitoring; environmental surveillance; selection, use, maintenance, and decontamination of PPE; and training. These subjects are discussed in this chapter and in Chapters 2, 4, 5, 6, 7, and 10.

The written PPE program should include policy statements, procedures, and guidelines. Copies should be made available to all employees, and a reference copy should be available at each work site. Technical data on equipment, maintenance manuals, relevant regulations, and other essential information should also be made available.

Program Review and Evaluation

The PPE program should be reviewed at least annually. Elements which should be considered in the review include:

- A survey of each site to ensure compliance with regulations applicable to the specific site involved.
- The number of person-hours that workers wear various protective ensembles.
- Accident and illness experience.
- Levels of exposure.
- Adequacy of equipment selection.
- Adequacy of the operational guidelines.

Table 8-1. OSHA Standards for Use of PPE

TYPE OF PROTECTION	REGULATION	SOURCE
General	29 CFR Part 1910.132	41 CFR Part 50-204.7 General Requirements for Personal Protective Equipment.
	29 CFR Part 1910.1000	41 CFR Part 50-204.50, except for Table Z-2, the source of which is American National Standards Institute, Z37 series[a].
	29 CFR Part 1910.1001-1045	OSHA Rulemaking.
Eye and Face	29 CFR Part 1910.133(a)	ANSI Z87.1-1968[a] Eye and Face Protection.
Noise Exposure	29 CFR Part 1910.95	41 CFR Part 50-204.10 and OSHA Rulemaking.
Respiratory	29 CFR Part 1910.134	ANSI Z88.2-1969[a] Standard Practice for Respiratory Protection.
Head	29 CFR Part 1910.135	ANSI Z89.1-1969[a] Safety Requirements for Industrial Head Protection.
Foot	29 CFR Part 1910.136	ANSI Z41.1-1967[a] Men's Safety Toe Footwear.
Electrical Protective Devices	29 CFR Part 1910.137	ANSI Z9.4-1968. Ventilation and Safe Practices of Abrasive Blasting Operations.

[a]American National Standards Institute (ANSI), 1430 Broadway, New York, NY 10018. ANSI regularly updates its standards. The ANSI standards in this table are those that OSHA adopted in 1971. Since the ANSI standards which were then adopted had been set in 1967-1969, those standards, now required under OSHA, may be less stringent than the most recent ANSI standards.

- Adequacy of decontamination, cleaning, inspection, maintenance, and storage programs.
- Adequacy and effectiveness of training and fitting programs.
- Coordination with overall safety and health program elements.
- The degree of fulfillment of program objectives.
- The adequacy of program records.
- Recommendations for program improvement and modification.
- Program costs.

The results of the program evaluation should be made available to employees and presented to top management so that program adaptations may be implemented.

Selection of Respiratory Equipment

Respiratory protection is of primary importance since inhalation is one of the major routes of exposure to chemical toxicants. Respiratory protective devices (respirators) consist of a facepiece connected to either an air source or an air-purifying device. Respirators with an air source are called atmosphere-supplying respirators (Figure 8-1) and consist of two types:

- *Self-contained breathing apparatus (SCBAs)* which supply air from a source carried by the user.
- *Supplied-air respirators (SARs)* which supply air from a source located some distance away and connected to the user by an air-line hose. Supplied-air respirators are sometimes referred to as air-line respirators.

Air-purifying respirators (Figure 8-2), on the other hand, do not have a separate air source. Instead, they utilize ambient air which is "purified" through a filtering element prior to inhalation.

SCBAs, SARs, and air-purifying respirators are further differentiated by the type of air flow supplied to the facepiece:

- *Positive-pressure respirators* maintain a positive pressure in the facepiece during both inhalation and exhalation. The two main types of positive-pressure respirators are pressure-demand and continuous flow. In pressure-demand respirators, a pressure regulator and an exhalation valve on the mask maintain the mask's positive pressure except during high breathing rates. If a leak develops in a pressure-demand respirator, the regulator sends a continuous flow of clean air into the facepiece, preventing penetration by contaminated ambient air. Continuous-flow respirators (including some SARs and all powered air-purifying respirators [PAPRs]) send a continuous stream of air into the facepiece at all times. With SARs, the continuous flow of air prevents infiltration by ambient air, but uses the air supply much more rapidly than with pressure-demand respirators. Powered air-purifying respirators (PAPRs) are operated in a positive-pressure continuous-flow mode utilizing filtered ambient air. (However, at maximal breathing rates, a negative pressure may be created in the facepiece of a PAPR.)
- *Negative-pressure respirators* draw air into the facepiece via the negative pressure created by user inhalation. The main disadvantage of negative-pressure respirators is that if any leaks develop in the system (i.e., a crack in the hose or an ill-fitting mask or facepiece), the user draws contaminated air into the facepiece during inhalation.

When atmosphere-supplying respirators are used, only those operated in the positive-pressure mode are recommended for work at hazardous waste sites. Table 8-2 lists the relative advantages and disadvantages of SCBAs, SARs, and air-purifying respirators.

Different types of facepieces are available for use with the various types of respirators. The types generally used at hazardous waste sites are full facepieces and half masks.

- *Full-facepiece masks* cover the face from the hairline to below the chin. They provide eye protection.
- *Half masks* cover the face from below the chin to over the nose and do not provide eye protection.

Federal regulations require the use of respirators that have been tested and approved by the Mine Safety and Health Administration (MSHA) and NIOSH. Testing procedures are described in 30 CFR Part 11. Approval numbers are

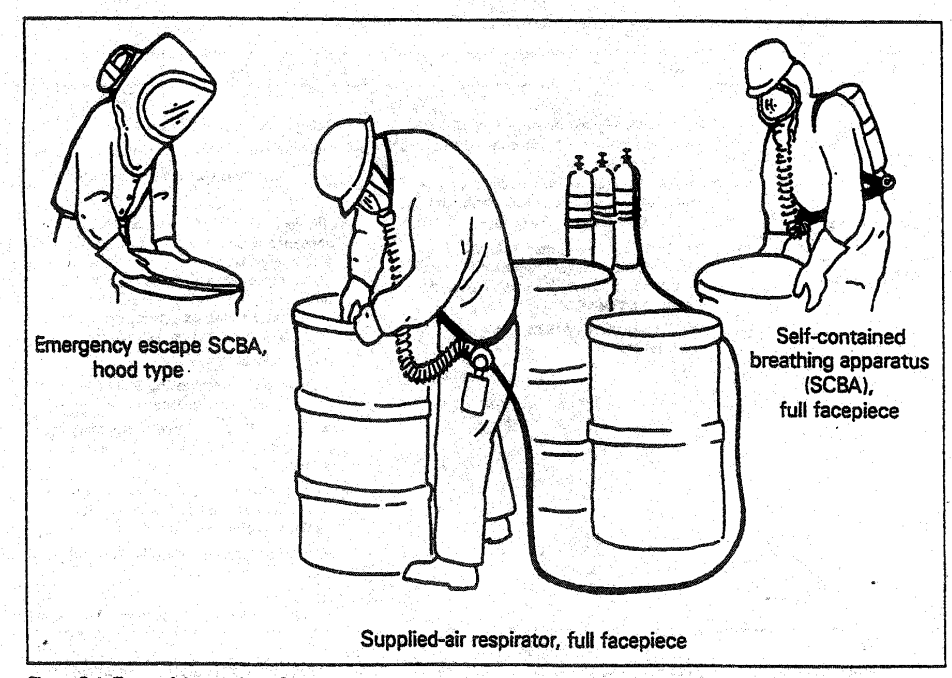

Figure 8-1. Types of Atmosphere-Supplying Respirators.

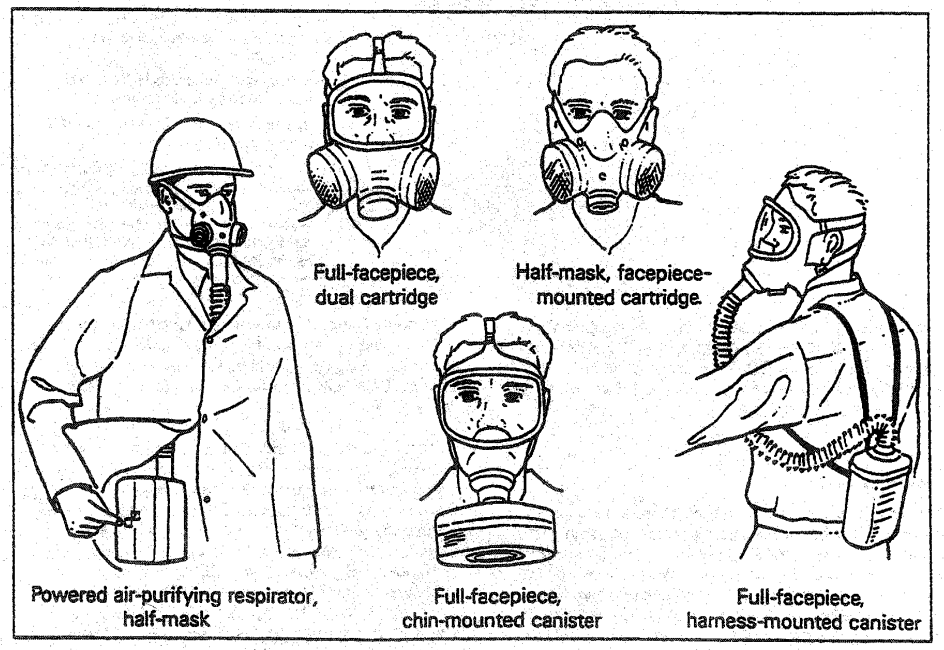

Figure 8-2. Types of Air-Purifying Respirators.

Table 8-2. Relative Advantages and Disadvantages of Respiratory Protective Equipment

TYPE OF RESPIRATOR	ADVANTAGES	DISADVANTAGES
ATMOSPHERE-SUPPLYING		
Self-Contained Breathing Apparatus (SCBA)	• Provides the highest available level of protection against airborne contaminants and oxygen deficiency. • Provides the highest available level of protection under strenuous work conditions. • Enables longer work periods than an SCBA. • Less bulky and heavy than a SCBA. SAR equipment weighs less than 5 pounds (or around 15 pounds if escape SCBA protection is included). • Protects against most airborne contaminants.	• Bulky, heavy (up to 35 pounds). • Finite air supply limits work duration. • May impair movement in confined spaces.
Positive-Pressure Supplied-Air Respirator (SAR) (also called air-line respirator)		• Not approved for use in atmospheres immediately dangerous to life or health (IDLH) or in oxygen-deficient atmospheres unless equipped with an emergency egress unit such as an escape-only SCBA that can provide immediate emergency respiratory protection in case of air-line failure. • Impairs mobility. • MSHA/NIOSH certification limits hose length to 300 feet (90 meters). • As the length of the hose is increased, the minimum approved air flow may not be delivered at the facepiece. • Air line is vulnerable to damage, chemical contamination, and degradation. Decontamination of hoses may be difficult. • Worker must retrace steps to leave work area. • Requires supervision/monitoring of the air supply line.
AIR-PURIFYING		
Air-Purifying Respirator (including powered air-purifying respirators [PAPRs])	• Enhanced mobility. • Lighter in weight than an SCBA. Generally weights 2 pounds (1 kg) or less (except for PAPRs).	• Cannot be used in IDLH or oxygen-deficient atmospheres (less than 19.5 percent oxygen at sea level). • Limited duration of protection. May be hard to gauge safe operating time in field conditions. • Only protects against specific chemicals and up to specific concentrations. • Use requires monitoring of contaminant and oxygen levels. • Can only be used (1) against gas and vapor contaminants with adequate warning properties, or (2) for specific gases or vapors provided that the service is known and a safety factor is applied or if the unit has an ESLI (end-of-service-life indicator).

clearly written on all approved respiratory equipment; however, not all respiratory equipment that is marketed is approved. Periodically, NIOSH publishes a list, entitled *NIOSH Certified Equipment List* of all approved respirators and respiratory components [1].

Protection Factor

The level of protection that can be provided by a respirator is indicated by the respirator's protection factor. This number, which is determined experimentally by measuring facepiece seal and exhalation valve leakage, indicates the relative difference in concentrations of substances outside and inside the facepiece that can be maintained by the respirator. For example, the protection factor for full-facepiece air-purifying respirators is 50. This means, theoretically, that workers wearing these respirators should be protected in atmospheres containing chemicals at concentrations that are up to 50 times higher than the appropriate limits. One source of protection factors for various types of atmosphere-supplying (SCBA and SAR) and air-purifying respirators can be found in American National Standards Institute (ANSI) standard ANSI Z88.2-1980.

At sites where the identity and concentration of chemicals in air are known, a respirator should be selected with a protection factor that is sufficiently high to ensure that the wearer will not be exposed to the chemicals above the applicable limits. These limits include the American Conference of Governmental Industrial Hygienists' Threshold Limit Values (TLVs), OSHA's Permissible Exposure Limits (PELs), and the NIOSH Recommended Exposure Limits (RELs) (see Table 6-4 in Chapter 6). These limits are designed to protect most workers who may be exposed to chemicals day after day throughout their working life. The OSHA PELs are legally enforceable exposure limits, and are the minimum limits of protection that must be met.

It should be remembered that the protection provided by a respirator can be compromised in several situations, most notably, (1) if a worker has a high breathing rate, (2) if the ambient temperature is high or low, or (3) if the worker has a poor facepiece-to-face seal. At high breathing rates, positive-pressure SCBAs and SARs may not maintain positive pressure for brief periods during peak inhalation. Also, at high work rates, exhalation valves may leak. Consequently, positive-pressure respirators working at high flow rates may offer less protection than when working at normal rates.

A similar reduction in protection may result from high or low ambient temperatures. For example, at high temperatures excessive sweat may cause a break in the face-to-facepiece seal. At very low temperatures, the exhalation valve and regulator may become ice-clogged due to moisture in the breath and air. Likewise, a poor facepiece seal —due to such factors as facial hair, missing teeth, scars, lack of or improper fit testing, etc.—can result in the penetration of air contaminants.

Self-Contained Breathing Apparatus (SCBA)

A self-contained breathing apparatus (SCBA) usually consists of a facepiece connected by a hose and a regulator to an air source (compressed air, compressed oxygen, or an oxygen-generating chemical) carried by the wearer (see Figure 8-1). Only positive-pressure SCBAs are recommended for entry into atmospheres that are immediately dangerous to life and health (IDLH). SCBAs offer protection against most types and levels of airborne contaminants. However, the duration of the air supply is an important planning factor in SCBA use (see *PPE Use* later in this chapter). This is limited by the amount of air carried and its rate of consumption. Also, SCBAs are bulky and heavy, thus they increase the likelihood of heat stress and may impair movement in confined spaces. Generally, only workers handling hazardous materials or operating in contaminated zones require SCBAs. Under MSHA regulations in 30 CFR Part 11.70(a), SCBAs may be approved (1) for escape only, or (2) for both entry into and escape from a hazardous atmosphere. The types of SCBAs and their relative advantages and disadvantages are described in Table 8-3.

Table 8-3. Types of Self-Contained Breathing Apparatus (SCBA)

TYPE	DESCRIPTION	ADVANTAGES	DISADVANTAGES	COMMENTS
ENTRY-AND-ESCAPE SCBA				
Open-Circuit SCBA	Supplies clean air to the wearer from a cylinder. Wearer exhales air directly to the atmosphere.	Operated in a positive-pressure mode, open-circuit SCBAs provide the highest respiratory protection currently available. A warning alarm signals when only 20 to 25 percent of the air supply remains.	Shorter operating time (30 to 60 minutes) and heavier weight (up to 35 lbs [13.6 kg]) than a closed-circuit SCBA.	The 30- to 60-minute operating time may vary depending on the size of the air tank and the work rate of the individual.
Closed-Circuit SCBA (Rebreather)	These devices recycle exhaled gases (CO_2, O_2, and nitrogen) by removing CO_2 with an alkaline scrubber and replenishing the consumed oxygen with oxygen from a liquid or gaseous source.	Longer operating time (up to 4 hours), and lighter weight (21 to 30 lbs [9.5 to 13.6 kg]) than open-circuit apparatus. A warning alarm signals when only 20 to 25 percent of the oxygen supply remains. Oxygen supply is depleted before the CO_2 sorbent scrubber supply, thereby protecting the wearer from CO_2 breakthrough.	At very cold temperatures, scrubber efficiency may be reduced and CO_2 breakthrough may occur. Units retain the heat normally exchanged in exhalation and generate heat in the CO_2 scrubbing operations, adding to the danger of heat stress. Auxiliary cooling devices may be required. When worn outside an encapsulating suit, the breathing bag may be permeated by chemicals, contaminating the breathing apparatus and the respirable air. Decontamination of the breathing bag may be difficult.	Positive-pressure closed-circuit SCBAs offer substantially more protection than negative-pressure units, which are not recommended on hazardous waste sites. While these devices may be certified as closed-circuit SCBAs, NIOSH cannot certify closed-circuit SCBAs as positive-pressure devices due to limitations in certification procedures currently defined in 30 CFR Part 11.
ESCAPE-ONLY SCBA	Supplies clean air to the wearer from either an air cylinder or from an oxygen-generating chemical. Approved for escape purposes only.	Lightweight (10 pounds [4.5 kg] or less), low bulk, easy to carry. Available in pressure-demand and continuous-flow modes.	Cannot be used for entry.	Provides only 5 to 15 minutes of respiratory protection, depending on the model and wearer breathing rate.

It should be remembered that the protection provided by a respirator can be compromised in several situations, most notably, (1) if a worker has a high breathing rate, (2) if the ambient temperature is high or low, or (3) if the worker has a poor facepiece-to-face seal. At high breathing rates, positive-pressure SCBAs and SARs may not maintain positive pressure for brief periods during peak inhalation. Also, at high work rates, exhalation valves may leak. Consequently, positive-pressure respirators working at high flow rates may offer less protection than when working at normal rates.

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Closed-Circuit SCBA (Rebreather)	These devices recycle exhaled gases (CO_2, O_2, and nitrogen) by removing CO_2 with an alkaline scrubber and replenishing the consumed oxygen with oxygen from a liquid or gaseous source.	Longer operating time (up to 4 hours), and lighter weight (21 to 30 lbs [9.5 to 13.6 kg]) than open-circuit apparatus. A warning alarm signals when only 20 to 25 percent of the oxygen supply remains. Oxygen supply is depleted before the CO_2 sorbent scrubber supply, thereby protecting the wearer from CO_2 breakthrough.	At very cold temperatures, scrubber efficiency may be reduced and CO_2 breakthrough may occur. Units retain the heat normally exchanged in exhalation and generate heat in the CO_2 scrubbing operations, adding to the danger of heat stress. Auxiliary cooling devices may be required. When worn outside an encapsulating suit, the breathing bag may be permeated by chemicals, contaminating the breathing apparatus and the respirable air. Decontamination of the breathing bag may be difficult.	Positive-pressure closed-circuit SCBAs offer substantially more protection than negative-pressure units, which are not recommended on hazardous waste sites. While these devices may be certified as closed-circuit SCBAs, NIOSH cannot certify closed-circuit SCBAs as positive-pressure devices due to limitations in certification procedures currently defined in 30 CFR Part 11.
ESCAPE-ONLY SCBA	Supplies clean air to the wearer from either an air cylinder or from an oxygen-generating chemical. Approved for escape purposes only.	Lightweight (10 pounds [4.5 kg] or less), low bulk, easy to carry. Available in pressure-demand and continuous-flow modes.	Cannot be used for entry.	Provides only 5 to 15 minutes of respiratory protection, depending on the model and wearer breathing rate.

Escape-only SCBAs are frequently continuous-flow devices with hoods that can be donned to provide immediate emergency protection. Employers should provide and ensure that employees carry an escape SCBA where such emergency protection may be necessary.

Entry-and-escape SCBA respirators give workers untethered access to nearly all portions of the worksite, but decrease worker mobility, particularly in confined areas, due to both the bulk and weight of the units. Their use is particularly advisable when dealing with unidentified and unquantified airborne contaminants. There are two types of entry-and-escape SCBAs: (1) open-circuit and (2) closed-circuit. In an open-circuit SCBA, air is exhaled directly into the ambient atmosphere. In a closed-circuit SCBA, exhaled air is recycled by removing the carbon dioxide with an alkaline scrubber and by replenishing the consumed oxygen with oxygen from a solid, liquid, or gaseous source.

As required by MSHA/NIOSH 30 CFR Part 11.80, all compressed breathing gas cylinders must meet minimum U.S. Department of Transportation requirements for interstate shipment. (For further information, see 49 CFR Parts 173 and 178.) All compressed air, compressed oxygen, liquid air, and liquid oxygen used for respiration shall be of high purity and must meet all requirements of OSHA 29 CFR Part 1910.134(d). In addition, breathing air must meet or exceed the requirements of Grade D breathing air as specified in the Compressed Gas Association pamphlet G-7.1 and ANSI Z86.1-1973.

Key questions to ask when considering whether an SCBA is appropriate are:

- Is the atmosphere IDLH or is it likely to become IDLH? If yes, a positive-pressure SCBA should be used. A positive-pressure SAR with an escape SCBA can also be used.
- Is the duration of air supply sufficient for accomplishing the necessary tasks? If no, a larger cylinder should be used, a different respirator should be chosen, and/or the Work Plan should be modified.
- Will the bulk and weight of the SCBA interfere with task performance or cause unnecessary stress? If yes, use of an SAR may be more appropriate if conditions permit.
- Will temperature effects compromise respirator effectiveness or cause added stress in the worker? If yes, the work period should be shortened or the mission postponed until the temperature changes.

Supplied-Air Respirators (SARs)

Supplied-air respirators (also known as air-line respirators) supply air, never oxygen, to a facepiece via a supply line from a stationary source (see Figure 8-1). SARs are available in positive-pressure and negative-pressure modes. Pressure-demand SARs with escape provisions provide the highest level of protection (among SARs) and are the only SARs recommended for use at hazardous waste sites. SARs are not recommended for entry into IDLH atmospheres (MSHA/NIOSH 30 CFR Part 11) unless the apparatus is equipped with an escape SCBA.

The air source for supplied-air respirators may be compressed air cylinders or a compressor that purifies and delivers ambient air to the facepiece. SARs suitable for use with compressed air are classified as "Type C" supplied-air respirators as defined in MSHA/NIOSH 30 CFR Part 11. All SAR couplings must be incompatible with the outlets of other gas systems used on site to prevent a worker from connecting to an inappropriate compressed gas source (OSHA 29 CFR 1910.134[d]).

SARs enable longer work periods than do SCBAs and are less bulky. However, the air line impairs worker mobility and requires workers to retrace their steps when leaving the area. Also, the air line is vulnerable to puncture from rough or sharp surfaces, chemical permeation, damage from contact with heavy equipment, and obstruction from falling drums, etc. To the extent possible, all such hazards should be removed prior to use. When in use, air lines should be kept as short as possible (300 feet [91 meters] is the longest approved hose length for SARs), and other workers and vehicles should be kept away from the air line.

The use of air compressors as the air source for an SAR at a hazardous waste site is severely limited by the same concern that requires workers to wear respirators: that is, the questionable quality of the ambient air. Onsite compressor use is limited by OSHA standards (29 CFR Part 1910.134[d]).

Key questions to ask when considering SAR use are:

- Is the atmosphere IDLH or likely to become IDLH? If yes, an SAR/SCBA combination or SCBA should be used.
- Will the hose significantly impair worker mobility? If yes, the work task should be modified or other respiratory protection should be used.
- Is there a danger of the air line being damaged or obstructed (e.g., by heavy equipment, falling drums, rough terrain, or sharp objects) or permeated and/or degraded by chemicals (e.g., by pools of chemicals)? If yes, either the hazard should be removed or another form of respiratory protection should be used.
- If a compressor is the air source, is it possible for airborne contaminants to enter the air system? If yes, have the contaminants been identified and are efficient filters and/or sorbents available that are capable of removing those contaminants? If no, either cylinders should be used as the air source or another form of respiratory protection should be used.
- Can other workers and vehicles that might interfere with the air line be kept away from the area? If no, another form of respiratory protection should be used.

Combination SCBA/SAR

A relatively new type of respiratory protection is available that uses a regulator to combine the features of an SCBA with an SAR. The user can operate the respirator in the SCBA or SAR mode, through either the manual or automatic switching of air sources. This type of respirator allows entry into and exit from an area using the self-contained air supply, as well as extended work periods within a contaminated area while connected to the air

line. It is particularly appropriate for sites where workers must travel an extended distance to a work area within a hot zone and remain within that area for relatively long work periods (e.g., drum sampling). In such situations, workers would enter the site using the SCBA mode, connect to the air line during the work period, and shift back to the SCBA mode to leave the site.

The combination SCBA/SAR should not be confused with an SAR with escape provisions. The primary difference is the length of air time provided by the SCBA; the combination system provides up to 60 minutes of self-contained air, whereas the escape SCBA contains much less air, generally enough for only 5 minutes. NIOSH certification of the combination unit allows up to 20 percent of the available air time to be used during entry, while the SAR with escape provision is certified for escape only.

Air-Purifying Respirators

Air-purifying respirators consist of a facepiece and an air-purifying device, which is either a removable component of the facepiece or an air-purifying apparatus worn on a body harness and attached to the facepiece by a corrugated breathing hose (see Figure 8-2). Air-purifying respirators selectively remove specific airborne contaminants (particulates, gases, vapors, fumes) from ambient air by filtration, absorption, adsorption, or chemical reactions. They are approved for use in atmospheres containing specific chemicals up to designated concentrations, *and not for IDLH atmospheres*. Air-purifying respirators have limited use at hazardous waste sites and can be used only when the ambient atmosphere contains sufficient oxygen (19.5 percent) (30 CFR Part 11.90(a)). Table 8-4 lists conditions that may exclude the use of air-purifying respirators.

Table 8-4. Conditions That Exclude or May Exclude Use of Air-Purifying Respirators

- Oxygen deficiency.
- IDLH concentrations of specific substances.
- Entry into an unventilated or confined area where the exposure conditions have not been characterized.
- Presence or potential presence of unidentified contaminants.
- Contaminant concentrations are unknown or exceed designated maximum use concentration(s).
- Identified gases or vapors have inadequate warning properties *and* the sorbent service life is not known *and* the unit has no end-of-service-life (ESLI) indicator.
- High relative humidity (may reduce the protection offered by the sorbent).

Air-purifying respirators usually operate only in the negative-pressure mode except for powered air-purifying respirators (PAPRs) which maintain a positive facepiece pressure (except at maximal breathing rates). There are three types of air-purifying devices: (1) particulate filters; (2) cartridges and canisters, which contain sorbents for specific gases and vapors; and (3) combination devices. Their efficiencies vary considerably even for closely related materials [2].

Cartridges usually attach directly to the respirator facepiece. The larger-volume canisters attach to the chin of the facepiece or are carried with a harness and attached to the facepiece by a breathing tube. Combination canisters and cartridges contain layers of different sorbent materials and remove multiple chemicals or multiple classes of chemicals from the ambient air. Though approved against more than one substance, these canisters and cartridges are tested independently against single substances. Thus, the effectiveness of these canisters against two or more substances has not been demonstrated. Filters may also be combined with cartridges to provide additional protection against particulates. A number of standard cartridges and canisters are commercially available. They are color-coded to indicate the general chemicals or classes of chemicals against which they are effective (29 CFR Part 1910.134(g)).

MSHA and NIOSH have granted approvals for manufacturers' specific assemblies of air-purifying respirators for a limited number of specific chemicals. Respirators should be used only for those substances for which they have been approved. Use of a sorbent shall not be allowed when there is reason to suspect that it does not provide adequate sorption efficiency against a specific contaminant. In addition, it should be noted that approval testing is performed at a given temperature and over a narrow range of flow rates and relative humidities [3]; thus protection may be compromised in nonstandard conditions. The assembly that has been approved by MSHA and NIOSH to protect against organic vapors is tested against only a single challenge substance, carbon tetrachloride; its effectiveness for protecting against other vapors has not been demonstrated.

Most chemical sorbent canisters are imprinted with an expiration date. They may be used up to that date as long as they were not opened previously. Once opened, they begin to sorb humidity and air contaminants whether or not they are in use. Their efficiency and service life decreases and therefore they should be used immediately. Cartridges should be discarded after use but should not be used for longer than one shift or when breakthrough occurs, whichever comes first.

Where a canister or cartridge is being used against gases or vapors, the appropriate device shall be used only if the chemical(s) have "adequate warning properties" (30 CFR Part 11.150). NIOSH considers a substance to have adequate warning properties when its odor, taste, or irritant effects are detectable and persistent at concentrations below the recommended exposure limit (REL) (see Chapter 6). A substance is considered to have poor warning properties when its odor or irritation threshold is above the applicable exposure limit. Warning properties are essential to safe use of air-purifying respirators since they allow detection of contaminant breakthrough, should it occur. While warning properties are not foolproof, because they rely on human senses which vary widely among individuals and in the same individual under varying conditions (e.g., olfactory fatigue), they do provide some indication of possible sorbent exhaustion, poor facepiece fit, or other malfunctions. OSHA permits the use of air-purifying respirators for protection against specific chemicals with poor warning properties provided that (1) the service life of the sorbent is known and a safety factor has been applied or (2) the respirator has an approved end-of-service-life indicator.

17.3.0 EXAMPLE - ADMINISTRATIVE RESPIRATORY PROTECTION PROGRAM

ADMINISTRATIVE RESPIRATORY PROTECTION PROGRAM

GENERAL

The OSHA General Industry standard for respiratory protection 29 CFR 1910.134 requires that a respiratory protection program be established by an employer. The following procedures are based on the 11 commandments as established by the Occupational Health and Safety Administration.

GUIDELINES

1. The guidelines in this program are designed to help reduce employee exposures against occupational dusts, fumes, mists, radionuclides, gases and vapors.
2. The primary objective is to prevent excessive exposure to these contaminants.
3. Where feasible, exposure to contaminants will be eliminated by engineering controls (example, general and local ventilation, enclosure or isolation, and substitution of a less hazardous process or material).
4. When effective engineering controls are not feasible, use of personal respiratory protective equipment may be required to achieve this goal.

RESPONSIBILITIES

1. **Management**
   It is management's responsibility to determine what specific applications require use of respiratory equipment. Management must also provide proper respiratory equipment to meet the needs of each specific application. Employees must be provided with adequate training and instructions on all equipment.
2. **Management/Supervisory**
   Superintendents, supervisors, foremen, or group leaders of each area are responsible for insuring that all personnel under their control are completely knowledgeable of the respiratory protection requirements for the areas in which they work. They are also responsible for insuring that their subordinates comply with all facets of this respiratory program, including respirator inspection and maintenance.
3. **Employees**
   It is the responsibility of the employee to have an awareness of the respiratory protection requirements for their work areas (as explained by management). Employees are also responsible for wearing the appropriate respiratory equipment according to proper instructions and for maintaining the equipment in a clean and operable condition.

ADMINISTRATION

1. **Name:** _____ **Signature:** _____
   Management, Safety Department, Personnel
   is responsible for overall program administration.

2. **Name:** _____ **Signature:** _____
   Industrial Hygiene, Insurance Carrier or Consultant
   is responsible for contaminant identification and measurement, including technical support, air sampling, and laboratory analysis.

3. **Name:** _____ **Signature:** _____
   Physician, Occupational Health Nurse
   is responsible for monitoring the health of company employees via a comprehensive medical and health program, including physical examinations.

4. **Name:** _____ **Signature:** _____
   Engineering, Safety Department, Industrial Hygiene, Other
   is responsible for directing and coordinating engineering projects which are directly related to respiratory protection.

5. **Name:** _____ **Signature:** _____
   Safety Department, Industrial Hygiene, Other
   is responsible for selection, issuance, training, and fit testing of all respirators used in this company, including recordkeeping of "Respirator Issuance and Training" card and "Job Description — Respirator Specification" form.

RECOMMENDED RESPIRATORY PROTECTION PROGRAM

WORK AREA MONITORING

Although it is not specifically discussed in the 11 commandments, to assure the adequacy of a respiratory protection program, monitoring should be conducted on a periodic basis to provide for a continuing healthful environment for employees. Personal sampling equipment may be used in accordance with accepted industrial hygiene standards to sample each work area. Results of these samples will pinpoint areas where respiratory protection is required. A "Job Description — Respirator Specification" Form will also document what type of equipment should be worn for specific hazards present.

EMPLOYEE MEDICAL MONITORING

1. Pre-employment physical examinations are conducted on all employees to assure that they are in adequate healthy condition (physically able to perform their work and can use respiratory equipment as required).
2. Periodic physical examinations will be given to regular employees in order to assist them in maintaining their health. (At option of employer/ physician or where such exams are required by Local, State, and/or Federal regulations.)

3. Biological monitoring in the form of blood and/or urinary analysis will be conducted on a periodic basis for all employees if appropriate (Employer/Physician determination).

RESPIRATOR SELECTION

Respirators are selected and approved by management. The selection is based upon the physical and chemical properties of the air contaminants and the concentration level likely to be encountered by the employee. A "Respirator Issuance and Training" card (see attached) is available for each job where respirators are required. This card specifies what respirator is required for each application. The respirator program administrator will make a respirator available immediately to each employee who is placed as a new hire or as a transferee in a job that requires respiratory protection. Replacement respirators/pre-filters will be made available as required.

Respirators currently approved by this company are:

1. _____ _____
   respirator *model*

2. _____ _____
   respirator *model*

3. _____ _____
   respirator *model*

4. _____ _____
   respirator *model*

EMPLOYEE TRAINING

Each employee, upon assignment to an area requiring respirators, must be instructed by his superintendent, supervisor, foreman, or group leader relative to their responsibilities in the respiratory program. The "Respirator Issuance and Training" card will be reviewed on a periodic basis with each employee. They will also be instructed in need, use, limitations, and care of their respirator(s).(3M recommends use of the 4 step-worker training and specific product training audio-visual programs.)

EMPLOYEE FIT TESTING

Employees required to wear a respirator must be fitted properly and tested for a face seal prior to use of the respirator in a contaminated area. Manufacturers provide fitting instructions and use limitations on the product packaging.

Qualitative fit testing is acceptable for most hazards in the workplace. (Refer to OSHA standards for specific direction.)

IOTE: Include the fit test method used on the "Respirator Issuance and Training" card. If it is determined that an individual cannot obtain an adequate fit or face seal with any negative pressure respirator, a powered air purifying or air supplied respirator may be required instead.

RESPIRATOR INSPECTION AND MAINTENANCE

The following points should be considered for respirator inspection and maintenance:

1. The wearer of a respirator will inspect it daily whenever it is in use.
2. Supervisor, foreman, or group leader will periodically spot check respirators for fit, usage, and condition.
3. Respirators not discarded after one shift use, will be cleaned on a daily basis, according to the manufacturer's instructions, by the assigned employee or other person designated by the respirator program coordinator.
4. Respirators not discarded after one shift use, will be stored in a suitable container away from areas of contamination.
5. Whenever feasible, respirators not discarded after one shift use, will be marked or stored in such a manner to assure that they are worn only by the assigned employee. If use by more than one employee is required, the respirator will be cleaned between uses.
6. Each area requiring the regular use of respirators will maintain a log book. Employees not discarding respirators after one shift should sign this log book daily in order to document the inspection and maintenance of their respirators.

EMERGENCY RESPIRATORY EQUIPMENT

Self-contained breathing apparatus may be required in specific areas for emergency use. This equipment will be used only by trained personnel when it is necessary to enter hazardous atmospheres. The following points should be considered:

1. All potential users will be fully trained in the use of this equipment.
2. When the equipment is used, it will be tested in an uncontaminated atmosphere prior to entering the hazardous area if possible.
3. An employee will not work with this apparatus in a hazardous atmosphere on an individual basis. At least one additional employee suitably equipped with a similar breathing apparatus must be in contact with the first employee and must be available to render assistance if necessary.
4. This equipment will be inspected monthly by trained department or group personnel. Inspection and maintenance information will be recorded in a log book.

JOB DESCRIPTION - RESPIRATOR SPECIFICATION FORM

JOB DESCRIPTION

Contaminant | Concentration Level | ppm | mg/m3

Recommended Respiratory Protection

First Choice: | Second Choice:

NIOSH Approval Numbers

OSHA Standard for Contaminant

RESPIRATOR ISSUANCE AND TRAINING

EMPLOYEE	EMPLOYEE NUMBER	TITLE	DATE

RESPIRATOR:
- ☐ Self-Contained
- ☐ Supplied Air
- ☐ Chemical Cartridge with pre-filter
- ☐ Dust / Fume / Mist Filter
- ☐ Powered Air
- ☐ Chemical Cartridge
- ☐ Dust / Mist Filter
- ☐ HEPA Filter

MODEL	APPLICATION	NIOSH APPROVAL NUMBER

LIMITATIONS:
- ☐ Beard
- ☐ Denture
- ☐ Glasses
- ☐ None

EXPLAIN

FITTING:
- ☐ Satisfactory Positive Pressure Test
- ☐ Satisfactory Isoamyl Acetate Test
- ☐ Satisfactory Negative Pressure Test
- ☐ Satisfactory Sweetener Test

MAINTENANCE:
- ☐ Cleaning: ☐ Daily ☐ Weekly ☐ Other _____
- ☐ Individual ☐ Plant ☐ Other
- ☐ Disposal: ☐ Daily ☐ Weekly ☐ Other _____

INDICATOR

EMPLOYEE SIGNATURE | DATE

APPROVED | DATE

17.4.0 OSHA RESPIRATORY PROTECTION STANDARD REQUIREMENTS REVISED 4/8/98

A. Appointment of a program administrator

B. Minimum content of written plan
- Procedures for selecting respirators
- Medical evaluations of employees
- Fit testing procedures for tight-fitting respirators
- Procedures for proper use of respirators
- Procedures and schedules for cleaning, disinfecting, storing, inspecting, repairing, discarding and maintaining respirators
- Procedures to ensure adequate air quality, quantity and flow of breathing air
- Training of employees in respiratory hazards
- Training of employees in proper use, donning, doffing, limitations and maintenance
- Procedures for regularly evaluating the effectiveness of the program

C. Specific training requirements - employee must be able to demonstrate:
- Why respirator is necessary and how improper fit, usage or maintenance can compromise the protective effect of the respirator
- Limitations and capabilities
- How to use the respirator in emergency situations
- How to inspect, don, doff, use and check seals
- Procedures for maintenance and storage
- How to recognize medical signs and symptoms that limit use of respirators
- General requirements of this section

D. Mandatory Appendices
- App. A - Fit Testing Procedures
- App. B1 - User Seal Check Procedures
- App. B2 - Respirator Cleaning Procedures
- App. C - Medical Evaluation Questionnaire
- App. D - Information for Employees Using Respirators not required under the standard.

17.5.0 SELF-CHECK REVIEW/PRACTICE QUESTIONS

1. *A program for maintenance and care of respirators should include the following:*

   a. *Inspection for defects*
   b. *Cleaning, disinfecting, & storage*
   c. *Repair*
   d. *All of the above are correct*

2. *Air-purifying and air-supply are:*

   a. *Types of respirators*
   b. *Ventilation system designations*
   c. *ASTM respirator classes*
   d. *None of the above are correct*

3. *Airborne zinc oxide resulting from welding galvanized iron would be classified as a:*

   a. *Dust*
   b. *Smoke*
   c. *Fume*
   d. *Mist*

4. *One of the reasons that the lungs are a major route of exposure is because they are very efficient at collecting and absorbing toxicants. One reason for this ability is the:*

   a. *Tremendous surface area*
   b. *Location of the lungs in the chest*
   c. *Temperature differential*
   d. *Adsorption coefficient of tissue*

5. *An air-purifying, half-facepiece respirator is expected to have a protection factor of:*

   a. *1*
   b. *5*
   c. *10*
   d. *50*

6. *Breathing air must meet at least the requirements of the specifications for:*

   a. *Grade A breathing air*
   b. *Grade B breathing air*
   c. *Grade C breathing air*
   d. *Grade D breathing air*

7. *In which of the following situations is best for an air purifying respirator to be worn safely?*

   a. *Odor threshold is greater than the PEL*
   b. *Odor threshold is equal to the PEL*
   c. *Odor threshold is less than the PEL*
   d. *Odor threshold is at least 4x the PEL*

8. *Supplied air respirators can be used in IDLH atmospheres if they:*

   a. *Are equipped with auxiliary escape air tanks*
   b. *Supply line is less than 300 feet in length*
   c. *Maximum inlet pressure is less than 125 psig*
   d. *All of the above are correct*

9. *On pressure demand SCBA's there is an alarm to let the wearer know that the air supply has decreased to _____ of full.*

   a. *10%*
   b. *20 - 25%*
   c. *30%*
   d. *50%*

10. *One of the shortcomings of the taste test for qualitatively fitting a respirator is that there is:*

   a. *A risk of harm to the person being fitted*
   b. *Wide variation in the ability to taste saccharin*
   c. *The smoke is very irritating*
   d. *Wide variation in the ability to taste banana oil*

11. *Pressure demand units are approved for use in IDLH atmospheres. The approvals are for units that last 15, 30, 60 minutes. There are also approved units with times of 3, 5, 10 minutes; these are approved for:*

   a. *Escape only*
   b. *Escape and entry*
   c. *Entry only*
   d. *Not for industrial applications*

12. *Self-contained breathing apparatuses must be inspected:*

   a. *Annually*
   b. *Semiannually*
   c. *Monthly*
   d. *Weekly*

6.03 FALL PROTECTION PLAN

All employees shall wear full-body harnesses when working six (6) feet or more above the ground, floor, or excavation when no other type of fall protection is provided. The lanyard shall be securely attached to the employee 100% of the time and shall allow a maximum fill distance of six (6) feet. When fall distances exceed or equal fifteen feet, deceleration devices will be part of the lanyard system. A full body harness shall be worn and properly attached to an approach tie-off point when working out of extending and articulating boom platforms or suspended scaffolds. Subcontractors must comply with OSHA CFR 29 1926. Personnel working around open manholes must be secured to an approved tie-off point or place a railing system around the manhole.

A. DEFINITIONS

FAIL ARREST: Fall Arrest System means the use of multiple safety equipment components such as: body harness, lanyards, deceleration devices, drop lines, horizontal or vertical lifelines and anchorages interconnected and rigged as to arrest a free fill. These components shall meet OSHA and ANSI guidelines.

FALL RESTRAINT: Any safety equipment components that function together to restrain an employee in such a manner as to prevent that Employee from filling from the work surface. For example: a standard guard rail system, or a body harness and lanyard, that does not allow movement beyond the surface edge. These components shall meet OSHA and ANSI guidelines.

LEADING EDGE: Any advancing edge of a floor, root; or formwork that changes location as additional floor, roof, or formwork sections are placed, formed, or constructed. Leading edges not actively under construction are considered "unprotected sides and edges". Positive methods of fill arrest or fall restraint shall be required to protect exposed workers. This includes exposure during demolition activities.

B. HAZARDS

- Erecting and dismantling of structural steel and concrete formwork without the proper fill protection provides the greatest exposure of workers to a fill hazard greater than six (6) feet.

- Floor openings created during decking to accommodate ladders, stairways, roof openings, skylights, elevators, and mechanical and electrical equipment.

- Leading edges created during demolition, structural metal deck, concrete formwork, and pre-cast concrete installation.

- Floor and roof perimeters under construction that are unprotected by one of the permanent building enclosure systems.

C. TYPES OF EQUIPMENT

(1) Full body harness shall be used in all types of fall arresting situations.

(2) Lanyards shall be double locking and the shock absorbing type.

(3) Retractable lines may be used where tying off at a point is not feasible.

(4) Properly installed horizontal and vertical lifelines.

(5) Properly installed temporary anchorage points such as beam clamps, beam straps, and girder grips.

(6) Mobile anchorage devices such as cable or rope grabs designed to be used with vertical lifelines.

D. METHODS OF FALL ARREST AND FALL RESTRAINT

(1) Where employees are exposed to a fall hazard greater than six *(6)* feet, and are not protected by a fall restraint system such as a guardrail, a fall body harness and lanyard assembly shall be used. The method of attachment shall be to attach the lanyard to a catenary line or structural building component capable of supporting 5,000 pounds per employee. The hardware of the harness, lanyard, rebar chain assembly, and other equipment must be compatible. It may be necessary to use two lanyards, keeping one hooked at all times while moving, to maintain 100% fall protection. Lanyards should preferably be attached overhead where possible. All Employees shall be tied off 100% while exposed to the fall hazard.

All floor or roof perimeters that are not a part of the leading edge shall have a standard guardrail.

- Lumber standard railing systems consist of 2 inch by 4-inch post on 8-foot centers. Top rail of 2 inch by 4 inch, 42 inches above finish surface with midrailing and toeboards.

- Where used a guardrails, the 1/2 inch (or equivalent) strength wire cable shall be supported by stanchions spaced no greater than 8 feet on center

- Respirators, appropriate gloves and hearing protection shall be worn when required.

- Fall protection shall be used above 6 feet. Body belts are not allowed as a fall protection device (harness only). Contractors may submit a request for variance to the construction manager. The variance must be approved by the construction manager and owner.

- A serviceable pair of safety work shoes or boots made of leather or similar material shall be worn. Tennis shoes, scandals and other similar shoes are not permitted.

- Approved eye protection shall be worn at all times while on the construction site. Approved eyewear shall consist of prescription or non-prescription safety glasses, with sideshields, without tint, which meet ANSI Z87.1 1989 requirements. Certain operations (i.e. welding, working with chemicals/hazardous liquids, etc.) will require additional protection such as goggles, faceshields, helmets, etc.

- Full length pants without excessive length or flared bottoms shall be required. Shirts must cover the entire mid-section and the sleeves must cover the entire shoulder. Sleeveless shirts, tanktops, net shirts, halter tops, etc., shall not be worn on the construction site.

- Long hair shall be contained under a hard hat or net.

- Gambling, fighting or horseplay shall not be tolerated.

- No employee shall possess a firearm or other weapon on Owner property or projects.

- No employee shall posses, use, or be under the influence of a controlled substance or alcohol while on the project. (Reference to Drug-Free Workplace program for Owner construction contracts – Appendix A).

- Any Contractor/Subcontractor employee who is found to in violation of these safety rules or other Owner policies or procedures is subject to immediate removal from the job site.

E. PROCEDURES FOR THE MAINTENANCE AND INSPECTION OF FALL PROTECTION SYSTEMS

(1) Guardrails shall be inspected daily to ensure completeness, and will be retention as needed.

(2) Tie off / stabilizing lines shall be inspected daily by the Subcontractor, or whoever is installing and using the lines.

(3) Warning Line shall be inspected daily by the Subcontractor installing and using the warning line system to ensure completeness. Red tape will be removed when no longer needed.

(4) Each Employee using' fall arrest or fall restraint systems under this plan shall inspect his body harness webbing, D-rings, lanyard, and hook assemblies daily before use.

- Harness webbing shall be free from nicks or frayed material.
- D-rings and lanyard hardware shall not be deformed or cracked.

(5) All body harness and lanyard assemblies shall have a legible tag attached that will identify & the manufacturer. Equipment that does not have a legible manufacturer tag shall not be used.

(6) All equipment that does not meet the requirements of the above items shall be returned to the Supervisor for replacement.

(7) Floor and roof openings should be inspected daily to ensure they are safe, marked, and secure.

(8) Personal fall protective equipment actually subjected to a load in a fill shall be taken out of service immediately.

(9) Retractable lifelines shall be serviced, maintained, repaired, and certified by the manufacturer's authorized representatives only.

(10) Lifelines, catenary lines, and all personal fall protection equipment must be protected from environmental damage (i.e., hot slag from welding, and proper storage out of weather).

F. PROCEDURES FOR HANDLING, STORING AND SECURING TOOLS AND MATERIALS

(1) All tools shall be raised and lowered by means of a hand line.

(2) Stored material shall be maintained in a manner that does not block access and is not subject to being knocked over.

(3) Large tools will be secured to the scaffold guardrail or JLG railing with cable.

(4) Electrical leads, welding leads and other material shall not be draped or tied to guard rail systems. Leads, if required, should be tied to the base of the stanchions.

(5) Toeboards shall be installed around all floor and roof openings, elevated work platforms, and scaffolds where tools, debris, or equipment may fall onto persons below.

G. OVERHEAD PROTECTION FOR WORKERS PASSING BELOW

Areas where a danger exists from the work area above shall be barricaded off by the Subcontractor doing the work above. That Subcontractor is also to maintain the fencing until work is completed. YELLOW WARNING tape or ORANGE FENCING will be used to mark the area where overhead hazards exist. Any unauthorized persons entering an area that has been barricaded with YELLOW WARNING tape is subject to disciplinary action.

- Hardhats must be worn at all times.
- Safety glasses must be worn at all times.

H. SPECIFIC SAFETY REQUIREMENTS (IN ADDITION TO MANUFACTURER AND OSHA STANDARDS),

(1) PERSONNEL LIFTS OR HOISTING DEVICES:

(2) AERIAL LIFTS (JLG, Snorkel, Etc.):

- Operators must be trained to operate,
- Operators must have an effective procedure for leaving the platform when elevated,
- The anchor point in the lift must be authorized per the manufacturer's recommendations,
- Never use the midrails as a step,
- Operator must lower the platform or basket before moving the machine horizontally, and
- Never overload the platform or basket of lift. Follow manufacturer's recommendation.

(3) SPIDERS AND SKY-CLIMBERS:

- Must be installed per manufacturer specifications, arid
- Personnel shall be provided an independent lifeline and rope grab to which their lanyard shall be secured at all times.
- CRANE. HOISTED PERSONNEL BASKETS*:* Requires the approval of the Project Safety Manager.

(4) ELEVATORS:

- Personnel riding inside enclosed elevator cars are not required to secure their safety lanyard.

(5) FALL ARREST EQUIPMENT:

- Employees must be trained on the use of equipment and proper anchor points.
- Never attach two pieces of fall arrest equipment unless authorized by the manufacturer.
- Never attach fall arrest equipment snap hooks unless authorized by the manufacturer.

- Added distance with shock absorbing lanyard must be considered when planning fall protection. Increased unraveling length creates the potential for a person to hit structural members or the floor before the fall is arrested by the device.

- (Unless otherwise specified by the manufacturer, attach the shock absorber end of the lanyard to the harness.

- Never modify or use fall arrest equipment not meeting OSHA or ANSI guidelines.

(6) STANDARD GUARDRAILS:

- Do not step on, climb, straddle, or use as ladder, lean over, or lean through guardrails.

- Do not use guardrails as anchor points for fall arrest equipment, unless a structural engineer approves them for that specific purpose.

(7) SAFETY NETS

- Never use a debris net for personnel use, unless a personnel net is incorporated. Clean out debris frequently.

- Use of safety nets requires a rescue plan for the removal of a person in the net.

- Nets must be tested in accordance with 051-TA regulations immediately after being installed.

(8) SCAFFOLDS

- Frame scaffold must be pinned before fall equipment is used including legs.

- Secure the first level to avoid possible tip-over, before fall arrest equipment is used.

- Fall arrest lanyard must be shock absorbing.

- If erecting scaffold next to structure, consider retractable or rope lifeline properly anchored to roof of structure.

- Fall Protection shall be utilized when erecting or dismantling scaffolds.

- Swing scaffold drawings and plans must be submitted and found acceptable before installation. Once installed, the system must be reviewed with a NICHOLS CONTRACTING, INC. Supervisor or Safety Manager before use.

(9) STEEL ERECTION

- Install horizontal or vertical cables on ground.
- Plan the routes of travel up and around the structure and stick to them.
- Inspect harnesses for cut webbing under the buttocks.
- Do not work connecting steel in unusually windy or wet weather conditions.
- Approved work boots for use on specific walking surfaces.
- Do not permit free climbing of columns. Instead, use ladders.
- Work with fabricators to eliminate fall hazards.
- Walk the lower flange straddling the beam in order to unhook the crane from the load once the beam is bolted.

(7) DECKING

- Plan the location of bundles of decking to eliminate the necessity of carrying or dragging panels.
- Establish Fall Protection Plan with the use of retractable lifeline or static lines.
- Verify that structural members can safely support the weight of a bundle of decking (all lateral braces installed).

(8) TRASH CHUTES

- Protect openings with lockable door or gates.
- Install bumpers or curbs on the floor to prevent wheel barrels or carts from going over edge.

(9) COMPLETED ROOF CONTROL PLAN

- Completed roof may present a potential fall exposure due to low parapets, skylights, or other features inherent in their design.
- Caution must be taken whenever any person is working or walking on any completed roof.
- This includes NICHOLS CONTRACTING, INC. workers, Subcontractor employees, Owner Representatives, architects, or inspecting authorities.

- After the Roofing Subcontractor has removed their fall protection systems, a warning line system, as defined in the OSHA Standard 1926.502(0 will be installed at least 6 feet from any roof edge or opening. Beyond this point will be considered as a restricted area Any individuals that have business on the finished roof shall be instructed not to enter this restricted area.

- All access points to the roof shall be marked with a placard warning not to enter the restricted area unless positive fall protection is in place.

(10) METHOD OF REMOVAL OF INJURED WORKERS

- Never put a person in a situation where, in the event of a fall, prompt rescue would be impractical or impossible.

- Should a worker be injured on the Project Site, a quick estimate of the extent of injuries shall be made. If the injury is determined to be more than a minor injury, utilize Project Site emergency procedures.

  Consider equipment such as:

  - Basket stretcher (Stokes) with lifting bridal.
  - Aerial lift (JLG) availability.
  - Systems that include self-rescue or controlled descent.

I. SITE-SPECIFIC FALL PROTECTION PLAN

(1) Each phase must be reviewed before construction. A project site-specific Fall Protection Plan must be developed and reviewed.

(2) Overall responsibility for the development of a Fall Protection Plan lies with the Subcontractor.

(3) Each Subcontractor will be required to submit a project site-specific Fall Protection Plan before commencing work. The Project Manager must approve the Plan.

(4) The Subcontractor Superintendents will review the site plans and identify all fall hazard areas.

J. FALL PROTECTION PLAN TRAINING PROCEDURES

(1) Each Employee working on the Project is given a copy of the Fall Protection Plan.

(2) Each Employee is asked to read the Fall Protection Plan.

(3) Each Employee is required to sign an Acknowledgement that they have read and understand the Fall Protection Plan.

(4) Training and implementation of the plan procedures is a perpetual process and is conducted each day by the Superintendent and Foreman.

(5) Re-training through weekly Safety Meetings with the topic of the Fall Protection Plan at least once a month.

(6) An open-door policy will be established for any suggestions from any employee that could improve the Fall Protection Plan.

K. FALL PROTECTION PLAN TRAINING PROCEDURES

NOTE: Federal subsections 1926.760(a), 1926.760(b), 1926.760(c) have not been adopted in Virginia. VOSH will continue to cite 1926.28 (a) in steel erection when fall protection is not provided for falls between 10 and 25 feet in height. VOSH will also continue to cite 1926.105 (a) in steel erection when fall protection is not provided for falls in excess of 25 feet. See VOSH Program Directive 06-004A for enforcement policy on 1926.105(a) for steel erection.

(a) General requirements. (Not adopted).
(b) Connectors. (Not adopted).
(c) Controlled Decking Zones. (Not adopted).
(d) Criteria for fall protection equipment.

(1) Guardrail systems, safety net systems, personal fall arrest systems, positioning device systems and their components shall conform to the criteria in 1926.502 (See Appendix G to this subpart).
(2) Fall arrest system components shall be used in fall restraint systems and belts or body harnesses shall be used in fall restraint systems.
(3) Perimeter safety cables shall meet the criteria for guardrail systems in 1926.502 (see Appendix G).

(e) Custody of fall protection. Fall protection provided by the steel erector shall remain in the area where steel erection activity has been completed, to be used by other trades, only if the controlling contractor or its authorized representative:

(f)

(1) Has directed the steel erector to leave the fall protection in place; and
(2) Has inspected and accepted control and responsibility of the fall protection prior to authorizing persons other that steel erectors to work in the area

NICHOLS CONTRACTING, INC.

IMPORTANT NOTICE

Dear Valued Employee:

The OSHA regulation requiring 100% tie-off over six (6) feet has been in effect for 8 years now, yet a few still choose to ignore it. This causes tiring needless meetings with General Contractors and Safety people trying to defend a NICHOLS CONTRACTING, INC. employee that did not tie-off, when in fact there is no defense.

School is out, the following Disciplinary Program is adopted into NICHOLS CONTRACTING, INC.'S Safety program and is effective as of 1/01/04.

Disciplinary action for failure to tie off 100% when working at heights exceeding 6 feet:

1st offense:	Verbal Warning
2nd offense:	3 days off without pay
3rd offense:	5 days off without pay
4th offense:	Immediate Discharge, not eligible for rehire for 6 months on any NICHOLS CONTRACTING, INC. project.

Employee Signature: _____ Date: _____

6.04 EQUIPMENT AND MOTOR VEHICLES

- All traffic regulations, instruction and signs must be rigidly observed.
- Motor vehicles entering the site must be checked at the gate before entering.
- All vehicles must be maintained so that they are in safe operating condition.
- The Project maximum speed is 5 MPH. The Subcontractor's personnel will be advised of the speed limit on the site. Reduced speeds are required on roadways where personnel and equipment are exposed to vehicle traffic.
- No one is to ride equipment other than the operator. Passengers are allowed only if a manufactured seat is provided, or written permission is received from the equipment manufacturer. Transporting workers in a truck without an approved seat is prohibited. Riding in the back of a truck is prohibited.
- Back-up alarms must be working or back-up personnel must be provided.
- All equipment shall be inspected daily by the Subcontractor before use by the operator.
- Seat belts must be utilized at all times.

6.05 CONFINED SPACE

All Subcontractors shall develop an entry procedure (LAW CFR 29 1926 and 1910) to be used when employees are required to enter confined areas or spaces. Employees must have acceptable training. The procedures and training records shall be submitted in advance to the Project Safety Manager

When an employee is exposed to such an environment, the chance always exists that a reduced oxygen level or combustible or toxic gases may be present. Before entry is made by a Subcontractor or Sub-subcontractor employee into a confined area, the following procedures are to be implemented. Always assume that a hazard exists and that purging or ventilation and re-testing will be required before entry is made. All confined space entry work is to be discussed with the Project Safety Manager before entry.

Tests for flammability, oxygen deficiency, and toxicity are to be made before EACH entry into a confined area. Confined Space Entry Checklist and Confined Space Entry Permit examples are included in this manual.

All manhole work on this project is to be treated as permit-required confined space entries.

Continuous air monitoring and retrieval systems shall be used at all times, if possible, in confined spaces.

Appendix C

CONFINED SPACE ENTRY PERMIT

Date: Start Time: Expiration Time:
Location (Building/Floor):
Description of Confined Space:
Past Contents of Confined Space:
Purpose of Entry:
Entry Supervisor/Phone:
Attendant:
Authorized Entrants:

Special Requirements	YES	NO	N/A
All energy sources locked out – mechanical, electrical, chemical, pneumatic, gravity, thermal, other.			
Lines broken (capped or blanked)/valves positively locked.			
Confined space - cleaned, flushed, and force-ventilated.			
Hot Work Permit secured.			
Rescue harness and life lines at site.			
Fire extinguishers at site.			
Protective clothing and equipment for entry and rescue persons in place.			
SCBAs for entry and rescue persons in place.			
Communication equipment at site.			
Rescue team available and notified of entry hazards.			
All electric equipment listed Class I, Division I, Group D and non-sparking tools			
Written rescue plan developed (attach to permit)			
Other:			

ATMOSPHERIC TESTS PERFORMED BY (signature):
Monitoring Equipment Used:

Test	Permissible Level	Time 1	Reading 1	Time 2	Reading 2	Time 3	Reading 3	Time 4	Reading 4
OXYGEN	Greater than 19.5% and less than 22.0%								
LOWER EXPLOSION LIMIT (LEL)	Less than 10%								
CARBON MONOXIDE	Less than 35 ppm								
HYDROGEN SULFIDE	Less than 10 ppm								
Chemical:	PEL/TLV								
Chemical:	PEL/TLV								
Chemical:	PEL/TLV								

If reading is not within Permissible Level, DO NOT ENTER

SIGNATURES REQUIRED (to begin confined entry procedure):
Entry Personnel:

Attendants:
Entry Supervisor:
SIGNATURE (work completed; area ready for production):
Entry Supervisor: _____ **Date/Time:**

Appendix A

TRAINING OUTLINE AND DISCUSSION POINTS

What is a confined space?

A space that:

- Is large enough and so configured that an employee can enter bodily and perform work;
- Has limited or restricted means of entry;
- Is not designed for continuous human occupancy

Who needs to be trained?

- All who must enter confined spaces
- All attendants and rescue team members
- Prior to initial work

Do I need to get retraining?

Yes, if:
- Job duties change
- Change in permit-space programs (new spaces)
- New hazards are present
- Performance indicates

Why do we need to do this?

It's the right thing to do, AND this is a regulatory requirement. Basically, all employees required to enter into confined or enclosed spaces are to be instructed as to the nature of the hazards involved, the necessary precautions to be taken, and in the use of protective and emergency equipment required. The employer will comply with any specific regulations that apply to work in dangerous or potentially dangerous areas.

What are some example of confined spaces?

Tanks, manholes, boilers, degreasers, furnaces, sewers, silos, hoppers, vaults, pipes, pipelines, pits, pumping stations, reaction vessels, mills, septic tanks, silos, trenches, tunnels, ducts, bins, etc.

What are the 10 most important things to remember when dealing with confined spaces?

1. Planning session by qualified persons
2. Testing the atmosphere
3. Ventilation

4. Training of personnel
5. Lockout/ Tagout
6. Standby people / communication
7. Tools and equipment
8. Entry permit
9. Continuous monitoring of the atmosphere
10. Recordkeeping

How do I identify a confined space?

- Limited opening(s) for entry and exit
- Unfavorable or No Natural Ventilation
- Not Designed for Continuous Worker Occupancy

What are some of the potential hazards when working in confined spaces?

- Oxygen deficient or enriched atmospheres. Oxygen deficient atmospheres can lead to asphyxiation. Oxygen enriched atmospheres can lead to explosions. Neither are desirable.
- The presence of combustibles in the confined space i.e., methane, hydrogen, acetylene, propane, gasoline vapors, etc.
- The presence of toxic materials i.e., carbon monoxide, hydrogen sulfide, welding fumes, corrosives, etc.
- Mechanical hazards from mixers or crushers
- Electrical hazards
- Temperature extremes
- Noise
- Slick/Wet surfaces
- Falling objects

What does IDLH mean?

Immediately Dangerous to Life or Health

- Any condition which poses an immediate threat to the health of life on an entrant, or;
- Would cause irreversible adverse health effects, or;
- Would interfere with an individuals ability to escape from a permit space.

What constitutes an ENTRY into a confined space?

- The act by which a person intentionally passes through an opening into a permit required confined space.
- Any part of the body passing through the opening is considered an entry.

* Training is to conclude with an exercise where all employees demonstrate there ability to use the equipment as required!!!!

1.0 BACKGROUND

The Occupational Safety and Health Administration set forth regulations and compliance directives stipulating specific requirements for entrance of workers into confined spaces. Those regulations and directives can be found in the following:

- Construction industry standard – 29 CFR 1910.26 (b) (6),
- General industry standard – 29 CFR 1910.146, and
- OSHA directive – CPL 2.100.

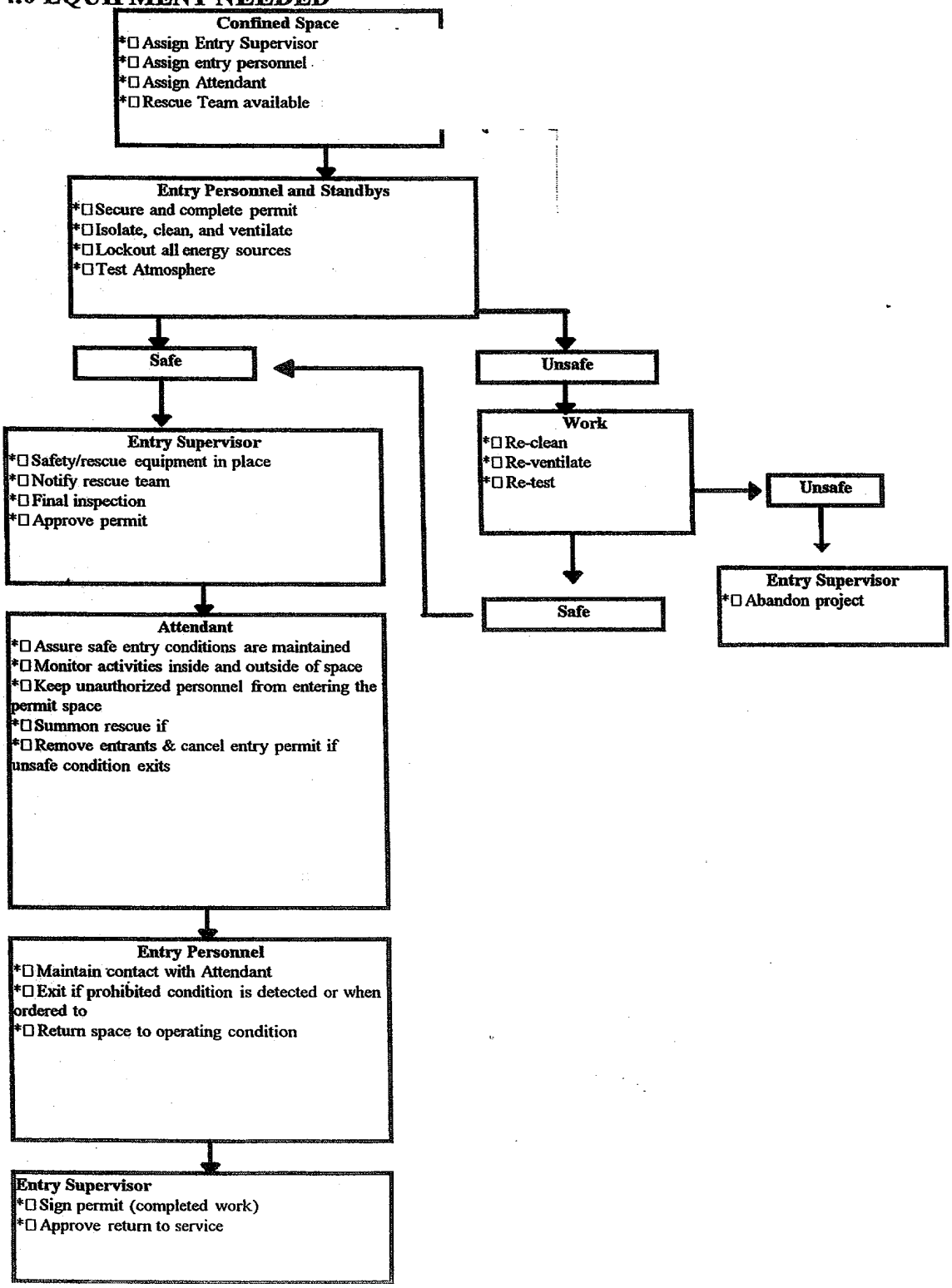
The standards outline program, procedural, and training requirements meant to protect workers from working in situations where an inherent or immediate danger to life and health exists.

2.0 SCOPE OF WORK

This project requires the entry of trained entrants into a crawl space, for the purpose of

3.0 CONFINED SPACE ENTRY PROCEDURAL STEPS FLOWCHART

4.0 EQUIPMENT NEEDED



Confined space can NOT be performed safety without properly tested and calibrated equipment. Confined space equipment shall include:

- Portable direct reading multi-gas meter: Used to measure oxygen and carbon monoxide, hydrogen sulfide, flammable material content, and toxic materials levels as necessary.
- Lifeline: Any person entering the confined space shall be fitted with a lifeline and full-body safety harness. The free end of the life line shall be secured outside the space.
- Horizontal Rescue Device: A horizontal rescue device is to be used to provide a mechanical advantage foe pulling entrants out of the confined space.
- Ladders: These shall be used for entrances to confined spaces which have an entrance drop of more than 3 feet.
- Communication: Equipment must be used to ensure that entrants and attendants remain in contact at all times.
- Other equipment: Other equipment is dependent upon the hazard associated with the hazards of the confined space Other equipment can include, but is not limited to:
- approved respirators,
- hard hats,
- safety glasses or safety goggles,
- gloves,
- boots, and
- coveralls, etc.

5.0 MONITORING REQUIREMENTS

The atmosphere within a confined space must be tested prior to entrance and periodically throughout the performance of work. Atmospheres will be checked at various levels within the confined space to be sure that all areas are within established limits.

Using a portable direct reading multi-gas meter, the following must be checked:

5.1 Oxygen Deficient Atmospheres

The oxygen levels within the confined space shall be tested to ensure that oxygen levels are at a minimum of 19.5% and above 23.5%. Concentration of oxygen below 19.5% and above 23.5% can pose an immediate danger to life and health. Employees are not to enter a confined space with an oxygen level below 19.5% or above 23.5%. If at any point during confined space operations the oxygen level goes below 19.% or above 23.5%, all employees are to exit the confined space until the situation can be reevaluated.

5.2 Flammable Atmosphere

The atmosphere within a confined space must be tested to ensure that flammable gases are not

present greater than 10% of the Lower Explosive Limit (LEL). The presence of higher levels can cause air and gas mixtures that can lead to detonation within the confined space. If at any point during confined space operations the flammable gas levels exceed 10% of the LEL, all employees are to exit the confined space until the situation can be reevaluated. If levels are recorded DO NOT ENTER.

5.3 Toxic Atmospheres

Toxic atmospheres are not expected. If sources of contamination are observed, DO NOT ENTER.

6.0 EMERGENCY PLAN

If in the course of a permit space entry, an attendant becomes aware that an entrant needs assistance in escaping from permit space hazards, the attendant shall:

- Summon rescue and other emergency services.
- Begin non-entry rescue procedures.

6.1 Non-Entry Rescue

At no time shall the attendant attempt entry into the confined space to rescue entrants.

Non-Entry Rescue: To facilitate non-entry rescue, retrieval systems or methods shall be used whenever an authorized entrant enters a permit space, unless the retrieval equipment would increase the overall risk of entry or would not contribute to the rescue of the entrant.

If an injured entrant is exposed to a substance for which a Material Safety Data Sheet (MSDS) or other similar written information is required to be kept at the work site, that MSDS or written information shall be made available to the medical facility treating the exposed entrant.

6.2 **Rescue Teams**

Municipal emergency responders and/or an outside rescue service are utilized, a formal agreement is in place. The responder is Telephone #:
The rescue service must be available to respond without delay and within a reasonable time frame for rescue of entrants. The rescue service must develop written rescue plans for all confined spaces which they intend to enter.

In addition the entry supervisor must:

- Inform the rescue service of the hazards they may confront when called on to perform rescue.
- Provide the rescue service with access to all permit spaces from which rescue may be necessary so that the rescue service can develop appropriate rescue plans and practice rescue operations.

7.0 TRAINING

Training shall establish proficiency in the duties required by this procedure. All individuals who are required to be entry supervisors, authorized entrants, attendants or rescue team members must be trained on the proper procedures for confined space entry before performing any confined space activity. Training must include, but is not limited to:

- Confined space hazards
- Confined space entry duties and procedures
- Emergency entry and exit
- Lockout/tagout (NA)
- Process break (NA)
- Atmospheric testing
- Use and maintenance of required personal protective equipment including respirators
- Ventilation techniques for confined spaces

All training must be certified. Training certification must include the employee's name, signatures or initials of the trainers, and the dates of training. Records must be maintained indefinitely and shall include the certification, an attendance sheet and results of any proficiency testing conducted. See Appendix A for an outline of major points to discuss during confined space training. See Appendix B for a training record roster.

8.0 ENTRY PERMIT

The entry permit is an authorization and approval ensuring that all existing hazards have been evaluated and necessary protective measures have been taken to insure the safety of the work crew. (An example of a suggested confined space entry permit is provided in Appendix C.)

Before entry is authorized, the entrant shall document that acceptable entry conditions exist by preparing an entry permit. Before entry begins, the entry supervisor must sign the entry permit to authorize entry.

The duration of the permit may not exceed the time required to complete the purpose of the entry and may not exceed 8 hours. A job interruption, shift change or change in job conditions requires a new permit.

The completed permit must be available to all authorized entrants by posting it at the entry site.

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

- The entry operations covered by the entry permit have been completed; or
- A condition that is not allowed under the entry permit arises in or near the permit space.

Additional permits, such as hot work permits, shall be completed before entry and a copy maintained with the entry permit.

Canceled permits shall be retained on file for at least one (1) year to facilitate the review of the permit-required confined space program.

9.0 LIMITATIONS

This Project Safety Plan is specific for the reference project only, and is not intended to be a substitute for a Confined Space Written Program.

NICHOLS CONTRACTING, INC.

TRAINING RECORD

Instructor: **Date:**

Employee Name (Print)	Signature/Initials	Date

Confined Space Entry Permit

1. LOCATION & DESCRIPTION OF CONFINED SPACE — DATE: — PERMIT #:

2. PURPOSE OF ENTRY: — DURATION OF ENTRY PERMIT (12 Hrs. Max.)

3. DEPARTMENT — TIME ISSUED: — PERMIT EXPIRES:

4. AUTHORIZING SUPERVISOR: (Print Name) — PERMIT CANCELLED: (Time & Reason)

This Confined Space has Been Inspected and Found Safe for Entry for the Duration Shown Above.

Authorizing Entry Supervisor: _____

5. Name of Current Entry Supervisor(s): (If diff. from Supervisor Who Originally Authorized Entry)
A. _____ Time: _____
B. _____ Time: _____

6. Record Hazards of the Permit Space to be Entered:				7. Check or list the measures used to isolate the permit space to eliminate or control permit space hazards before entry.
HAZARD	YES	NO	N/A	
A. LACK OF OXYGEN				A. PURGE-FLUSH AND VENT
B. COMBUSTIBLE GASES				
C. COMBUSTIBLE VAPORS				B. VENTILATION
D. COMBUSTIBLE DUSTS				
E. TOXIC GASES				C. LOCKOUT/TAGOUT
F. TOXIC VAPORS				
G. CHEMICAL CONTACT				D. INERTING
H. ELECTRICAL HAZARDS				
I. MECHANICAL EXPOSURE				E. BLANKING, BLOCKING, BLEEDING
J. TEMPERATURE				
K. ENGULFMENT				F. EXTERNAL BARRICADES
L. ENTRAPMENT				
M. OTHERS				G. CONFINED SPACE IDENTIFICATION SIGNS

8. SPECIAL REQUIREMENTS	YES	NO	N/A		YES	NO	N/A
A. LOCKOUT – DE-ENERGIZE				F. ESCAPE HARNESS			
B. BREATHING APPARATUS				G. TRTIPOD FOR RESCUE			
C. RESUSCITATORINHALATOR				H. LIFELINES			
D. FIRE EXTINGUISHER(S)				I. LIGHTING 110 vac or 12 vdc			
E. PROTECTIVE CLOTHING				J. RESPIRATOR			

9. COMMUNICATIONS VISUAL RADIO VERBAL(Circle One)

10.ATMOSPHERIC TESTING: (Valid until the first 30 minute break/12 hour shift end ONLY. Retest after that time.)

TEST TO BE TAKEN	P.E.L	YES	NO	TEST#1	TEST#2	TEST#3	TEST#4
% OF OXYGEN	19.5-21.0%						
% OF L.E.L	Below 10% LEL						
CARBON MONOXIDE	35 ppm						
METHANE	Below 10% LEL						
HYDROGEN SULFIDE	10 ppm						
AMMONIA	25 ppm						
TIME OF ATMOSPHERIC TEST:							
NAME OR INITIALS OF PERSON TAKING TEST:							

11. GAS TESTER USED MODEL SERIAL # CALIBRATION DATE (Mo/Yr)

confined space entry permit,

CONFINED SPACE ENTRY PERMIT (Continued)

12. PERSONNEL WHO ARE TRAINED, QUALIFIED AND AUTHORIZED TO USE THE FOLLOWING EQUIPMENT:				
NAME:	TEST EQUIPMENT:			
NAME:	TEST EQUIPMENT:			
NAME:	TEST EQUIPMENT:			
13. EQUUIPMENT TO ENSURE EMPLOYEE SAFETY AND EMERGENCY RESCUE IF NEEDED:				
EQUIPMENT	**DESCRIPTION**	**YES**	**NO**	**N/A**
A. GAS TEST MONITOR				
B. VENTILATING FANS/BLOWERS				
C. COMMUNICATIONS				
D. PERSONAL PROTECTIVE EQUIPMENT	SAFETY HARNESS WITH LIFELINE			
	RESPIRATORY			
	HARD HATS			
	SAFETY GLASSES			
	HEARING PROTECTION			
	FACE SHIELD			
	GLOVES			
	FOOT PROTECTION			
	PROTECTIVE CLOTHING			
E. LIGHTING	110 VAC			
	12 VDC EXPLOSION PROOF			
F. BARRIERS	PEDESTRIAN			
	VEHICLE			
	TRENCH SHIELDS			
	SHORING			
G. INGRESS/EGRESS	LADDERS			
H. RESCUE/EMERGENCY	LIFELINES			
	HOISTS			
	STRETCHER/NECK BRACE			
	RESUSCITATORS/INHALATOR			
I. OTHER SAFETY EQUIPMENT				
14. OTHER INFORMATION FOR THIS PARTICULAR CONFINED SPACE TO ENSURE EMPLOYEE SAFETY:				
15. ADDITIONAL PERMITS REQUIRED: HOT WORK ☐ YES ☐ NO OTHER ☐ YES ☐ NO				
16.RESCUE AND EMERGENCY SERVICES AVAILABLE:				
A. RESCUE SERVICE:	CONTACT NUMBER OR FREQUENCY:			
B. EMERGENCY SERVICES:	CONTACT NUMBER OR FREQUENCY:			
C. ENTRY SUPERVISOR	CONTACT NUMBER OR FREQUENCY:			

Location	2. Date Card Initiated

3. **EQUIPMENT**

4. **Work to be done/Special Precautions**

5. Work Permit	Needed Yes	Needed No	Dates & Initials Issued	Returned	Issued	Returned	Issued	Returned	Job Completed
1. Confined Space Entry									
2. Line Entry									
3. Burning/Welding/H. Work									
4. Electrical Lockout/Tag *					XXXXX	XXXXXX	XXXXX	XXXXXX	
5. Electrical - Hot Work					XXXXX	XXXXXX	XXXXX	XXXXXX	
6. Other; specify									

*** The method and location of all isolating devices applied by personnel in charge of the area should be noted in Section 6 on the back of this card. Individual Locks and Tags applied by personnel exposed to the hazard must be noted in Section 7 on the back of this card.**

8. **Out of Service and Ready for Maintenance**

Production Supervisor

Date & Time

Maint. Supvr./Engineer

Date & Time

Maint. Supvr./Engr./Contractor Supvr.

Date & Time

Maint. Supvr./Engr./Contractor Supvr.

Date & Time

9. **Equipment Release**

All Equipment covered by this Master Card has been repaired or serviced and may be returned to service.

Maint. Supvr./Engineer

Date & Time

Maint. Supvr./Engr./Contractor Supvr.

Date & Time

Maint. Supvr./Engr./Contractor Supvr.

Date & Time

Area Supervisor

Date & Time

Issuing Department: Forward Master Card & Corresponding Permits to Production Supt. within 7 days of job completion.

Section 6

Area Locks & Tags on Process & Utility Equipment. To insure that equipment is properly prepared for maintenance, note the locations of locks & tags using the following codes: CV - Closed Valve, OV - Open Valve, BF - Blind Flange, SB - Slip Blind, DL - Disconnected Line, LK - Lock Placed, SS - Start/Stop Switch, BD - Blocking Device, ED - Electrical Disconnect.

Code	Tag #/Lock #	Location	On / Int.	Off / Int.	Code	Tag # / Lock #	Location	On / int.	Off / int.

Section 7

Exposed Personnel: Prior to work, each individual who will be exposed to the hazard should sign in, noting the location of any locks placed. Likewise, each individual must sign out at the end of each shift completion of the job.

GROUP	NAME IN	DATE/TIME	LOCK LOCATION / #	NAME OFF	DATE / TIME

LINE ENTRY PERMIT

Master Card No._____ _____

1. Work Description
Area _____ Equipment Location _____
Work to be done:

2. Gas Test	☐ Instrument Check	Results	Recheck	Recheck
Required	☐ Oxygen % 20.8 Min			
☐ Yes	☐ Combustible % LFL			
☐ No	☐ Other (Specify)			
		Date/Time/Sig.	Date/Time/Sig.	Date/Time/Sig.

3. Special Instructions: ☐ Check with issuer before beginning work ☐ None

4. Hazardous Materials: ☐ None What did the line / equipment last contain?

5. Special Protection Required: ☐ None ☐ Forced Air Ventilation

☐ Avoid Skin Contact ☐ Gloves _____ ☐ Suit _____

☐ Goggles or Face Shield ☐ Respirator _____ ☐ Safety Harness

☐ Self Contained Breathing Equipment ☐ Hoseline Breathing Equipment

☐ Other, specify: _____ ☐ Standby - Name _____

6. Fire Protection Required: ☐ None ☐ Portable Fire Extinguisher ☐ Fire Hose & Nozzle

☐ Fire Watch ☐ Other, specify: _____

7. Condition of Area and Equipment

Required Yes	Required No	THESE KEY POINTS MUST BE CHECKED
		a. Lines disconnected & blinded or where disconnecting is not possible, blinds installed?
		b. Isolation valves closed and tagged?
		c. Vents or bleeders opened, checked and tagged?
		d. Lines drained, washed, purged, steamed or otherwise cleared and vented?
		e. Adjoining equip. & operations checked and satisfactory from standpoint of possible effect on the job?
		f. Non-sparking tools required?
		g. Immediate area and/or area underneath the work barricaded or roped off?
		h. Provisions made to contain or collect any spilled materials?

Comments

Line Entry Permit

8. Approval	Date	Time	Permit Authorization Area Supv.	Permit Acceptance Maint./Contractor Supv./Engineer	Date	Time
Issued by						
Endorsed by						
Endorsed by						
Endorsed by						

9. Individual Review

I have been instructed on proper Safety Procedures and proper Line Entry Procedures. I have signed in on the appropriate Master Card and have affixed personal locks on energy isolation devices as appropriate.

_____ _____

_____ _____

_____ _____

_____ _____

_____ _____

_____ _____

_____ _____

_____ _____

_____ _____

_____ _____

_____ _____

_____ _____

_____ _____

_____ _____

Signatures of all personnel covered by this permit.

Forward to Production Superintendent 7 days after completion of work.

BURNING—WELDING—HOT WORK PERMIT

Master Card No._____ _____

1. Work Description
Area _____ Equipment Location _____
Work to be done:

2. Gas Test	☐ Instrument Check	Results	Recheck	Recheck
Required	☐ Oxygen % 20.8 Min.			
☐ Yes	☐ Combustible % LFL			
☐ No	☐ Other			
		Date / Time / Sig.	Date/Time/Sig.	Date/Time/Sig.

3. Special Instructions: ☐ Check with issuer before beginning work ☐ None

4. Hazardous Materials: ☐None What did the line / equipment last contain?

5. Special Protection Required: ☐ None ☐ Forced Air Ventilation

☐ Avoid Skin Contact ☐ Gloves _____ ☐ Suit _____

☐ Goggles or Face Shield ☐ Respirator _____ ☐ Safety Harness

☐ Self Contained Breathing Equipment ☐ Hoseline Breathing Equipment

☐ Other Specify: _____ ☐ Standby - Name:_____

6. Fire Protection Required: ☐None ☐ Portable Fire Extinguisher ☐ Fire Hose & Nozzle

☐ Fire Watch ☐ Other, specify: _____

7. Condition of Area and Equipment

Required Yes	Required No	THESE KEY POINTS MUST BE CHECKED
		a. Lines disconnected & blanked away or where disconnecting is not possible, blinds installed?
		b. Lines steamed, purged, or otherwise properly cleared of combustibles?
		c. Equipment & area satisfactorily clean of oil & combustibles?
		d. Manhole plates, catch basins & sewer connections properly covered or sealed?
		e. Immediate area and/or area underneath the work barricaded or roped off?
		f. Adjoining equip. & operations satisfactory from standpoint of possible effect on the job?
		g. Cutting & Welding equipment in good condition?
		h. Area fire suppression (foam, deluge or sprinkler system) in service?

Comments

Burning - Welding - Hot Work Permit

8. Approval	Date	Time	Permit Authorization Area Supv.	Permit Acceptance Maint./Contractor Supv./Engineer	Date	Time
Issued by						
Endorsed by						
Endorsed by						
Endorsed by						

9. Individual Review

I have been instructed on proper Safety Procedures and proper Burning, Welding, and Hot Work Procedures. I have signed in on the appropriate Master Card and have affixed personal locks on energy isolation devices as appropriate.

Signatures of all personnel covered by this permit.

Forward to Production Superintendent 7 days after completion of work.

☐ Electrical Lock-Out ☐ Electrical Hot Work Permit

No powered equipment may be worked upon until this permit has been completed, checked and signed. Are any other permits required to perform this work?_____ Yes _____ No

1. Work Description

Area _____ Equipment Location _____

Work to be done:

2. Location of Lock and/or Tags

	Lock/Tag Applied By --Signature & Date
Main Breaker	
Local Switch	
Other	

3. Safety Precautions: Before this permit can be signed, the following questions must be answered by the **Issuing Department Supervisor:**

	Yes	No
a. Did the authorized employee who attached the first lock push the starter to determine that the equipment to be worked on would energize and de-energize?		
b. Did the authorized Employee who attached the first lock push the starter to verify that the correct main breaker had been locked out?		

4. Safety Precautions: Before the Electrical Hot Work Permit can be signed the following questions must be answered by the **Maintenance/Contractor Supervisor/Engineer or his alternate:**

	Yes	No
a Must equipment be worked on while energized?		
b. Are all tools insulated?		
c. Are insulated blankets on hand?		
d. Should insulated floor mats be used?		
e. Is electrician wearing a full face shield?		
f. Should safety belt and life line be worn?		
g. Has the area been roped off?		
h. Is there a qualified CPR person available?		

Special Precautions/Instructions:

5. Approval	Date	Time	Permit Authorization Area Supv.	Permit Acceptance Maint./Contractor Supv./Engineer	Date	Time
Issued by						
Endorsed by						
Endorsed by						
Endorsed by						

6. Individual Review

I have been trained in proper electrical lock-out procedures and electrical hot work procedures, have checked to make sure equipment will not energize, and have attached my own lock.

Signed	Time Lock On	Time Lock Off

7. Job Completion

All personal locks and area locks have been removed and the equipment may be returned to service:

Issuer's Acceptance:_____

Forward to Production Superintendent 7 days after completion of work Rev. 9/1/90

Lockout / Tagout Log

CONTRACTOR / SUBCONTRACTOR_____

DATE: _____

CENTEX REP	EQUIPMENT DESCRIPTION	EQUIPMENT LOCATION	DATE ON	DATE OFF	EMPLOYEE NAME

lockout tagout log,

NICHOLS CONTRACTING, INC.

TRAINING RECORD

Instructor: **Date:**

Employee Name (Print)	Signature/Initials	Date

6.06 LADDERS

(1) Ladders, both straight and extension, shall be secured at the top. The bottom must be placed on a firm footing or be secured.

(2) All ladders and stepladders shall be in good condition and will be tagged and disposed of when they are no longer serviceable.

(3) No ladder shall be built on the Project unless specifically approved by NICHOLS CONTRACTING, INC.. (Gang ladders may be acceptable if they meet OSHA standards.)

(4) Ladders used to gain access to an elevated platform or another floor shall extend a minimum of three feet above floor level.

STAIRWAYS AND LADDERS

OBJECTIVES

By the end of this lesson, participants should be able to:

- Locate and understand the stairway and ladder safety standards.
- Supervise the construction and installation of temporary stairways, ladders and ramps.
- Train employees in the proper use of stairways, ladders and ramps and evaluate the effectiveness of the training.

INTRODUCTION

Creating safe access to the various levels and raised work areas of a construction project is always a challenge for the workers and their supervisors. Providing adequate stairways, ladders and ramps, and training employees to use them properly will increase production and eliminate the need for employees to take hazardous shortcuts that all to frequently result in injuries.

All construction personnel must be trained and directed to use only the temporary stairways, ladders and ramps provided for them. Only qualified carpenters – those trained in stair, ladder and ramp construction and familiar with the Safety Standards – should be permitted to construct or install stairways, ladders or ramps.

This section has been divided into three parts.

- Part One covers general requirements.
- Part Two deals with the proper construction and installation of temporary stairways, ladders and ramps. It is designed for those who will be building, or supervising the building of temporary stairways, ladders and ramps on the job.
- Part Three covers information that should be known by all project personnel: the proper use of stairways, ladders and ramps.

The following information is based on the OSHA 1926 Safety & Health Standards for the Construction Industry, but may not contain all of the requirements or quote the Standards directly. The information includes suggestions for compliance with the standards that are the author's recommendations and in no way should be interpreted to be the only way, best way or OSHA's way. For complete details on the requirements always consult the OSHA and other applicable Safety Standards.

GENERAL REQUIREMENTS

- A stairway or ladder must be provided at all personnel points of access where there is a break in elevation of 19 inches or more, and no ramp, runway, sloped embankment, or personnel hoist is provided.

- Stairs should be provided for access at changes in elevation of less than 8' where practical as employees will tend to descend a short ladder incorrectly as though it is a stairway. i.e.: facing away from the ladder.

- Adequate lighting of at least *5* foot candles must be provided for stairwells and ladder ways.

- Provide overhead protection as needed above stairways, access ladders and ramps. Avoid placing stairways, ladders and ramps below material outriggers.

- Metal ladders must not be used around energized electrical parts because they are conductive.

- Before employees are allowed to use metal pan stairs, the stairs must be secured in place, the treads and landings must be poured or completely filled with temporary material, and stair rails must be provided.

PROPER CONSTRUCTION & INSTALLATION OF STAIRWELLS, LADDERS AND RAMPS

Permanent stairs and fixed ladders are typically designed by engineers and they are installed according to an architect's drawings. The purchase of manufactured step ladders, extension ladders, and straight ladders that are rated type I heavy-duty or type 1 -A extra-heavy-duty and made to meet OSHA and ANSI Standards eliminates the problems of construction for these types of ladders.

This section focuses on stairways, ladders and ramps built on the jobsite.

JOB-MADE STAIRWAYS

- Stairways must be installed between 30 and 50 degrees from horizontal and have uniform tread and riser dimensions.
- Stairways having four or more risers or rising more than 30' must be equipped with at least one handrail and each unprotected side must have a stair rail.
- Stair rails must be made with smooth materials and they must be capable of withstanding 200 pounds of pressure to the top rail.
- Stair rails should include a midrail and the top rail can also serve as the handrail if it is located between 36 and 37 inches above the treads when measured vertically one inch back from the nosing
- Handrails must have at least 3" of clearance at side walls and they should not project beyond the top or bottom tread so as to create a "hip-banger" or "projection hazard".
- Temporary stairways must have a landing at least 22" wide and 30" along the direction of travel for every 12' of rise.
- Where doors or gates open directly on a stairway, a platform must be provided, and the swing of the door must not reduce effective width of the platform to less than 20". This can be very difficult to comply with at trailer doors. A side approach to trailer doors is recommended, especially when the trailer is next to a roadway.
- Before employees are allowed to use the soffit form for cast in place concrete stairs as a ramp, cleats, stair rails and rebar impalement protection must be provided. Once the riser forms are in place, employees should avoid using the stairs until after the concrete poured and hardened..

Temporary handrails may need to be provided four different times on a run of cast in place concrete stairs before the permanent handrails are installed.

1. If the soffit (ramp) form is used prior to pouring.
2. After the stairs have been poured and stripped.
3. Once the metal studs have been installed.
4. When the drywall has been hung.

Coordinating and preplanning the work and expediting certain activities can cut the number railing installations in half without sacrificing the safety of the employees.

Metal backing strips for the permanent handrails in drywall systems have very sharp, sheared edges and create a dangerous hand cut hazard. Employee exposure to the sharp edges can be eliminated by covering it immediately with drywall or temporary material such as 1x4. The stairwell should be blocked off with alternative access provided until the backing is covered.

JOB-MADE LADDERS
OSHA DEFINITIONS

- Fixed Ladder means a ladder that cannot be readily moved or carried because it is an integral part of a building or structure.
- Portable Ladder means a ladder that can be readily moved or carried.
- Job-Made Ladder means a ladder that is fabricated by employees, typically at the construction site, and is not commercially manufactured.
- By definition, the most frequently used ladder during the structural phase of a project, the job-made ladder, is not included in many of the requirements contained in the OSHA standard. however the requirements for the other ladder types should be applied to job-made ladders when it is practical.

OSHA no longer dictates ladder lengths, or the species, grades and dimensions of wood components used to construct job-made ladders. The new regulations are based on performance standards and require only that ladders must "be capable of supporting without failure, at least four times the maximum intended load." There is no practical way to accurately field test the strength of a ladder, but a low tech method would be to lay the ladder flat with the ends blocked up 4"-6" off the floor. Place approximately One way , it is extremely important to construct job-made ladders using only that lumber which is of adequate quality and dimension to eliminate any question as to its structural capacity.

The recommended widths for job-made ladders are; 24" for single-cleat ladders and 48" for double-cleat ladders.

The spacing of the rungs or cleats on job-made ladders must be uniform and not be more than 14 nor less than 10" from top to top. 12" is the recommended spacing cleats.

A few of the common mistakes made when constructing job-made ladders include:

1. The ladder is constructed too wide making it heavy, hard to grasp the side rails and wasting valuable materials.
2. Not enough side rail is provided for the proper three foot extension above the top landing
3. The extensions are made of material larger than 2"x4" which is easy to grasp. 2"x6" is difficult to grasp and 4"x6" is virtually impossible. Strengthen the side rails with larger material if necessary, but add or cut extensions 2"x4". Plenty strong for the purpose and easy to grasp.

4. The gap at the top landing is filled completely eliminating the potential hand hold at the top cleat. Allow room or cut out a slot for a hand hold.

5. The cleats are nailed on top of the layout instead of below it making the bottom step 3 Y2" higher than the rest.

The recommended slope for ladders is 1' out for every 4' up or approximately 75 degrees from the horizontal. A rule of thumb is that you should be able to stand at the base of a ladder and comfortably grasp the side rails with your arms fully extended. If your elbows are bent, the ladder is probably too steep. If you must lean forward, the ladder is probably too flat.

Side rails should be supported intermediately or be increased in dimension for long ladders or for those that must be used at slopes flatter than 1:4, such as those used in excavations.

JOB-MADE ACCESS LADDERS

A Double-Cleated Ladder or two or more ladders must be provided when ladders are the only mean of access or exit from a working area for 25 or more employees, or when a ladder is to serve simultaneous two-way traffic.

Access ladders should be set up for stepping through the side rails and the side rails must extend at least 36 above the top landing to serve as a hand hold. The center rail on a double-cleat ladder should be extended too. Side rail extensions should he tied in with the guardrail system where possible.

The top cleat should meet evenly with the top landing. Cleats above the landing height are a tripping hazard and should be removed.

The space between the ladder and the top landing should be filled in when it exceeds 12". Be careful not to eliminate the top cleat as a hand hold if possible.

Handrails should not be added to job-made access ladders as they will tempt employees to descend the ladder facing away from it as if they are on a stairway. Employees must face the ladder and hold onto the side rails or cleats while descending.

Access ladders must have both side rails secured at the top and the bottom should also be secured when weight against the side rail extensions could cause the ladder to pivot at the bearing point and "kick out" at the bottom.

The area around the top and bottom of an access ladder must be cleared of materials and debris that could trip someone.

Access ladders should not be placed next to floor edges or openings if it is avoidable. Where the total climb is more than 24' or if the top of the ladder is more than 24' above adjacent levels, a ladder safety device is required for fixed ladders and some form of fall protection should be considered for job-made access ladders as well.

When two or more ladders are used to reach an elevated work area, the ladders must be offset with a platform or landing between the ladders.

A rope for workers to raise or lower tools and materials should be provided where practical. A designated color for hoist ropes may help to keep them from being used for other purposes.

The gap in the guardrail system at an access ladder must be closed BEFORE the ladder is relocated.

JOB-MADE RAMPS

Job-made ramps for personnel use only should be designed by a competent person and built by a qualified carpenter.

Job-made ramps used for equipment and vehicles must be designed by a professional engineer and built by a qualified carpenter.

Ramps should be a minimum of 20 wide, and 4S" is the recommended width for an access ramp where two-way traffic can be anticipated.

Ramps made with planking should have cleats connecting them across the underside.

Ramps should not slope more than 20 degrees from horizontal and they must have a non-slip surface. (An obvious exception to the maximum slope angle is when the soffit forms for poured concrete stairs are used for ramps. They are generally around 38 degrees from horizontal)

Ramps rising above 4' must have stair rail type guarding on the open sides.

PROPER USE OF STAIRWAYS AND LADDERS

GENERAL

Employees must not use stairways or ladders that are incomplete, incorrectly constructed or improperly installed. Some examples are: Metal pan stairs that are not poured or properly filled, formed concrete stairs that are not poured, and access ladders that are not properly secured.

Unsafe conditions at stairways and ladders such as poor housekeeping, inadequate lighting, or damage should be reported and corrected immediately.

Overhead protection or barricades and signs must be provided before starting hazardous operations above stairways or ladder ways. Example: stripping concrete forms.

When work is done in a stairwell or ladder way, a clear path must be maintained by keeping tools and materials to one side. If this is not possible and an alternate stairway or ladder way is available, then the work area should be blocked off above and below with barricades and signs. Debris and materials must be removed before the stairway is reopened.

STAIRS

Employees should use the handrails and avoid carrying loads that could cause them to loose their balance and fall.

Electrical cords and wiring should not he placed on stairways, but if it is unavoidable, the wires must be kept to one side and removed as soon as possible.

LADDERS GENERAL

Ladders must not be placed on uneven, slippery, or trashy surfaces.

Impalement protection must he provided for protruding rebar near a ladder. Caps are not adequate protection for falls from heights. Covers made from lumber or PVC should be used.

The height of a ladder must never be increased by placing it on scaffolding, blocks, bricks, buckets, etc. The ladder should he replaced with a taller ladder or with scaffolding.

Ladders should not be placed next to floor openings or slab edges if avoidable and fall protection must be used when an employee climbs above the guardrails at an edge or opening. A scaffolding with guardrails is recommended for raised work at edges and openings.

The preferred slope for a ladder is 4:1. i.e.: one foot out for every four feet up.

Employees must always face the ladder and "shall use at least one hand to grasp the ladder" while ascending or descending. "employees shall not carry any object or load that could cause the employee to lose balance and fall." Tools and materials should be hoisted and lowered with a rope or handed to another employee when possible.

A ladder must never be used for a scaffold platform.

Excessive pushing or pulling must be avoided while working from a ladder. If additional stability is required, the ladder should be secured or held by another.

Employees should face the ladder and they should avoid leaning too far to one side by keeping their belt buckle between the side rails. The ladder should be moved if the work cannot be reached safely.

Tools and materials should not be left on a ladder. They could be knocked off onto someone or fall on the user when the ladder is moved.

Ladders should be inspected before each use and if one is found to be damaged or defective it must not be used. It should be tagged "unsafe" so it will not be used by others and then immediately reported to a supervisor so it can be repaired or destroyed.

There should never be one person above another on a ladder.

Ladders must not be placed in hallways or roadways where they can be hit by doors, cars, etc. unless adequate barricades and/or warning signs are provided.

STEP-LADDERS

Step ladders should not be used as straight ladders. i.e., leaning against a support. They are designed to be self~ supporting with the spreaders locked!

Employees must not stand on the top cap or the top step of a step ladder. A taller ladder should be obtained if necessary.

A step ladder must never be “walked” to a new location. The user should climb down and move the ladder as needed.

PORTABLE WORK LADDERS

Non-skid feet must be provided for ladders that will be used on smooth surfaces such as steel or finished concrete.

Employees should make sure that their ladder will not slip oft of or push over the object it is to he leaned against before raising the ladder.

When raising or lowering the ladder, the base should be placed against a solid object or held by another employee to prevent the bottom from “kicking out”. The ladder can then be safely "walked" hand-over-hand up or down the rungs.

The ladder should be secured before working from if it is practical, or another employee should hold the ladder when additional stability is needed, but the ladder cannot be secured.

Portable straight ladders should not be used as general access ladders if it can be avoided. Job-made ladders should be used for this purpose.

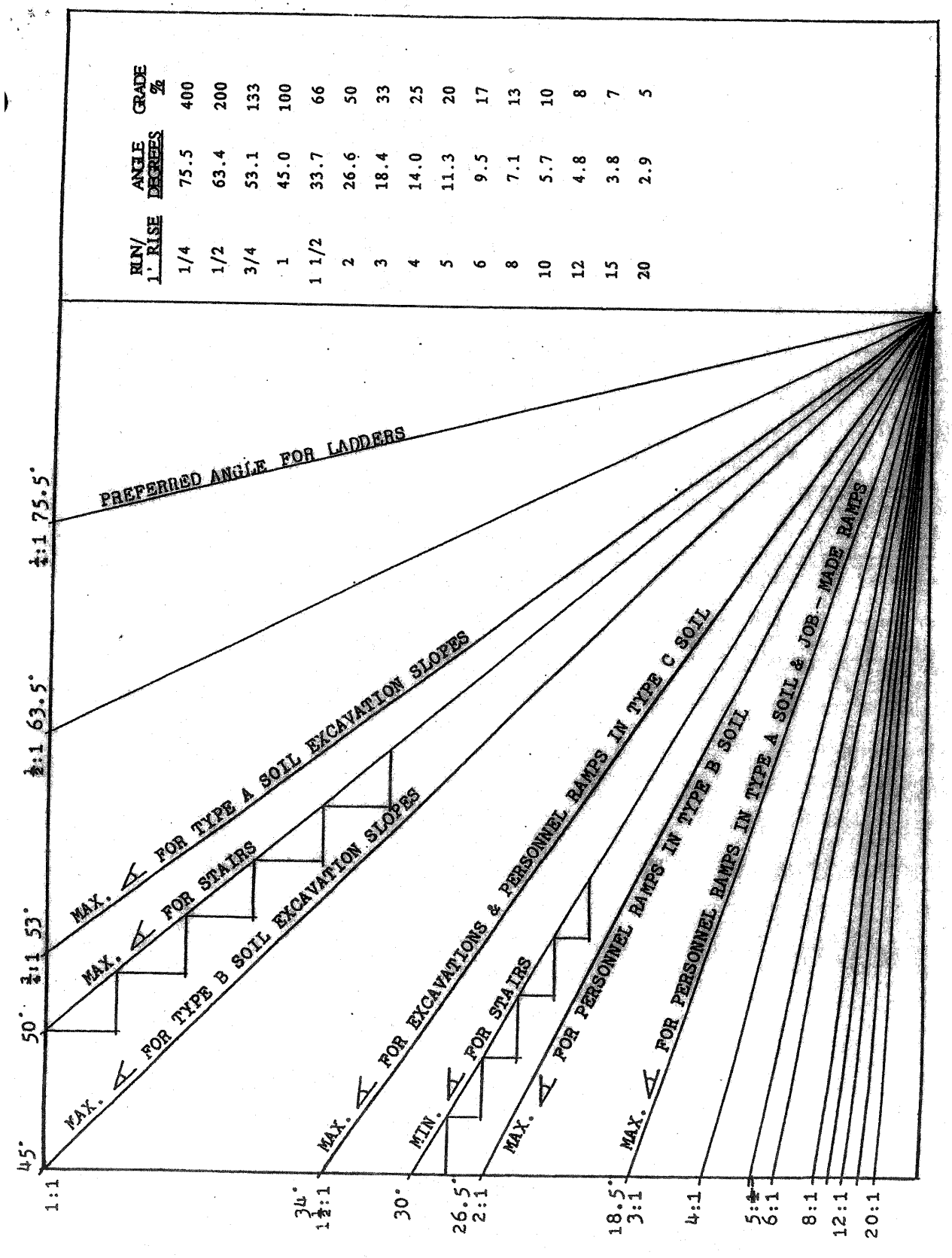
ACCESS LADDERS

Scaffold frame tubing should not be used as an access ladder unless it meets the minimum requirements for ladders. Vertical spacing top to top must be lO”-14”, The minimum width is 8’ for climbing and 11 1/2” for standing. depending on how the standards are interpreted.

Employees in trenches over 4’ deep must not be more than 25’ from a stairway, ladder or ramp.

RAMPS

Employees must not use excavation slopes as access ramps except at those locations where the slopes have been properly graded, the surfaces are free of loose material and they have been designated for use by personnel



RUN/ 1' RISE	ANGLE DEGREES	GRADE %
1/4	75.5	400
1/2	63.4	200
3/4	53.1	133
1	45.0	100
1 1/2	33.7	66
2	26.6	50
3	18.4	33
4	14.0	25
5	11.3	20
6	9.5	17
8	7.1	13
10	5.7	10
12	4.8	8
15	3.8	7
20	2.9	5

6.07 HAZARD COMMUNICATION PROGRAM RESPONSIBILITIES

Refer to OSHA 1926.59 Subpart D "Occupational Health and Environmental Controls."

CONSTRUCTION MSD SHEETS ARE AVAILABLE IN NICHOLS CONTRACTING, INC. JOBSITE TRAILER

In situations where personal industrial hygiene monitoring is required by the owner or OSHA standards for air contaminates or physical agents to which Subcontractors' employees might be exposed, the CM is to be advised of the situation prior to performing the work and within the context of the contract.

The Project Manager may consider assisting the Subcontractor in providing necessary monitoring services upon written request of the Subcontractor.

MSDSs will be provided to the Project Safety Manager before bringing chemicals on the Project. MSDSs must be legible and current. Subcontractors shall provide only the MSDSs of chemicals that will be used in this Project, not the company's master MSDS file. Subcontractors shall also maintain a copy of all chemical MSDSs on site. Chemical containers will be marked with the Subcontractor's name.

6.08 SIGNS, SIGNALS & BARRICADES

- Signs, signals, and barricades shall be visible at all times where a hazard exists.
- Signs, signals, and barricades shall be removed when the hazard no longer exists.
- Work activities in public right-of-ways must have a signage and barricade plan submitted to the NICHOLS CONTRACTING, INC. Safety Manager one week before starting work.
- Personnel signaling in the street must be qualified and properly clad to conduct flagging operations on roads. They must have their certification card in theft possession.

6.09 FLOOR OPENINGS

Falls through unprotected holes or openings present a fall hazard, which could result in severe injury, or even death. The following program is designed to help prevent those accidents from happening by providing a safe, consistent, practical and cost-effective guideline.

- If the holes are to used for access or to pass material through, they should then be barricaded with a handrail complete with gates, removable guardrails, or chains.
- All holes used for access or material handling shall be designated, and locations disseminated to all individuals working on the project site, including Subcontractors.
- Hole coverings shall be made from expanded metal gratings, as detailed on the Floor Opening Exhibit.

- The grating shall be painted fluorescent orange and securely fastened as detailed, or with hinges and lockable.

- Plywood shall not be used to cover holes larger than 6 inches.

- Holes 6 inches or less: Can be covered with % inch plywood, sheet metal or expanded metal These covers must be secured and able to withstand anticipated loads for follow-on trades. Check with the Superintendent for load information.

- Holes or Floor Openings larger than 6 inches: Expanded metal with appropriate supports, bracing, or handrails will be the only authorized protection for these areas. See the attached Floor Opening Exhibit for details.

- Floor Elevation Change: Numerous items can be used to satisfy this requirement.

6.10 TASK LIGHTING

Subcontractors are responsible for providing work task lighting for their employees and Sub-subcontractors.

NICHOLS CONTRACTING, INC.

Housekeeping Directive

PROJECT: _____ DATE: _____

LOCATION: _____ PROJECT #: _____

TO: _____ ATTENTION: _____

The Occupational Safety and Health Act and other Regulatory Agencies require that all Projects be kept free from unnecessary debris. The Contract Documents also state that you are required to remove your own debris as directed by Centex.

Accordingly, you are hereby directed to remove your debris from the following specified areas:

_____

_____

_____

_____

_____

_____

_____

_____

If this directive is not satisfied by _____ at _____ o'clock, the debris will be removed by others and all costs associated thereto will be charged to your firm.

Thank you for your immediate cooperation.

By: _____

Title: _____

cc: Subcontractor's Home Office

6.11 HOUSEKEEPING

1. All stairways, passageways, gangways, and access ways shall be kept free of materials, supplies, and obstructions at all times.

2. Loose or light material shall not be stored or left on roofs or floors that are not closed in, unless they are safely secured.

3. Tools, materials, extension cords, hoses, or debris shall not cause tripping or other hazard.

4. Tools, materials, and equipment subject to displacement or filling shall be adequately secured.

5. Empty bags having contained lime, cement, and other dust-producing material shall be removed periodically as specified by the designated authority.

6. Protruding nails in scrap boards, planks, and timbers shall be removed, hammered in, or bent over flush with the wood unless placed in containers or trucks for removal.

7. Walkways, runways, and sidewalks shall be kept clear of excavated material or other obstructions and no sidewalks shall be undermined unless shored to carry a minimum live load of one hundred and twenty-five (125) pounds per square foot (610.3 Kg/m^2).

8. Containers shall be provided for storing or carrying bolts or drift pins, and secured against accidental displacement when aloft.

9. When bolts are knocked off or backed out, they shall be kept from filling.

10. Form and scrap lumber and debris shall be cleared from work areas, passageways, and stairs in and around building storage yards and other structures.

11. All storage and construction sites shall be kept free from the accumulation of combustible materials. Weeds and grass shall be kept down.

12. Rubbish, brush, long grass, or combustible liquid on floors, walls, etc. is prohibited. All spills of flammable and combustible liquids shall be cleaned up immediately.

13. Subcontractor shall provide sufficient personnel and equipment to ensure compliance with all housekeeping requirements.

14. Work will not be allowed in those areas that do not comply with the requirements of this section.

15. Contractors will inspect the work area daily for adequate housekeeping and record unsatisfactory finding on the inspection survey to include action taken to the appropriate Subcontractor(s) regarding area that continue to be a problem.

6.12 MOBILE AND TOWER CRANE SAFETY

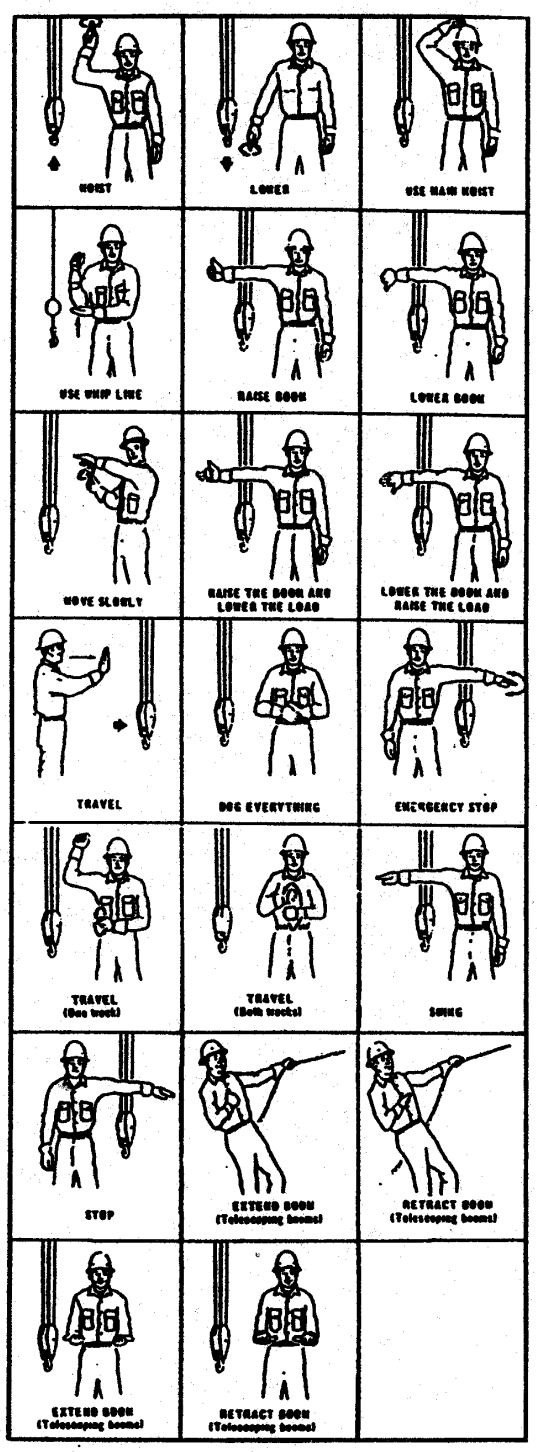
1. Refer to OSHA 1926, Subpart N- “Cranes, Derricks, Hoists, Elevators and Conveyors”, and to manufacturer’s specifications for the equipment used.

2. All cranes, derricks, hoists, boom trucks, elevators, and conveyors must have current inspection and certification before being admitted on site. Any equipment introduced to this site must be approved by NICHOLS CONTRACTING, INC..

   (a) Specifically, before using tower cranes on the Project, personnel must be trained by the PSM or by an instructor approved by the PSM.
   (b) Radios must be used when signaling tower cranes.
   (c) Cranes shall not “Christmas tree” loads.
   (d) Work platform(s) hoisted by cranes are prohibited except when proper documentation is presented to NICHOLS CONTRACTING, INC..
   (e) Material handling equipment is not to be used as personnel lifts, i.e., forklifts, front-end loaders, material hoists, and buck hoists.

3. See the attached Crane Signaling Exhibit for proper signaling techniques (does not apply to tower cranes).

Crane Signaling Exhibit



6.13 REINFORCED STEEL (REBAR)

Rebar shall not be used as guy attachments at deadman anchorage points. Rebar shall not be used as hooks or stirrups for scaffolding, or as a load-bearing member of any lifting device.

6.14 POWDER ACTUATED EQUIPMENT

Use of powder-actuated equipment can be prohibited within occupied areas of the building. Use of this equipment is allowed outside restricted area. However, provisions must be made for storage of such equipment outside of restricted area. Personnel must be trained before using this equipment.

Powder-actuated nail guns use booster strips to hold charges. Even if they appear to be completely used, do not throw used booster strips onto the floor. Dispose of them in a separate container. Unused or partially used booster strips shall be stored in appropriate containers (bucket of water),and disposed of properly.

6.15 RIGGING REQUIREMENTS

1. Refer to OSHA 1926.250-252 Subpart H "Material Handling, Storage, Use and Disposal."
2. Use of chains for material handling is prohibited on this project.
3. Tag lines shall be used on all loads.
4. Subcontractors will ensure equipment is inspected before each use.
5. Shakeout hooks may not be used.
6. Safety clasps must be utilized while picking all overhead loads.
7. "Christmas treeing" of loads is prohibited.

NICHOLS CONTRACTING, INC.
SAFETY DEPARTMENT

S T E E L E R E C T I 0 N

SITE LAYOUT AND CONSTRUCTION SEQUENCE

1. Concrete cured to 75 percent strength and certification provided to erector.
2. Steel erector provided with safe letdown area/road access drainage.
3. What are their needs?

SITE SPECIFIC ERECTION PLAN

- All workers trained on the hazards of this site-specific erection operation and certification (i.e., tool box talk).

- All workers, trained on-fall protection requirements and equipment to be used for fall. Trainee erection job by a competent person.

- Job Hazard Analysis for all phases of erection sequence exposure.

- Current crane annuals.

- Daily crane inspection by operator or oiler I operator ability. to stop operation. load weights, distance to

- Load capacity of crane, steel placement.

- Rigging inspection by competent person

- Rigging 5 to I safety factor.

- Training' of workers in lift operation.

- Inspection prior-to using equipment by competent person.

- Five member Christmas Tree

- Hanging level.

- 7-foot apart rigging.

STEEL ERECTION

SITE LAYOUT AND CONSTRUCTION SEQUENCE

1. Concrete cured to 75 percent strength and certification provided to erector.
2. Steel erector provided with safe letdown area/road access drainage
   A. What are their needs?

SITE SPECIFIC ERECTION PLAN

1. All workers trained on the hazards of this site-specific erection operation and certification (i.e., tool box talk).
2. All workers trained on fall protection requirements and equipment to be used for fall protection on the Fort Jackson Basic Combat Trainee erection job by a competent person.
3. Job Hazard Analysis for all phases of erection sequence exposure.
4. Current crane annuals.
   A. Daily crane inspection by operator or oiler / operator ability to stop operation.
   B. Load capacity of crane, steel load weights, distance to placement.
   C. Rigging inspection by competent person.
5. Rigging 5 to 1 safety factor.
   A. Training of workers in lift operation.
   B. Inspection prior to using equipment by competent person.
   C. Five member Christmas Tree.
   D. Hanging level.
   E. 7-foot apart rigging.

STEEL ERECTION

- Hoisting (lift plan) -Coordinating hoisting and bring to the point of. installation minimizing the employee exposure to overhead loads. Preplanning routes. Block approaches off (caution tape) I below decks'.
- Columns-Notice given to erector of any modification.
- Level nuts grouted.
- Column bases-all grouted.
- Beams-2 bolts on each end in place before releasing load (wrench tight).
- Describe fall protection.
- Describe how to release rigging.
- Hazards from failing objects-explain: bolt bags, buckets, equipment.
- Installation of Joists-Explain: Bridging: bolted or welded.
- Welder Certification--provide.
- Lay down of decking Bids. 'No holes decked over or guard rail installed.
- Fall Protection – Describe: Height of steel to deck.
- Landyard double / tied off.
- Proper use of harness anchorage.
- Use of ladders.
- Bridge clamp tied to column.
- Guardrail on roof.
- Securing of airborne loads.

- Pre-job Safety Meeting with workers.
- Job Site Orientation.
- Copy of Coastal Steel, Paperwork.
- Competent. worker list, crane inspector, rigging.
- Lift plan-rigging sequence, crane capacity, load weights.
- Crane annuals.
- Fall protection training by competent person, equipment training.
- Training of hazard, associated with this operation.
- Job Hazard Analysis.
- Tool Box Meetings-'One a week.
- How often Safety Manager-onsite..

STEEL ERECTION

FALL PROTECTION TRAINING

Items discussed-Ladder Use, Tie Off, Equipment Use

The workers at this job site have all been trained in site-specific job hazards they may encounter. Their training included compliance with Fall Protection Requirements of Subpart R and EM385-1-1. The use of fall protection-the requirement for training on individual methods that are available to comply with the fall protection requirements have been discussed. The use of horizontal life lines, retractables, harnesses, beamers, and pin lines are options that are available. Workers have been trained in fall protection equipment inspection-what to look for that would meet the criteria to take it out of service.

The following workers have attended this training:

PRINT NAME SIGNATURE

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

TOOL BOX TALK-RIGGING

Nylon straps-any burn marks, cuts, red threads showing will be taken out of service.

All rigging steel cable-three broken wires in a strand or six broken wires in a lay or a 10 % reduction diameter will be taken out of service.

All rigging equipment will be in good serviceable condition-shackles, turnbuckles, etc.
Competent person for rigging is:

1. _____

2. _____

The above individuals will inspect the rigging prior to each use.

STEEL ERECTOR

COMPETENT PERSON TRAINER _____

Designated Erector:

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____

Connectors and Deckers:

1. _____
2. _____
3. _____
4. _____

All above workers have been trained in the erection lift process for this job site.

Crane Operator Who Will Inspect Crane and Crane Rigging Daily:

1. _____
2. _____
3. _____
4. _____

STEEL ERECTOR

COMPETENT PERSON TRAINER _____

Designated Erector:

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____

Connectors and Deckers:

1. _____
2. _____
3. _____
4. _____

All above workers have been trained in the erection lift process for this job site.

Crane Operator Who Will Inspect Crane and Crane Rigging Daily:

1. _____
2. _____
3. _____
4. _____

6.16 COMBUSTION ENGINES

Internal combustion engines shall not be located or used inside any building and shall not be located within 20 feet of any occupied structure or air intake.

6.17 SUBCONTRACTOR AFTER-HOURS EMERGENCY DIRECTORY

Subcontractor will submit the attached “Subcontractor After-Hour Emergency Directory” worksheet before starting work on the project.

NICHOLS CONTRACTING, INC.

SUBCONTRACTOR AFTER HOURS
EMERGENCY DIRECTORY FOR WORK
CATEGORY NO. _____

SUBCONTRACTOR NAME AND ADDRESS _____
_____
_____
_____

ON-SIE SUPERINTENDENT _____

AFTER HOUR EMERGENCIES (BY TRADE)

Name _____
Trade _____
Phone Number _____

Name _____
Trade _____
Phone Number _____

Name _____
Trade _____
Phone Number _____

Name _____
Trade _____
Phone Number _____

6.18 DANGER ZONE AWARENESS

The Job Hazard Analysis (JHA) process will be used to help inform our employees of the hazards associated with danger zones.

The following will be briefed to all new site personnel upon assignment and should be included in their employee training at least once a year.

"DANGER ZONE"

The "Danger Zone" in construction is that area in which an employee is exposed to the hazard of being struck by or caught in between if something goes wrong with the planned operation or process. This includes those workers who operate and work around or near heavy equipment. Some examples include: swing radius of cranes and drilling rigs, overhead loads, swing arms of equipment, traveling trucks and equipment, exposure in lift baskets against a stationary object, and survey personnel.

Operation of heavy equipment such as cranes, backhoes, track hoes, dozers, fork-trucks, scissor lifts, and articulating boom lifts should always be done by operators who have demonstrated the ability and necessary skills to operate safely. Ground-based workers should have an understanding of how to work safely around the equipment, and how to work in or near the danger zone. Unsafe practices by either the operator or those around the equipment can create very dangerous situations. The operator has the authority to stop any operation at any time precautions are not being followed. Serious injuries can occur if the equipment or load strikes a worker, or if the equipment is rolled over.

Here are a few common safety rules for operators and ground-based workers to consider:

1. Training - Qualified operators are essential for the safe operation of all equipment. Operator and ground-based workers should complete a Daily Job Hazard Analysis before starting that day's work. The JHA should include the identification of "Danger Zones," precautions, and emergency planning.

2. Good communication - During the JIM, the operator and signal person will establish which signal communication will be utilized. Standard hand signals or two-way radio signals will be established. When possible, to ensure the best communication between the operator and ground workers, eye contact is important. Operators

3. Should always know exactly where all ground-based workers are. The equipment should have a back-up warning alarm that can be heard by all nearby workers.

4. Additional precautions - Hardhat and safety glasses are required at all times. Hearing protection as required. Wearing a high-visibility vest is essential for locating ground-based workers quickly. Utilizing a tag line on hoisted loads will assist in controlling the load. The swing radius of equipment must be barricaded and entry prohibited. The person responsible for this barricade must be established during the JHA.

5. Inspection equipment - A pre-shift inspection by the operator is essential to ensure safe operation of heavy equipment.

6.19 PROJECT RADIO FREQUENCIES AND ASSIGNMENTS

The following radio frequencies are owned by NICHOLS CONTRACTING, INC.. They are programmed into the project radios that are also owned by NICHOLS CONTRACTING, INC.. Additionally, NICHOLS CONTRACTING, INC. authorizes specific Subcontractors to operate on these frequencies, in accordance with Project policies and practices using their own radio equipment. The following table gives the channel assignments for the Project's frequencies.

6.20 FORKLIFT OPERATORS

Subcontractors and their Sub-subcontractors shall ensure that all personnel operating powered industrial trucks (e.g., forklifts) are qualified in accordance with CFR Parts 1926.602 and 1910.178 (1). A list of qualified operators shall be provided to NICHOLS CONTRACTING, INC., and updated as necessary, indicating the names of employees the company certifies as competent to operate powered industrial trucks. Upon receipt and acceptance of operator training, NICHOLS CONTRACTING, INC. will issue a project sticker for each operator to place on his or her hard hat, indicating that he or she is a qualified powered industrial truck operator. Only personnel displaying the project's qualified operator sticker on their hard hats may operate powered industrial trucks on this project.

29 C2FR Part 1926 Subpart 0 and 1910.178 (1) read (in part) as follows:

Operator Training - The employer shall ensure that each powered industrial truck operator is competent to operate a powered industrial truck safely, as demonstrated by the successful completion of the training and evaluation specified in this paragraph (1).

Certification - The employer shall certify that each operator has been trained and evaluated as required by this paragraph (1). The certification shall include the name of the operator, the date of the training the date of the evaluation, and the identity of the person(s) performing the training or evaluation.

6.21 Lockout / Tagout Procedure

This procedure shall be used to protect employees from injury while working on, maintaining or making modifications to, systems or equipment that is or has been energized. This procedure shall be used for any and all electric circuits, electric power, mechanical, hydraulic, pneumatic, chemical, thermal, or any other form of energy. A process of surveying. isolating, de-energizing and disabling any system shall be followed whenever work modification or maintenance must be performed after energy sources have been applied. This procedure specifically requires the use of a lockout and tagout system.

A. Identification Tags

Identification tags shall be used and shall warn against hazardous conditions that exist. They shall include legends such as: DO NOT START, DO NOT OPEN, DO NOT CLOSE, DO NOT ENERGIZE, or DO NOT OPERATE. Further, the tag shall include Contractor or Subcontractor Company name, date of installation and the full, complete name of the person placing the lock/tag on the system. A Lockout and Tagout Log will be kept in the NICHOLS CONTRACTING, INC. jobsite trailer. The log will identify the Contractor or Subcontractor, equipment to be locked out, location of the equipment, date of lock on and lock out the person who applied the lock, and the NICHOLS CONTRACTING, INC. representative responsible for the equipment and this procedure.

B. Locks

Only specific lockout locks shall be used. The locks will be individually keyed (keyed differently). Under no conditions will multiple keyed (keyed alike) or master-keyed locks be utilized for lockout / tagout purposes. All locks to be used for this program shall indicate the responsible company's name.

Under no circumstances may any locks/tags be cut off.

C. Training

Cooperative efforts by NICHOLS CONTRACTING, INC., their Contractors and Subcontractors, vendors, and agents will be used to train and educate employees in the lockout/tagout procedure. Training shall consist of 1) what systems are energized, 2) the different types of energy that may be encountered on the project, 3) the hazards of the types of energy, 4) how to protect personnel and property from the energy, and the requirements of the lockout/tagout procedure. All employees shall be instructed that all energized systems, machinery, equipment, etc. must be locked out and tagged out prior to commencing work activity. Written documentation of all employees training shall be forwarded to NICHOLS CONTRACTING, INC. before any employee engages in this procedure.

Any employee found not complying with this procedure will be removed from the project.

NICHOLS CONTRACTING, INC.

TRAINING RECORD

Instructor: **Date:**

Employee Name (Print)	Signature/Initials	Date

D. Company Representative

Each Contractor and Subcontractor shall provide written notice to NICHOLS CONTRACTING, INC. of the name and title of their competent person and an alternate who will be on site and responsible for compliance with this procedure. The identified competent person shall initiate and maintain the lockout/tagout procedures for their respective company.

E. Notification of Live Energy Source

All final energy producing connections of any type must be scheduled and coordinated in advance with NICHOLS CONTRACTING, INC.. Once scheduled and coordinated, the system shall be governed by this lockout tag procedure. Any and all future work to that system, process, or machinery shall only be allowed after it is locked out and tagged out in accordance with this procedure.

F. Administrative Lockouts/Tagouts

Upon notification to NICHOLS CONTRACTING, INC. that an energized system is in need of work, modification, maintenance, or inspection, the assigned NICHOLS CONTRACTING, INC. Superintendent or representative, in conjunction with the Contractor or Subcontractor representative and representatives of all other affected Contractors or Subcontractors will make the initial survey. This initial survey will identify the type and magnitude of the energy that the system uses. They shall describe the hazards of the energy and shall identify and know the methods to control the energy.

If the machine or equipment is operating, it shall be shut down and cycled by normal stopping procedure. Activate the energy isolating device(s) so that the equipment or machine is totally isolated from the energy source. This is known as zero energy. Once zero energy is achieved, the lock and tag shall be applied.

Stored or residual energy (capacitors, springs, elevated machine members, rotating flywheels, hydraulic systems, air, gas, steam, water pressure, etc) shall be dissipated or restrained and otherwise rendered safe (grounding, repositioning, blocking, bleeding down, etc.). Make a final inspection of the area. Once assured it is clear, ensure that the equipment or process is, in fact, de-energized, isolated, and disabled by operating the normal operating controls. After ensuring that the system will not operate, return all controls to the neutral or off position and commence work.

When multiple Contractors or Subcontractors must work on the same system simultaneously, each Contractor or Subcontractor shall complete the above requirements and install their own lock and tag on a gang lockout hasp. Each employee shall use his or her own individually keyed lock and tag.

G. Re-Energizing

1. When the work on the system is completed, and the machine, equipment, or process is ready to be returned to an energized state, the following steps shall be taken in order:

2. The person removing the last lock shall, in conjunction with the assigned NICHOLS CONTRACTING, INC. representative, check the machine or equipment to ensure that all non-essential items have been removed and that the machine or equipment components are operationally intact.

3. Check the work area to ensure that all employees have been removed from the area.

4. Verify that operational controls are still in the neutral or off position.

5. Remove the lock and tag from the isolating system.

6. Re-energize the machine, process, or system.

7. Notify the affected employees that the machine, process, or system is again energized.

Following these procedures will ensure the safety of all employees involved in the work of energized systems. If you are not absolutely sure that the system is de-energized, DO NOT initiate your work activity.

NICHOLS CONTRACTING, INC.

Lockout/Tagout Log

CONTRACTOR/SUBCONTRACTOR: _____

Date: _____

NICHOLS CONTRACTING, INC. REPRESENTATIVE	EQUIPMENT DESCRIPTION	EQUIPMENT LOCATION	DATE ON	DATE OFF	EMPLOYEE NAME

SECTION 7- PROJECT SAFETY RULES AND DISCIPLINARY PROGRAM

7.01 SAFETY RULES AND DISCIPLINARY PROGRAM

The **Project Name** is committed to a safe jobsite. Safety depends upon the actions and efforts of our employees and Subcontractors. We need you committed to being a “safe “worker.

The health, welfare, and safety of our workers are our prime objective for this project. Therefore, the following rules and regulations have been selected as a minimum standard. These rules do not cover all possible hazards employees will be faced with in the course of their work. Specific hazards will require special attention. Employees shall work as carefully as possible at all times.

1. SAFETY HEAD PROTECTION (HARD HATS) AND EYE PROTECTION (SAFETY GLASSES) MUST BE WORN AT ALL TIMES WHILE ON THE WORKSITE. HARDHATS WILL BE WORN WITH THE BRIM/PEAK/BILL TO THE FRONT (NOT BACKWARDS).

2. COWBOY STYLE HARDHATS ARE NOT AUTHORIZED TO BE WORN ON THIS PROJECT. WHEN WEARING OTHER FACE PROTECTION, SUCH AS A SHIELD, WELDING SHIELD, ETC., A HARD HAT IS STILL REQUIRED.

3. LONG PANTS, T-SHIRTS WITH SLEEVES AND STURDY LEATHER WORK SHOES SHALL BE WORN AT ALL TIMES BY ALL PERSONNEL ON THE WORKSITE. NO TANK TOPS. DO NOT TAKE YOUR SHIRT OFF.

4. PROTECTIVE EQUIPMENT (RESPIRATORS, EARMUFFS OR PLUGS, GLOVES, BOOTS, SAFETY HARNESSES, ETC.) MUST BE WORN WHEN SPECIFIED BY PROJECT SUPERVISION, OR WHEN CONDITIONS WARRANT THEIR USE.

5. GLASS DRINK OR JUICE BOTI’LES ARE PROHIBITED ON THE WORKSITE.

6. ALL INJURIES MUST BE REPORTED IMMEDIATELY TO A SUPERVISOR ANY INJURED PERSONS MUST REPORT TO THE FIRST Aid STATION IF POSSIBLE. ALL INJURIES MUST BE REPORTED TO NICHOLS CONTRACTING, INC. AS SOON AS POSSIBLE.

7. PLEASE LET SOMEONE IN YOUR COMPANY KNOW OF ANY PREEXISTING MEDICAL PROBLEMS IN CASE YOU NEED ASSISTANCE.

8. ALL LOADS LIFTED OVERHEAD ON THIS PROJECT MUST BE FULLY CHOKED.

9. SHAKEOUT HOOKS, CHOKERS WITH RUNNING EYES, AND STEEL ALLOY CHAINS ARE NOT TO BE USED TO LIFT MATERIALS ON THIS PROJECT.

10. NO ONE MAY SIGNAL A CRANE ON THIS PROJECT UNLESS HE OR SHE HAS COMPLETED THE PROJECT CRANE AND SIGNALING CLASS AND HAVE THE APPROPRIATE HARD HAT MARKINGS SIGNIFYING COMPLETION.

11. CRANE OPERATORS WILL NOT MAKE PICKS THEY CONSIDER UNSAFE. THEY ARE TO ADVISE WHAT WILL MAKE THE PICK SAFE AND THEN PROCEED When CORRECTIONS HAVE BEEN MADE. OPERATORS WILL BE FULLY SUPPORTED BY THE CONSTRUCTION MANAGER IN THIS MATTER. TAG LINES ARE REQUIRED.

12. RIDING A CRANE OR ANY OTHER TYPE OF HOISTING EQUIPMENT IS PROHIBITED.

13. HOISTING CABLES AND SLINGS MUST BE INSPECTED REGULARLY.

14. REPORT DEFECTIVE MACHINES, TOOLS, ETC. TO YOUR SUPERVISOR IMMEDIATELY SO REPAIRS MAY BE MADE.

15. REPORTING TO WORK AND WORKING UNDER THE INFLUENCE OF INTOXICANTS (i.e., ALCOHOL) TRANQUILIZERS, NARCOTICS,UNAUTHORIZED PRESCRIPTION DRUGS OR OTHER DANGEROUS DRUGS, OR THE POSSESSION OR DISTRIBUTION OF SUCH IS PROHIBITED AND WILL RESULT IN DISCHARGE FROM THE SITE.

16. NO EMPLOYEE SHALL REMOVE, DISPLACE, DAMAGE, DESTROY OR ALTER ANY SAFETY DEVICE OR SAFEGUARD FURNISHED OR PROVIDED FOR USE IN ANY PLACE OF EMPLOYMENT, NOR SHALL ANYONE INTERFERE IN ANY WAY WITH THE USE THEREOF.

17. ANY PERSON WHO OBSERVES UNSAFE ACTS OR UNSAFE CONDITIONS IN WORK AREAS THAT MIGHT RESULT IN AN ACCIDENT OR INJURY SHALL REPORT SUCH ACTS OR CONDITIONS TO SUPERVISION IMMEDIATELY.

18. FAMILIARIZE YOURSELF WITH SIGNS AND POSTERS BEARING PERTINENT INFORMATION, WARNINGS, DIRECTIONS, AND INSTRUCTIONS. KNOW LOCATIONS OF FIRE EXTINGUISHERS IN YOUR WORK AREAS.

19. MATERIAL SAFETY DATA SHEETS FOR CHEMICALS AND Hazardous MATERIALS ARE LOCATED IN THE SAFETY OFFICE. SUBCONTRACTORS WILL ALSO HAVE A COPY OF MSDS SHEETS FOR THEIR CHEMICALS. ALL CHEMICAL CONTAINERS WILL BE MARKED WITH THE MARKED WITH THE SUBCONTRACTOR'S NAME. SUBCONTRACTOR WILL ENSURE THAT THE CHEMICALS ARE PROPERLY LABELED.

20. HOUSEKEEPING, SAFETY AND PRODUCTIVITY GO HAND IN HAND. YOU ARE RESPONSIBLE FOR KEEPING YOUR WORK AREA CLEAN. IF PERSONNEL ARE WALKING THROUGH THE AREA, MAKE SURE A PATH WAY IS KEPT OPEN FOR EASY TRANSITION.

21. DURING LUNCH AND BREAK TIME, DO NOT THROW FOOD PRODUCT OR WRAPPING MATERIALS ON THE GROUND OR FLOOR THEY DRAW BUGS AND RODENTS. DO NOT FEED THE SQUIRRELS OR OTHER VERMINE.

22. FIGHTING, CREATING A DISTURBANCE, PRACTICAL JOKES, HORSEPLAY, OR STEALING WILL NOT BE TOLERATED.

23. USE OF MUSIC RADIOS, CD PLAYERS, TAPE PLAYERS, AND EQUIPMENT WITH EARPHONES IS STRICTLY PROHIBITED ON-SITE.

24. ANY EMPLOYEE EXPOSED TO A 6 FOOT OR GREATER FALL, OR WORKING WITHIN 6 FEET OF AN UNPROTECTED EDGE, MUST UTILIZE 100% FALL PROTECTION PROCEDURES AND BE TRAINED BY A COMPETENT PERSON BEFORE USE.

25. IF USING AIR OR JACK HAMMERS OR JUMPING JACKS, USE SAFETY TOE COVERS AND DO NOT PULL ON HAMMER IF THE POINT GETS STUCK REMOVE THE POINT FROM THE TOOL AND CUT OUT WITH ANOTHER POINT.

26. ALL WORK PLATFORMS, SCAFFOLDS, AND FLOOR OPENINGS MUST BE EQUIPPED WITH A STANDARD GUARDRAIL ON ALL OPEN SIDES. A STANDARD GUARDRAIL INCLUDES A TOP RAIL 42 INCHES HIGHAN INTERMEDIATE RAIL, AND A 4 INCH TOE BOARD. THE GUARDRAIL MUST WITHSTAND 200 POUNDS IN ANY DIRECTION.

27. LADDERS MUST BE PROPERLY CONSTRUCTED AND KEPT IN GOOD REPAIR DAMAGED LADDERS ARE TO BE TAGGED OUT UNTIL REPAIRED OR DESTROYED. LADDERS MUST EXTEND A MINIMUM OF 3 FEET ABOVE THE LANDING OR SURFACE, BE SECURED AT THE TOP, AND PLACED ON FIRM FOOTING OR SECURED AT THE BOTTOM. A-FRAME (STEP) LADDERS ARE TO BE EXTENDED FULLY OPEN. DO NOT LEAN A-FRAME LADDERS ON WALLS OR BEAMS. NEVER STAND ON THE TOP OR NEXT TO THE TOP STEP.

28. MATERIALS MUST BE STORED IN DESIGNATED AREAS. STORAGE AREA MUST BE NEAT.

29. NAILS SHALL BE BENT OVER OR REMOVED.

30. COMPRESSED GAS CYLINDERS MUST BE UPRIGHT, SECURED, AND CAPPED WHEN NOT IN USE. ACETYLENE AND OXYGEN CYLINDERS MUST BE SEPARATED WHEN NOT IN USE.

31. HAND TOOLS MUST BE KEPT IN GOOD CONDITION. EQUIPMENT MUST BE SHUT DOWN WHEN LUBRICATED, REFUELED, OR ADJUSTED POWDER-ACTUATED NAIL GUNS USE BOOSTER STRIPS TO HOLD CHARGES. EVEN IF THEY APPEAR TO BE COMPLETELY USED, DO NOT THROW USED BOOSTER STRIPS ONTO THE FLOOR DISPOSE OF THEM IN A SEPARATE CONTAINER OR TRASH CAN. UNUSED OR PARTIALLY USED BOOSTER STRIPS SHALL BE STORED IN APPROPRIATE CONTAINERS.

32. ONLY TRAINED AND AUTHORIZED PERSONNEL WILL OPERATE EQUIPMENT.

33. THERE ARE TO BE NO RIDERS ON EQUIPMENT, AND NO PERSONNEL ARE TO RIDE IN THE BED OF PICKUP TRUCKS.

34. SCAFFOLDING BOARDS AND RUNWAYS MUST BE CLEARED.

35. ALL EXCAVATIONS MUST BE PROPERLY DUG, SHORED, AND BARRICADED. COMPETENT PERSONS MUST BE PRESENT WHEN PERSONNEL ARE IN EXCAVATIONS.

36. ALL ELECTRICAL POWER TOOLS AND CORDS MUST HAVE THE THIRD WIRE POSITIVE GROUND OR BE DOUBLE OR TRIPLE INSULATED.

37. ALL LIVE ELECTRICAL PANELS ARE TO BE PROPERLY COVERED AND MARKED. GFCI OUTLETS ARE THE ONLY AUTHORIZED OUTLETS FOR HAND POWER TOOLS. DO NOT USE PERMANENT BUILDING POWER TO SUPPLY HAND TOOLS UNLESS A GFCI IS USED TO PROTECT THE EMPLOYEES.

38. LOCK OUT/TAG OUT PROCEDURES MUST BE UTILIZED BEFORE WORK1NG ON ANY PIECE OF EQUIPMENT WHICH HAS ELECTRICAL OR ANY OTHER TYPE OF STORED ENERGY.

39. BE ALERT FOR FIRES AND KNOW THE EMERGENCY FIRE SIGNAL. SHORT BLASTS OF THE AIR HORN OR YELLING “FIRE” IS THE SIGNAL TO EVACUATE THE PROJECT AND MEET AT YOUR COMPANY'S PREDETERMINED LOCATION.

40. NO SOLICITATION OF ANY KIND IS ALLOWED ON THIS PROJECT.

41. NO FIREARMS OR WEAPONS OF ANY KIND WILL BE BROUGHT TO THE PROJECT.

42. SEAT BELTS, CUTTING GOGGLES, AND OTHER TYPES OF PERSONAL PROTECTION EQUIPMENT, AS DETERMINED BY THE WORK BEING DONE, MUST BE WORN AND MAINTAINED IN GOOD CONDITION.

43. SMOKING IS NOT ALLOWED IN ENCLOSED BUILDINGS. OBSERVE THE NO SMOKING SIGNS.

44. VIOLATIONS WILL BE GIVEN A WRITTEN WARNING FOR THE FIRST OFFENSE. A SECOND OFFENSE RESULTS IN THAT DAY PLUS TWO MORE DAYS OFF WITHOUT PAY. A THIRD OFFENSE WILL MEAN DISMISSAL FROM THE PROJECT.

45. IF YOU SUSPECT OR KNOW OF ASBESTOS IN YOUR AREA PLEASE NOTIFY YOUR SUPERVISOR OR A NICHOLS CONTRACTING, INC. EMPLOYEE.

46. IF YOU ARE WORKING IN AN AREA THAT HAS AN OPENING OR HOLE IN THE FLOOR, THEN THIS AREA MUST BE COVERED WITH A METAL SCREEN OR GRATE *(EXPANDED METAL)*. IF THE OPENING IS LESS THAN 6 INCHES, WOOD CAN BE USED. IF THE OPENING IS LARGER THAN 30 INCHES, THEN A HANDRAIL MUST BE INSTALLED. WHEN DETERMINING WHICH TYPE OF MATERIAL TO USE TO COVER OPENINGS, TAKE INTO CONSIDERATION THE LARGEST LOAD THAT MAY RUN OVER THE COVER

47. SUBCONTRACTORS WILL SURVEY THEIR JOBSITES BEFORE STARTING WORK AND EVALUATE JOB HAZARDS ON A DAILY BASIS. THESE SURVEYS SHOULD BE DISCUSSED WITH YOUR WORKERS AND DOCUMENTED.

48. DRINK PLENTY OF WATER SUBCONTRACTORS WILL ENSURE WATER, DRINKING CUPS, AND DISPOSAL OF TRASH IS AVAILABLE FOR ALL WORKERS.

49. WORK GLOVES SHALL BE WORN WHEN HANDLING SHARP, ROUGH, OR ABRASIVE MATERIALS, WHEN THE WORK SUBJECTS HANDS TO LACERATIONS, PUNCTURES, OR BURNS. OTHER HAND PROTECTION

50. MAY BE REQUIRED, DEPENDING ON THE PROCESS.

51. BEFORE PROCEEDING THROUGH AN AREA THAT HAS MOVING EQUIPMENT, BE SURE TO ESTABLISH EYE CONTACT WITH THE OPERATOR, AND GET HIS OR HER PERMISSION TO PASS.

52. WHEN ENTERING AND LEAVING THE JOBSITE, USE THE MARKED CROSSWALKS, AND BE AWARE OF VEHICULAR TRAFFIC.

53. BE ADVISED THAT HARASSMENT OF ANY TYPE IS PROHIBITED ON NICHOLS CONTRACTING, INC.'S JOBSITE PROPERTY. HARASSMENT INVOLVES UNWELCOME CONDUCT, WHETHER VERBAL, PHYSICAL, OR VISUAL THAT TARGETS A PERSON'S PROTECTED STATUS, SUCH AS AGE, ANCESTRY, CITIZENSHIP, COLOR, CREED, DISABILTY, MEDICAL CONDITION, NATIONALORIGIN, RACE, RELIGION, SEX, SEXUAL ORIENTATION, ORVETERAN STATUS. PERSONNEL FOUND IN VIOLATION OF THE ANTI-HARASSMENT POLICY WILL BE REMOVED FROM THE PROJECT.

NOTE: VIOLATIONS OF SAFETY RULES OR SAFETY STANDARDS WILL RESULT IN DISCIPLINARY ACTION OR DISMISSAL.

If an employee is observed (by any supervisor) committing a safety violation, a Disciplinary Action Notice (or the equivalent) is to be issued by the respective company Superintendent or Manager. The employee is to be given a copy and a copy is to be sent to the Project Safety Manager within 24-hours of issuance.

Management is expected to enforce this program with fairness and equality. All employees should remember that, if a task cannot be performed safely, they are to contact their supervisor for guidance. Employees should wait until a safe method is identified.

Disciplinary actions as a result of a written "notice" are as follows:

First Offense: Employee given Written Warning.

Second Offense: If another notice is issued within a 12-month period, the employee is suspended two days without pay. Suspension to begin upon issuance of the notice, and will include two full days, plus any remaining part of the day the notice is issued.

Third Offense: If a third notice is issued within a 12-month period, employee is to be immediately removed from the project and not allowed back on the project. This includes working for another Subcontractor.

7.02 RULES FOR DELIVERIES

All deliveries of materials shall adhere to the attached Rules for Delivery.

All vehicles need to be spotted by responsible contractor. Certified flagmen are required at all times inside the project area and out side the fence area / roadways.

Hard hats, safety glasses, long pants and construction work shoes must be worn at all times.

Maximum jobsite speed is 5 MPH.

All drivers should enter the jobsite through the designated entrance.

If rules are not followed, further deliveries by the individual driver will not be allowed.

RULES FOR DELIVERIES

NICHOLS CONTRACTING, INC.

All vehicles need to be spotted by responsible contractor. Certified flagmen are required at all times outside the fence.

Hard hats, safety glasses with side shields, long pants and construction work shoes must be worn at all times.

Maximum job site speed is 5 MPH.

All drivers should only enter the jobsite through the designated entrance.

If rules are not followed, further deliveries by the individual driver will not be allowed.

SECTION 8 - CODE OF FEDERAL REGULATIONS (CFR) 29

8.01 Requirement to Stay Informed

All Subcontractors working on the **Project Name** are required to keep abreast of the ever-changing regulations.

8.02 Requirement for Compliance

It is the Subcontractor's responsibility to interpret, make provisions and ultimately comply with the mandated laws. It is also the Subcontractor's responsibility to comply with all other Federal, State, and local laws that may apply to their work as well as any recognized industry standards.

SECTION 9- REFERENCES

The Subcontractor shall comply with the safety requirements and provision of the following agencies, associations, councils, societies, etc.:

9.01 Federal References

- Interstate Commerce Commission
- National Institute of Occupational Safety & Health
- National Institute of Standards & Technology
- U. S. Atomic Energy Commission
- U. S. Dept. of Interior, Bureau of Mines
- U. S. Dept. of Labor, OSHA
- CFR29:Partsl926&1910
- U. S. Environmental Protection Agency
- U. S. Government, General Services Administration

9.02 Other References

- American Concrete Institute
- American National Red Cross
- American National Standards Institute (ANSI)
- American Society for Testing Materials
- American Society of Mechanical Engineers
- American Welding Society
- Associated General Contractors of America
- Building Officials Conference of America
- Industrial Hygiene Foundation of America
- Institute of Makers of Explosives

9.02 OTHER REFERENCES

Interstate Hygiene Foundation of America, Inc.

- National Fire Protection Association
- National Safety Council
- Underwriters Laboratories, Inc.
- U. S. Atomic Energy Commission

SECTION 10- SAFETY MANUAL SUPPLEMENTS, REVISIONS, ADDITIONS AND BULLETINS

This section is included in the Safety Manual so the Supervisor using this manual has a general place to collect items referring to the Safety Manual, as well as revisions of sections of the Manual.

10.01 Safety Manual Revisions

[insert updates here]

10.02 Safety Manual References

This section contains items that may include, but are not limited to: 1) New Regulations 2) Project Safety Bulletins 3) Revisions in procedures and 4) Job site control notices

SECTION 11 - DISCLAIMERS

11.01 Project Safety Manual

In order to assist the Subcontractor and Sub-subcontractors, this Manual is issued and will be maintained by the Project Safety Manager with periodic updates as appropriate.

Due to the variety of operations on the **Project Name**, this Manual is intended for use as a basic guide only. It is not intended to be all-inclusive.

11.02 General

Nichols Contracting, Inc., **Project Name**, and its consultants assume no liability for the methods or way in which this information is utilized or the results achieved.

Additional assistance for programs is available from insurance carriers, equipment manufacturers, suppliers, and government agencies, such as the U.S. Department of Labor - OSHA. The Project Safety Manager will also provide information and assistance upon request.