



COLUMBUS | CLEVELAND  
CINCINNATI-DAYTON  
MARIETTA

**BRICKER & ECKLER LLP**  
100 South Third Street  
Columbus, OH 43215-4291  
MAIN: 614.227.2300  
FAX: 614.227.2390

www.bricker.com  
info@bricker.com

**Sally W. Bloomfield**  
614.227.2368  
sbloomfield@bricker.com

October 19, 2015

*Via Electronic Filing*

Ms. Barcy McNeal  
Public Utilities Commission of Ohio  
Administration/Docketing  
180 East Broad Street, 11<sup>th</sup> Floor  
Columbus, OH 43215-3793

**Re: Trishe Wind Ohio, LLC, Case No. 13-197-EL-BGN**

Dear Ms. McNeal:

The December 16, 2013 Opinion, Order, and Certificate approving Northwest Ohio Wind Energy, LLC's [now known as Trishe Wind Ohio, LLC ("Trishe")] Certificate of Environmental Compatibility and Public Need ("Certificate") and the October 1, 2013 Supplement to Amended Application ("Supplement") established a set of conditions and supplemental commitments as part of the Certificate.

Within this set of conditions and commitments, **Certificate Condition No. 34** requires that:

**At least 30 days prior to the preconstruction conference, the Applicant shall submit to Staff, for review and confirmation that it complies with this condition, a proposed emergency and safety plan to be used during construction, to be developed in consultation with the fire department(s) having jurisdiction over the area.**

Attached for filing is the emergency and safety plan for the site and foundation work for the substation. Thus Trishe is in compliance with this condition.

If you have any questions please call at the number listed above.

Sincerely,

Sally W. Bloomfield

Attachment

cc: Grant Zeto (w/Attachment)  
Chris Cunningham (w/Attachment)



# Chemsteel

## SITE SPECIFIC CONSTRUCTION SAFETY MANUAL

SUPPLEMENT  
FOR:

**Project Name: Haviland Wind Farm**

**Engineer: Dashiell**

**Work Location:**

This project is located at: 2777 Road 107 Haviland Ohio 44851

## To All CHEMSTEEL Employees

CHEMSTEEL is committed to the safety of all of our employees. We have been working at the corporate level to find ways to eliminate work site injuries and are enlisting the help of all CHEMSTEEL employees in our effort to reduce all unsafe work practices.

With the attitude of never being satisfied with our safety performance we are implementing the "Construction Industry Institute's Zero Injury Technique" in order to reduce unsafe work practices and to keep you safe.

Our objective is a safety and health program that maximizes safety and strives to eliminate injuries and illnesses. We will maintain a safety and health program conforming to the best practices of organizations similar to ours while constantly striving to improve these practices and to surpass the best experience of those operations.

Our safety and health program will include:

- Providing necessary personal protective equipment and instructions for its care and use.
- Training of all employees in safety and health practices.
- Developing and enforcing safety and health rules and requiring that employees cooperate with these rules as a condition of employment.
- Conducting a program of safety and health inspections to identify and remove unsafe working conditions or practices; to control health hazards; and to comply with the safety and health standards for every job.
- Investigating, promptly and thoroughly, every accident to find out what caused it and to correct the problem so that it will not occur again.
- Providing mechanical and physical safeguards to the maximum extent that is possible.

A successful program must embody the proper attitudes toward injury and illness prevention by supervisors and employees and between each employee and his fellow workers. Only through such a cooperative effort can a safety culture in the best interest of all be established and preserved. We look forward to working with you toward our goals.

---

John J. Murray, Jr., *President*

## TABLE OF CONTENTS

|                                                                 |    |
|-----------------------------------------------------------------|----|
| TO ALL CHEMSTEEL EMPLOYEES .....                                | 2  |
| PURPOSE/OBJECTIVE .....                                         | 4  |
| PROJECT DESCRIPTION .....                                       | 5  |
| PROJECT ORGANIZATION.....                                       | 5  |
| EMERGENCY RESPONSE PLAN.....                                    | 7  |
| EMPLOYEE DISCIPLINARY PROCEDURE .....                           | 10 |
| SUBSTANCE ABUSE POLICY .....                                    | 12 |
| SAFETY TRAINING.....                                            | 19 |
| COMPANY SAFETY RULES.....                                       | 20 |
| CONTRACTOR SAFETY GUIDE Energy Delivery Revised: 09-21-10 ..... | 21 |
| PROJECT SAFETY RULES.....                                       | 37 |
| ACCIDENT REPORTING AND INVESTIGATION .....                      | 51 |
| PROJECT SAFETY AUDITS.....                                      | 51 |
| HAZARD COMMUNICATIONS PROGRAM.....                              | 52 |
| ENERGY CONTROL PROCEDURES .....                                 | 59 |
| FALL PROTECTION .....                                           | 60 |
| EXCAVATION AND TRENCHING GUIDELINES .....                       | 61 |
| CONCRETE FORM & REBAR INSTALLATION .....                        | 73 |
| CONCRETE PLACEMENT .....                                        | 73 |
| ATTACHMENTS .....                                               | 74 |

## Purpose/Objective

To assure, as far as possible, a safe and healthy work environment for all CHEMSTEEL employees employed on the project. This site-specific safety and health program should be considered a supplement to CHEMSTEEL's Corporate Safety Manual addressing the unique hazards and site conditions existing on the project. CHEMSTEEL has adopted a *Zero Accident Policy* on all its projects. The focus of this policy is the elimination of all unsafe conditions and behaviors/acts.

---

Mike O'Hara  
*Project Manager*

---

John Robinson  
Cleveland Operations Safety Manager

# Project Description

## Scope of Work

The North West Ohio Wind farm substation will be located Haviland, Ohio in Paulding County. The substation will step-up the windfarm underground 34.5kV collection system through a 138/34.5kV main power transformer and will connect to a new 138kV transmission line that will go from the Substation to the Haviland 138kV Substation adjacent to the Northwest Ohio Substation.

- Complete site grading in accordance with the summaries included in the RFP.
- Prepare final grade in accordance with the summaries included in the RFP.
- Receive, off-load, erect/assemble:
  - Transformer Foundation Embedment Steel
  - Dead-end structure Anchor Bolt Cages
  - Foundation Anchor Bolts
  - Pre-fabricated Concrete cable trench or pull boxes
- Excavate and install all substation foundations and cable pull boxes
- Supply and Install finished yard grade gravel cover per the specifications/drawings.
- The Subcontractor shall supply all labor, supervision, tools, rebar and equipment required for the civil and foundation work of the site and construction of the substation
- Perform final site preparation and clean-up of our work.
- Provide field marked drawings for As-Built drawings.

## Subcontractors

If or when subcontractors are utilized, they are to be held morally and contractually to all CHEMSTEEL rules and procedures.

### **Project Organization Chart**

|                   |                                     |
|-------------------|-------------------------------------|
| Mike O'Hara       | Project Manager                     |
| TBD               | Site Supervision / Safety           |
| Matthew Fleischer | Cleveland Operations Safety Manager |

### **Competent Persons List**

|                   |                                     |
|-------------------|-------------------------------------|
| Mike O'Hara       | Project Manager                     |
| TBD               | Site Supervision / Safety           |
| Matthew Fleischer | Cleveland Operations Safety Manager |

# Emergency Response Plan

**In the event of an emergency and evacuation of the area is required,  
the muster area is the Office Trailer  
(See attachments for plant layout.)**

## Emergency Telephone Numbers

### CHEMSTEEL Contacts

CHEMSTEEL..... 440-234-3930  
CHEMSTEEL (Fax) ..... 440-234-1967

### **Project Manager**

Mike O'Hara

Cell ..... 216-695-2798  
Office ..... 440-234-3930

### **Field Supervision / Safety**

TBD

Cell ..... TBD  
..... Office .....

### **Corporate Safety Director**

Matt Fleischer

Cell.....412-334-2112  
Office.....440-234-7888

## Emergency Response Procedures

# **FIRSTENERGY CONTRACTOR** **INCIDENT PROCEDURE**

Procedure to follow for **ANY CONTRACTOR INCIDENT** at  
**FIRSTENERGY**

\*\*\*\*Post at the job site and insure that employees responsible for  
making contact are aware of the procedure\*\*\*\*

**--IMMEDIATELY--**

- Contact **JW Didado Representative**
- Contact **Chemsteel Project Manager**
- Contact **Chemsteel Corporate Safety Director**

1. **IMMEDIATELY**: Call your JW Didado Representative; Day or  
Night

- **CONTACT PERSON TBD**

After notifying JW Didado Contact  
**Corporate Safety Director** Matt Fleischer 412-334-2112

**CALL UNTIL CONTACT IS MADE WITH SOMEONE!**

2. A final report with corrective action must be faxed / e-mailed within  
24 hours of the incident.

**CONTACT MUST BE MADE for ALL INCIDENTS.**

Including small fluid spills, slips trips & falls, vehicle incidents

### Medical Assistance

Certified First Aid and CPR (CFAC) trained supervisors will be available on-site during all shift work. In the event of an injury or catastrophic event, CFAC personnel will be notified by way of two way radios and respond to assess the situation and provide appropriate assistance.

Site plans and maps identifying areas of activity and project landmarks will be provided.

### Fire Response

Fire extinguishers will be located in all CHEMSTEEL trailers and work areas. The appropriate type and size will be selected.

### Panel of Physicians:

See attachment section.

# Employee Disciplinary Procedure

In accordance with established CHEMSTEEL Policy, employees who knowingly violate company safety policies or project safety rules will be subject to appropriate disciplinary actions. It is CHEMSTEEL's policy to utilize a systematic procedure to correct and prevent future occurrences of unsafe acts and conditions using the following guidelines:

|                |                                                                              |
|----------------|------------------------------------------------------------------------------|
| First Instance | Verbal reprimand or termination depending on the severity of the infraction. |
|----------------|------------------------------------------------------------------------------|

|                 |                                                                               |
|-----------------|-------------------------------------------------------------------------------|
| Second Instance | Written reprimand or termination depending on the severity of the Infraction. |
|-----------------|-------------------------------------------------------------------------------|

|                |             |
|----------------|-------------|
| Third Instance | Termination |
|----------------|-------------|

Reprimands will be documented on the "Notice of Disciplinary Action" Form. A copy of each written warning will be placed in the employee's personnel file. Where appropriate, the employees' union representative will be notified when written reprimands/warnings are issued. The written notice will be faxed to the Corporate Safety Director.

CHEMSTEEL and its managers reserve the right to terminate any employee on the first offense for serious safety violations that could or have resulted in injury to the employee or to another employee as a result of the employee's actions.

Fall protection violations and violation of CHEMSTEEL's Alcohol and Substance Abuse Policy are grounds for immediate dismissal.

Exceptions to the above outlined disciplinary procedure are as follows:

On any project:

- Failure to follow "Blue Flag" procedures when working near railroad tracks.
- Failure to follow proper Lockout/Tryout procedures.
- Failure to follow proper Confined Space Entry procedures.
- Tampering with, disabling or damaging any company fire protection, gas monitoring or other safety device.

These four exceptions are grounds for immediate dismissal from the Project.

## NOTICE OF DISCIPLINARY ACTION

---

EMPLOYEE NAME \_\_\_\_\_ CRAFT \_\_\_\_\_

JOB NAME AND NUMBER \_\_\_\_\_ DATE & TIME \_\_\_\_\_

FIRST \_\_\_\_\_ VERBAL \_\_\_\_\_ or TERMINATION \_\_\_\_\_

SECOND \_\_\_\_\_ WRITTEN \_\_\_\_\_ or TERMINATION \_\_\_\_\_

THIRD \_\_\_\_\_ TERMINATION \_\_\_\_\_

**YOU ARE BEING ISSUED THIS NOTICE FOR FAILURE TO COMPLY WITH CHEMSTEEL JOB RULES OF CONDUCT.**

\_\_\_\_\_ Failure to Observe Safety, Sanitary and Medical Rules/Practices

\_\_\_\_\_ Leaving the Work Place Without Supervisor's Authorization

\_\_\_\_\_ Insubordination

\_\_\_\_\_ Gambling

\_\_\_\_\_ Refusing to Accept Work Assignment

\_\_\_\_\_ Poor or Irregular Attendance

\_\_\_\_\_ Solicitation

\_\_\_\_\_ Recurring Tardiness

\_\_\_\_\_ Loafing

\_\_\_\_\_ Engaging in Horseplay

\_\_\_\_\_ Other \_\_\_\_\_

\_\_\_\_\_ Actions taken \_\_\_\_\_

**PLEASE SEE THAT THIS DOES NOT HAPPEN AGAIN. REPETITION OF THIS OFFENSE OR ANY OTHER OFFENSE WILL MAKE IT NECESSARY TO TAKE APPROPRIATE ACTION WHICH MAY SUBJECT YOU TO SUSPENSION OR DISCHARGE WITHOUT FURTHER NOTICE.**

\_\_\_\_\_  
SIGNATURE OF SUPERINTENDENT

\_\_\_\_\_  
DATE

\_\_\_\_\_  
SIGNATURE OF FOREMAN

\_\_\_\_\_  
DATE

\_\_\_\_\_  
SIGNATURE OF EMPLOYEE

\_\_\_\_\_  
DATE

## **DRUG-FREE WORKPLACE POLICY**

### **“CHEMSTEEL”**

#### **I. STATEMENT OF POLICY**

CHEMSTEEL (the “Company”) believes that people are our most important resource and their health and safety is one of our principle responsibilities and primary concerns. In an effort to improve and enhance our safety and health performance, The Company has adopted a “Zero Injury” policy on all our projects, and has the expectation of achieving this goal. In line with this commitment, the Company is taking steps to address the problem of substance use that negatively affects every workplace. We can’t condone and won’t tolerate behaviors on the part of employees that relate to substance use, such as:

- a. Use of illegal drugs;
- b. Misuse of alcohol;
- c. Sale, purchase, transfer, use or possession of any illegal drugs;
- d. Arrival or return to work under the influence of any drug (legal or illegal) or alcohol to the extent that job performance is affected.

Management is fully committed to the Company’s Drug-Free Workplace Program, which establishes clear guidelines for acceptable and unacceptable employee behavior for everyone in the workplace. We will not tolerate substance use in violation of this Policy.

This document (referred to as “the Policy”) describes our Company’s Drug-Free Workplace Program, and every employee is expected to read and understand it. The Policy applies to every employee including top management, and also applies to contractors and subcontractors we may use. The consequences stated in this Drug-Free Workplace Policy will apply to anyone who violates the Policy. The Company holds all employees accountable in terms of substance use but also supports getting help for employees. Employees who come forward voluntarily to identify that they have a substance problem will receive Company support and assistance. However, if an employee has a substance problem and does not come forward, and the employee then tests positive for drug or alcohol use in violation of this Policy, the Company reserves the right to take appropriate action up to and including termination.

Employees will have the opportunity to receive information about substance use as a workplace problem, signs and symptoms, dangers of use, and how and where to get help for themselves and their families. Our Drug-Free Workplace Program Administrator will be responsible for the coordination of drug and alcohol testing, identifying resources that employees can turn to for help for themselves and/or their families, and arranging for qualified people to help with employee awareness education and with supervisor training.

---

Thomas A. Snyder  
Chairman and CEO

### **Program Protections**

This program is designed to protect employees from the behaviors of substance users. Some of the protections built into the program are:

- Employee records such as testing results and referrals for help will be kept confidential. Information will be on a need-to-know basis. Any violation of confidentiality rights is subject to disciplinary action up to and including termination of employment.
- Employees will receive annual substance awareness education from a qualified person to help identify problems and learn where to turn to for help.
- Testing will be done through a federally certified laboratory that uses the highest level of care in ensuring that results are accurate including the use of a Medical Review Officer (MRO). The MRO is an expert in substance use. When the MRO receives positive test results, the MRO will contact the employee and any appropriate health care provider to determine whether there is a valid reason for the presence of the drug in the person's system.
- The testing program consists of an initial screening test. If the initial results are positive, then a confirmation is used. Cut-off levels for each drug and for alcohol are established based on federal and state guidelines.

### **Employee Awareness Education**

Every current employee will receive annual training on this policy with an opportunity to ask questions.

#### **Supervisor Training:**

Supervisors will be trained to recognize substance problems that may endanger the employee and others as well as violate this Policy. This training is in addition to annual employee education. Supervisors will be trained about testing responsibilities, how to recognize behaviors that demonstrate an alcohol/drug problem and how to make referrals for help.

**Drug and Alcohol Testing:** Testing is intended to detect problems, deter usage and allow appropriate corrective action. In addition to alcohol, the drugs that we're testing for are:

- |                                     |                 |
|-------------------------------------|-----------------|
| • Amphetamines (speed, uppers)      | Methadone       |
| • Cocaine (including Crack)         | Methaqualone    |
| • Marijuana                         | Barbiturates    |
| • Opiates (Codeine, Morphine)       | Benzodiazepines |
| • Phencyclidine (PCP, "angel dust") | Propoxyphene    |

An employee attempting to adulterate a specimen or otherwise manipulate the testing process will result in termination of employment, as will a refusal to produce/provide a specimen.

### **Employee Assistance**

Employees are encouraged to seek help for a drug or alcohol problem before it deteriorates in a disciplinary matter. If an employee voluntarily notifies supervision that he or she may have a substance abuse problem, the company will assist in locating a suitable employee assistance program for treatment, and will counsel the employee regarding any medical benefits available under the company or union health and welfare insurance program.

If treatment necessitates time away from work, the company shall provide for the employee an unpaid leave of absence for purposes of participation in an agreed upon treatment program. An employee who successfully completes a rehabilitation program may be reinstated to his or her former employment status, if work for which he or she is qualified exists.

The employee is subject to signing a “second chance” or “last chance” agreement acknowledging that a second violation of the company substance use policy will result in termination of employment. The employee will be tested prior to being allowed to return to work and must produce a negative test result, and will be subject to accelerated testing thereafter in conjunction with the substance use professional.

## **II. FREQUENCY AND SITUATIONS WHEN TESTING OCCURS**

Employees will be tested for the presence of drugs in the urine and/or alcohol on the breath under any and/or all of the conditions outlined below:

### **A. Post-Offer, Pre-Employment Drug Testing**

As part of the Company’s employment procedures, all applicants will be required to undergo a post-offer, pre-employment drug screen/test that is conducted by a contractor designated by the Company. Any offer of employment is contingent upon, among other things, a negative result upon completion of this screening, and the determination by the Company that the applicant is capable of performing the responsibilities of the position that has been offered.

### **B. Reasonable Suspicion Testing**

Reasonable suspicion testing will occur when Company management and/or supervision have reason to suspect that an employee may be in violation of this Policy. The suspicion must be documented in writing within 24 hours of the event or prior to the release of the test findings. Reasonable suspicion testing may be based upon, among other things:

1. Observed behavior, such as direct observation of drug/alcohol use or possession and/or the physical symptoms of drug and/or alcohol use;
2. A pattern of abnormal conduct or erratic behavior;
3. Arrest or conviction for a drug-related offense, or the identification of an employee as the focus of a criminal investigation into illegal drug possession, use, or trafficking. The employee is responsible for notification of the Company, within five (5) working days, of any drug-related conviction;
4. Information provided either by reliable and credible sources or independently corroborated regarding an employee’s substance use; or
5. Newly discovered evidence that the employee has tampered with a previous drug or alcohol test.

### **C. Post-Accident Testing**

Post-accident testing will be conducted whenever an accident occurs as defined below. For purposes of this policy, an accident is considered an unplanned, unexpected or unintended event that occurs on Company property, during the conduct of the Company’s business, or during working hours, or which involves Company-supplied motor vehicles or motor vehicles

that are used in conducting Company business, or is within the scope of employment, and which results in any of the following:

- (i) A fatality of anyone involved in the accident;
- (ii) Bodily injury to the employee and/or another person that requires off-site medical attention away from the Company's place of employment;
- (iii) Vehicular damage in apparent excess of \$750; or
- (iv) Non-vehicular damage in apparent excess of \$500.

When such an accident results in one of the situations above, any employee who may have contributed to the accident will be tested for drugs or alcohol use or both.

### ***Drug and/or Alcohol Testing after an Accident***

Urine specimen collection (for a drug test) or breath/saliva (for an alcohol test) is to occur immediately after reasonable suspicion has been determined. At no time shall a drug specimen be collected after 32 hours from the time of an employment-related incident. Breath or saliva alcohol testing will be performed within two (2) hours of the incident whenever possible, but within eight (8) hours, or it won't be performed but will be documented

. If the employee responsible for an employment-related accident is injured, it is a condition of employment that the employee herein expressly grants unto the Company, its officers and management, the right to request that attending medical personnel obtain appropriate specimens (breath, blood and/or urine) for the purpose of conducting alcohol and/or drug testing. Further, all employees herein expressly grant unto the Company, its officers and management, access to any and all other medical information that may be relevant in conducting a complete and thorough investigation of the employment-related accident, to include, but not be limited to, a full medical report from the examining physician(s) or other health care providers.

### **D. Follow up Testing after Return to Work from Assessment or Treatment**

This testing occurs when an employee who has previously tested positive is allowed to return to work in the event of a "second-chance" or "last-chance" agreement. A return-to-duty test is required before the employee is allowed to return to work and, if the employee fails this test, this will lead to termination of employment. Once an employee passes the drug and/or alcohol test and returns to work, there will be a series of additional tests conducted over a period of at least a year. Any employee with a second positive test result will be terminated.

### **E. Computer Generated Testing**

Computer Generated Testing will include all employees and contract workers and is conducted on an unannounced basis. A non-Company testing organization will utilize objective computer software that ensures a truly random selection process in which all employees in the testing pool have an equal statistical likelihood of being selected for testing. When the next random draw is conducted, all employees are again included in the pool with an equal chance of

selection, regardless of whether an employee was previously selected. It shall be the responsibility of the Company to notify each employee who was selected with the date, time and location that testing will be performed. When notified, it shall be the responsibility of the individual employee to provide a urine specimen for drug testing and/or submit to breath alcohol testing. An employee's failure to comply with the request for a specimen for Computer Generated Testing will result in termination of employment.

### **Rebuttable presumption,(OHIO Only)**

Effective October 13, 2004, Section 4123.54 of the Ohio Revised Code requires notice of Rebuttable presumption. Rebuttable presumption means that an employee may dispute or prove untrue the presumption (or belief) that alcohol or a controlled substance not prescribed by the employee's physician is the proximate cause (main reason) of the work-related injury.

The burden of proof is on the employee to prove that the presence of alcohol or a controlled substance was not the proximate cause of the work-related injury. An employee who tests positive or refuses to submit to chemical testing may be disqualified for compensation and benefits under the Workers' Compensation Act.

### **III. SUBSTANCES TO BE TESTED FOR AND THE METHODS OF TESTING**

Systems presence testing is the procedure that is used to identify the presence of the following controlled substances or alcohol that may be present: (A negative initial screening test is considered a negative test.) For each of the tested drugs (amphetamines, cocaine, marijuana, opiates and PCP, methadone, methaqualone, barbiturates, benzodiazepines, and propoxyphene.), there is an initial test used to screen the urine specimen. If the initial screen is positive [at or higher than a cut-off level that comes from the federal Department of Health & Human Services (DHHS)], a second or confirmatory test is conducted. This is a different test and is considered 100% accurate.

Breath alcohol testing will be conducted by a testing contractor that uses only certified equipment and personnel. Breath alcohol concentrations exceeding .04 will be considered a verified positive result. In the event of an accident where an employee has a "whole blood" alcohol drawn at a medical treatment facility, a result equal to or greater than .04 shall be considered to be a verified positive result. An Evidentiary Breath Test (EBT) is used to confirm any initial positive test result. The Company also expressly reserves the right to add or delete substances on the list above, especially if mandated by changes in existing Federal, State or local regulations or legislation.

### **IV. SPECIMEN COLLECTION PROCEDURE**

Testing shall be conducted by trained collection personnel, who meet quality assurance and chain-of-custody requirements for urine collection and breath alcohol testing. Confidentiality is required from our labs. Any individual subject to testing under this Policy shall be permitted to

provide urine specimens in private, but subject to strict scrutiny by collection personnel so as to avoid any alteration or substitution of the specimen to be provided. Breath alcohol testing will likewise be done in an area that affords the individual privacy. In all cases, there will only be one individual tested at a time. Failure to appear for testing when scheduled shall be considered refusal to participate in testing, and will subject an employee to the range of disciplinary actions, including dismissal, and an applicant to the cancellation of an offer of employment.

## **VII. REPORTING OF RESULTS**

All test results will be reported to the MRO prior to the results being issued to the Company. The MRO will receive from the testing laboratory a detailed report of the findings of the specimen. Each substance tested for will be listed along with the results of the testing. The Company will receive a summary report, and this report will indicate that the employee passed or failed the test. All of these procedures are intended to be consistent with the most current guidelines for Medical Review Officers, published by the federal DHHS.

## **IX. POSITIVE TEST RESULTS**

Employees who are found to have a positive drug or alcohol test will be immediately taken off the job until confirmation test results are available. If negative results are received, the employee shall be returned to work with back pay. In all other cases, employees are subject to discipline up to and including termination.

## **X. TERMINATION NOTICES**

In those cases where substance testing results in the termination of employment, all termination notices will list "misconduct" as the reason. Termination shall be deemed "for cause."

**ACKNOWLEDGEMENT OF RECEIPT  
OF  
DRUG-FREE WORKPLACE POLICY  
AND  
CONSENT & RELEASE FORM**

Signing this form acknowledges that the employee has received a copy of the Company's Drug-Free-Workplace/Substance Abuse Policy, has had the opportunity to discuss the Policy and have questions answered, and understands all of the provisions in the Policy. Although it reflects the Company's current Policy regarding substance use, it may be necessary to make changes from time to time to best serve the needs of our organization. However, any changes deemed necessary will be made in writing, and the modified Policy will be shared with every employee.

By my signature below, I acknowledge that I have received a copy of the Drug-Free Workplace Policy of CHEMSTEEL. I understand that it is my obligation to read, understand and comply with the procedures and provisions contained within this Policy including but not limited to:

- 1) I agree to cooperate in all aspects of the testing program.
- 2) That the Company's Policy requires me to submit to urine drug testing and/or breath alcohol testing.
- 3) I hereby freely and voluntarily consent to this request for a urine sample and/or breath alcohol test and agree to participate in the testing program.
- 4) That the purpose of this analysis is to determine or rule out the presence of non-prescribed or prohibited dangerous controlled substances in my system.
- 5) I hereby authorize the release of my drug and/or breath alcohol test results to the contractor's Medical Review Officer (MRO), and/or to the Company's examining physician, as provided by the Company's Policy.
- 6) I hereby and herewith release the Company, its employees, agents and contractors from any and all liability whatsoever arising from this request for testing, from the actual testing procedures, and from decisions made concerning my application for or continuation of employment based on the results of the analysis.
- 7) I further acknowledge that the Company has provided me with an opportunity to ask questions related to its drug and alcohol testing program and that all my questions have been answered.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Employee/Applicant Printed Name

\_\_\_\_\_  
Date

\_\_\_\_\_  
Witness Signature

\_\_\_\_\_  
Witness Printed Name

# Safety Training

## Orientation

CHEMSTEEL conducts new employee orientation to ensure that every newly assigned CHEMSTEEL employee is oriented to the hazards of the project and the scope of work to be performed.

All CHEMSTEEL employees will receive orientation training to ensure their familiarity with the hazards associated with site operations and administration of Chemsteel' project safety programs. Orientation training should be initiated on the first day of employment and completed within the first week of employment. Topics covered in the training will include:

- Client's Site/Project Safety Program
- CHEMSTEEL 's Site Specific Safety Program
- Identification of Competent Person
- Project Alcohol and Substance Abuse Program
- Accident/Incident Reporting Procedures
- CHEMSTEEL 's Employee Disciplinary Procedures
- Description of Project Activities and the Hazards Associated with those Operations
- Proper Use and Maintenance of Personal Protective Equipment
- Task Specific Hazard Training
- Emergency Response Plan
- CHEMSTEEL 's Hazard Communication Program
- Confined Space Entry Procedures
- Fall Protection/Prevention
- Excavation procedures

The Project Superintendent is responsible for establishing the new employee orientation program and for conducting and documenting orientation training using the attached checklists and employee signature sheets.

## **Company Safety Rules**

1. Report unsafe conditions to their immediate supervisor.
2. Promptly report all injuries to their immediate supervisor.
3. Wear hard hats on the jobsite at all times brim to the front.
4. All CHEMSTEEL employees must wear approved eye and face protection at all times.
5. Dress properly. Wear appropriate work clothes. Loose clothing and jewelry must not be worn while working with or around moving machinery or parts thereof.
6. Appropriate personal protective equipment must be properly used.
7. Never operate any machine unless all guards and safety devices are in place and in proper operating condition.
8. Keep all tools in safe working condition. Never use defective tools or equipment.
9. Properly care for, and be responsible for all personal protective equipment.
10. Be alert and keep out from under overhead loads.
11. Do not operate machinery or tools if you are not an authorized operator. (i.e., lasers, scissor lifts, powder actuated tools, etc).
12. Do not leave materials in aisles, walkways, stairways, roads or other points of egress.
13. Practice good housekeeping at all times.
14. Place ladders on a substantial base and do not use ladders with broken, split or missing rungs or rails. All ladders are to extend at least three feet above the landing platform and be securely fastened.
15. A qualified electrician shall perform electrical repairs or changes.
16. All temporary electrical equipment must be protected by ground fault circuit interrupters.
17. Gasoline must be stored and transported in approved cans only. Engines must be shut off when refueling and smoking will not be permitted anywhere near flammable liquids.
18. Compressed gas cylinders must be secured in an upright position.
19. When burning or welding is being done, a fire extinguisher must be close at hand at all times.
20. The use of, or being under the influence of prohibited drugs or intoxicating beverages while on the job is prohibited.
21. All posted safety rules must be obeyed and must not be removed except by management's authorization.
22. Comply at all times with all known federal, state and local safety laws, employer regulations and policies.
23. Horseplay causes accidents and will not be tolerated.
24. Attendance at weekly safety meetings (tool box talks) is mandatory.
25. Immediately report all defective equipment to project supervision.
26. The use of cell phones on the job without authorization of supervision is prohibited.
27. Observe all rules while working in aerial lifts such as, but not limited to weight limitations and tie off procedures.

**CONTRACTOR RESPONSIBILITIES..... 21**

**SAFETY AND HEALTH OBLIGATIONS ..... 22**

|     |                                                                 |    |
|-----|-----------------------------------------------------------------|----|
| 1.  | DESIGNATION OF SAFETY SUPERVISOR .....                          | 22 |
| 2.  | GENERAL SITE RULES AND HOUSEKEEPING .....                       | 22 |
| 3.  | PERSONAL PROTECTIVE EQUIPMENT .....                             | 23 |
| 4.  | EMERGENCIES.....                                                | 24 |
| 5.  | FIRST AID .....                                                 | 25 |
| 6.  | FIRSTENERGY REGIONAL OPERATIONS EQUIPMENT AND UTILITIES .....   | 25 |
| 7.  | DEENERGIZED LINES AND EQUIPMENT FOR WORKER PROTECTION .....     | 25 |
| o   | Electric Power Generation Transmission & Distribution Work..... | 25 |
| o   | Premise Wire Work at Service Centers .....                      | 25 |
| 8.  | EXCAVATION AND TRENCHING .....                                  | 26 |
| 9.  | SCAFFOLDING .....                                               | 26 |
| 10. | ASBESTOS .....                                                  | 26 |
| 11. | LEAD .....                                                      | 27 |
| 12. | HEXAVALENT CHROMIUM.....                                        | 27 |
| 13. | HOT WORK (WELDING, CUTTING, GRINDING, BRAZING) .....            | 28 |
| 14. | POWERED INDUSTRIAL TRUCKS AND OTHER VEHICLES .....              | 29 |
| 15. | CRANE AND DERRICKS .....                                        | 29 |
| 16. | VEHICLE DELIVERY REQUIREMENTS FOR OUTSIDE CARRIERS .....        | 30 |
| 17. | WRITTEN SAFE WORK PROCEDURES .....                              | 30 |
| 18. | EMPLOYEE TRAINING AND QUALIFICATIONS.....                       | 30 |
| 19. | INCIDENT REPORTING .....                                        | 30 |
| 20. | FALL PROTECTION .....                                           | 31 |
| 21. | SUBSTATIONS.....                                                | 31 |
| 22. | CONFINED SPACES AND ENCLOSED SPACES.....                        | 31 |
|     | Confined Spaces.....                                            | 31 |
|     | Enclosed Spaces .....                                           | 32 |
| 23. | PERMITS, LICENSES AND INSPECTIONS .....                         | 32 |
| 24. | GENERAL RULES FOR HAZARDOUS MATERIALS AND EQUIPMENT .....       | 32 |
| 25. | FIRE EXTINGUISHERS AND FIRE WATCH .....                         | 33 |
| 26. | COMPLIANCE AUDITS .....                                         | 33 |

**SECURITY AND FACILITY ACCESS ..... 34**

|                       |    |
|-----------------------|----|
| Prohibited Acts ..... | 34 |
|-----------------------|----|

**CONTRACTOR RESPONSIBILITIES**

Contractors are responsible for their own safety. Each contractor must have their own written safety program and must follow it while performing work for FirstEnergy. Each contractor must follow all of the requirements of this Contractor Safety Guide. This Contractor Safety Guide takes precedence over the contractors written safety program in any area where there may be a conflict unless negotiated differently. Any conflicts

between this guide and the contractor's own written program must be brought to the attentions of FirstEnergy.

The contractor will at all times be solely responsible for all means, methods, techniques, and procedures for the work specified in the contract. The contractor is responsible for all acts / omissions of all their employees, subcontractors and agents performing any of the contracted work. The contractor will ensure that their employees are aware of the requirements contained in this document. Lastly, the contractor will, at all times, maintain appropriate discipline among its employees and will not employ any person unfit or unqualified in that portion of the contracted work assigned to them.

The contractor has the authority and responsibility to control and / or correct all safety and health hazards associated with the contracted work (refer to Section 4 for further information). If the contractor becomes aware of a hazard which the contractor contends was created or caused by FirstEnergy regional operations, the contractor must notify the designated FirstEnergy contact person immediately in the case of an imminent hazard, or as soon as possible in all other cases.

## **SAFETY AND HEALTH OBLIGATIONS**

### **1. *Designation of Safety Supervisor***

The contractor must designate a responsible member of its organization at the job site, whose duty would include safety & health compliance and the prevention of accidents. The name and position of any person designated must be reported in writing to the appropriate FirstEnergy safety representative or other designated FirstEnergy representative.

### **2. *General Site Rules and Housekeeping***

- A Portable ladders are to be tied or lashed to prevent the ladder from slipping and must have non-slip bases. Metal and any conductive ladders will not be permitted for use around energized conductors or equipment.
- B Hoses and electrical cords must be barricaded / protected or run overhead to eliminate tripping hazards or damage by heavy equipment.
- C Temporary floor openings are to be barricaded and flagged as required by OSHA regulations.
- D Compressed air must not be used for cleaning clothing or shoes.
- E All equipment used in proximity to overhead lines must be properly grounded. Work near overhead lines must be communicated to the FirstEnergy safety representative's attention.

- F Rigging and hoisting of material or equipment must be done in a manner to ensure safety to personnel and existing equipment in the hoisting area.
- G All posted signs must be observed.
- H Fire extinguisher, fire hoses, and other firefighting equipment must not be moved from their designated locations, unless supporting hot work applications or responding to a fire emergency.
- I If required to work in proximity to energized switches, cables, and overhead lines, the contracted employees must be electrically qualified to perform work and must be aware of the hazards associated with working on energized components / equipment.

### **3. *Personal Protective Equipment***

The contractor must ensure that all its employees utilize personal protective equipment required by the applicable Occupational Safety and Health Administration (OSHA) laws and regulations. Unless otherwise negotiated within the applicable contract, FirstEnergy regional operations will not provide safety equipment or PPE to contracted personnel.

Hard hats, safety glasses, hearing protection, and footwear with industrial sole(s) and safety toe protectors, where appropriate, must be worn at all times.

OSHA compliance will include, but not be limited to, the following:

- A. Conducting a hazard assessment prior to the start of the job to determine what, if any, personal protective equipment is needed for the contracted employees.
- B. Conducting industrial hygiene sampling, if required, as per OSHA regulations.
  - (1) If industrial hygiene sampling is required, the contractor will inform the FirstEnergy safety representative, in writing, the need to perform monitoring—as well as identify the personnel to be monitored and the individual (or subcontractor) that will be performing the sample collection and / or analysis.
  - (2) FirstEnergy reserves the right to reject any / all parties involved with the sample collection and / or analysis.
  - (3) The contractor will supply FirstEnergy with the results of all personal monitoring samples collected on FirstEnergy property.

All non-electrically qualified contractors must maintain a minimum distance of 10 feet from energized equipment / components. Contracted personnel who are electrically

qualified and have been issued appropriately rated PPE are required to maintain the following safe working distances when working in proximity to energized equipment / components.

NOTE: 'Electrical Qualified' personnel are defined as individuals who can identify the following:

- Energized vs. deenergized equipment;
- The maximum voltage of the specific electrical system;
- The minimum approach distance; and
- The appropriate type of personal protective equipment that is required.

| Alternating Current Voltage Range (Phase to Phase) | Minimum Approach Distance and Clear Hot Stick Distance (Phase to Ground Exposure) |
|----------------------------------------------------|-----------------------------------------------------------------------------------|
| 50 to 300 V                                        | Avoid Contact                                                                     |
| 301 to 750 V                                       | 1' 0"                                                                             |
| 751 V to 15 kV                                     | 2' 2"                                                                             |
| 15.1 to 36 kV                                      | 2' 7"                                                                             |
| 36.1 to 46 kV                                      | 2' 9"                                                                             |
| 46.1 to 72.5 kV                                    | 3' 3"                                                                             |
| 72.6 to 121 kV                                     | 3' 4"                                                                             |
| 121.1 to 145 kV                                    | 3' 10"                                                                            |
| 145.1 to 169 kV                                    | 4' 3"                                                                             |
| 169.1 to 242 kV                                    | 5' 8"                                                                             |
| 242.1 to 362 kV                                    | 9' 2"                                                                             |
| 362.1 to 550 kV                                    | 11' 10"                                                                           |
| 550.1 to 800 kV                                    | 15' 11"                                                                           |

#### **4. Emergencies**

The contractor must be aware of and comply with any emergency action plans for the facility where contracted work is performed.

In the event of an emergency that is potentially threatening to human life (i.e., contracted personnel, company employee, or general public) or could compromise the safety of the job site / adjoining property, the contractor is permitted to act at

it's discretion to prevent personal injury or property loss. Reimbursement for any costs incurred by the contractor because of emergency work will be made at the discretion of FirstEnergy.

## **5. *First Aid***

The contractor must provide its own first aid supplies, emergency response equipment, and prompt medical attention in case of serious injury. Provisions must be made and in place prior to the commencement of the work. The contractor is responsible for ensuring that employees trained in first aid are available on each shift.

## **6. *FirstEnergy Regional Operations Equipment and Utilities***

The contractor is prohibited from starting, stopping, or otherwise operating FirstEnergy regional operation's owned or leased equipment and utilities, unless specifically authorized to do so in writing. The contractor cannot open or close any valves, breakers, or switches, enter into any equipment, or cut into any conduit or conductors without first obtaining permission from the proper FirstEnergy contact. (Refer to Section 7 for further information).

## **7. *Deenergized Lines and Equipment for Worker Protection***

- Electric Power Generation Transmission and Distribution (29 CFR 190.269) Work:

The contractor will be required to comply with the 'FirstEnergy Regional Operations' Program for Deenergized Lines and Equipment for Worker Protection' (Manual of Operations) for work that affects the operation and maintenance of electric power control, transformation, transmission, or distribution lines and equipment. The contractor will obtain a clearance control through the designated FirstEnergy representative, prior to the commencement of the contracted work.

Any piece of equipment that is locked / tagged out of service must never be placed in service until it has been released by the person(s)-in-charge. The designated FirstEnergy representative will obtain (and hold) a clearance release for the contractor.

- Premise Wire Work at Service Centers:

When performing maintenance work at a FirstEnergy service center that does not fall under the Electric Power Generation Transmission and Distribution Standard (29 CFR 190.269), the contractor can use their own Facility Energy

Control program (lockout / tag out) to perform work. FirstEnergy reserves the right to have the contractor use FirstEnergy's Facility Energy Control program whenever FirstEnergy deems it necessary. In situations where two or more contractors are performing premise wire electrical work at the same time on the same facility, FirstEnergy will indicate which Facility Energy Control program will be used by all parties involved.

## **8. *Excavation and Trenching***

Any excavation / trenching activities and building demolition operations must comply with applicable federal, state, and local laws / regulations pertaining to those activities. This includes trenches dug for access to utility piping, plumbing, and power lines. The contractor will obtain all appropriate permits prior to beginning work on-site. Furthermore, the contractor will agree to comply with OSHA regulations that include, but are not limited to, the following:

- Using shoring or sloping for excavations five (5) feet or deeper;
- Having shoring inspected by a trained competent person;
- Hazardous atmospheric testing where needed; and
- Providing appropriate means of egress.

## **9. *Scaffolding***

Any scaffolding must be erected and maintained in accordance with applicable federal, state, and local laws / regulations pertaining to those activities. Contractor supervision will be responsible to ensure that all contracted employees who have access to the scaffold structure are properly trained / qualified as either a competent person, erector / dismantler, or user. Scaffolding will be inspected by a 'competent person' at the beginning of each shift. All scaffolding will utilize a guardrail system and toeboards. In the event that a guardrail system cannot be erected, fall protection must be issued / utilized as per OSHA regulations. All scaffolding that is constructed will meet the design and construction requirements of 29 CFR 1926 subpart L. The contractor will supply all scaffold inspection documents to the designated FirstEnergy safety representative.

## **10. *Asbestos***

Unless told otherwise, contractors must assume that all insulating materials (i.e., pipe insulation, pipe fittings, boiler breeching, etc.) and building materials (i.e., floor tile, roofing, drywall and joint compound, plaster, gaskets, old wire insulation, transite board, etc.) must be considered to contain asbestos. When supporting asbestos abatement projects, the contractor will be responsible for providing the

appropriate training for employees, licenses and notification(s) to applicable regulatory agencies. The contractor will also be responsible for the disposal of all personal protective equipment, or any other items that become contaminated from asbestos fibers, in a manner that is in accordance with applicable federal, state, and local regulations. Furthermore, unless otherwise negotiated under the terms of the applicable contract, the use of FirstEnergy wash facilities is prohibited.

The contractor will be notified of the presence of any known or suspected asbestos-containing materials in the contractor's proposed work areas. Only a contractor with the required OSHA training, certification, and permits for asbestos abatement and removal may handle these materials. All other contractors are prohibited from working on or removing asbestos-containing materials.

## **11. Lead**

Before work can be performed on materials that have the potential to contain lead, the contractor must test the material prior to performing any work that could create dust or fumes. If possible, all lead should be removed prior to the start of work by a trained / licensed contractor. If the work to be performed will cause lead particles or fumes to become airborne, then proper containment and control measures must be in place. The contractor will be responsible for providing and for the disposal of all protective coveralls, personal protective equipment, or any other items that become contaminated from exposure to lead, in a manner that is in accordance with applicable federal, state, and local regulations. Furthermore, the contractor is responsible for ensuring that only properly trained employees will perform such work and that all workers will have on the proper personnel protective equipment. Air monitoring must be conducted for work activities that create dusts or fumes with lead. (Refer to Section 3 for further information).

## **12. Hexavalent Chromium**

If the contractor will be performing welding operations or any activity that will create a hexavalent chromium hazard, the contractor is expected to notify the FirstEnergy safety representative and take all appropriate steps to comply with OSHA's general industry and construction Hexavalent Chromium Regulations. If the work being performed by the contractor falls under OSHA's general industry definition, and the amount of hexavalent chromium produced will exceed the permissible exposure limit, then the contractor is responsible for setting up and maintaining a regulated area as outlined in 1910.1026. The contractor is responsible for ensuring that only employees with the required OSHA training enter and perform work in this area. Contractors working in regulated work areas will be responsible for providing and maintaining step off exit areas from these regulated areas.

Disposal of all protective coveralls, personal protective equipment, or any other

items that become contaminated from hexavalent chromium, is the responsibility of the contractor and must be properly disposed of in accordance with applicable federal, state, and local regulations. The contractor is responsible for ensuring that their employees are properly trained to work around and with hexavalent chromium sources. If the contractor is working at an Energy Delivery facility, use of the facility's change area and shower is prohibited, unless a specific agreement to do so is in place.

#### *Portland Cement Applications:*

Contractors performing work using Portland Cement must follow OSHA's compliance directive for the Chromium (VI) standard (appendix C-1). The Contractor must ensure that items identified in the appendix are followed such as:

- Proper PPE is used such as boots, gloves, protective coveralls, respirator (if needed). Refer to Section 3 for further information.
- Washing facilities are close by.
- The 8-hour TWA exposure to Portland Cement dust or any other dust created at the job site, does not exceed the PEL of 15 mg / m<sup>3</sup> for total dust without workers being in respiratory protection. Refer to Section 3(B) for further information.
- MSDS(s) and labels for Portland Cement are maintained and made available. Refer to Section 22 for further information.
- Employees used by the contractor are properly trained to the hazards associated with exposure to Portland Cement, the use of PPE, and proper hygiene practices. Refer to Section 16 for further information.

### **13. Hot Work (Welding, Cutting, Grinding, Brazing)**

The contractor is prohibited from welding, burning, cutting, brazing or performing other "hot work" without prior authorization from FirstEnergy regional operations management or designated representative. All hot work must comply with state and federal standards for these work activities, including those standards pertaining to hot work permits and safe handling of compressed gases. At a minimum, the program must comply with the following provisions:

- A. Due to the increased risk of fire resulting from the performance of Hot Work operations, all contractors are responsible for the implementation of a Hot Work permit procedure. This Hot Work permit procedure must identify the necessary precautions taken to prevent fires resulting from open flame operations (i.e. welding cutting, grinding, brazing).
- B. The contractor will ensure that there are sufficient numbers of fire

extinguishers, of the proper type, in the work area.

- C. The contractor must focus on the fire hazards associated with their work. It may be necessary to post a “fire watch”, depending on the nature and location of work.
- D. The contractor will provide protection to prevent welding and burning sparks from falling below the work level. Fire retardant material must be used for this purpose.
- E. The contractor will screen or shield welding activities to prevent welding flash injuries to other personnel.
- F. Storage area for oxygen and acetylene tanks must be separated by 20 feet or by a non-combustible barrier at least 5 feet in height. Cylinder must be secured at all times and capped when not in use.
- G. Empty cylinders must be removed from the work area to the designated storage area.
- H. The contractor is responsible for ensuring that only properly trained employees will perform such work and that all workers will have on the proper personnel protective equipment.

#### **14. *Powered Industrial Trucks and Other Vehicles***

The contractor's employees who drive vehicles or forklifts, or who operate heavy equipment on FirstEnergy regional operations project sites, must have a current driver's license. The contractor must retain documentation of appropriate training in accordance with state and federal OSHA standards, Department of Transportation, and Department of Motor Vehicles codes and standards. The contractor is responsible to meet all OSHA regulation pertaining to powered industrial trucks, mechanized equipment, motor vehicles, cranes derricks and hoists which includes but is not limited to 1926 subparts N and O.

#### **15. *Crane and Derricks***

Contractor personnel who are required to operate construction equipment (i.e., articulating / knuckle boom cranes, mobile cranes, etc.) that can hoist, lower, and horizontally move a suspended load, must be certified / qualified by an accredited crane operator testing organization. Certifications (i.e., NCCCO, NCCER, etc.) must be provided upon request by the FirstEnergy regional operations designated representative. Once authorized to operate the equipment on FirstEnergy facilities (or on the behalf of the Company within the general public), the contracted company is required to comply with all state and federal OSHA standards that are applicable to the use / maintenance of the construction equipment (i.e., providing a ‘qualified’ signal person and / or a ‘qualified’ rigger, a crane operator license [if applicable], inspecting hoisting components, inspection documentation, etc).

## **16. *Vehicle Delivery Requirements for Outside Carriers***

All drivers from carriers making pickups or deliveries are required to perform the following items when arriving at a FirstEnergy facility:

- Drivers will contact a FirstEnergy employee upon arrival and have them perform a job briefing with the driver making the pick up or delivery.
- All drivers are required to engage the parking brake, chock the wheels and / or use dock locks where available.
- All drivers are required to open the truck or trailer doors, remove gates, and remove the rear load bar before loading or unloading
- If needed, drivers should seek the assistance of a FirstEnergy employee when backing their vehicle.
- No vehicle having an obstructed view to the rear may be operated at a FirstEnergy off-highway jobsite where an employee could be exposed to hazards created by the moving vehicle, unless the vehicle is equipped with a reverse signal alarm, audible above the surrounding noise level, or the vehicle is backed under the direction of a designated person.

## **17. *Written Safe Work Procedures***

The contractor must have in writing a series of safe work practices, procedures, and programs pertinent to the work being done. FirstEnergy regional operations designated representative is to be provided a copy of these written safe work practices, procedures, and programs prior to working on or at FirstEnergy facilities. If upon review FirstEnergy regional operations designated representative deems it not to be in compliance with appropriate OSHA regulations, the parties involved must resolve issues prior to the commencement of work.

## **18. *Employee Training and Qualifications***

The contractor will provide only properly trained and qualified personnel to perform work under the Contractor Agreement. The contractor has the authority and responsibility to train the contractor's employees with regard to general and work-specific hazards and safe practices. The contractor must certify that all of its employees, subcontractors and vendors, have been fully informed of tasks and specific hazards and safety requirements before beginning work on-site.

## **19. *Incident Reporting***

The contractor will immediately notify FirstEnergy regional operations management

or designated representative of any occupational injury or illness, employee exposure to hazardous substances, vehicle accidents, property damage, fires, environmental spills or releases, or "near misses". The contractor will provide a written incident report to the FirstEnergy regional operations management or designated representative within 24 hours of any such occurrence. FirstEnergy regional operations reserves the right to review the contractor's incident investigations and / or perform FirstEnergy regional operations own investigations, for the sole purpose of verifying facts, protecting FirstEnergy regional operations personnel and property, and limiting FirstEnergy regional operations liability.

## **20. Fall Protection**

The contractor is responsible for providing suitable fall protection to any of its employees on a walking or working surface that is 6 feet or more above a lower level or 4 feet or more for work on poles, towers and similar structures. Fall protection must be used when working 4 feet or more above a lower level on top of transformers, or any conductor supporting structures. Fall protection must be worn when performing work in aerial devices. All contract employees must be trained in fall protection before using fall protection equipment. The contractor is responsible for determining suitable anchor points for fall protection devices.

## **21 Substations**

All contractors assigned to work in substations must be "qualified" employees. Qualified employees are those employees that have been trained in the hazards associated with the construction and operation of electric power generation, transmission, or distribution equipment. (See 29 CFR 1910.269). Substation equipment, b First Energy and lines are to be considered energized until properly de-energized, grounded, and tagged out. All substation gates must be closed and locked if the contractor cannot maintain visual contact with the gate. OSHA minimum working distances must be maintained by the contractor at all times unless qualified and wearing the proper PPE to get closer than the required minimum approach distances.

## **22. Confined Spaces and Enclosed Spaces**

- *Confined Spaces:*

The contractor must have in place a permit-required confined space program for the protection of its employees from the hazards associated with the entry into confined spaces. Contractors are required to perform the following activities:

- Obtain any available information regarding confined space hazards and entry operations from the host employer (i.e., FirstEnergy regional operations, or designated representative).

- Coordinate entry operations with the host employer, when both host employer personnel and contractor personnel will be working in or near confined spaces.
- Inform the host employer of the confined space program that the contractor will follow and of any hazards confronted or created in permit spaces, either through a debriefing or during the entry operation.

FirstEnergy reserves the right to require the contractor to follow FirstEnergy's Confined Space Program. If FirstEnergy decides to require the contractor to follow FirstEnergy's Confined Space Program, a copy of FirstEnergy regional operation's confined space program will be given to the Contractor. An agreement to train contractor employees to FirstEnergy regional operations' confined space program must be in place, with training completed, prior to the commencement of work.

- *Enclosed Spaces:*

For entries into spaces that meet the definition of "enclosed spaces", the contractor must have in place an enclosed space entry procedure. The contractor will be responsible to determine if conditions allow for the entry of a confined space as an enclosed space as specified in 29 CFR 1910.269, or if conditions require the confined space to be upgraded to a permit required confined space. Atmospheric testing prior to entry and continued monitoring will be the responsibility of the contractor. The contractor must supply their own rescue equipment and equipment for the testing of air prior to entry.

### **23. *Permits, Licenses and Inspections***

The contractor will secure and pay for all required licenses, permits and inspections necessary for performance and completion of the work. Within 5 working days of receiving such documents, the contractor will deliver to FirstEnergy regional operations or designated representative copies of all permits, written approvals, licenses and inspections.

### **24. *General Rules for Hazardous Materials and Equipment***

When the use of hazardous materials as defined by 29CFR 1910.1200 or equipment is necessary for the work being performed, the contractor must exercise the highest care and must perform such activities under the supervision of properly qualified personnel. All applicable laws, rules, regulations and ordinances must be followed. The contractor is responsible to comply with the OSHA Hazard Communication Standard. A copy of all Material Data Safety Sheets (hereinafter referred to as "MSDS") must be given to the FirstEnergy designated representative

when a hazardous material is brought on site. It is the contractors responsibility to also maintain a MSDS file of all hazardous substances and chemicals. Where and when a hazardous material will be used must be communicated to the FirstEnergy regional operations site representative or designated representative, prior to commencing work.

For work performed at Pennsylvania locations the contractor will comply with all requirements of the Pennsylvania Right To Know Act, including but not limited to, the labeling of containers, proper handling of applicable materials, proper training and protection of employees and others, and the securing and implementing of MSDS(s).

The contractor will be responsible for removing and properly disposing of all empty, partially full, or full containers of chemicals or chemical substances as part of its demobilization. All products and materials brought on site by a contractor must be removed by that contractor upon its departure. Do not put chemical containers into company trash containers. Failure to adhere to this provision will result in FirstEnergy disposing of the same and recovering the costs from the contractor. Also, all appropriate regulatory agencies will be notified of any non-compliance with any applicable regulations.

Explosives of any description are not permitted to be stored on the Project Site. If the contractor wishes to use explosives of any description, the contractor must first provide written notice to the FirstEnergy regional operations representative and obtain the approval of all appropriate authorities having jurisdiction over the use of such explosives.

## **25. *Fire Extinguishers and Fire Watch***

The contractor will work with the FirstEnergy safety representative to ensure that there are sufficient numbers of fire extinguishers, of the proper type, in the work area. The contractor will be responsible for providing a fire watch for periods during which its personnel may be engaged in activities constituting a fire hazard, or as otherwise required by law. Prior to engaging in any activities that could ignite a fire, the contractor must ensure that all flammable material has been cleared from the affected area. See section on hot work.

## **26. *Compliance Audits***

Any contractor performing work at a FirstEnergy facility may be subject to compliance audits, which includes safety as well as all other compliance documentation mentioned in this document, whether announced or unannounced, at FirstEnergy's discretion.

## **SECURITY AND FACILITY ACCESS**

The contractor will comply with FirstEnergy regional operations security and access procedures for entry onto a FirstEnergy regional operations controlled property, worksite, or facility. The contractor's employees are authorized to enter only those work areas and structures specific to its contractual scope of the contracted work. Site specific security requirements will be distributed and reviewed with the contractor prior to mobilization.

A visitor is defined as any person not covered by contractual agreements with FirstEnergy regional operations. Visitors may include vendors, tour groups or guests of the Contractor's management. All visitors to FirstEnergy regional operations project sites or facilities must have prior authorization from FirstEnergy. Visitors are prohibited from areas where contact with hazardous substances or materials are possible and are also prohibited from entering any area of the work site that requires PPE, respirators, or specialized medical monitoring or safety training.

The contractor will immediately notify FirstEnergy regional operations management or designated representative of any regulatory agency inspectors or compliance personnel who request information about on-site activities or who request entry to work site. This includes personnel from city, county, state or federal government agencies. Regulatory and government personnel must provide appropriate identification prior to entering the work site.

- ***Prohibited Acts***

- The contractor's employees and subcontractors are prohibited from bringing firearms, knives, and weapons of any kind into a FirstEnergy regional operations site, unless specifically authorized to do so in written contractual documents.
- No one under the influence of any narcotics, drugs, controlled substances or alcoholic beverages is permitted on FirstEnergy property, or permitted to work on FirstEnergy equipment.
- The illegal use, sale, or possession of narcotics, drugs, controlled substances or alcoholic beverages while on the job is strictly prohibited.
- Contractor's employees and subcontractors are permitted to smoking in designated areas only.

### **Safety Meetings**

CHEMSTEEL shall ensure that all its and its subcontractor's employees attend a toolbox/tailgate meeting at the beginning of each shift, and whenever the scope of work or hazard change.

### **Pre-task Planning**

The Project Superintendent and General Foreman will conduct pre-job/pre-task at the beginning of each shift, or when the scope of work or hazards change. Information will include:

- Nature of the Job
- Hazards Associated with the Job
- Use of Appropriate Personal Protective Equipment (PPE)
- Safe and Efficient Methods of Performing the Work

### **Employee Observations**

CHEMSTEEL will perform daily field observations of work activity performed by its employees. A minimum of two observations per employee per month must be completed and documented.

# Project Safety Rules

## Access

Use only safe means of access to and from work areas. Jumping from or to work areas is not allowed, nor is sliding down cables, ropes or guys.

Walkways over rebar mats will be established and maintained to the extent feasible. Plywood or some other solid material will be used to establish walkways to the work areas.

## Air Tools

Secure pneumatic tools to hose in a positive manner to prevent accidental disconnection. Install and maintain safety clips or retainers on pneumatic impact tools to prevent attachments from being accidentally expelled. All hoses exceeding 1/2" inside diameter require safety devices at the source of supply to reduce pressure in case of hose failure.

## Compressed Air, Use of

Compressed air used for cleaning purposes may not exceed 30 psi, and then only in conjunction with effective chip guarding and personal protective equipment. Exceptions to 30 psi are allowed only for concrete form, mill scale, and similar cleaning operations. The use of compressed air to clean yourself off or other workers is not allowed.

## Compressed Gas Cylinders

Put valve protection caps in place before compressed gas cylinders are transported, moved or stored. Cylinder valves will be closed when work is finished and when cylinders are empty or being moved.

Compressed gas cylinders will be positively secured in an upright position at all times or secured on a handcart. Keep cylinders at a safe distance, or shield from welding or cutting operations and place where they cannot become part of an electrical circuit. Oxygen and acetylene or other flammable/combustible materials will be separated by at least 20' or a 1/2 hour firewall.

Oxygen and fuel gas regulators must be in proper working order while in use.

All gas cylinders not in use will be stored in the flammable/combustible storage area.

Liquefied Petroleum gas systems will have containers, valves, connectors, manifold valve assemblies, and regulators of an approved type. Each container and vaporizer must be provided with one or more approved safety relief valves or devices. Containers will be placed upright on firm foundations or otherwise firmly secured and protected from damage.

Portable heaters must be equipped with an approved automatic device to shut off the flow of gas in event of flame failure. Storage of LPG within trailers is prohibited. Storage locations must have at least one approved portable fire extinguisher, rated not less than 20 B.

### Concrete, Concrete Forms and Shoring

All protruding reinforcing steel, onto or into which employees could fall, must be guarded to eliminate the hazard of impalement. Wire mesh needs to be secured from recoiling.

Form work and shoring will be designed and constructed to safely support all loads imposed during concrete placement. All components will be inspected prior to erection.

Forms and shores may not be removed until it has been determined that the concrete has gained sufficient strength to support its weight and superimposed loads.

### Confined Spaces

All confined spaces (sewers, vats, vessels, tanks, etc) will be considered as permit required unless determined by FIRSTENERGY and CHEMSTEEL to be non permit. Prior to entry and after exit,.

### Cranes or Derricks

Rated load capacities, recommended operating speeds, and special hazard warnings or instructions must be conspicuously posted on all equipment. Instructions or warnings must be visible from the operator's station.

Accessible areas within swing radius of a crane must be barricaded to prevent employees from being struck or crushed by the crane.

Except where electrical distribution and transmission lines have been de-energized and visibly grounded, or where insulating barriers not a part of or an attachment to the equipment or machinery have been erected to prevent physical contact with the lines, no part of a crane or its load shall be operated within 20' of a line rated to 50kV

or below;  $20' + 0.4''$  for each 1kV over 50kV for lines rated over 50kV; or twice the length of the line insulator, but never less than 20'.

Cranes will be inspected before each shift by the operator using the Crane Inspection Form found in the attachments section. Any defects must be corrected before use. Logs of crane inspections and certifications must be kept with the equipment.

Manufacturer's Operators Manual must be kept in cranes and reviewed by operators for safe operating procedures.

### Electrical - General

All extension cords must be 3-wire type, protected from damage, and not fastened with staples, or otherwise suspended in a manner which will damage the outer insulation. No cord or tool with a missing or damaged ground prong should be used. Splices on 12 gauge or larger extension cords must have soldered wire connections with insulation equal to the cable. Worn or frayed cables shall not be used.

Except where bulbs are deeply recessed in a reflector; bulbs will be protected by guards. Temporary lights may not be suspended by their electric cords unless so designed.

Receptacles for attachment plugs will be of approved, concealed contact type. Where different voltages, frequencies, or types of current are used, receptacles must be such that attachment plugs are not interchangeable.

Each disconnecting means for motors and appliances, and each service feeder or branch circuit at point of origin, must be legibly marked to indicate its purpose, unless located and arranged so that the purpose is evident.

A sufficient number of temporary panel boxes will be installed on the project to minimize the number and length of extension cords required to perform the work. The location of panel boxes will be identified on the project layout diagram. All panel boxes will be approved for outdoor use and protected from the weather.

Cables passing through work areas will be covered or elevated to protect from damage. Boxes with covers for the purpose of disconnecting must be securely and rigidly fastened to mounting surface.

No employee may work in proximity to any electric power circuit that may be contacted during the course of work, unless protected against electric shock by a positive means of protection such as: de-energizing the circuit and grounding it; by guarding with effective insulation; physical barriers; or a dedicated safety person. In work areas where the exact location of underground electric power lines is unknown, workers using jackhammers, power tools, bars or other hand tools which may contact lines must wear at a minimum insulated protective gloves and boots.

## Electrical – GFCI Inspection

All 15 and 20-ampere receptacle outlets on single-phase, 120-volt circuits must be protected by ground-fault circuit interrupters.

All ground fault interrupters will be tested weekly using a circuit tester.

Inspect each cord set, attachment cap, plug, receptacle cord sets, and any equipment connected by cord and plug, except cord sets and receptacles which are fixed and not exposed to damage, before each day's use for external defects and possible internal damage. Remove from service or repair immediately any defective items.

Grounding conductors will be tested for continuity. Each receptacle and attachment cap or plug will be tested for correct attachment of the equipment-grounding conductor.

## Equipment Operation

No employee will operate electric, gas or hand-powered tools or equipment unless authorized or trained. Supervisors will provide necessary safety information for all tasks and equipment. Supervisors will also ensure that employees operating power equipment and machines are knowledgeable and experienced.

## Excavating and Trenching

No excavation will start until CHEMSTEEL completes the "Excavation Permit". The area must then be cleared and approved by the FIRSTENERGY representative using the "Excavation Permit" prior to the start of excavation.

Walls and faces of trenches 5' or more in depth, and all excavations in which employees are exposed to danger from moving ground or cave-in, must be sloped at an angle not greater than 1 ½ : 1 (H :V), unless, a competent person determines that other protective measures or systems are sufficient to protect employees.

Where employees may be required to enter excavation, excavated and stored material must be stored at least 4' from the edge of the excavation and must be at least 4' high when using as a barricade..

The foremen and general foremen will make daily inspections of excavations. If evidence of possible cave-ins or slides or failure of protective systems is apparent, cease all work in the excavation until precautions have been taken.

Trenches 4' deep or more require adequate means of exit such as ladders or steps, located so as to require no more than 25' of lateral travel.

Excavations 4' deep or greater will be classified as a confined space unless declassified through evaluation by a FIRSTENERGY representative.

## Eye and Face Protection

This project is a 100% eye protection project. Ansi-approved impact resistant eye protection meeting Ansi Standard Z87.1-1968 with side shields will be worn at all times while on the project. Monogoggles or ectogoggles are also required when excessively dusty conditions exist on the project and during dust producing operations. Ansi Z87.1-1968 approved eye protection will be worn over any employee owned prescription glasses that do not meet industrial safety standards. Additionally, employees involved in welding, grinding and burning operations are required to wear the following additional protection:

### *Welding*

Safety Glasses meeting Ansi Z87.1-1968 approved glasses with a welding hood fitted with filter lenses or plates of the proper shade number.

### *Grinding*

Safety Glasses meeting Ansi Z87.1-1968 approved glasses, monogoggles or feltgoggles and a face shield.

### *Burning*

UVEX Safety Glasses (or other Ansi Z87.1-1968 approved glasses with a face shield of the proper shade number.

**Please Note:** “Bug-Eyed” goggles are prohibited. Examples of the above listed eye protection are attached.

## Fall Protection

Any employee exposed to a fall of 4 feet or greater from an unprotected side or edge must be protected by a guardrail, or personal fall arrest system. Other conditions include working off a ladder when 3 points of contact not maintained, or working in an area with a vertical descent of greater than 4’.

Retractable lanyards must be used when employee is less than 15’ off the ground.

## Fire Protection

Fire fighting equipment must be conspicuously located and readily accessible at all times, and maintained in operating condition. Report any inoperative or missing equipment to your supervisor.

Appropriate fire extinguishers will be located in all gang boxes, office trailers, storage trailers and flammable and combustible storage areas. Locations of fire extinguishers will be identified on project layout diagram.

The project superintendent will ensure that fire extinguishers are inspected on a monthly basis. Extinguishers in need of service will be promptly attended to.

Smoking is permitted only in designated areas.

### Flag Personnel

When signs, signals, and barricades do not provide necessary protection on or adjacent to heavy equipment patterns, flag personnel or other appropriate traffic controls must be used. Flag personnel will wear a red or orange warning garment. Warning garments worn at night will be made of reflecting material.

### Flammable and Combustible Liquids

Only approved containers and portable tanks will be used for storage and handling of flammable and combustible liquids.

Storage in containers outside buildings may not exceed 1,100 gallons in any one pile or area. Storage areas will be curbed or diked. Locate storage area at least 20' from any building and keep free from weeds, debris, and other combustible materials. Keep flammable liquids in closed containers when not in use.

A flammable/combustible liquid storage area will be established. A fire extinguisher rated not less than 20 B will be mounted no closer than 25' and no farther than 100' from this storage area.

Post conspicuous and legible signs prohibiting smoking in service and refueling areas.

### Gases, Vapors, Fumes, Dusts, and Mists

Exposure to toxic gases, vapors, fumes, dusts, and mists at a concentration above those specified in the "Threshold Limit Value of Airborne Contaminants" of the ACGIH should be avoided.

When engineering and administrative controls are not feasible to achieve full compliance, protective equipment or other protective measures will be used to keep employee exposure to air contaminants within the limits prescribed. Any equipment and technical measures used for this purpose must be reviewed for each particular use by a technically qualified person. Employees will wear all furnished equipment at all times.

## Grinding and Sanding Machines

Abrasive grinders must be fitted with safety guards strong enough to withstand bursting wheels. Inspect and ring-test wheels before mounting. The operating speed of the grinder should never exceed the rated RPM for the wheel or disk. Always leave wheel in working condition for next user. Properly dress wheel before and after use. Belt sanders will not be used without guards in place. Monogoggles or face shields must be worn in addition to ANSI approved impact resistant safety glasses during all grinding operations.

## Grounding

All jackhammers, concrete busters, etc., will be grounded if operating in areas where they may come in contact with energized circuits.

Mechanical equipment(aerial lifts, derrick trucks, cranes and other lifting equipment) will be grounded or otherwise protected when working near energized lines or equipment closer than the clearances set forth in OSHA standard 29CFR 1926.950.

## Guardrails

All elevated working platforms, walking platforms or scaffolds over 4' in height above a lower level, shall be equipped with a standard guardrail railing consisting of top rail having a vertical height of approximately 42" from upper surface of top rail to floor, platform, etc.; intermediate rail; toe-board and posts. The top rail will be smooth-surfaced, and able to withstand at least 200 lbs. The intermediate rail will be approximately halfway between top rail and floor.

## Hand Tools

Employees will not use unsafe hand tools. Wrenches may not be used when jaws are sprung to the point slippage occurs. Keep impact tools free of mushroomed heads. Keep wooden tool handles free of splinters, of cracks and assure a tight connection between the tool head and the handle.

Electric-power operated tools will either be approved double insulated or properly grounded and used with ground fault circuit interrupters.

## Hazard Communication

Employees will receive training on their rights, duties, and responsibilities under the Hazard Communication Standard. A copy of CHEMSTEEL's program and the standard will be made available to employees upon request. Employees will review Material Safety Data Sheets when working with materials for the first time and anytime thereafter when a question arises. Safety precautions outlined on Material Safety Data Sheets are to be followed.

### Horseplay

All disruptive activities usually referred to as "horseplay" are forbidden. No practical jokes or fights will be tolerated.

### Hot Work Permits

Hot work permits are required in designated areas for any work creating a source of ignition. A 1/2 hour fire watch, top and bottom, after hot work has concluded must be maintained by qualified persons

### Housekeeping

Form and scrap lumber with protruding nails and other debris will be bent over or cleaned of nails and kept clear from work areas. Remove combustible scrap and debris at regular intervals. Containers will be provided for collection and separation of all refuse. Covers are required on containers used for flammable or harmful substances.

At the end of each shift work, return all tools and excess materials to proper storage. Clean up all debris before moving onto the next phase. Each employee is responsible for keeping their work areas clean.

Storage and laydown areas will be established on location of the project. These areas will be kept in a neat and orderly condition. Storage trailers and storage areas will be inspected by the project superintendent on a weekly basis.

All gang boxes will be vented.

### Injuries

All injuries, even those that appear to be slight, must be reported immediately to your supervisor. See attachments for proper form.

## Ladders

The use of ladders with broken or missing rungs or steps, broken or split side rails, or with other faulty or defective construction is prohibited. When ladders with such defects are discovered, withdraw them from service immediately. Place portable ladders on a substantial base at a 4-1 (V:H) pitch, have clear access at top and bottom, extend a minimum of 36" above landing or, where not practicable, provide grab rails. Secure against movement while in use.

Portable metal ladders may not be used for electrical work or where they may contact electrical conductors.

Job-made ladders will be constructed for their intended use. Cleats will be uniformly spaced, 12", top to top and filler blocks used.

## Mobile Equipment

CHEMSTEEL will maintain a list of qualified operators of each type of mobile equipment.

Check all vehicles in use at the beginning of each shift to assure all parts, equipment and accessories affecting safe operation are in proper operating condition and free from defects. All defects shall be corrected before placing vehicle in service. All defective equipment or parts thereof identified during inspection or while in use must be immediately reported to project supervision.

No employee shall use any motor vehicle, earthmoving or compacting equipment having an obstructed view to the rear unless the equipment has a reverse signal alarm distinguishable from the surrounding noise level, or the vehicle is backed up only when an observer signals it is safe to do so.

Heavy machinery, equipment, or parts thereof, which are suspended or held aloft, will be substantially blocked to prevent falling or shifting work under or between them.

Seatbelts must be worn while operating any motorized vehicles and mechanized equipment equipped with a seat.

Employees shall not ride in the back of pickup trucks.

## Personal Protective Equipment (PPE)

Hard hats must meet ANSI Z89.1 requirements. Metal hard hats are not permitted. Hard hats must be worn brim forward when not performing burning and welding activities. Hard hats shall have CHEMSTEEL decals and employee's name.

Safety glasses with side shields meeting ANSI Z87.1 requirements are required. Flexible Slide on side shields are not accepted. Consideration must be given to upgrade eye protection based on task or environment.

Long sleeve shirts and full length trousers are required. Sleeves must be kept buttoned.

Work boots with steel toes and metatarsals that meet ASTM F2413 or ANSI Z41.1999 are required.

Synthetic clothing, such as nylon or polyester must not be worn where exposed to hot work activities or in flame or high radiant heat areas. Flame Resistant clothing is mandatory for hot work.

Hearing protection must be worn in designated areas and while operating tools or equipment requiring hearing protection.

Contact lenses may not be worn in operating areas.

Jewelry (rings, chains, bracelets, and earrings) must not be worn in operating areas.

Long hair shall be covered/tucked under the hard hat to prevent entanglement with moving/rotating equipment and or exposure to sparks, or open flame.

#### Powder-Actuated Tools

Only trained employees will be allowed to operate powder-actuated tools. All powder-actuated tools will be tested daily before use and all defects discovered before or during use will be corrected. Tools will not be loaded until immediately before use. Loaded tools will not be left unattended.

#### Power Transmission (Mechanical)

Belts, gears, shafts, pulleys, sprockets, spindles, drums, flywheels, chains, or other reciprocating, rotating or moving parts of equipment must be guarded if such parts are exposed to contact by employees or otherwise constitute a hazard. No equipment may be used without guards in place.

## Respiratory Protection

In emergencies, or when feasible engineering or administrative controls are not effective in controlling toxic substances, approved respiratory protective equipment will be provided and used. Respiratory protective devices will be approved for the hazardous material involved and nature of work conditions. Employees required to use respiratory protective devices will be trained in their use. Respiratory protective equipment will be inspected regularly and maintained in good condition.

## Rollover Protective Structures (ROPS)

Rollover Protective Structures (ROPS) Standards apply to the following types of materials handling equipment: all rubber-tired, self-propelled scrapers, rubber-tired front-end loaders, rubber-tired dozers, skid-steer loaders, wheel-type agricultural and industrial tractors, crawler tractors, crawler-type loaders, and motor graders, with or without attachments that are used in construction work. This requirement does not apply to side-boom pipe-laying tractors.

## Saws

Portable, power-driven circular saws will be equipped with guards above and below the base plate or shoe.

The lower guard will cover the saw to the full depth of teeth, except for the minimum arc required to allow proper retraction and contact with the work, and will automatically return to covering position when blade is removed from the work.

Radial saws will have an upper guard which completely encloses upper half of the saw blade. The sides of lower exposed portion of blade will be guarded by a device that will automatically adjust to the thickness of and remain in contact with material being cut. Radial saws used for ripping must have non-kickback fingers or dogs. Radial saws will be installed so the cutting head will return to the starting position when released by operator.

All swing or sliding cut-off saws will be provided with a hood that will completely enclose the upper half of the saw.

## Scaffolds (General)

All scaffolds must be inspected by a competent person prior to or during each work shift.

Scaffolds will be capable of supporting four times maximum intended load and will be erected on sound, rigid footing, capable of carrying the maximum intended load with settling or displacement.

Guardrails and toeboards will be installed on all open sides and end of platforms more than six feet above ground or floor.

Planking will be scaffold grade, or equivalent, as recognized by approved grading rules for the species of wood used. Overlap scaffold planking a minimum of 12 inches or secure from movement.

Scaffold planks will extend over end supports not less than 6 inches or more than 12 inches. Scaffolding and accessories with defective parts will be immediately replaced or repaired.

#### Scaffold (Mobile)

Platforms will be tightly planked with full width of scaffold, except for necessary entrance opening. Platforms will be secured in place.

Guardrails made of lumber, not less than 2 x 4 inches (or equivalent) approximately 42 inches high, with a midrail of 1 x 6 inch lumber (or equivalent), and toeboard, will be installed at all open sides and ends on scaffold more than 6 feet above ground or floor. Toeboards will be a minimum of 4 inches in height.

#### Scaffolds (Tubular Welded Frame)

Scaffolds will be properly braced by cross bracing or diagonal braces, or both, for securing vertical members together laterally. Cross braces will be of such length as will automatically square and align vertical members so the erected scaffold is plumb, square, and rigid. All brace connections will be made secure.

#### Signs

For the protection of all warning signs such as “No Smoking”, “Keep Out”, “Eye Protection Required”, “Out of Order – Do Not Use”, and “Authorized Personnel” will be posted. All employees will obey these directions and aid in maintaining the signs. Employees must not remove, break or access through red danger tape.

#### Stairs

Entrances to office and storage trailers will be equipped with stairs and a standard hand rail.

## Storage

All materials stored in tiers will be secured to prevent sliding, falling or collapse.

Aisles and passageways will be kept clear and in good repair.

Stored materials will not obstruct access-ways. Materials will be stored with due regard to fire characteristics.

## Toilets

Toilets will be provided according to the following: 20 or fewer persons/shift/week – one facility; 20 or more persons/shift/week – one toilet set and one urinal per 40 persons; 200 or more persons/shift/week – one toilet seat and one urinal per 50 persons. Remember to provide facilities with locks for female employees.

## Welding, Cutting, and Heating

Proper precautions (isolating welding and cutting, removing fire hazards from the vicinity, providing a fire watch, etc.) for fire prevention will be taken in areas where welding or other “hot work” is being done. No welding, cutting or heating will be done where the application of flammable paints, or presence of other flammable compounds or heavy dust concentrations, creates a fire hazard. Equip torches with anti-flashback devices.

Arc welding and cutting operations should be shielded by noncombustible or flameproof shields whenever possible or practical to protect others from direct arc rays.

When electrode holders are left unattended, electrodes will be removed and the holder will be placed or protected so they cannot make electrical contact. All arc welding and cutting cables will be completely insulated. There will be no repairs or splices within 10 feet of electrode holder. Defective cable will be repaired or replaced.

Fuel, gas and oxygen hose must be easily distinguishable and not interchangeable. Inspect hoses at beginning of each shift and repair or replace if defective.

## Wire Ropes, Chains, Ropes and Other Rigging Equipment

Wire ropes, chains, ropes and other rigging equipment will be inspected prior to use, and, as necessary, during use to assure their safety. Remove defective rigging equipment from service immediately. Nylon slings and chains must be tagged with rated load capacities.

Job or shop hooks and links, or makeshift fasteners, formed from bolts, rods or other such attachments will not be used, unless approved by a competent person. When

U-bolts are used for eye splices, the U-bolt will be applied so the “U” section is in contact with dead end of rope. U-bolts shall not be used on scaffold suspension or tie-back cables.

No hands on lift will be permitted when moving material. Push/pull bars, taglines, etc., must be utilized.

## **Accident Reporting and Investigation**

All job-related injuries and illnesses no matter how minor **must be** immediately reported to the employee’s direct supervisor.

CHEMSTEEL must immediately report all injuries, illnesses and incidents (including incidents without injury and first aid cases) to the FIRSTENERGY representative of the department or area where the work is performed

A preliminary written injury/illness/incident report (see attachments) shall be prepared and sent by CHEMSTEEL to the FirstEnergy representative prior to the end of the shift. A formal written injury/illness/incident report must be provided to the FirstEnergy representative within 24-hours of the event (7 days a week).

## **Project Safety Audits**

### Superintendent or Assistant Superintendent

In addition to monitoring this project for compliance with CHEMSTEEL’s Corporate and Site-Specific Safety Programs, the Project Superintendent will ensure that weekly safety audits of the project are conducted. Weekly safety audits will be documented using the attached safety inspection form. The completed forms will be transmitted to the Corporate Safety Director on a weekly basis.

### General Foremen and Craft Foremen

General foremen and craft foremen are required to monitor all project activities on an on-going, daily basis and correct any unsafe behaviors and conditions that could result in personal injury or property damage. Infractions of CHEMSTEEL corporate and site-specific requirements will be documented using CHEMSTEEL Safety “Notice of Disciplinary Action” Forms.

## **HAZARDOUS COMMUNICATION POLICY**

### **COMPANY COMMITMENT**

CHEMSTEEL (CHEMSTEEL) is committed to providing each of its employees a safe and healthy work environment. Construction processes and other operations performed at the various CHEMSTEEL job sites sometimes require the use of materials and chemicals that can be hazardous if not handled properly. When using these substances, it is important that workers are aware of the identity of the substances, as well as the toxic or other hazardous properties of the chemicals; since an informed employee is more likely to be a careful employee. Therefore, in an effort to promote and maintain job sites that are free from controllable safety and health hazards, CHEMSTEEL has implemented this Hazard Communication Program to protect its employees.

### **EMPLOYEE RESPONSIBILITY**

The success of this Hazard Communication Program depends to a great extent upon the cooperation of every employee. Employees should be alert to the potential hazards in their work areas. Know and understand the hazards of those chemicals. Consult the Material Safety Data Sheets (MSDS) for the specifics concerning the hazardous chemicals with which they work. Follow the appropriate safe working procedures that have been established. Wear required personal protective equipment and actively participate in the training programs implemented to protect their health and safety.

Active employee participation in CHEMSTEEL's Hazard Communication Program will result in the continued reduction of the incidence of chemical related illnesses and injuries on CHEMSTEEL job sites and facilities. This written program will be available for inspection in CHEMSTEEL's project office trailer for review by any interested employee. A master copy of this program will also be maintained at the CHEMSTEEL main office.

### **PROGRAM MANAGER/COORDINATOR**

The Program Manager/Coordinator of the OSHA Hazard Communication Program is John Matysiak, Corporate Safety Director who can be reached at the following telephone numbers, (724) 873-0929 or (440) 234-7888, during the normal office hours of 8:00 a.m. to 5:00 p.m. Monday through Friday.

The Program Manager/Coordinator is responsible for the effective implementation of this program. The project superintendents are responsible for implementation of CHEMSTEEL's Hazard Communication Program.

The Program Manager/Coordinator will periodically report to management regarding the Program's implementation, effectiveness and continuing update requirements. The Program Manager/Coordinator will establish the specifics of the Hazard Communication Policy and coordinate the efforts and activities of employees and management.

### CHEMICAL INVENTORY

The Project Superintendent is responsible for developing and compiling a hazardous chemical inventory list which identifies all hazardous chemicals used by CHEMSTEEL employees on this project. This list will be contained within the written program and updated periodically to ensure completeness.

The list will also be posted on the employee bulletin board for employee information. Copies will be provided to any CHEMSTEEL employee or his/her authorized representative upon request to the project superintendent.

### MATERIAL SAFETY DATA SHEET (MSDS) POLICY

The project manager and superintendent have overall responsibility for establishing and monitoring the Material Safety Data Sheet Program. They will ensure that procedures are developed to obtain the necessary Material Safety Data Sheets for all substances and chemicals, which are known to pose a health or physical hazard to employees who are exposed to them. They will review all incoming or updated Material Safety Data Sheets for new or significant health and safety information and pass it on to affected employees. A master copy of all complete and current Material Safety Data Sheets will be maintained in CHEMSTEEL's office trailer. The superintendent will ensure that current Material Safety Data Sheets for all chemicals and substances at the site are available to employees. If a Material Safety Data Sheet is not available upon request, the Program Manager/Coordinator should be contacted. Periodically, the project superintendent shall check the Material Safety Data Sheet collection for completeness.

## CONTAINER LABELING POLICY

The project superintendent is responsible for adopting and enforcing CHEMSTEEL' in-house labeling system. In general, CHEMSTEEL will rely on the manufacturer's applied labels whenever possible and will ensure that these labels are maintained in a legible condition. Containers which are not labeled or on which the manufacturer's label has been removed will be relabeled. CHEMSTEEL will ensure that each container is labeled with the identity of the hazardous chemical contained and any appropriate hazard warnings.

The job superintendent will verify that all containers received from manufacturers, suppliers, or importers used by employees are clearly and appropriately labeled. All chemicals on site will be stored in their original or approved containers with proper label attached.

Any container not labeled should be given to the job superintendent for labeling or proper disposal. Workers may dispense chemicals from original containers only in small quantities intended for immediate use. Any chemical left after work is completed must be returned to the original container or job superintendent for proper handling. At no time should any unmarked containers of any size be left in the work area after work is completed. The craft foremen are responsible for monitoring and notifying the project superintendent of any on-site deficiencies, which occur during day to day operations.

## EMPLOYEE INFORMATION

Employees will be informed of, and will have access to, all relevant information including this document and the standard itself, which can be found in the job file or in the office of the Program Manager/Coordinator. Material Safety Data Sheets are located in the project trailer. Relevant copies of a particular Material Safety Data Sheets are made available to employees or their authorized representative upon request. Information pertaining to operations in which hazardous chemicals are present will also be provided to employees.

## EMPLOYEE TRAINING

The Hazard Communication Program Manager/Coordinator is responsible for the effective dissemination of CHEMSTEEL employee training and information programs.

Supervisors will train employees on the Material Safety Data Sheets and how to work safely with hazardous chemicals. Employee training shall include:

- a. An overview of the requirements contained in the Hazard Communication Standard.
- b. The locations of the MSDS files and CHEMSTEEL' written Hazard Communication Program.
- c. The content and importance of Material Safety Data Sheets and labels.
- d. The methods and observations that may be used to detect the presence, or release of a hazardous chemical.
- e. Health hazards associated with chemicals.
- f. Methods used to protect employees.
- g. Safe work procedures, emergency responses and use of personal protective equipment.

Every CHEMSTEEL employee is required to actively participate in CHEMSTEEL Hazard Communication Training Program.

#### HAZARDOUS NON-ROUTINE TASKS

Periodically employees are required to perform hazardous non-routine work. It is CHEMSTEEL' policy that such operations not be undertaken until the employees have been provided information on the possible undesirable effects that may arise during such operations. Prior to starting the work, each effected employee will be given this information by the job superintendent. This information will include the chemical and physical hazards associated with the chemical, required personal protective equipment use, and the steps that CHEMSTEEL is taking to reduce the hazards. When necessary, areas will be posted to indicate the nature of the hazard involved.

#### EMERGENCY PROCEDURES

In the event of an overexposure to or spill of any hazardous chemical, the job superintendent will be notified at once. The foreman or the immediate supervisors will be responsible for insuring that proper and appropriate emergency response actions are taken. The appropriate Material Safety Data Sheet pertaining to that chemical or substance will serve as reference for such actions.

## MULTI-EMPLOYER JOB-SITES

It is the policy of CHEMSTEEL to adequately apprise other contractors regarding the hazardous substance which their employees may be exposed to during the course of day to day construction activities. Contractors, whose employees may be exposed to hazardous substances used by CHEMSTEEL employees, will be given access to this Hazard Communication Program. This will provide all relevant chemical information necessary to protect their employees.

Contractors should be informed of conditions existing on-site which necessitate special precautionary measures through weekly safety or toolbox meetings.

Other on-site employers working among CHEMSTEEL employees are also required to adhere to the provisions of the Hazard Communication Standard. They shall make available copies of Material Sheets Data Sheets for all hazardous materials used by their employees which can be reviewed by CHEMSTEEL employees. Material Safety Data Sheets will be provided within a reasonable time period after such a request.

The CHEMSTEEL is firmly committed to its employees' health and safety. As such requires all contractors whose employees work around and among CHEMSTEEL employees, to also be knowledgeable on chemical safety and appropriate working procedures in an effort to reduce and eliminate chemical exposures to themselves, as well as the other craftsmen.

**HAZARDOUS COMMUNICATION  
JOB SITE POSTER**

The **Material Safety Data Sheet Collection** for hazardous chemicals on this jobsite is located at: Office Trailer

---

The **Written Hazard Communication Program** for this jobsite is located at: Office Trailer

---

The **Hazardous Chemical List** for this job-site is located at: Office Trailer

---

Questions regarding **chemicals, chemical handling or health and safety**, should be directed to:

---

## HAZARDOUS CHEMICAL INVENTORY SHEET

[illegible]

## **Energy Control Procedures**

Procedures will be required for R2, R3 and R4. Hot mill will be locked out by FIRSTENERGY personnel, and CHEMSTEEL will utilize Gang Boxes for lock placement. CHEMSTEEL will review and complete the lock placement and verification form. A copy will remain at the job site for the duration of work.

CHEMSTEEL will require one lock for one man for those required to lock out. Locks will be Green and be identified as to CHEMSTEEL and employee. Listed below are the applicable energy control procedures:

# FALL PROTECTION

## INTRODUCTION

In the construction industry, falls are the leading cause of worker fatalities. Each year between 150 and 200 workers are killed and more than 100,000 are injured as a result of falls at construction sites. CHEMSTEEL and its employees need to do the following:

- \* Where protection is required, select fall protection systems appropriate for given situations.
- \* Use proper construction and installation of safety systems.
- \* Supervise employees properly.
- \* Use safe work procedures.
- \* Train workers in the proper selection, use and maintenance of fall protection systems.

## SCOPE AND APPLICATION

The rule for the project is 4 feet when not protected by a standard handrail, from a ladder 4 feet when three points of contact can not be maintained, and when working in an area with a vertical descent of greater than 4 feet.

Retractable lanyards must be used when the employee is less than 15 off the ground.

Fall protection generally can be provided through the use of guardrail systems, safety net systems, personal fall arrest systems, positioning device systems, and warning line systems, among others.

## DUTY TO HAVE FALL PROTECTION

CHEMSTEEL's supervisors are required to assess the workplace to determine if the walking/working surfaces on which employees are to work, have the strength and structural integrity to safely support workers. Once it has been determined that the surface is safe for employees to work on, one of the options listed for the work operation if a fall hazard is present.

If an employee is exposed to falling 4 feet or more from an unprotected side or edge, they must be protected by either a guardrail system, safety net system, or personal fall arrest system.

## EXCAVATION

Each employee at the edge of an excavation 6 feet or more deep shall be protected from falling by guardrail systems, fences, barricades, or covers. Where walkways are provided to permit employees to cross over excavations, guardrails are required on the walkway if it is 6 feet or more above the excavation.

## FORMWORK AND REINFORCING STEEL

Workers while moving vertically and/or horizontally on the vertical face of rebar assemblies built in place, are required to use fall protection at heights greater than 4 feet.

## HOIST AREAS

Each employee in a hoist area shall be protected from falling 4 feet or more by guardrail or personal fall arrest systems. If guardrail systems (or chain gate or guardrail) or portions thereof must be removed to facilitate hoisting operations, as during the loading of materials, and a worker must lean through the access opening or over the edge of the access opening to receive or guide equipment and materials, that must be protected by a personal fall arrest system.

## HOLES

Personal fall arrest systems, covers or guardrail systems must be erected around holes (including skylights) that are more than 4 feet above lower levels.

## RAMPS, RUNWAYS, AND OTHER WALKWAYS

Each worker using ramps, runways, and other walkways shall be protected from falling 4 feet or more by guardrail systems.

## WALL OPENINGS

Any employee working on, at, above, or near wall openings (including those with chutes attached) where the outside bottom edge of the wall opening is 4 feet or more above lower levels and the inside bottom edge of the wall opening is less than 39 inches above the walking/working surface, must be protected from falling by the use of a guardrail, safety net, or a personal fall arrest system.

## FALL PROTECTION SYSTEMS

### *Guardrail Systems*

Top-rails and mid-rails must be constructed of material that prevents cuts and lacerations. If wire rope is used for top-rails, it must be flagged at not more than 6 feet intervals with high visibility material. Manila, plastic or synthetic rope used for top-rails or mid-rails must be inspected as necessary to ensure strength and stability.

The top edge height of the top-rails must be 42 inches plus or minus 3 inches above the walking/working level. When workers are using ladders, the top-rail must be increased an amount equal to the height of the worker on the ladder.

Screens, mid-rails or mesh must be installed between the top edge of the top-rail and the walking/working surface when there are no walls or parapet walls at least 21 inches high. When mid-rails are used, they must be installed at a height midway between the top edge of the guardrail and the walking/working level. When screens and mesh are used, they must extend from the top-rail to the walking/working level.

The guardrail system must be capable of withstanding a force of at least 200-lbs. applied within 2 inches of the top edge in any outward or downward direction. When the 200-lbs. test is applied in a downward direction, the top edge of the guardrail must not deflect to a height less than 39 inches above the walking/working level.

Mid-rails, screens, mesh, solid panels and other structural members must be capable of withstanding a force of at least 150 lbs. applied in any downward or outward direction at any point along the mid-rail or other member.

Guardrail systems must be surfaced to protect workers from punctures or lacerations and to prevent clothing from snagging.

The ends of the top-rails and mid-rails must not overhang post, except where such overhang does not create a projection hazard.

When guardrail systems are used at hoisting areas, a chain, gate or removable guardrail section must be placed across the access opening when hoisting operations are not taking place.

At holes, guardrails must be set up on all unprotected sides or edges. When the hole is not in use, it must be covered or provided with guardrails along all unprotected sides or edges.

Guardrails used around holes that are used as access points (such as ladder-ways), gates are to be used or the point of access offset to prevent accidental walking into the hole.

Guardrails used at unprotected sides or edges of ramps and runways must be erected on each unprotected side or edge.

## PERSONAL FALL ARREST SYSTEMS

These consist of anchorage, connectors, body harness, deceleration device, lifeline, or suitable combinations. Personal fall arrest systems must do the following.

- \* Limit maximum arresting force on an employee to 1,800 lbs. when used with a body harness.
- \* Be rigged so that an employee can neither free fall more than 6 feet nor contact any lower level.
- \* Bring an employee to a complete stop and limit maximum deceleration distance an employee travels to 3.5 feet.
- \* Have sufficient strength to withstand twice the potential impact energy of a worker falling 6 feet.

Personal fall arrest systems must be inspected, prior to each use, for wear damage and other deterioration. Defective components must be removed from service.

Snap-hooks must be sized to be compatible with the member they will be connected to and shall be of a locking configuration.

Horizontal lifelines shall be designed, installed, and used under supervision of a qualified person, as part of a complete personal fall arrest system that maintains a safety factor of at least two. Lifelines shall be protected against being cut or abraded.

Ropes and straps (webbing) used in lanyards; lifelines shall be made of synthetic fibers.

Anchor points shall be designed, installed and used under the supervision of a qualified person, as part of a complete personal fall arrest system that maintains a safety factor of at least two, capable of supporting at least twice the weight expected to be imposed on it. Anchorage used to attach personal fall arrest systems shall be independent of any anchorage being used to support or suspend platforms and must be capable of supporting at least 5,000 lbs. per person attached.

Lanyards and vertical lifelines must have a minimum breaking strength of 5,000 lbs.

## POSITIONING DEVICE SYSTEMS

Body harness systems are to be set up so that a worker can free fall no farther than 2 feet. The anchor points must be capable of supporting at least twice the potential impact load of an employee's fall or 3,000 lbs., whichever is greater.

## SAFETY MONITORING SYSTEMS

When no other alternate fall protection can be implemented, a safety monitoring system shall be implemented. The competent person is to monitor the safety of workers and ensure that the safety monitor:

- \* Is competent in the recognition of fall hazards.
- \* Is capable of warning workers of fall hazard dangers and in detecting unsafe work practices.
- \* Is on the same walking/working surfaces of the workers and can see them.
- \* Is close enough to work operations to communicate orally with workers and has no other duties to distract from the monitoring function.

Mechanical equipment shall not be used or stored in areas where safety monitoring systems are being used to monitor employees engaged in roofing operations on low-sloped roofs.

No worker, other than the one engaged in roofing work (on low-sloped roofs) or one covered by a fall protection plan, shall be allowed in an area where an employee is being protected by a safety monitoring system.

All workers in a controlled access zone shall be instructed to promptly comply with fall hazard warnings issued by safety monitors.

## SAFETY NET SYSTEMS

Safety nets must be installed as close as practicable under the walking/working surface on which employees are working and never more than 30 feet below such levels. Defective nets shall not be used. Safety nets shall be inspected at least once a week for wear, damage, and other deterioration. The maximum size of each safety net mesh opening shall not exceed 36 square inches nor be longer than 6 inches on any side and the openings, measured center to center of mesh ropes or webbing shall not exceed 6 inches. All mesh crossings shall be secured to prevent enlargement of the mesh opening.

Each safety net or section shall have a border rope or webbing with a minimum breaking strength of 5,000 lbs. Connections between safety net panels shall be as strong as integral net components and be spaced no more than 6 inches apart.

| Vertical distance from working level to horizontal plane of net. | Minimum required horizontal distance of outer edge of net from the edge of working surface. |
|------------------------------------------------------------------|---------------------------------------------------------------------------------------------|
| Up to 5 Feet                                                     | 8 Feet                                                                                      |
| More than 5 Feet, Up to 10 Feet                                  | 10 Feet                                                                                     |
| More than 10 Feet                                                | 13 Feet                                                                                     |

Safety nets shall be capable of absorbing an impact force of a drop test consisting of a 400 lb. bag of sand 30 inches in diameter dropped from the highest walking/working surface at which workers are exposed, but not less than 42 inches above that level.

Items that have fallen into safety nets including materials, scrap, equipment, and tools must be removed as soon as possible and at least before the next work shift.

### WARNING LINE SYSTEMS

Warning line systems consist of ropes, wires, or chains, and supporting stanchions and are set-up as follows:

- \* Flagged at not more than 6 feet intervals with high visibility material.
- \* Rigged and supported so that the lowest point (including sag) is no less than 34 inches from the walking/working surface and the highest point is no more than 39 inches from the walking/working surface.
- \* Stanchions, after being rigged with warning lines, shall be capable of resisting, without tipping over, a force of at least 16 lbs. applied horizontally against the stanchion, 30 inches above the walking/working surface, perpendicular to the warning line and in the direction of the floor, roof or platform edge.
- \* The rope, wire or chain shall have a minimum tensile strength of 500 lb. and after being attached to the stanchions, must support, without breaking, the load applied to the stanchions as prescribed above.

- \* Shall be attached to each stanchion in such a way that pulling on one section of the line between stanchions will not result in slack being taken up in the adjacent section before the stanchion tips over.

Warning lines shall be erected around all sides of roof work areas. When mechanical equipment is being used, the warning line shall be erected not less than 6 feet from the roof edge, parallel to the direction of mechanical equipment operation, and not less than 10 feet from the roof edge perpendicular to the direction of mechanical equipment operation.

When mechanical equipment is not being used, the warning line must be erected not less than 6 feet from the roof edge.

## COVERS

Covers located in roadways and vehicular aisles must be able to support at least twice the maximum axle load of the largest vehicle to which the cover might be subjected. All covers must be able to support at least twice the weight of employees, equipment, and materials imposed on the cover at any one time. To prevent accidental displacement from wind, equipment, or workers' activities, all covers must be secured. All covers must be color-coded or bear the marking HOLE or COVER.

## PROTECTION FROM FALLING OBJECTS

When guardrail systems are used to prevent materials from falling from one level to another, any openings must be small enough to prevent passage of potential falling objects. No material or equipment, except masonry and mortar, shall be stored within 4 feet of working edges.

During roofing work, materials and equipment shall not be stored within 6 feet of a roof edge unless guardrails are erected at the edge, and the materials piled, grouped, or stacked near a roof edge, must be stable and self-supporting.

## CANOPIES

When used as protection from falling objects, canopies must be strong enough to prevent collapse and to prevent penetration by any objects that may fall onto them.

## TOE-BOARDS

When toe-boards are used as protection from falling objects, they must be erected along the edges of the overhead walking/working surface for a distance sufficient to protect workers below. Toe-boards must be capable of withstanding a force of at least

50 lbs. applied in any downward or outward direction at any point along the toe-board. Toe-boards shall be a minimum of 3.5 inches tall from their top edge to the level of the walking/working surface and have no more than 0.25 inches clearance above the walking/working surface.

Where tools, equipment, or materials are piled higher than the top edge of a toe-board, paneling or screening must be erected from the walking/working surface or toe-board to the top of a guardrail system's top-rail or mid-rail for a distance sufficient to protect workers below.

## TRAINING

Workers exposed to fall hazards must be trained in the following areas:

- \* The nature of fall hazards in the work area.
- \* The correct procedures for erecting, maintaining, disassembling and inspecting fall protection systems.
- \* The use and operation of controlled access zones and guardrail, personal fall arrest, safety net, warning line, and safety monitoring systems.
- \* The role of each worker in the safety monitoring system when the system is in use.
- \* The limitations on the use of mechanical equipment during the performance of work on low-sloped roofs.
- \* The correct procedures for equipment and materials handling and storage and erection of overhead protection.
- \* Workers' role in fall protection plans.

## Excavation and Trenching Guidelines

No excavation will start until the “Excavation Permit” permit is completed. The area must be cleared and approved by the FIRSTENERGY representative using the “Excavation Permit” prior to the start of excavation.

All excavations must have safe access ways and be properly barricaded and will have a flashing light barricade at night. Spoil dirt may be used to barricade one side of the ditch or similar excavation. All dirt must be piled at least 4 feet back from the edge of the excavation and must be at least 4 feet high when using as a barricade. An appropriate number of ladders for egress must be positioned every 25 feet.

No one shall be permitted in an excavation while equipment is being used next to the edge unless the Protective System is adequate to support the surcharged load of the equipment, and the potential operating conditions created by the equipment (i.e., vibration). Under no circumstances is anyone permitted to be in an excavation while equipment is digging in the excavation.

Excavations greater than 4 feet will be classified as a confined space unless declassified through evaluation by a FIRSTENERGY representative.

When an excavation is 20 feet deep or greater, CHEMSTEEL must provide engineering drawings stamped by a qualified Professional Engineer certifying that the protection method is adequate for the geometry of the excavation, soil type and soil conditions.

### Competent Person

Each contractor should designate a “competent person” for each project who will be responsible for assuring the proper implementation of the company excavation safety program.

A “competent person” is one who is capable of identifying existing or predictable hazards in the surroundings, or work conditions which are unsanitary, hazardous or dangerous to employees, and who has authorization to take prompt corrective measures to eliminate them. For the purpose of subpart p, a competent person must have had specific training in, and be knowledgeable about, soil analysis the use of protective systems and the requirement of the excavation standard as enforced by OSHA.

The “competent person” is responsible for ensuring compliance with all provisions of the standard, including soil classification tests and the selection of the appropriate protective system. He or she may act as the employer’s designee for the purpose of choosing a protective system from the options provided in 1926.652(b) and/or (c), but cannot take the original design responsibilities allowed by 1926.652 (b) (3) or (c) (4 ), unless otherwise qualified.

The “competent person” is responsible for daily inspections of excavations, the adjacent areas, and protective systems for evidence of a situation that could result in possible cave-ins, indications of failure of protective systems, hazardous atmosphere, or other hazardous conditions. Daily inspections should be conducted prior to the start of work and as needed throughout the shift. Inspections should also be conducted after every rainstorm or other hazard-increasing occurrence.

Where the “competent person” finds evidence of a situation that could result in a possible cave-in, indications of failure of protective systems, hazardous atmosphere, or other hazardous conditions, exposed employees must be removed from the hazardous area until the necessary precautions have been taken to ensure their safety.

The “competent person” is responsible for:

1. Soil analysis and classification
2. Protective system selection and use
3. Testing for hazardous atmospheres
4. Daily inspections
  - A. Excavation
  - B. Protective systems
  - C. Adjacent areas
  - D. Change in soil conditions
5. Inspections after any hazard increasing occurrence
6. Employee training on the standard
7. Compliance with all remaining provisions of Subpart P.

## OSHA Soil Classifications

### Type “A” Soil

Type “A” means cohesive soil with an unconfined compressive strength of 1.5 tons per square foot (tsf) or greater, or cemented granular soil such as hardpan, till, or caliche, except that no soil is Type “A” if:

- The soil is fissured; or
- The soil is subject to vibration from heavy traffic, pile driving, or similar effects; or
- The soil has been previously disturbed; or
- The soil is part of a sloped, layered system where the layers dip into the excavation on a slope of one horizontal to one vertical (4H:1V) or greater; or
- The material is subject to other factors that would require it to be classified as a less stable material.

### Stable Rock

“Stable Rock” means rock that can be excavated with vertical sides and remain intact while exposed.

### Type “B” Soil

- Cohesive soil with an unconfined compressive strength greater than 0.5 tsf but less than 1.5 tsf; or
- Granular soil that can stand on a slope of three horizontal to one vertical (3H:1V) or greater without slumping; or
- Soil that meets the unconfined compressive strength or cementation requirements for Type “A”, but is fissured, subject to vibration, or has previously been distributed; and
- Dry rock that is not stable; and
- Material that is part of a sloped, layered system where the layers dip into the excavation on a slope less steep than four horizontal to one vertical (4H:1V), but only if type material would otherwise be classified as Type “B”.

### Type “C” Soil

- Cohesive soil with an unconfined compressive strength of 0.5 tsf or less; and
- Granular soil that cannot stand on a slope of three horizontal to one vertical (3H:1V) without slumping; and
- Saturated or submerged soil; and
- Submerged rock that is not stable; and
- Soil in a sloped, layered system where the layers dip into the excavation on a slope of four horizontal to one vertical (4H:1V) or greater.

### Protective Systems

Each employee in an excavation must be protected from cave-ins by an adequate protective system design, which at a minimum, meets the requirements of sections 29 CFR 1926.652(b) & (c) of the OSHA Regulations; except when excavation are made entirely in stable rock or are less than five (5) feet in depth and examination provides no indication of potential cave-in.

Protective systems include sloping and benching systems, timber shoring, hydraulic aluminum shoring, trench boxes, shielding systems or the combination of sloping and shoring systems. Contractors are permitted some flexibility as to which system they can safely use; but with each option provided, the system must have the capacity to resist without failure, all loads that are intended or could reasonably be expected to be applied or transmitted to it.

Before a protective system is chosen for any given excavation, a thorough soil classification must be conducted. Once the competent person has classified the

material using this guide, then the appropriate system can be installed using the following sections of Subpart P:

- Sloping & Benching System: 29 CFR 1926.652(b) and Appendix B
- Timber Shoring: 29 CFR f1926.652© and Appendix C
- Aluminum Hydraulic Shoring: 29 CFR 1926.652© and Appendix D
- Trench Shields: 29 CFR 1926.652(g)

Factors which affect the selection and use of protective systems include, but are not limited to:

1. Types of soil encountered
2. Soil moisture conditions
3. previously disturbed soil
4. Depth of excavation
5. time excavation will be open
6. Range of weather conditions expected
7. Type of equipment used
8. Nearby structures
9. Traffic (vehicular, construction)
10. Sources of vibration
11. Underground utilities

## Selection of Protective Systems

The following figures are a graphic summary of the requirements contained in Subpart P for excavations 20 feet or less in depth. Protective systems for use in excavation more than 20 feet in depth must be designed by a registered professional engineer in accordance with paragraphs 1926.652(b) and (c).

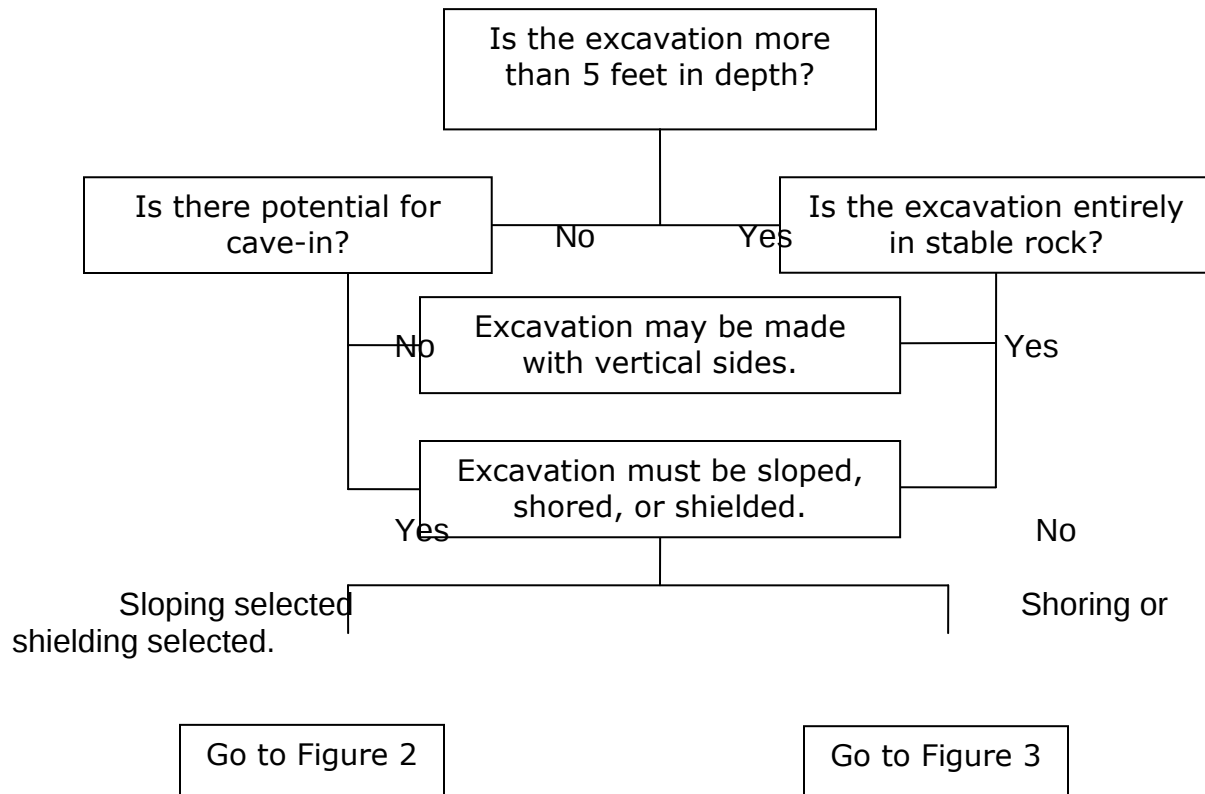


Figure 1 – Preliminary Decisions

## **Concrete Form & Rebar Installation**

### **Form Installation & removal:**

Concrete forms shall be neatly stacked until used. Proper lifting techniques shall be used when handling forms. Forms shall be properly braced and bracing inspected before pouring concrete. Employees shall wear proper work gloves when handling concrete forms.

Caution shall be used when removing concrete forms. Avoid pinch points between form and set concrete. Remove nails from form lumber immediately. Properly stack lumber after removal. Properly stack forms after removal.

### **Rebar installation:**

Employees shall wear proper gloves when handling rebar. Proper lifting and handling techniques shall be used when handling rebar. Use crane to handle and place large rebar. Use tag lines when flying rebar with crane to control load. If holes in rebar mats are greater than 6 inches square, the mat shall be covered with wire mesh.

If rebar requires torch cutting or welding, proper eye protection must be worn. Proper burning/welding gloves must be worn when burning or welding.

## **Concrete Placement**

Concrete pump truck shall be staged to maintain proper clearance of any overhead power lines.

Traffic patterns shall be established for concrete truck entry and exit to minimize traffic congestion.

Concrete truck spotter shall wear a traffic vest for easy identification. Spotter shall not stand between concrete truck and concrete pump truck when giving directions to truck driver. Concrete truck drivers must wear proper PPE when they exit trucks.

Employees working with wet concrete shall wear proper PPE including rubber boots. The employee handling concrete pump hose shall wear a face shield with safety glasses.

If concrete pouring occurs at night, provide sufficient lighting for work area.

# **ATTACHMENTS**

Employee / Subcontractor Orientation Form

Pre-Task Plan

Employee Observation Form

Incident form

Medical Providers

CHEMSTEEL Audit Form

**This foregoing document was electronically filed with the Public Utilities**

**Commission of Ohio Docketing Information System on**

**10/19/2015 3:46:54 PM**

**in**

**Case No(s). 13-0197-EL-BGN**

Summary: Correspondence of Trishe Wind Ohio, LLC in Compliance with Condition No. 34  
electronically filed by Teresa Orahoud on behalf of Sally Bloomfield