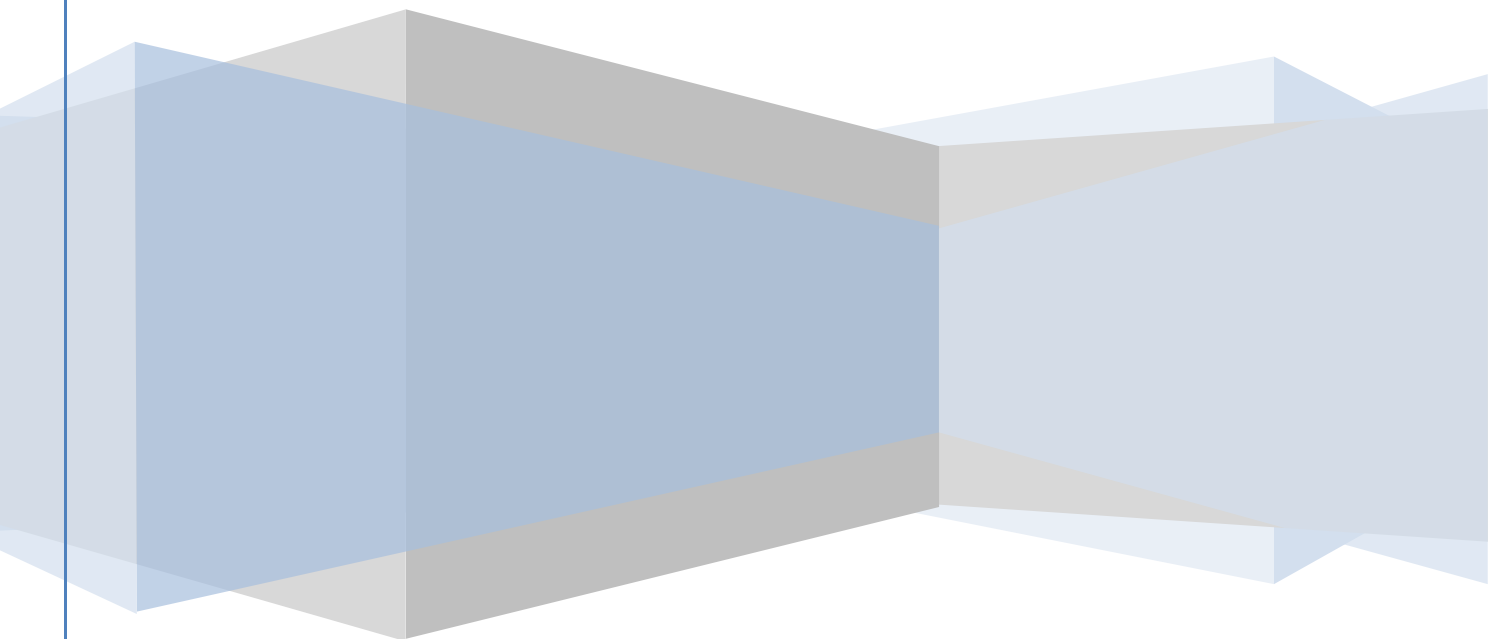


**Volkswagen Group of America**

**CONTRACTOR PROJECT SAFETY MANUAL**  
**Rev. June 4, 2021**



Safety Health and Wellness  
Revised: June 4, 2021  
F\_1.10\_CS-H\_56 Rev: 4

**\*PUBLIC DOCUMENT\***

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# Introduction :Section 1

## 1. Volkswagen Project Safety

### Safety Manual Purpose and Scope

- 1.1 This *Master Project Safety Manual* contains policies and procedures applicable to all contractors and contract employees regarding safety, health, and environmental responsibilities on the Volkswagen (VW) project site and for work performed for VW.
- 1.2 The purpose of this manual is to summarize basic safety and health standards and to establish minimum standards that promote safety, and control hazards and risks associated with the project. The safety provisions set forth in this manual are not to be considered as "all inclusive." Where any portion of this manual is in conflict with, or less stringent than, any applicable state or federal or local statutory safety regulations, the more stringent regulation shall take precedence.
- 1.3 The minimum standards set forth in this manual are applicable to all activities required of contractors (including subcontractors of any tier) and all other people authorized to be on the project site.
- 1.4 Contractors should review with their employees the sections of this manual that are appropriate to the work to be performed.
- 1.5 Compliance with the requirements of this manual shall not relieve contractors of the obligations, duties and responsibilities assumed under the contract documents or as required for safety, health, and environmental compliance under law, code, ordinance, or statute. Contractors are expected to take all reasonable measures to promote and ensure a safe working environment.
- 1.6 The site safety manager and his/her staff are not responsible for determining the "means and methods" of solving, resolving or planning the daily safety requirements of each contractor's work. Any field conversations between the contractor and the site safety manager / site safety staff / Volkswagen representatives will not constitute "means and methods".

## 2. General Information

- 2.1 Non-compliance with safety or environmental requirements is treated the same as non-compliance with the contract documents, and may result in work stoppage or employee removal from the project site. Willful or repeated non-compliance may result in contractor dismissal and contract termination.
- 2.2 This manual is an important part of the Volkswagen Safety and Health Program relating to the project. Contractors must ensure that their employees, subcontractors, consultants, vendors, suppliers, and visitors comply with the provisions of this manual while on the project site.
- 2.3 Compliance with federal, state, and local codes or regulations is required by law. This *manual* is a supplementary document to governmental rules, codes, and regulations having jurisdiction, and does not negate, abrogate, or minimize any provisions of these rules, codes and regulations. It is intended to supplement and enforce the individual program of the contractor and to coordinate the overall safety effort relating to the project.
- 2.4 Contractors must be aware that there are significant additional requirements above and beyond OSHA, local, state and federal guidelines that must be adhered to on this project.
- 2.5 Contracts signed with contractors and the provisions of this manual are intended to complement each other; however, in the event of a conflict between the provisions of this manual and the terms of a specific contract, notify the VW representative immediately of any such conflict.
- 2.6 Contractors ultimately are responsible for the safety and health of their employees, subcontractors, consultants, vendors, suppliers, and visitors while on the project site, and for the protection of the public and all others who may come in contact with, or be exposed to, the project.
- 2.7 Safety is considered an integral part of quality control, cost reduction and job efficiency. Managers and supervisors are accountable for the safety performance demonstrated by their employees.
- 2.8 VW reserves the right to add to or modify this manual and to implement additional safety rules and procedures. This



manual is updated using addenda to the current revision. The manual is revised and reprinted when necessary.

- 2.9 Contractors shall not receive additional payments or reimbursement for compliance with the safety items and procedures required by this manual, the contract documents or applicable federal or state laws, regulations and orders, whether now existing or hereafter arising.

### **3. Safety Policy**

- 3.1 It is the policy of VW to provide a safe place to work. Contractors working at the project site must conduct their work using good safety practices.
- 3.2 Contractor's management is responsible for preventing incidents or conditions that could lead to incidents, injuries, illness, or fatalities. The ultimate success of the Volkswagen Project Safety and Health Program depends on the cooperation of every employee. The contractor's management must ensure that safety rules and procedures are adequate and enforced, and that effective training and education programs are employed.
- 3.3 Volkswagen requires that a consistent construction safety, health, environmental and fire prevention program be employed during all activities of its contractors' employees, agents, vendors and suppliers.
- 3.4 Safety shall take precedence over schedule and production to eliminate personal injuries, occupational illnesses, and damage to equipment and property as well as protecting the general public whenever they may be affected by the contractor's work.
- 3.5 In performing all work, the contractor shall comply with all laws, statutes, ordinances, rules, regulations, requirements and guidelines including, but not limited to those of the OSHA regulations, ANSI standards, Laboratories, Inc., National Fire Protection Act, and the Owner's Insurance authority.
- 3.6 Training is required for all personnel who come onto the project site, and the program must be created to address personal responsibility for safety and the belief that all incidents are preventable.

## 4. Goals and Objectives

4.1 The goals of the Volkswagen Project Safety and Health Program are listed below:

- Eliminate incidents and work related illnesses at the project site.
- achieve zero fatalities, zero permanent disabling injuries, and zero lost work day cases
- achieve zero Occupational Safety and Health Administration (OSHA) recordable injuries and illnesses
- eliminate releases to the environment and prevent environmental harm

4.2 The main objective of the Volkswagen Project Safety and Health Program is to support and assist contractors with their responsibility to control the exposures and prevent the incidents that may cause injuries, illness, fatalities, equipment damage, fire, and damage or destruction of property at the project site.

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## Section 2: Definitions and Acronyms

### 1. General Information

- 1.1 The defined terms listed below, whether or not capitalized, are terms used throughout this manual and are in addition to definitions that appear elsewhere in this manual. Unless otherwise noted, definitions that appear in a specific section of the manual are limited to that section.
- 1.2 The acronyms listed below are used throughout the manual and listed here for reference.

### 2. Definitions

assembly area	A pre-determined location in which to assemble and conduct a roll call in case of an emergency evacuation.
competent person	As defined by OSHA, an individual who is capable of identifying existing and predictable hazards in the work area that are unsanitary or dangerous to employees and who has the authority to correct or eliminate the hazards.
contract or contract documents	A written agreement by and between Volkswagen and a contractor, by and between a contractor and a subcontractor, or by and between subcontractors of different tiers.
contract employee	An employee of a contractor, the employees of subcontractors, consultants, vendors, and suppliers.
contractor	A firm contracted to Volkswagen to perform specified work on the project site. For purposes of this manual, references to "contractor" mean each contractor, and each of their subcontractors, consultants, vendors, and suppliers.

contractor's management	Personnel employed by a contractor who are responsible for managing, supervising, or directing contract activities and non-VW employees on the project site.
contractor's safety manager or safety manager	An approved, competent safety professional employed by and assigned by the contractor to manage its safety program and the Volkswagen Project Safety and Health Program.
employee	An employee of a contractor and the employees of subcontractors, consultants, vendors, and suppliers.
hazard communication program	A comprehensive program to ensure that hazards from chemical, biological, or radiation are evaluated and that information pertaining to these hazards are communicated to contractors and their employees.
hazardous material	A substance or mixture of substances that may produce adverse effects on the health or safety of a human being, due to characteristics such as being explosive, flammable, poisonous, irritating, or corrosive.
hazardous waste	A biological, chemical, or radioactive waste which may pose a hazard to people or the environment.
manual	This <i>Master Project Safety Manual</i> .
medical review officer or MRO	A licensed physician responsible for receiving laboratory results generated by a drug testing program, who has knowledge of substance abuse disorders and has been trained to interpret and evaluate an individual's positive test result with his or her medical history and other biomedical information.
project site	The project site described in the contract.

qualified person	An individual who has a recognized degree, certificate, or professional standing or extensive knowledge, training, and experience and who has successfully demonstrated the ability to resolve problems related to the work.
recordable	Occupational injuries or illnesses as defined in OSHA 1904.12.
security	The project site security staff or organization.
site safety manager	A person designated and under the control of the construction manager for the project. The site safety manager will report to the project manager designated by and under the control of the construction manager. The project manager has overall responsibility for implementation of the Volkswagen Project Safety and Health Program.
VW representative	An authorized VW employee with respect to the project. In some cases authority may be formally delegated to a responsible representative that is not a VW employee.
work	Activities necessary to provide service, labor, materials, and equipment required by a contract.
work area	Specific site or location where work is performed.

### 3. Acronyms

ANSI	American National Standards Institute
CFR	Code of Federal Regulations
DOT	Department Of Transportation
EPA	Environmental Protection Agency
FAC	First-Aid Case
LWC	Lost Workday Case
MRO	Medical Review Officer
MSDS	Material Safety Data Sheet

MSHA	Mine Safety and Health Administration
NFPA	National Fire Prevention Association
TOSHA	Tennessee Occupational Safety and Health Administration
OSHA	Occupational Safety and Health Administration
UL	Underwriters Laboratories Inc.
VW	Volkswagen
ANSI RIA	American National Standard for Industrial Robots and Robot Systems
ASME	American Society of Mechanical Engineers

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## **Section 3: Safety and Health Program Administration**

### **1. General Information**

- 1.1 The purpose of the Volkswagen Project Safety and Health Program is to establish, implement, and execute a practical and effective method for preventing accidents, illnesses, and injuries and protecting the environment.
- 1.2 This manual defines how the Volkswagen Project Safety and Health Program will be administered, identifies responsibilities, and ensures control of work area safety.

### **2. Safety and Health Program Administration**

- 2.1 The effectiveness of the Volkswagen Project Safety and Health Program depends on establishing and maintaining a safety culture through the participation and cooperation of employees and coordination of their efforts in carrying out the following basic responsibilities:
  - A. Planning and coordinating work to avoid personal injury, property damage, environmental risk, and the loss of production
  - B. Establishing and maintaining a system for early detection and correction of unsafe practices and conditions
  - C. Providing adequate protection of public and private properties and the environment and ensuring the safety of the public
  - D. Establishing and conducting safety education programs designed to stimulate and maintain the interest and participation of employees through use of the following:
    - E. Safety meetings and communication
    - F. Proper work procedures, personal protective equipment, and mechanical guards
    - G. Safety instructions for individual employees and group safety training programs
    - H. Accident, illness, and potential safety incident investigation and reporting to determine causes and corrective actions

- I. Records of accidents and losses and accident/loss experience summaries
  - J. Proper waste disposal and emission control procedures
  - K. Incentive and recognition programs
  - L. Developing an emergency plan for the work
- 2.2 Volkswagen Project Safety and Health Program Implementation
- A. Contractors will establish and implement a safety program for their employees. This program will include maintaining and auditing safety performance for compliance with applicable federal, state, and local regulations and with established safety and environmental requirements, including but not limited to, the contractor's safety and hazard communication programs.
  - B. Contractors will conduct regularly scheduled safety inspections of the work being conducted by their employees. The scope or duration of work may regulate the frequency of these inspections.
  - C. Contractors will take immediate corrective action when a violation of job safety, fire, or environmental safety hazard is observed.
  - D. Contractors will regularly review their safety performance. Failure to correct a problem may result in work stoppage in the related work area, and work will not be permitted to resume until the problem is corrected.
  - E. If a contractor fails to correct the problem within a reasonable timeframe, VW will provide written notification and then take corrective action, and the cost will be the responsibility of the contractor.
  - F. Contractors will administer their own safety activities and are responsible for the safety of their employees. If requested by the site safety manager or the VW representative, contractors will submit a written copy or description of their company's safety program.
  - G. The contractor's safety program will meet federal, state, and local regulatory requirements and be equivalent to



or more stringent than Volkswagen Project Safety and Health Program.

- H. Where the programs are in conflict or the contractor's program does not address an issue, the Volkswagen Project Safety and Health Program, as defined in this manual, will govern.
- I. The safety manager or safety representative for each contractor will attend a pre-work safety conference with the VW Safety Representative prior to beginning work at the project site. The purpose of the conference is to review the contractor's existing safety program, their scope of work, procedures, forms, record keeping and reporting, and to ensure a clear understanding of the Volkswagen Project Safety and Health Program relevant to the work to be performed.

### **3. Contractor Duties and Responsibilities**

- 3.1 Contractors will be responsible for ensuring that their employees adhere to the directives of the Volkswagen Project Safety and Health Program. The contractor will submit a list of individuals on the project site and their respective responsibilities.
- 3.2 Contractors will be responsible for developing and implementing a comprehensive safety and health program.
- 3.3 Contractor's responsibility cannot be delegated to subcontractors, suppliers or others.
- 3.4 Each contractor is required to designate a safety manager or safety representative for the project who shall have the responsibilities set forth in this manual and who shall be authorized to act on the contractor's behalf in matters of safety on the project site as directed by the site safety manager. A safety manager may have other responsibilities unless the contractor has "high employment" as described below.
- 3.5 If at any time a contractor is performing one or more contracts and has thirty (30) or more employees on the project site, including subcontracted employees, for a period of twenty (20) consecutive work days or more, cumulative, under all contracts ("high employment"), the position of safety manager shall be a full-time position,

and the contractor shall have a full-time safety manager on the project site for each shift under the contract during the entire period of such high employment. The safety manager shall be knowledgeable of all applicable safety, health and environmental codes, statutes and ordinances, as well as best safety practices recognized in the construction industry. In addition, Contractor will provide one full-time safety manager for every 100 employees above 30. A full-time safety manager shall not be the project manager, project engineer or superintendent, and shall have no other duties than those related to safety on the project site.

- 3.6 Safety violations by employees constitute non-compliance with provisions of the contract and may result in immediate removal from the project site. Lost time and lost productivity associated with a safety violation will be at the sole cost of the contractor without additional compensation.
- 3.7 Contractor shall notify VW safety promptly if a charge of non-compliance has been filed against contractor or a subcontractor of any tier in connection with its work. Contractor will be responsible for payment of all fines and/or claims for damages levied against it for safety or environmental deficiencies relating to the conduct of its employees or condition of its work.
- 3.8 Contractors will train their employees on the safety, health, environmental, and fire prevention requirements for the work they are to perform and enforce adherence to safe work practices and procedures.
- 3.9 Contractors will be required to maintain a safety training program designed for employees. At minimum, such programs are to provide employees with information on the following topics:
  - A. Hazards present in their work assignment and surrounding area
  - B. Personnel protective equipment requirements
  - C. Proper procedures for safe work and for reporting unsafe job conditions (e.g. lockout, confined space, fall protection, respirator, hearing conservation, electrical safety, robot safety.....)
  - D. Waste disposal and environmental release requirements

- 3.10 Contractors will be responsible for planning and executing work according to the stated objectives of the Volkswagen Project Safety and Health Program.
- 3.11 Contractors will be responsible for the proper use, maintenance, and repair of work equipment.
- 3.12 The contractor's manager, supervisor, or other person in charge who directs or allows employees to perform unsafe acts or to work in or around unsafe conditions will be immediately removed from project site.
- 3.13 Volkswagen requires that the following functions are assigned. More than one function may be assigned to an individual.
  - A. Contractor's Project Manager is responsible for implementing and maintaining the contractor's safety program in compliance with the Volkswagen Project Safety and Health Program.
  - B. Contractor's Project Manager and Project Supervisor are responsible for implementing and maintaining the contractor's safety program in compliance with the Volkswagen Project Safety and Health Program for areas under the supervisor's control. Responsibilities include administration and coordination of the following activities:
    - C. Thoroughly reviewing accident investigations and initiating corrective action
    - D. In the event of an accident, preparing and submitting a written report, and assisting in the investigation according to requirements
    - E. Holding safety meetings
    - F. Reviewing safety performance and taking action as necessary within the areas of responsibility
    - G. Maintaining effective and prompt communication of safety matters
    - H. Monitoring compliance with established environmental and pollution control standards and regulations
    - I. Assigning duties to subcontractors, checking work areas, making housekeeping inspections (accompanied by a

subcontractor supervisor), and keeping records of conditions found and corrective actions taken

- J. Requiring employees to use personal protective equipment such as safety glasses, body harnesses, head and eyewear protection, and ventilation equipment
- K. Maintaining effective communication of safety matters to employees
- L. Instilling in personnel, by action, example, and training, an attitude toward safety so workers develop a better awareness of accident prevention
- M. Assisting in the development and communication of safe work procedures for unusual or hazardous operations
- N. Maintaining compliance / requirements of federal, state, local, and other agencies, and with the requirements of the general contractor's safety manual and this manual
- O. The contractor's Safety Manager serves as a technical advisor to the contractor's management on safety and health planning, training, and problem resolution. The responsibilities associated with this position include the following:
  - 1. Applying policies, procedures, and work practices to promote and administer assigned functions to aid in this responsibility.
  - 2. Administering and coordinating medical and emergency first aid services and programs.
  - 3. Monitoring compliance with mandatory safety and health laws, regulations, standards, and codes, and auditing and documenting the results in order to eliminate or control hazards which could contribute to or result in an occupational injury or illness.
  - 4. Investigating work related injuries, illnesses, and incidents that involve or could involve actual or potential risk to personnel and property, maintaining adequate records of pertinent data, and compiling the required reports of occupational injuries and illness.

5. Administering and coordinating the contractor's alcohol and drug abuse program.
6. Responding to site safety audit findings with written corrective actions to address identified concerns.
7. He or she will conduct the contractor's site-specific/trade-specific orientations and maintain all records of training.

#### **4. Subcontractor Duties and Responsibilities**

Subcontractor management, supervisors, and safety personnel have the same duties and responsibilities as a contractor.

#### **5. Employee Duties and Responsibilities**

- 5.1 Contract employees must not knowingly work in unsafe surroundings or in an unsafe manner.
- 5.2 Contract employees are responsible for learning, understanding and following the rules and regulations applicable to the work and for reporting observed or anticipated hazards to their supervisor(s). If such hazards are not addressed, employees must report the conditions to their safety manager or a VW representative.
- 5.3 Contract employees shall not engage in any act that would endanger another employee.
- 5.4 Contract employees shall not work while under the influence of intoxicating beverages or substances which would impair his or her ability to perform a task in a safe manner.
- 5.5 Contract employees shall not remove a guard or other safety device from a machine or equipment without proper lockout procedures in place.

#### **6. Disciplinary Action**

- 6.1 Volkswagen reserves the right and has sole discretion to control access to and remove any contractor or individual from the project site. The determination of whether to limit access to a particular contractor or individual will be based on a totality of the circumstances. VW will apply

progressive steps in an attempt to address the problem before permanently removing a contractor or individual. The progression of action will be determined by the severity of the incident and other mitigating factors. Nevertheless, Volkswagen retains the right to immediately and permanently remove a contractor or individual from the project site for any reason. The purpose of progressive action is to promote safety through a cultural shift and not through enforcement activities. However, non-compliance with safety requirements may result in work stoppage if an immediate threat to safety exists.

- 6.2 There will be no penalty or retaliation for reporting any safety or environmental incident, but the reporting of an incident will not protect the individual from consequences related to the incident.
- 6.3 Discipline is categorized into two general areas; those having the potential to be life-threatening or cause serious injury, and those which are not likely to cause life-threatening or serious injury, but which violate a site rule or an OSHA regulation.
  - A. Serious or life-threatening violations are categorized into three separate classes
    - 1. Class A – an offense which places a person or persons in immediate and extreme danger and is committed in disregard of the safety program and safety practices.
    - 2. Class B – an offense violating “Zero Tolerance” rules within one’s scope of work. These include, but are not limited to failure to work with fall protection at heights greater than six (6) feet, failing to follow “Lock Out” protocols, failing to follow confined space entry rules and failing to follow established guidelines for entering trenches and excavations.
    - 3. Class C – a violation with the potential of serious or life-threatening consequences, but committed due to provable miscommunication, misdirection, confusion, lack of training or lack of understanding which placed the employee in a dangerous situation.

- 6.4 Disciplinary actions will progress as follows, under ordinary circumstances. Certain safety violations will result in immediate dismissal from project site.
- A. Written Verbal Warning with Corrective Action required (violating site rules or OSHA rules without life-threatening consequences)
  - B. Written Safety Violation Notification with minimum of three working days off project site (Serious or life-threatening – Class B or Class C)
  - C. Dismissal from project site (Serious or life-threatening – Class A)
  - D. Ban from working on project site and contract termination. (Serious or life-threatening – Class A)
  - E. Retraining (at the discretion of VW safety ) for serious or life-threatening, Class C violations
- 6.5 Temporary or permanent removal from the project site may occur if the contractor's manager, supervisor or person in charge of the work being performed requires, requests, allows, or condones employees to work in or around unsafe acts or conditions or violate environmental permits or regulations.
- 6.6 Immediate and permanent removal from the project site may occur if a contractor's manager, supervisor, or employee engages in any of the following activities:
- A. Openly exhibits disregard, defiance, or disrespect for the Volkswagen Project Safety and Health Program
  - B. Knowingly falsifies investigative documents or testimony involving an investigation
  - C. Participates in fighting, violence, threats of violence, theft, or destruction of property
  - D. Violates established safety rules, regulations, or codes that endanger themselves or others
  - E. Violates established environmental rules, regulations, or procedures that endanger the environment
  - F. Violations of the Substance Abuse Prevention Program

- G. Violation of the Firearms and Weapons Ban Policy
- H. Violation of the Harassment Prevention Policy

## 7. Reservation of Rights

- 7.1 Volkswagen reserves the right to interpret, to revise, or to depart from safety policies and procedures, including but not limited to amending this manual, at any time without notice.
- 7.2 Compliance with this manual or VW's policies, procedures, and standards does not confer or entitle contractors or their employees to any benefits, rights, or privileges that go to VW employees by virtue of their status as employees of VW.
- 7.3 Nothing in this manual alters contractor or contract employee status or infringes upon the rights of either.

## 8. Project Safety Rules

**THE FOLLOWING SAFETY AND HEALTH RULES ARE A PARTIAL LIST OF GENERAL REQUIREMENTS THAT SHALL APPLY TO ALL CONSTRUCTION EMPLOYEES, VENDORS, DELIVERY PERSONNEL, AND VISITORS ON THE VOLKSWAGEN SITE. ANY PERSONS WHO CARELESSLY DISREGARDS THESE OR ANY APPLICABLE SAFETY AND HEALTH REGULATIONS SHALL BE SUBJECT TO DISCIPLINARY ACTION UP TO AND INCLUDING REMOVAL FROM THE JOB SITE.**

- 1. At a minimum, the following Personal Protective Equipment (PPE) is required to be worn by all persons, at all times while on the construction site:
  - 1.1. Approved safety glasses with side shields or mono-goggles.
  - 1.2. Nonconductive hard hats in designated construction or pre-determined areas. Normal production areas require the use of a bump cap or soft cap with bump cap liner.
  - 1.3. Safety footwear.
  - 1.4. Safety vest required in construction and pre-designated areas.
  - 1.5. In body shop, employees must wear cut and flame resistant cape sleeves at all times and cut resistant gloves (cut level 3 minimum) when working on production lines or holding/working with sharp material (e.g. vehicle production parts).
- 2. Tobacco use is only allowed in designated areas.
- 3. All occupational injuries and illnesses, no matter how slight, shall be reported to your supervisor immediately.



4. Submitting false or fraudulent information, when reporting an accident or injury, shall be cause for removal from the job site.
5. Fighting, gambling, horseplay and other misconduct are not permitted, nor will threatening or attacks upon another employee be tolerated and shall be cause for immediate removal from the job site.
6. The use or possession of intoxicants or drugs on the job is prohibited. Any employee reporting for work intoxicated or under the influence of intoxicating liquor or drugs shall not be allowed to work and shall be administered disciplinary action, which could result in immediate removal from the job.
7. Keep clear of all equipment. Avoid pinch points and the blind areas. Be alert to avoid swinging or suspended loads.
8. Be alert for and heed all information and warning signs at all times.
9. Do not use compressed air to dust-off yourself or clean about any area.
10. Unless authorized, do not attempt to repair or tamper with equipment that is not functioning properly. Report malfunctions to your supervisor.
11. Whenever anyone is required to work on or in close proximity to electrical equipment or electrical circuitry, appropriate tagging shall be placed to identify all controls deactivating the circuit, and the circuit shall be locked out, when possible.
12. Jumping on or off equipment or vehicles, either moving or stationary is prohibited.
13. Misuse of tools and equipment or circumventing safety devices can result in injury to yourself or others. Do not use make-shift or "jerry-rigged" tools or equipment to perform your job.
14. Unless specifically authorized by Volkswagen, explosives are prohibited on the job site.
15. Report all unsafe and unhealthy practices and conditions to your supervisor at once.
16. All fire protection and emergency equipment are to be plainly marked and shall be kept free of obstruction at all times.
17. Only authorized and properly trained and supervised personnel are permitted to operate equipment, vehicles, valves, electrical switches and similar machinery.

18. Ride only on vehicles designated and designed for transporting personnel.
19. Store and use gas cylinders in a secure, upright position, with their valve caps secure and the cylinders shielded from the sunlight.
20. Maintain good housekeeping at all times. Keep waste, debris, and rubbish cleaned up. Place all lunch papers, cups, cans and other litter in trash receptacles.
21. Discard and/or store all oily rags, waste and similar combustible materials in metal containers provided for that purpose.
22. Riding loads, slings, the ball, crane hook or other materials hoisting equipment is prohibited, except in a life-threatening emergency.
23. Keep all machinery guards, guardrails and other protective devices in place and in good operating order.
24. Be alert at all times to conditions and work processes in your area and surrounding area and with the presence of other workers and equipment so that you can foresee and avoid potential dangers.
25. Work area guidelines and regulations for environmental protection shall be strictly followed. All hazardous material shall be properly handled, stored and disposed of.

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## Section 4: Reporting an Emergency

### 1. General Information

- 1.1 This section establishes the requirements, responsibilities, and methods of notification and response to emergency situations.
- 1.2 Where a specific procedure has not been established, use good judgment in determining what actions to take.
- 1.3 Contractors must identify evacuation routes, assembly areas, and tornado safe areas to all personnel before they begin work on the project site.

### 2. Definitions

- 2.1 *All Clear* - When an emergency is over, VW Fire will notify contractors to authorize employees to return to normal work activities.
- 2.2 *Call List* - This is an approved list of individuals appointed to be the designated coordinators of emergency response for each contractor.
- 2.3 *Emergency* - Any unplanned event that adversely affects personnel, the environment, or the project is considered an emergency.

### 3. Emergency Reporting Procedures

- 3.1 VW safety/security must be notified immediately of any emergency, accident or incident on the project site by telephone, radio.
- 3.2 Place emergency phone numbers in conspicuous places throughout the work area and on telephones.
- 3.3 Do not make comments regarding emergencies to a media representative. Refer media inquiries to a VW representative.
- 3.4 If there is an evacuation, immediately report to the appropriate assembly area.

- 3.5 Any event from a near miss to a serious injury or fatality must be reported to the VW representative immediately. Incident investigations must be complete within 24 hours of the occurrence.

#### 4. Accidents Involving Serious Injury

- 4.1 In the case of a serious accident, call the designated emergency telephone number for immediate assistance and to obtain necessary first aid.
- 4.2 Volkswagen security and medical personnel will assist in any serious or life-threatening emergency situation.
- 4.3 Clear the area and keep away non-essential personnel.
- 4.4 Provide assistance to rescue personnel, if requested.
- 4.5 The responsible contractor must make a full investigation and submit a report in an approved format to the VW representative. See section 3.5
- 4.6 The contractor must comply with all applicable laws and regulations regarding the reporting of serious injuries or death.

#### 5. Fire or Smoke

- 5.1 All employees must comply with the fire safety requirements.
- 5.2 Fire extinguishers must be periodically inspected and maintained in operating conditions. All extinguishers must be checked at least monthly for serviceability, with the documented reports available for review.
- 5.3 The travel distance from any point of the contractor's work area to a fire extinguisher shall not exceed 100 feet.
- 5.4 In the event of an uncontrolled fire, evacuate the area immediately. Call the designated emergency telephone number from any mobile phone or the nearest phone located in a safe area.
- 5.5 Any contractors attempting to extinguish a fire should have documented training within the past 12 months in the safe use of fire extinguishers.
- 5.6 Keep non-essential personnel away from the fire.

- 5.7 If explosive materials or compressed gases are involved or other hazards may exist, ensure that affected personnel are immediately evacuated to a safe distance.
- 5.8 Contract employees are to evacuate to assigned assembly areas. Once evacuation is complete, contractors must account for everyone for whom they are responsible. If an employee is missing, notify emergency personnel immediately.
- 5.9 Responsible or affected contractors must make a full investigation of the incident and submit a written report to the VW representative, within 24 hours of the occurrence.

## **6. Chemical or Hazardous Material Spill**

- 6.1 In case of a spill, call the designated emergency telephone numbers immediately. Isolate and contain the spill if it is safe to do so, as determined by a competent person.
- 6.2 Comply with the requirements of this manual relating to environmental issues.
- 6.3 Responsible or affected contractors must make a full investigation and submit a report in an approved format to the VW Environmental team, within 24 hours of the occurrence.

## **7. Property Damage**

- 7.1 Notify the VW representative immediately.
- 7.2 Protect against further damage where possible.
- 7.3 Keep non-essential personnel away from the area.
- 7.4 The responsible contractor must make a full investigation and submit a report in an approved format to the VW representative, within 24 hours of the occurrence.

## **8. Severe Weather**

- 8.1 Site Security will determine if a specific weather emergency exists and also determine the respective protective measures to be followed. If necessary, Volkswagen site management will make the determination for shelter and/or evacuation if necessary. Contractors should follow the plan outlined below.

- 8.2     **Lightning** – In the event lightning is sighted, all exterior work will cease and personnel will report to their change shack(s), if grounded, or shelter locations indicated below. No exterior work will resume for at least 30 minutes following the last lightning strike observed, or radar indicates an “all clear”. Personnel will be notified of “all clear” by security personnel.
- 8.3     **Severe Weather – *TAKE SHELTER SIGNAL***
- 8.4     All personnel working in any enclosed building will proceed with their crew to the nearest designated Bathroom/Shower Shelter. Foremen are responsible for keeping their crew together, assuring a proper head count and reporting to their VW representative.

Personnel working in any other area will proceed to the closest shelter and report head count to their VW representative.

- 9.6     Remain in the shelter until the “All Clear” is issued through Volkswagen Security.
- 9.7     Upon notification of a tornado warning or other severe weather affecting the project site, site security will issue an alert.
- 9.8     Take the following actions during warning conditions.
- A.     Secure loose materials that can become displaced.
  - B.     Seek shelter in designated tornado safe areas, if possible. If not, seek shelter in the center of a building or near the strongest supported section of the lower levels of a building.

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## 9. Transportation

- 9.1 It is the policy of Volkswagen that first aid, medical, and emergency transportation is to be provided by the contractor for employees who sustain occupational injuries or illness.
- 9.2 Injured workers are not to transport themselves to the clinic or hospital for their initial visit. Subsequent or follow up care transportation is at the discretion of the contractor.
- 9.3 Volkswagen personnel will assist with transportation needs when injuries are serious or life threatening and ambulance service is indicated.

## 10. Reporting of Incidents

- 10.1 All incidents must be reported immediately to the VW safety
- 10.2 An initial report must be documented and submitted within 4 hours of the incident
- 10.3 A final report must be documented and submitted within 24 hours of the incident in accordance with this manual.
- 10.4 All final reports must include a root cause analysis and a counter measures which may be used by other contractors as a means to prevent future incidents of the same type.

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## Section 5: Investigation and Reporting of Accidents

### 1. General Information

- 1.1 Accident and incident investigation and reporting promote accident prevention by detecting the causes of accidents. This allows steps to be taken to remove the causes and eliminate future accidents, thus, reducing the number and severity of occupational illnesses and injuries.
- 1.2 Accident investigation and reporting also helps to reduce worker compensation, public liability, and property damage insurance premiums.

### 2. Accident and Incident Investigation

- 2.1 An accident or incident resulting in an injury or illness, fatality, environmental release, damage to property or equipment, or a "near miss" must be reported and investigated. The following categories are recognized by Volkswagen.
  - A. *Near Miss* - An event or occurrence that had or has a high probability of compromising the safety or health of employees
  - B. *Incident* - An event that interrupts operations or damages property or equipment
  - C. First Aid Case (FAC)
  - D. Recordable Injury or Illness
  - E. Lost Workday Case (LWC)

**NOTE:** Categories C through E above are defined by the occupational injury and illness recording and reporting requirements found on OSHA's website [www.osha.gov](http://www.osha.gov).

- 2.2 The VW representative must be notified immediately of any fatalities, serious injuries or illnesses, and significant property damage.
- 2.3 The contractor or designee responsible for the work area or trade involved in the accident or injury will conduct investigations of events not deemed serious and



insignificant injuries or property damage. The VW representative will participate if he or she deems it appropriate.

- 2.4 Investigation will begin promptly after the accident or incident. The contractor must report accidents that result in fatalities and/or three or more injuries requiring overnight hospitalization within eight (8) hours of occurrence to the state and federal regulatory agency having oversight of work at the project site.
- 2.5 All accidents or incidents will be documented on a form approved for use. The initial notification of injury must be documented and submitted within 4 hours of the incident. The final report must be submitted per section 10.3.
- 2.6 The investigation and report must be made immediately; however, if applicable, distribution of the report will not be made until similar investigations and reports required by applicable regulatory agencies are complete.

## Section 6: Safety Orientation and Training

### 1. General Information

- 1.1 It is the contractor's responsibility to provide training in a language that their employees can understand.
- 1.2 The contractor's supervisor must instruct employees on the safest way to perform each task of the work assignment prior to starting work.

### 2. Safety Meetings, Records, and Minutes

Contractors will hold regularly scheduled safety meetings (daily pre-start meetings and twice weekly tool box talks) and require attendance by employees. These meetings will provide an opportunity to point out hazardous conditions or unsafe work practices, and discuss safety and environmental rules and regulations, safe working procedures, analysis of accidents, and potential hazards. Records and minutes of safety meetings are required, including recording dates, attendees and subjects covered.

### 3. Job Hazard Analysis

- 3.1 Job hazard analysis is the process of carefully studying and recording each step of a job to identify existing and potential safety and health hazards, then evaluating the hazards to determine the best way to perform the job while avoiding the hazards. Working safely reduces costs resulting from employee injuries and worker compensation.
- 3.2 Contractors must conduct a careful study and record each step of the job being assigned to each employee. The purpose of this study is to identify existing or potential safety and health hazards and to determine the safest way to perform the job by eliminating or significantly reducing and controlling any hazards. The study will focus on identifying the following:
  - potential hazardous tasks or conditions
  - toxic or hazardous materials
  - hazard control methods

- personal protective equipment and training procedures required to perform each task, duty, or work assignment safely
- 3.3 Contractors will develop guidelines and controls to implement a job hazard analysis program that enables their management and employees to anticipate hazards that may cause injuries, near misses, or death and to take corrective action. This allows everyone to anticipate what tools, safety equipment, and procedures they will need to do a job.

#### 4. Orientation and Refresher Training

- 4.1 Contractors must instruct newly employed, promoted, or transferred personnel in the safety practices required by their assignments. The initial safety orientation for new employees will be a site specific safety review led by the site safety manager or his/her designee. This procedure does not supersede contractor requirements. Contractors also conduct a company and trade-specific orientation for their workers which must include a discussion of the basic safety and environmental regulations at the project site.
- 4.2 Employees are required to attend safety orientation before going unescorted into the work area.
- 4.3 Other work specific training requirements must be met in addition to this safety orientation before employees are permitted to perform work.
  - A. Proof of a valid 10 panel urinalysis test which was conducted within 3 working days of the orientation. Pre-employment urine drug testing is not the function or responsibility of the on-site medical staff. Contractors will be responsible for ensuring that all personnel who are working on site are current with their drug testing status.
  - B. No person will be allowed to work on site until proof of drug testing is provided. There are no provisions for “probationary personnel”.

## Section 7: Inspection and Auditing

### 1. Inspection and Audit Program

- 1.1 Each contractor will establish an inspection and audit program to help eliminate unsafe practices by its employees, establish a hazard-free workplace, and protect the environment. In addition to daily work site audits conducted by each contractor,
- 1.2 The inspection and audit program reaffirms the contractor's responsibility for the actions of its employees as originally assigned under the General Duty Clause Provision of the Occupational Safety and Health Act of 1970 (revised). The exercise of these responsibilities by contractors is an effective deterrent to accidents arising from unsafe acts or conditions.

### 2. Inspection and Auditing Procedures

- 2.1 Control of workplace safety is achieved only when each contractor fulfills contractual and statutory responsibilities by implementing practical steps to maintain safe, healthy, and environmentally sound work practices and conditions.
- 2.2 Contractors will be responsible for conducting continuous monitoring of their operations to ensure that they are aware of the probable sources of potential injury, illness, or loss due to unsafe acts or conditions.
- 2.3 Contractors will continually monitor and audit the performance of subcontractors and their supervisors. Contractors will notify subcontractors if unsafe practices are observed. Contractors will be responsible for the appropriate and timely corrective action. **Audits must be performed weekly at a minimum.**
- 2.4 Contractors must appropriately plan the procedures to be followed for each operation. Personnel chosen to perform a planned operation must be trained in all aspects of the procedure, including emergency actions to be taken in the event of a mishap.

### **3. OSHA Inspections and Audits**

- 3.1 If OSHA compliance officers visit the project site, they will be escorted by a VW representative. The appropriate contractors will then be notified so that an opening conference may be conducted. If the inspection is to occur on the project site, a VW representative will organize the inspection in accordance with OSHA regulations. Contractors must forward copies of OSHA inspection reports and citations received by the contractor to the VW representative.

### **4. Additional Inspection Requirements and Information**

- 4.1 Contractors will notify VW safety immediately in person, and subsequently in writing of the existence of hazardous conditions, property, or equipment in work areas that are not under the contractor's control. It is the contractor's responsibility to take necessary precautions against injury to their workers until such hazards are removed.
- 4.2 The contractor's equipment will be used, inspected, and maintained as directed by this manual, the manufacturer's instructions, and by applicable federal and state safety, health, and environmental regulations. If a conflict exists, the more stringent requirement takes precedence.

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## Section 8: OSHA Regulations

### 1. General Information

- 1.1 In all instances except where specifically referenced, TOSHA (Tennessee Occupational Safety and Health Administration) standards are adopted by reference to OSHA standards. Any references to OSHA standards will incorporate TOSHA rules.
- 1.2 Contractors will know and understand their responsibility for compliance with OSHA regulations, and will have a copy of the applicable OSHA standards on site for proper reference.
- 1.3 The OSH Act of 1970 has specific requirements including this requirement known as the “General Duty” clause:
  - A. Occupational Safety and Health Act of 1970: 1903.1
  - B. “Each employer shall furnish to each of his employees employment and a place of employment which are free from recognized hazards that are causing or are likely to cause death or serious physical harm to his or her employees.”
  - C. In situations where there are not specific standards, compliance officers can issue citations based on this clause.
- 1.4 There may be instances in this site-specific safety program that fall under standards other than Construction Standards found in 29CFR 1926. References will be indicated as applicable.

### 2. OSHA Publications

- 2.1 OSHA Part 1926 - This portion of OSHA is applicable specifically to construction work.
- 2.2 OSHA Part 1910 - Areas of safety not dealt with in the Construction Standards (Part 1926) may be covered in the General Industry portion of OSHA Part 1910.

### 3. OSHA Regulations

- 3.1 Contractors will know, understand, and comply with the Occupational Safety and Health Act of 1970 as it pertains

to their work responsibility. This act is administered by the US Department of Labor in conjunction with various state OSHA (or OSHA-approved) programs.

- 3.2 OSHA Poster - Part 1903 of OSHA requires posting the "Safety and Health Protection on the Job" poster in a prominent location. The poster briefly states the intent and coverage of OSHA. Failure to post this document is a citable offense.
  - A. Contractors may obtain information regarding additional required postings from the state department of labor website.
- 3.3 Recordkeeping requirements include OSHA Form 300, Log of Occupational Injuries and Illnesses and the First Report of Injury Form.
- 3.4 The contractor must report fatality cases and accidents in which three or more people are hospitalized over-night in one incident to OSHA within eight (8) hours of the occurrence as required by law.
- 3.5 Copies of the Occupational Safety and Health Act of 1970 and related information on state plans, standards, education, and training programs may be obtained from the state regulatory agency having oversight of work at the project site.
- 3.6 Should the OSHA regulations not address a specific procedure or hazard, contractors are still responsible for their employees' general safety. A contractor's failure to accept this responsibility can still be cited by OSHA under the General Duty clause.

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## Section 9: Hazard Communication Program

### 1. General Information

- 1.1 This standard is referenced as 29CFR 1910.1200 and 29CFR 1926.59.
- 1.2 Contractors must establish and maintain a written, comprehensive hazard communication program that complies with applicable state and federal law and includes:
  - A. A list of hazardous materials in the workplace
  - B. Safety Data Sheets (SDS)
  - C. Provisions for container labeling
  - D. An employee training program
  - E. Spill response program (Approved by VW Environmental Team)

### 2. Hazardous Materials List

- 2.1 Contractors must prepare a hazardous materials list before the materials arrive on the project site.
- 2.2 The hazardous materials list must contain:
- 2.3 The chemical name or the common name used on the SDS or container label
- 2.4 The area where the hazardous material is stored and to what extent it may be stored at altered temperature or pressure

The hazardous materials list will be prepared for each work area, reviewed and updated every 30 days or when there is an addition or removal of a hazardous material, or when the quantity stored changes enough for it to be listed in a different class.

- 2.5 Contractors will be required to submit electronic or hard copies of the hazardous materials list and material safety data sheets to the VW representative, before the hazardous materials are brought on site.



- 2.6 Receipt of this information by the VW representative does not imply acceptance of responsibility or guarantee completeness or accuracy of contractor submittals.
- 2.7 The use of hazardous materials at the project site requires consultation with, and approval by, the VW Environmental Manager.

### 3. Safety Data Sheets

- 3.1 Contractors must maintain the most current safety data sheets provided by manufacturers and distributors of the material. If the contractor does not receive a SDS from the manufacturer or distributor, the contractor should submit a written request for one. A SDS dated three years earlier than the submission date should not be submitted to the site safety manager without verification that it is the latest version of the document.
- 3.2 Beyond the identity information, the SDS must provide information in the areas required by OSHA in 1910.1200(g)(2).
- 3.3 A copy of each SDS must be maintained at the project site. The copy must be readily accessible to contractors, employees, and emergency personnel. Other contractor's employees also have the right to review any SDS to determine protective measures that may be applicable to them.
- 3.4 The State of TENNESSEE has additional requirements to this Standard known as the Tennessee Hazardous Chemical Right-To-Know Law, Rule 0800-01-09.
- 3.5 Any personal protective equipment identified in the SDS for employee protection is the responsibility of the contractor and the contractor must bear all associated costs with any additional PPE.

### 4. Container Labels

- 4.1 Contractors must ensure that labels on incoming containers are not removed or defaced, and that containers are clearly marked.
- 4.2 Each container must be labeled, logged, or marked with the identity of the hazardous chemical it contains, and it must show appropriate hazard warnings for employee

protection in accordance with the VW Chattanooga procedure. Labels must be legible, in English (Using the VW Chattanooga Standard), prominently displayed, and meet OSHA and DOT requirements.

- 4.3 Chemicals transferred into secondary containers must be labeled as to their contents, unless the chemical transferred is for one worker (individual) use during one work shift. The chemical must remain in the control of the individual using the product.

## 5. Hazard Communications

- 5.1 Contractors must have a means of informing employees of the hazardous materials associated with the work they perform, and communicating information on hazards at the project site.
- 5.2 Contractors will train employees to recognize and avoid hazards and train them in the use of personal protective equipment to be used when working with hazardous materials.
- 5.3 Employee Information and Training
  - A. Contractors will establish a training and information program for employees potentially exposed to hazardous materials in their work area at the time of initial assignment, and whenever a new hazard is introduced to their work area. The discussion topics must include at a minimum:
    - B. Existence of the hazard communication standard and its requirements
    - C. Operations in the work area where hazardous materials are present
    - D. Where the contractor will keep the written hazard evaluation procedures, communications program, hazardous materials list, and the required SDS's
    - E. Training must comply with OSHA standards and, at a minimum, focus on the following:
    - F. How the hazard communication program is implemented on site, how to read and interpret information on labels and SDSs, and how employees can obtain and use the available hazard information

- G. Hazards of the materials in the workplace
- H. Measures employees can take to protect themselves from hazards
- I. Specific procedures put into effect by the contractor to provide protection, such as work practices and using personal protective equipment
- J. Methods and observations, such as appearance or smell, workers can use to detect the presence of a hazardous material to which they may be exposed
- K. Contractors who are not familiar with the state's hazard communication program should contact the state regulatory agency with oversight of hazardous materials at the project site.
- L. Contractors must report to the site safety manager and the VW representative any illness or injury known or suspected to be associated with hazardous material use or potential exposure while on project site.

#### 5.4 Hazardous Materials

- A. Contractors are responsible for the safe use, storage, transportation, and disposal, in accordance with applicable laws, of chemicals or hazardous materials used in the performance of their work.
- B. Before chemicals or materials are brought on-site, a Material Application Request (MAR) must be submitted through the VW Sphera system. Once approved, chemicals or materials brought on project site by employees and other persons performing work must bear a label stating the identity of the chemical or material, hazards associated with it, and the name of responsible party bringing the chemical or material onto the project site.
- C. Waste resulting from the work must be properly disposed of by the responsible contractor in accordance with local, state and federal regulations.
- D. The contractor must immediately notify the VW representative if hazardous substances, pollutants, and contaminants are encountered at the project site.

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## Section 10: Alcohol and Drug Abuse

### 1. Alcohol and Drug Abuse Policy

- 1.1 Contractors will develop and enforce a policy that prohibits the possession, distribution, promotion, manufacture, sale, use, and abuse of illegal drugs, drug paraphernalia, controlled substances, and alcoholic beverages by employees while on project site. Contractors must comply with the Tennessee Drug Free Workplace Act.
- 1.2 Contractors will require drug testing and alcohol screening as outlined below. Contract employees are prohibited from reporting to the project site under the influence of alcohol or drugs which affect their working ability or safety, including but not limited to their alertness and coordination.
- 1.3 The policy applies to all contractors, contractor's management, and employees.
- 1.4 Employees may possess a prescription medication in its original container to be administered only to the person for whom it is prescribed.

### 2. Drug Testing

- 2.1 Volkswagen requires the following regarding drug testing. Contractors are responsible for all costs associated with the substance abuse prevention program:
  - A. Contractors must have a program that includes pre-employment, annual, post-accident, random and reasonable suspicion drug testing.
  - B. The VW representative may request additional drug testing for work with exposure to high risk.
- 2.2 Certification in the form of the test results or a letter from the laboratory performing the 10 panel test must be provided to VW safety for review prior to the employee's orientation. The test is the basis for the certification and must have been performed within the 3 working days preceding the employee's orientation. The cost of all pre-

work testing will be the responsibility of the contractor. Contractors will retain the certification in their files.

2.3 Drug testing will be required for the following conditions:

A. Accidents or Safety Violations

Following an occupational injury requiring treatment by a physician, an accident or incident involving safety rule violation, damage to equipment or property, careless acts, or in instances where the accident or incident was due to a failure to wear prescribed protective equipment while working on project site. All involved parties will be drug tested and a breath alcohol test will be conducted.

B. Reasonable Suspicion of Illegal Drug Use

When reasonable suspicion exists that an employee exhibits signs of intoxication, drug influence, or other behavior causing a prudent and reasonable person to have concern for the safety of the employee, other employees, or the public, the suspected individual will be drug tested and a breath alcohol test will be conducted.

C. Suspicious Incidents and Occurrences

When there is suspicion (based on demonstrable information such as an unusual number of post-accident positive test results, incidents of theft, lost productivity, unexplained personal behavior or other facts) that specific employees or other designated work groups (including but not limited to entire crews, work sites, shifts, or sensitive job classifications) are under the influence of drugs.

D. Discovery of Illegal Drugs or Drug Paraphernalia

Where an employee is found to be in possession of illegal drugs or drug paraphernalia, that employee will be terminated. When these items are found in an area controlled or used exclusively by employees, those employees will be drug tested.

### 3. Alcohol Screening

- 3.1 If the contractor has just cause to believe an employee is abusing alcohol, and it is affecting his or her work performance, or the contractor has just cause to believe an employee has consumed alcohol prior to, or during the course of the workday, the employee must be evaluated and a urine or breath alcohol screening test will be performed.
- 3.2 An employee is considered "under the influence" by meeting the legal definition based on breath alcohol content, or if he/she is unable to perform his/her job in an acceptable manner because of impaired judgment or physical abilities following the use of alcohol.
- 3.3 The consumption or possession of alcohol on the job site or during working hours is prohibited.

### 4. Consequences

- 4.1 An employee who produces a confirmed positive drug test after MRO review or is determined to be under the influence of alcohol will be prohibited from working at or entering the VW site.
- 4.2 Employees may be barred from the site for the following:
  - A. Refusing to submit to a search or inspection of their person, vehicle or possessions, or refusing to submit to a urine, drug, or breath analysis test when requested by the contractor.
  - B. Degrading, diluting, switching, altering, or tampering with a test sample
  - C. Using, manufacturing, distributing, or dispensing illegal drugs while on the project site

### 5. Enforcement

- 5.1 Contractors will remove employees from the project site if they are on the project site while under the influence of alcohol or drugs.

## Section 11: Security Program

### 1. General Information

#### Contractor Identification Badges

- 1.1 Contractors must wear an identification badge in plain sight while on the project site. Personnel without a proper badge will be questioned regarding their presence and may be asked to leave the project site.
  - A. Replacement costs of any lost or stolen identification badges is the responsibility of the contractor or their employee(s).
- 1.2 Visitors to the project site will be admitted through the security office, where they will sign in and be issued a visitor pass. Any visitor to the project site must participate in an abbreviated site-specific orientation prior to entering the facility.
- 1.3 Visitors must be escorted at all times.
- 1.4 The contractor is responsible for collecting and returning all identification badges at the end of work, the resignation or termination of an employee, or when requested by VW.

### 2. Site Security

Security is provided at the plant 24 hours per day, seven days per week. This service does not, however, relieve contractors of their duty, obligation, and responsibility to ensure that their trailers, vans, vehicles, equipment, tools, and storage areas are properly secured at the end of each workday.

### 3. Contractor Responsibilities

- 3.1 Contractors will provide or direct the following as appropriate:
  - A. Employees will park in designated parking areas.
  - B. Contractors will provide adequate site lighting for night security and construction activities.
  - C. Contractors will provide barricades, signs and signals as required for their construction activities.



3.2 Speed limit on the site is 15 MPH unless otherwise indicated

3.3 Contractors are responsible to ensure that all posted speed limits, stop signs, yield signs and other roadway directional information is followed by their employees.

3.4 Employees are responsible for:

A. Safe operation of vehicles while on site and when leaving the project site

B. Locking or securing personal vehicles against theft

**NOTE:** Volkswagen does not assume responsibility for damage, fire, or theft to a contractor's vehicle.

C. Parking in designated areas only

D. Displaying an identification badge while on site

E. Ensuring the security of personal tools and equipment

F. Reporting accidents or incidents to the contractor's management, and to security personnel at the project site

#### 4. Firearms and Weapons

4.1 Firearms (shot guns and rifles) pistols, handguns, bows and arrows and other weapons, including hunting knives are prohibited on the project site regardless of permit. This includes firearms and weapons stored in vehicles while parked on site.

4.2 Fireworks or other exploding devices are prohibited.

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## Section 12: Safety Procedures and Permits

### 1. General Information

- 1.1 The remainder of this manual contains specific technical safety procedures that will be followed by all contractors and their employees.
- 1.2 The technical safety procedures are not intended to be "all inclusive." If certain provisions of these safety procedures are less stringent than applicable federal, state, or local statutory safety regulations, the statutory regulations take precedence. Where standards set forth in this manual are more stringent than federal, state, or local regulations, the more stringent standards take precedence.

### 2. Safety Procedures

- 2.1 Contractors and employees must review the applicable safety procedures described in these sections to determine their roles and responsibilities as they relate to the work.
- 2.2 Contractors are responsible for administering and controlling the activities of the work area.

### 3. Project Site Procedures and Permits

- 3.1 The plant permit requirements, medical clearance and surveillance requirements with which contractors must fully comply. Examples include, but are not limited to the following: hazardous energy control, hot work permit, excavation permit, confined space permit, crane use notification, and respiratory clearance. These requirements and the requirements in this manual must be met, with the most stringent requirements taking precedence.
- 3.2 Permits are required for certain work activities, including the following:
  - A. Hot work permit obtained through security
  - B. Excavation and trenching

- C. Lockout/Tag out electrical work
  - D. Hazardous exhaust ventilation
  - E. Confined space entry obtained through the on-site fire dept.
  - F. Life safety systems
  - G. Roof access and Hazardous roof access (permission of plant infrastructure)
  - H. Line break and tapping pressurized lines
  - I. Asbestos, lead or radiation work
  - J. Paint, aerosols, dust, vapors or gasses use or generation
  - K. Cranes or heavy lift equipment
- 3.3 Permits must be requested with as much lead time as possible to allow coordination of the various groups involved in the process.

## Section 13: Housekeeping

### 1. General Information

- 1.1 Portions of this section may be referenced in OSHA 1926 – Subpart H (1926.250).
- 1.2 Housekeeping is mandatory. Contractors will keep their work area neat, clean, and orderly.
- 1.3 If a contractor's work area is not kept clean, the site safety manager will have the area cleaned and charge the cost to the contractor.

### 2. Definitions

- 2.1 A *barricade* is a physical device used to direct and protect pedestrians and vehicles from a work area.
- 2.2 *Barrier Tape* is a warning system.
  - A. DANGER tape is red in color and indicates that no one may enter into the area unless they are authorized to perform work in the area. It is used for high-risk activities such as steel erection and overhead work.

- B. CAUTION tape is yellow in color and indicates that personnel may enter or cross the barrier after assessing the area and determining that it is safe to do so. It is used to designate a work zone.
- C. If any type of barrier tape is used, it must be flagged or identified with the name of the contractor, the person responsible for the installation of the tape, the reason for the barrier, and the anticipated length of time the tape is estimated to be in place.
- D. Contractors are responsible for maintaining tape while it is up, and removing it when no longer in use

### 3. Housekeeping Procedures

- 3.1 Keep work areas, passageways, fire exits, fire lanes, and stairs in and around the buildings and structures clear of debris at all times.
- 3.2 Store materials, equipment, and tools in an orderly manner.
- 3.3 Keep storage areas and walkways free of dangerous depressions, obstructions, and debris.
- 3.4 Clean the work area daily and dispose of debris in dumpsters, or off site in accordance with the environmental requirements of VW, the EPA, and other regulatory agencies.
- 3.5 Dumpsters
  - A. Do not allow dumpsters to block fire exits, fire lanes, fire hydrants, or traffic areas (personnel or vehicular).
  - B. Keep dumpsters that are not part of a trash chute a minimum of 50 feet from structures.
  - C. Barricade the areas around dumpsters that are part of a trash chute.
  - D. Contractors who remove trash and debris from upper levels of the structure or the roof by opening perimeter protection will require 100% fall protection for personnel involved in the operation and are responsible to reinstall the perimeter protection when complete.

## Section 14: Personal Protective Equipment

### 1. General Information

- 1.1 Portions of this section may be referenced in OSHA 1926 – Subpart E
- 1.2 This section defines the requirements for the use of personal protective equipment to control or eliminate hazards or exposure to illness or injury.
- 1.3 Unless otherwise noted, contractors will provide the required and needed personal protective equipment, medical clearance, and the training described in this section are responsible for the compliance of their employees. The contractor's safety manager will make regular field inspections to verify compliance.
- 1.4 The contractor's designated safety manager will review personal protective equipment to ensure that only equipment complying with OSHA, ANSI, NIOSH, and MSHA regulations or this manual is used.
- 1.5 A contract employee who refuses to use the prescribed personal protective equipment or willfully damages this equipment will be subject to the disciplinary procedures outlined in this manual.
- 1.6 Contract employees must be trained on the use, inspection, care, and storage of all personal protective equipment.

### 2. Head, Eye, and Face Protection

- 2.1 Wearing an approved, non-conductive safety hat is mandatory in construction areas and designated areas at all times. Refer to ANSI Z89.1, *Safety Requirements for Industrial Head Protection*, and NIOSH standards.
- 2.2 Each general contractor and their sub contractors must wear the same color of safety hard hat with their company's identification on the front of their helmet.
- 2.3 Operators are required to wear hard hat and safety glasses at all times, unless operating equipment in a fully enclosed cab.

- 2.4 Construction areas and designated areas require eye protection at all times. Minimum eye protection includes approved safety glasses with side shields or mono-goggles that meet the standards specified in ANSI Z87.1, *Practice for Occupational and Educational Eye and Face Protection*. Dark safety glasses are prohibited when working indoors.
- A. Personnel who wear prescription eyewear must wear over-the-glasses protective eyewear unless their prescription eyewear meet the requirements of the most current ANSI Z87.1 standard
- 2.5 Without limiting the generality of the foregoing, eye protection is required by OSHA to protect against flying particles, molten metal, hazardous material, gases, vapors, and light radiation. Employees must wear appropriate eye and face protection during certain tasks, including but not limited to:
- Welding, burning, or cutting with torches
  - Using abrasive wheels, grinders, circular saws, or files
  - Chipping concrete, stone, or metal
  - Working with materials subject to scaling, flaking, or chipping
  - Drilling
  - Working under dusty conditions
  - Waterproofing
  - Using powder-actuated or pneumatic tools
  - Working with compressed air or gases
  - Working with chemicals or hazardous materials
  - Using chop saws, chain saws, masonry saws, or similar equipment
  - Working in the immediate area of operations listed above
  - Working in laboratories

### 3. Respiratory Protection

- 3.1 Respiratory protection devices approved by NIOSH must be worn by employees exposed to hazardous concentrations of dust, fumes, mists, gases, smoke, sprays, vapors or other hazards as required by OSHA.
- 3.2 Contractors are required to assure employees are not exposed to hazardous concentrations of respirable dust, fumes, mists, gases, smoke, sprays, vapors or other hazards.. Industrial hygiene monitoring may be required to prove or disprove the concentration levels. All costs associated with the IH monitoring will be absorbed by the contractor.
- 3.3 A respiratory protection program must be established that includes medical surveillance; training; equipment selection, storage, and maintenance; fitness testing; and recordkeeping.
- 3.4 Contractors who issue respirators for comfort measures must assure that employees are trained to the Respiratory Protection Standard (1910.134 – Adopted by Reference).

### 4. Fall Protection

- 4.1 Fall protection is required for work performed at heights. This includes work at heights greater than six feet.
  - A. 100% fall protection is required on this project site for all work greater than six feet.
- 4.2 One or a combination of the following fall protection systems can be used on the project site:
  - a personal fall arrest system (PFAS) consisting of a full body harness, shock absorbent lanyard(s), or a self-retracting lifeline that meets OSHA standards (Certain work that mandates fall protection requires two shock absorbent lanyards or a double lanyard.)
  - guardrail systems
  - safety nets

- 4.3 Body harnesses, shock absorbent lanyards, and self-retracting lifelines, regardless of configuration, must be subjected to a documented monthly inspection by the contractor. Inspection records are to be maintained by the contractor so that they are available upon request.
- 4.4 In addition to monthly inspections, the contractor is expected to conduct additional inspections in accordance with regulatory requirements. According to OSHA standard 1926.502(d)(21), personal fall arrest systems shall be inspected prior to each use for wear, damage, and other deterioration, and defective components shall be removed from service.

## 5. Footwear

- 5.1 Employees must wear sturdy high top leather work boots or steel toe shoes. Sandals, open-toe shoes, high heels and bare feet are prohibited.
- 5.2 Contractors must ensure that the appropriate protective footwear is worn by employees in areas where safety shoes signs are posted and in areas where workers are exposed to foot injuries due to falling or rolling objects, objects piercing the sole, or where workers' feet are exposed to electrical hazards. Appropriate foot protection must be worn for operating tamping equipment and when handling and carrying heavy tools or objects. This may require the wearing of steel toed / toe cap work boots. Contractors are responsible to evaluate when additional foot protection is required.

## 6. Hand and Skin Protection

- 6.1 Wear appropriate hand protection when handling objects or substances that could cut, burn, injure the hand, or be absorbed into the skin, and when exposed to harmful temperature extremes.
- 6.2 Certain areas may require protection in the form of coveralls or air suits. Do not enter these areas without appropriate clearance, training, and protection.
- 6.3 Shirts with sleeves must be worn at all times. (T-shirt length or longer)
- 6.4 Shirts with sleeves must be worn by all personnel including delivery personnel.



- 6.5 Shorts are prohibited for all workers on the VW site.
- 6.6 Shorts are prohibited for all personnel including delivery personnel.
- 6.7 Long pants must be worn. The pants may not be frayed or contain holes. The pants and other attire may not be nylon or “athletic” wear.
- 6.8 Reflective high visibility safety vests, shirts or jackets are required for all workers.
  - A. All personnel working in or near roadways will wear high visibility vests, shirts or jackets at all times.
  - B. Contractors are responsible for assuring that high visibility clothing that no longer meets appropriate high visibility or reflectivity criteria worn by their employees is replaced.
- 6.9 When burning, cutting or welding, workers may wear high visibility orange welding jackets in lieu of fire retardant high visibility vests.

## **7. Welding, Cutting, and Burning**

- 7.1 Employees will wear a welding helmet with welding hood (combination hard hat) when welding. Soft caps for welding are prohibited.
- 7.2 Face shields that fit on hard hats must be worn along with approved safety glasses during grinding operations or operations which create flying debris.
- 7.3 For overhead work, wear hard hats and fire-retardant jackets or clothing.
- 7.4 Workers will keep clothing free of oil, grease, and flammable material. Button collars and cuffs, and tuck pant cuffs inside boots. Pockets must be covered with flaps and buttoned, or removed from the front of vests, shirts, and aprons.
- 7.5 Welders and their helpers must wear leather gloves and proper infrared/ultraviolet eye protection in addition to safety glasses.

- 7.6 Workers engaged in oxy-acetylene welding or cutting must wear a welding helmet or safety goggles that are equipped with suitable filter lenses.
- 7.7 Workers who are engaged in electric arc welding must use shields or helmets that are equipped with suitable filter lenses that fit on a hard hat.
- 7.8 Workers will wear approved safety glasses or goggles under a combination hard hat or welding hood.
- 7.9 Workers will not perform welding, burning, or open flame work on staging suspended by fiber or synthetic rope.

## **8. Additional Personal Protective Equipment**

The contractor must furnish any additional equipment required by unusual circumstances (such as high temperature work or handling corrosive liquids) and not specifically covered in this section. (Muck boots used during concrete pouring is an example.)

### **Safe Lift Program**

- 8.1 Contractors should have a program that identifies which occupations and activities have routinely occurring lifting hazards.
- 8.2 At a minimum, contractors should train employees identified above on the following topics: recognizing lifting hazards, proper lifting techniques, back safety, and ergonomics.

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## Section 15: Environmental Issues

### 1. Hazardous Waste Management

- 1.1 Portions of this section may be referenced in OSHA 1926 Subpart D.
- 1.2 Contractors are responsible for the safe use and disposal of chemicals, petroleum products (gas and diesel) and other hazardous materials brought onto the project site in compliance with applicable laws and regulations, and for complying with the applicable requirements for generators of hazardous waste.
- 1.3 Contractors are responsible for storing hazardous materials in an area that is approved by the VW Environmental manager.
- 1.4 Contractors are responsible for supplying a proper storage area that has secondary containment.
- 1.5 Contractors that generate hazardous waste must comply with local, state and federal regulations.
- 1.6 Waste containers must be clearly labeled as to their contents. Do not dispose of hazardous and chemical waste in dumpsters on the project site.

### 2. Spill Prevention and Control

- 2.1 To minimize the risk of spills or releases to the environment, contractors must employ appropriate protective procedures such as double containment, employee training, overflow protection, and other measures as part of activities involving the use, storage, or handling of petroleum products or hazardous materials on the VW site.
- 2.2 Containers of hazardous materials and petroleum products should be stored in order to prevent releases to the environment. This requires selecting locations and methods to minimize exposure to rainfall, surface water, and the ground. Enclosures, shelters, and secondary containment should be used where appropriate.

Containment pans should be placed under equipment where there is the potential for a leak or discharge. In the event that secondary containment is used in an area that is exposed to rainfall, the following requirements apply.

- A. Prior to discharge of a containment system to the storm water system, inspect the primary container for signs of leakage, and inspect the containment system by visual observation for color, foam, outfall staining, visible sheens, and dry weather flow. The discharge of a containment system that has evidence of contamination is prohibited.
- B. The responsible contractor must maintain a log indicating the individual making the observations, description of accumulated storm water, and the date and time of release.
- C. Submit a copy of the log to the VW Environmental manager.

### **3. Notification of a Spill or Release to the Environment**

- 3.1 Volkswagen is subject to government notification and reporting requirements when a petroleum product or hazardous material is spilled or released to the environment, including releases to the ground, surface water, sanitary sewer system, or air that are not specifically authorized by the company's environmental permits. A spill or release of a hazardous chemical or petroleum product must be cleaned up immediately.
- 3.2 The responsible contractor must notify the VW Environmental manager, site security, and the VW representative immediately by telephone followed by a written incident report within 24 hours that includes the following information:
  - Description of the spill or release event
  - Names of individuals involved
  - Date and time of spill or release
  - Copy of the MSDS for the material spilled or released
  - Estimated quantity and type of material spilled or released

- Duration of the release
- Steps taken or planned to reduce, eliminate, and prevent recurrence of the spill or release

#### **4. Open Burning**

Open burning of debris on the project site is prohibited.

#### **5. Disposal of Waste in Sanitary Sewers**

No hazardous materials, chemicals, or petroleum products may be disposed in sanitary sewers.

#### **6. Training**

Contractors are responsible for training their employees on these procedures, and for maintaining training documentation.

#### **7. Recycling**

Volkswagen encourages and supports recycling of materials.

- 7.1 Prior to the start of the work, contractors should prepare a recycling plan and submit it to the VW Environmental manager and the VW representative.

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## Section 16: Electrical Safety

### 1. General Information

- 1.1 Portions of this section may be referenced in OSHA 1926, Subpart I, K and V.
- 1.2 This procedure applies to the installation of temporary and permanent electrical work and the use of electrical power to operate equipment and electrical power tools.
- 1.3 Approved, site-specific procedures must be followed for work on electrically charged components.

### 2. Definitions

- 2.1 *Grounding* is a conducting connection between an electrical circuit or equipment and earth, or to a conducting body that serves as earth.
- 2.2 A *ground fault circuit interrupter* is a device for the protection of personnel that de-energizes a circuit or portion of a circuit.
- 2.3 *Outage approval* is authorization from the appropriate maintenance organization to shut down electrical service to a facility or equipment.

### 3. Electrical Safety Procedures

- 3.1 Temporary and permanent electrical work, installation, and wire capacities must conform to the National Electrical Code, applicable federal, state, and local codes and the electrical guidelines or requirements provided by project managers.
- 3.2 Only qualified electricians familiar with code requirements are allowed to perform electrical work, including repairs to electrical power cords.
- 3.3 Employees are not permitted to work near an unprotected electrical power circuit unless they are protected against electrical shock by de-energizing the circuit and grounding it, or are protected by effective insulation or other means, and are wearing required personal protective equipment. Work around energized systems must reference and comply with the most current NFPA 70E requirements.

- 3.4 Do not operate electrical tools or equipment in wet areas or areas where potentially flammable dusts, vapors, or liquids are present, unless specifically approved for the location.
- 3.5 Switches must be enclosed and grounded. Panel boards must have provisions for closing and locking the main switch and fuse box compartment.
- 3.6 Wearing rings, necklaces, or other conductive apparel around energized electrical components is prohibited.
- 3.7 Extension Cords
  - A. Limit the use of extension cords as much as possible.
  - B. Extension cords used with portable electric tools and appliances must be extra hard usage, heavy duty (no less than 12 gauge conductors for construction work) and of the three-wire grounding type conforming to the type and configuration required by OSHA standards. Acceptable types of flexible cords include hard service cord (types S, ST, SO, and STO) and junior hard service cord (types SJ, SJO, SJT, and SJTO).
  - C. Flat electrical extension cords are prohibited.
  - D. Elevate (at least 7 feet) or otherwise protect from damage electrical cords and trailing cables that could create a hazard to people in the area. Electricians may repair electrical cords with heat shrink tape only. Do not splice damaged electrical cords. The date and time of the repair must be initialed on a tag that is securely fastened with a zip tie to the affected area.
  - E. Protect portable electric tools and cords by a ground fault circuit interrupter (GFCI) throughout each phase of the work. GFCI protection for temporary wiring is mandated on construction sites at all times.
- 3.8 In areas where water or moisture is present or likely to be present, always use ground fault circuit interrupters on power circuits. If permanent power circuits are not GFCI, use a portable GFCI box with electrical tools and equipment. Test interrupters on a weekly basis.

- 3.9 Should a circuit breaker or other protective device "trip," ensure that a qualified electrician checks the circuit and equipment and corrects problems before resetting the breaker.
- 3.10 Provide suitable means for identifying electrical equipment and circuits, especially when two or more voltages are used on the same job. Mark circuits for the voltage and the area of service they provide.
- 3.11 OSHA regulations governing the operation of heavy equipment in proximity to high-voltage power lines are very specific.
  - A. Wide loads over 10 feet require a specified escort.
  - B. An outage approval must be obtained from the VW Infrastructure manager before heavy equipment, which can reach within arcing distance and is to be located within 50 feet of high-voltage lines or equipment, may be brought on site.
- 3.12 Electrical boxes, switch gear, cabinets, and electrical rooms which are left open when not directly attended will result in the worker being removed from the site.
  - A. Insulate energized parts when covers have been removed or doors are ajar. Do not use cardboard, plywood, or other flammable material to cover energized circuits.
- 3.13 The contractor should perform documented monthly inspections on drop cords, GFCI, electrical tools and equipment.
- 3.14 A contractor may not use assured grounding conductor programs as a substitute for GFCI control.
- 3.15 Contractors will not add power cables or cords, which will over power the demand and rating of the power panels or power control boards.
- 3.16 Contractors will be responsible for having GFCI circuits on temporary generators that will be used for construction and site support power.



## Section 17: Control of Hazardous Energy - Lockout and Tag Out

### 1. General Information

- 1.1 Portions of this section may be referenced in OSHA 1910.147, Subpart J.
- 1.2 This section provides standard procedures for rendering inactive any electrical equipment or operating systems (stored energy systems) when equipment is down for repair, removal, replacement, or installation of new equipment.
- 1.3 Approved, site-specific procedures must be followed when working on existing systems.
- 1.4 "Danger - Do Not Operate" tags must be used with locks. Red locks shall be utilized with name, company and phone number listed.

### 2. Lockout and Tagging Procedures

- 2.1 Do not work on equipment until it is de-energized and tested using this procedure.
- 2.2 Lockout and tagging must include the following elements:
  - A. Use only standard construction danger tags and single-key locks.
  - B. Tag must be filled out and include the following items: Description of the equipment, circuit number involved, date, and employee name (printed), company name and contact number. Attach tags securely.
  - C. Do not use tags without locks
  - D. Never alter tags. Destroy dedicated tags immediately upon removal.
  - E. Do not operate equipment with a tag or lock attached regardless of the circumstances.

- F. Operating a valve or switch to which danger tags are attached, or removing a lock without authorization will result in removal from the site.
- G. If the tag originator is off the site, the originator's supervisor and safety manager or designee may remove the lock and tag, or authorize removal after verifying the system or device is safe and clearing it with the appropriate trade(s). The authorization to remove the lock must be in writing.
- H. Personnel responsible for facility operations at the project site must place the first lock on any circuit that is being locked-out. After ensuring that all parties have completed their work and removed their locks, the party who placed the first lock will remove the lock.
- I. Each employee working in the area affected by the lock-out must place an additional lock on. When each employee completes work in the area, the person who placed the lock will remove it. (Every *individual* working in the affected area *has the right* to place a lock.)
- J. Tags required beyond one shift will be replaced by the oncoming shift, if no work is scheduled and the system remains shut down. Long term lockouts may not require shift replacement.

### 3. Construction Equipment Facilities

#### 3.1 Electrically Operated Systems

- A. Each contractor will place a multi-lock device or lock box when other crafts are involved in the electrical shutdown.
- B. The electrician authorized by the plant infrastructure team will open the switch; pull power and control fuses, place the first lock and tag, and test the equipment to verify it is inactive.
- C. Personnel from other crafts performing work place their locks and tags on the representative's multi-lock device. Where several crafts persons of one craft are involved, the foreman may place one lock on the multi-lock device, and then the crafts persons may place their locks and tags on the multi-lock device after witnessing a proper test.

- D. Upon completion of work, personnel from other crafts remove their locks and tags.
- E. The designated electrician authorized by the site safety manager is the last person to remove his/her lock and tag. After ensuring everyone is clear, the electrician removes the lock and tag and notifies the site safety manager.
- F. New work is inspected and tested.

### 3.2 Piping Systems

- A. The piping contractor places multi-lock devices when other crafts are involved in the mechanical shutdown.
- B. The piping contractor de-energizes, locks, tags, and tests the system.
- C. Personnel from other crafts performing work place their locks and tags on the piping contractor's multi-lock device. Where several crafts persons of one craft are involved, the foreman may place one lock on the multi-lock device, and then the crafts persons may place their locks and tags on the multi-lock device.
- D. Upon completion of work, personnel from other crafts remove their locks and tags.
- E. The piping contractor's lock and tag is the last to be removed. After ensuring everyone is clear, the piping contractor removes the lock and tag.

## 4. Locks and Multi-Lock Devices

- 4.1 Use only single-key locks. The key must remain in the possession of the person placing the lock.
- 4.2 The prime directly related to the item to be locked out will provide and install multi-lock devices.

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## Section 18: Protecting Employees and the Public

### 1. Exterior Protection Procedures

- 1.1 All work should be isolated from the public to the extent possible. Work should not be performed in any area occupied or in use by the public unless permitted by contract or authorized by the site safety manager.
- 1.2 When it is necessary to maintain employee or public use of work areas involving sidewalks, access from parking lots to construction work areas, entrances to buildings, lobbies, corridors, aisles, stairways, and vehicular roadways, contractors are responsible to protect the public with appropriate guardrails, barricades, temporary fences, overhead protection, temporary partitions, shields, nets and adequate visibility. The work should be done in accordance with approved work permits, the state's building code and other applicable regulations.
- 1.3 Contractors are responsible to keep sidewalks, entrances to buildings, lobbies, corridors, aisles, doors, and exits clear of obstructions to permit safe entrance and exit at all times.
- 1.4 Contractors are responsible to conspicuously post appropriate warnings and instructional safety signs. In addition, the contractor will assign a signal person or rope off area in danger tape to control the movement of motorized equipment in areas where personnel/pedestrians or traffic might be endangered.
- 1.5 Contractors are responsible to provide sidewalks, sheds, canopies, catch-platforms, and appropriate fences when it is necessary to maintain public pedestrian traffic adjacent to the erection, demolition, or alteration of outside walls on a structure.
- 1.6 Barricades meeting local requirements must be provided where sidewalk, shed, bridge fences, or guardrails are not required between work areas and pedestrian walkways, roadways, or occupied buildings. Secure barricades to prevent accidental displacement and maintain them except where temporary removal is necessary to perform work. Barricade the area where work is being done overhead.

- 1.7 Contractors are responsible for barricades to protect employees and the public from open pits, excavations, trenches, overhead work, confined spaces, helicopter lifts, crane lifts and perimeters around steel / siding / roofing installations.
  - A. The above list may not be all inclusive, and contractors are responsible to evaluate when barricades are required.
- 1.8 Contractors are responsible to provide temporary sidewalks when a permanent sidewalk is obstructed by work. Install temporary sidewalks in accordance with the requirements listed above.
- 1.9 Contractors are responsible to maintain warning lights from dusk to sunrise around excavations, barricades, or obstructions in designated areas.
- 1.10 Contractors will provide illumination from dusk to sunrise for temporary walkways, parking areas and work zones.
- 1.11 When exit routes or assembly areas are affected by work, contractors are responsible to notify site security manager in writing of the effect and proposed alternatives.

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## Section 19: Hand and Portable Power Tools

### 1. General Information

- 1.1 Portions of this section may be referenced in OSHA 1926, Subpart P.
- 1.2 Contractors must follow approved procedures for using small tools.

### 2. Power, Air, and Hand Tools

- 2.1 Power, air, and hand tools must be operated in accordance with the manufacturer's recommendations.
- 2.2 Keep hand tools in good condition, inspected, cleaned, sharpened, oiled, and not abused.
  - A. Tag and remove from service if damaged or defective.
  - B. Replace worn tools immediately.
- 2.3 Inspect tools for damage and worn parts before use.
  - A. Remove damaged or frayed cords from service.
  - B. Do not hoist or lower tools by the cord or hose; use hand lines.
- 2.4 A qualified person must inspect power tools before use and document the inspection at least once per month.
- 2.5 Do not force tools beyond their capacity by using "cheater bars" or other shortcuts.
- 2.6 Do not use power tools if safety equipment such as shields, tool rests, hoods, and guards have been removed or rendered inoperative.
- 2.7 Employees must wear the required personal protective equipment when using tools under conditions that expose them to flying objects or harmful dust.
- 2.8 Ground electrically powered tools. Protect outlets used for 110-volt tools by ground-fault-circuit-interruption devices throughout each phase of the work.

- 2.9 Do not use diesel or gasoline-powered tools in unventilated areas, enclosed spaces, or outside of enclosed spaces. Dispense gasoline and other flammable liquids only from UL approved safety cans or equivalent.
  - A. Contractors are responsible to have fire extinguishers in the work area when this type of work is being conducted.
- 2.10 Use portable grinders or cutting wheels with hood-type guards and side enclosures that cover the spindle and at least 50% of the wheel. Inspect wheels regularly for signs of fracture.
- 2.11 Grinders and cutting wheel tools must be used with manufacturer's handle.
- 2.12 Equip bench grinders with deflector shields and side-cover guards. Tool rests must have a maximum clearance of 1/8 inch from the wheel.
- 2.13 Secure couplings to hoses supplying pneumatic tools to prevent accidental disconnection.
- 2.14 Protect air-supply lines, inspect lines regularly, and maintain lines in good condition. Provide excess flow valves on supplying hoses exceeding 1/2 inch in diameter.
- 2.15 Reduce the operating pressure of compressed air used for cleaning purposes to 30 psi or less (except for cleaning of forms, etc.). Avoid operating pressure in excess of 30 psi.
  - A. Air wands must have a spring loaded on/off handle.
- 2.16 Contractors are responsible to ensure that employee's personal tools are not damaged, defective or altered.

### **3. Powder-Actuated Tools**

- 3.1 Contractors will submit documentation from their insurance company certifying that the use of powder-actuated tools is under the liability provisions of the insurance policy and under the specific circumstances of the work. In addition, the contractor will submit documentation certifying that the type and use of powder-actuated tools are in accordance with applicable laws.

- 3.2 Powder-actuated tools must meet applicable requirements of ANSI-A10.3-1970 as stipulated by OSHA, and be UL listed or FM approved.
- 3.3 Post signs throughout the area warning of the use of powder-actuated tools.
- 3.4 Powder-actuated tools must be .22 or .25 caliber cushioned pistol grip design.
- 3.5 Loads, studs, and nails used in powder-actuated tools must be specifically approved by the manufacturer for use in that tool.
- 3.6 Do not use loads, studs, and nails in powder-actuated tools for any purpose other than recommended by the manufacturer.
- 3.7 Powder-actuated tools must be designed so that discharging the powering load can only be accomplished when the barrel of the tool is firmly depressed against the work surface.
- 3.8 Powder-actuated tools must be piston-driven and designed so that the pistons always remain captive within the tool.
- 3.9 Employees must not operate powder-actuated tools until they have satisfactorily completed the manufacturer's sponsored training for the tool and have evidence of this training readily available. Contractors are responsible to have documentation of this training readily available.
- 3.10 Do not use powder-actuated tools in areas where hazardous accumulations of ignitable dust, gases, or liquids could be present or collect until the area has been proven free from such hazards with appropriate instrumentation. Store loads that are not being used in a location and manner specifically approved for that purpose.
- 3.11 Goggles or face shields with safety glass eye protection and hearing protection must be worn by each person within 50 feet of the point of discharge.
- 3.12 Personnel not directly involved with the operation of powder-actuated tools must stay a minimum of 50 feet clear of the operation unless granted specific written permission by the contractor, and applicable provisions of



the procedure regarding personal protective equipment have been met.

- 3.13 Do not leave powder-actuated tools or loads unattended at any time. Powder-actuated tools, loads, studs, and nails must be stored in a locked box or otherwise secured when not in use. Do not load the tool until ready for use.
- 3.14 Handle misfires in accordance with manufacturer's training.
  - A. Dispose of misfired loads safely in a manner approved by the site safety manager. Dropping misfired loads into a bucket of water is the manufacturer's recommended method to de-energize the live ammunition.
  - B. Misfired loads are considered ammunition.
- 3.15 Powder-actuated tools must be regularly inspected and maintained. Maintenance work must be performed by competent technicians as directed by the manufacturer's literature. Parts used in maintenance or repair of powder-actuated tools must be exact replacement parts.

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## Section 20: Welding, Cutting, and Burning

### 1. General Information

- 1.1 Portions of this section may be referenced in OSHA 1926, Subpart L, M and Q.
- 1.2 Contractors must follow approved VW procedures for welding, cutting, and burning, brazing and other spark-producing and hot work.

### 2. Permits

- 2.1 Burning, welding, cutting, or spark-producing work is prohibited until the proper permits have been received.

#### HOT WORK PERMIT

- 2.2 Within areas with sprinkler protection, the sprinkler system shall be operational at all times during the performance of open flame work — unless site security or fire has issued special permission. Under no circumstance are hot-work permits to be issued for areas in which the sprinkler system is impaired or malfunctions.

### 3. Handling and Storage of Cylinders

- 3.1 A suitable cylinder truck or push cart with chain or other secure form of fastening must be used to keep cylinders from being knocked over while in use or in storage. An acceptable cylinder wrench must be installed on each cylinder truck or push cart.
- 3.2 Cylinders must be returned to the storage area “when it is reasonably anticipated that gas will not be drawn from the cylinder within 24 hours (overnight hours included)”.
- 3.3 Cylinders must be legibly marked to identify content.
- 3.4 Do not store cylinders of oxygen near cylinders of acetylene or other fuel gas. Separate cylinders by a minimum of 20 feet, or with a five-foot non-combustible barrier with at least a one-hour fire rating. Do not place cylinders where they can contact an electrical circuit.

- 3.5 Keep oxygen cylinders, cylinder valves, couplings, regulators, hoses, and apparatus free from oil and grease. Do not handle oxygen cylinders or apparatus with oily hands or gloves.
- 3.6 Keep cylinders in storage away from sources of heat, flame, and direct sunlight. Remove combustibles from the storage area.
- 3.7 Close valves on empty cylinders. Keep valve protection caps in place except when cylinders are in use or connected for use.
- 3.8 Provide a suitable platform when moving cylinders by crane or derrick.
  - A. Lifting platforms, racks or cages must be manufactured to specifications. Contractors may not fabricate devices to raise compressed gas cylinders unless the device has been certified by a professional engineer (PE).
- 3.9 Do not use slings, hooks, or electric magnets. Cylinder caps should remain installed on the cylinder until connected to equipment. Keep the cylinder cap near the cylinder when in use.
- 3.10 Chain or secure compressed gas cylinders in an upright position at all times. Empty cylinders must be labeled "Empty." Do not invert empty LPG cylinders.
  - A. If a cylinder is not equipped with a valve wheel, keep a key or cylinder wrench on the valve stem while in use. Acetylene cylinders should be protected in a cradle while being transported by crane or derrick.
- 3.11 Do not store or take compressed gas cylinders into closed or confined areas, or near elevators or stairs.
- 3.12 Store compressed gas cylinders in well-ventilated, proper construction storage racks that are labeled for the type of gases to be stored.
- 3.13 If a leak develops in a cylinder and it cannot be immediately corrected, move the cylinder to a safe location away from the storage area.
  - A. Contractor is responsible to immediately notify the cylinder supplier to have the leaking cylinder removed from the site.

- 3.14 Visually inspect cylinders to ensure they are safe before use.

#### **4. Welding, Cutting, and Other Hot Work Operations**

- 4.1 Each welding, cutting, or spark-producing operation requires a fire watch.
  - A. A fire watch consists of a properly trained person standing by with an approved fire extinguisher provided by the contractor.
  - B. The fire extinguisher must be of a size and type (minimum 10 lb. ABC) that will extinguish a fire that may ignite on materials being welded or cut or on materials immediately adjacent to welding and cutting operations.
  - C. The fire-watch person must remain in the area for a minimum of 30 minutes after the hot work is completed to ensure the site is safe.
- 4.2 Frequently inspect hoses, lines, and leads for leaks, worn areas, and loose connections.
- 4.3 Remove combustible materials from the area prior to beginning work.
- 4.4 Any combustible material within 35 feet that cannot be removed must be protected with fire resistant blankets or coverings.
- 4.5 Provide flash arresters fitted to the regulators at both the fuel and oxygen cylinders. Additional flashback arresters may be fitted to the torch for oxygen and acetylene hoses.
- 4.6 Welding return current must not pass through any of the following:
  - A. Acetylene, fuel gas, oxygen, or compressed gas cylinders
  - B. Tanks or containers used for gasoline, oil, or flammable/combustible material
  - C. Pipes carrying compressed air, steam, gases, or flammable/combustible liquids
  - D. Conduits carrying electrical conductors

- E. Chains, wire ropes, metal hand railings, ladders, machines, shafts, bearings, or weighing scales
- F. Critical instrumentation
- 4.7 Shield arc welding and cutting operations by using non-combustible or flame-proof screens.
- 4.8 Provide mechanically strong and electrically adequate ground for the service required.
- 4.9 Support and elevate welding cables to allow the safe passage of workers and equipment.
- 4.10 Keep welding cables away from ladders and stairways. Prevent doors from damaging welding cables.
- 4.11 Use insulated cable connectors to couple or uncouple several lengths of cable for a welding circuit. Use insulated cable connectors on the ground line and the electrode holder line.
- 4.12 Use an electrode holder of adequately rated current capacity, insulated to protect the operator against possible shock, and to prevent a short or flash when laid on grounded material.
- 4.13 Do not use cables with worn or damaged insulation. Repairs may not be made on welding leads within 10 feet of the electrode holder.
- 4.14 Insulate connection lugs on welding machines.
- 4.15 Wear suitable eye protection and other personal protective equipment.
- 4.16 Ensure adequate ventilation.
- 4.17 When welding overhead, take precautions to prevent sparks from falling on other workers.
- 4.18 Do not use regulators, leads, torches or other associated equipment that are damaged or defective.
- 4.19 Do not wrap or lay welding leads or clamps on top of compressed gas tanks.
- 4.20 Contractors are responsible for air monitoring welding activities to determine if PPE is required.

- A. Contractors are responsible to follow requirements of the OSHA Hexavalent Chromium standard if they weld, cut or burn on any materials containing Chromium 6.

## Section 21: Ladders

### 1. General Information

- 1.1 Portions of this section may be referenced in OSHA 1926.

### 2. Manufactured Ladders

- 2.1 Manufactured ladders, ladder maintenance and use must comply with OSHA, ANSI, manufacturer's specifications, and job procedures.
- 2.2 Only fiberglass ladders are allowed.
- 2.3 Do not use ladders with broken or missing rungs, broken or split side-rails, or damaged components. Damaged ladders must be immediately tagged and removed from the work area or destroyed.
- 2.4 Equip portable ladders with non-skid safety feet and place on a stable base. Keep the access areas at the top and bottom of ladders clear. There must be a minimum of three foot clearance surrounding access and egress from ladders. Stepladders must be fully opened when in use. Safety latches on extension ladders must be fully engaged.
- 2.5 Always face the ladder when climbing or descending. When working, face the ladder with both feet securely on the rungs. Never stand on the top step or sit on the top of the ladder, straddle the ladder, fold up, lean stepladders, or work two people from the same ladder.
- 2.6 Post warning signs, barrier tape or traffic cones when working from ladders in traffic areas or near doorways.
- 2.7 Protection from falls is a key consideration when working from ladders above 6 feet.
- 2.8 Keep ladders free of lines, ropes, hoses, wires, cables, oil, grease, and debris. Do not leave objects on ladders.

- 2.9 Do not use single portable ladders over 30 feet in length. Use separate ladders with intermediate landing platforms to reach heights above 30 feet.
- 2.10 Extend side rails of extension ladders a minimum of 36 inches above the landing destination. When this is not practical, install a grab rail. Ladders in use must be tied, blocked, or otherwise secured.
- 2.11 Extension ladders should be set up so that the pitch of the ladder is at a ratio of one foot horizontal to four feet vertical.
- 2.12 Ladders must be inspected before use and the inspection must be documented at least once per month.

### **3. Job Built Ladders**

- 3.1 Job built ladders may be constructed under special circumstances where manufactured ladders may not meet the requirements of the task
- 3.2 The request to use job built ladders must be submitted to VW site safety along with the plans for their construction. No job built ladders will be allowed without this review.

### **4. Ladder Training Requirements**

- 4.1 Contractors must provide a training program and related documentation for employees using ladders. The training program will provide the procedures necessary for employees to recognize the hazards associated with ladder use.
- 4.2 Contractors must ensure that a competent person has trained each employee in the following topics:
  - Nature of fall hazards in the work area
  - Correct procedures for erecting, maintaining, and disassembling a fall protection system on a ladder
  - Proper construction, use, and placement of ladders and care in handling ladders
  - Maximum intended load-carrying capacities of ladders

- 4.3 Contractors must ensure that employees maintain the required understanding and knowledge of ladder safety, and retrain employees as necessary.

## Section 22: Scaffolds

### 1. Definitions

- 1.1 A cleat is a cross-piece positioned on edge upon which a person may step to ascend or descend a ladder. It is also a structural block used at the end of a platform to prevent the platform from slipping off its supports.
- 1.2 An outrigger is a structural member of a supported scaffold used to increase the base width of the scaffold to provide increased stability.

### 2. Scaffold Design and Erection

- 2.1 Scaffolds must be designed, built, inspected, and tagged by trained, competent persons in accordance with the latest OSHA requirements. Refer to 29 CFR 1926, Safety and Health Regulations for Construction, Subpart P, Scaffolds.
- 2.2 Contractors will plan each application to ensure that scaffolds are used where required and that scaffolds conform to the applicable scaffold erection requirements.
- 2.3 Lean-to scaffolds and make-shift platforms are prohibited.
- 2.4 Do not use scaffolds for storing material except material being used while on the scaffold. Place material over cross members.
- 2.5 Contractors will not allow tools, material, or debris to accumulate on scaffolds or to be stored on scaffolds overnight.
- 2.6 Adequately design scaffolds to carry, without failure, four times the maximum intended load in addition to the weight of the scaffold. Never overload a scaffold.
- 2.7 Immediately replace weakened or damaged scaffolds.
- 2.8 Scaffold or staging more than six feet above the ground or floor, suspended from an overhead support, or erected



with stationary supports, must have standard guardrails and toe boards properly attached.

- 2.9 Guardrails must be two inches by four inches, approximately 42 inches high, with a mid rail. Do not use diagonal braces as guardrails. Supports must be at intervals not to exceed eight feet.
- 2.10 Toe boards must be a minimum of three and one half inches high. Cleat or secure planking to prevent displacement. Platforms must be the complete width of the scaffold being erected. Secure the scaffold horizontally and vertically at intervals specified in the applicable regulations.
- 2.11 Scaffolds with any dimension of less than 45 inches must be equipped with outriggers and standard guard rails when the working platform is at a height of four feet or higher.
- 2.12 Equip mobile scaffolds with outriggers and lock casters. Guard mobile scaffolds with standard railing, regardless of height. Mobile scaffolds must not be constructed or used where there is a change of elevation in the floor level.
- 2.13 Moving a mobile scaffold with personnel on it must be performed in accordance with the latest OSHA requirements. Failure to follow the requirements will result in disciplinary action.

### **3. Use of Scaffolds**

- 3.1 Follow the fall protection requirements when working on, erecting, and dismantling scaffolds, or on scaffolds not meeting guarding requirements.
- 3.2 A competent person must inspect scaffolds before work begins.
- 3.3 Prior to use, a competent person must inspect scaffolds on which weakened or damaged weight bearing parts have been replaced.

### **4. Scaffold Tags**

- 4.1 The contractor erecting the scaffold must attach a standard industry tag to a completed scaffold at all points of access to signify the scaffold was designed and erected by trained, competent persons and is safe for use.

- 4.2 The tag must state the intended purpose of the scaffold and indicate the level of personal protective equipment required to use the scaffold. The tag and the handwriting on it must be capable of withstanding extended periods of inclement weather.

## 5. Scissors Lifts and Man Lifts

- 5.1 Operate scissors lifts and man lifts in accordance with the manufacturer's recommendations and the latest OSHA requirements. Operators should be trained in the safe operation of the equipment prior to use.
- 5.2 Hard hats and 100% fall protection will be required while operating any type of elevated work platform. The fall protection system must be secured to an approved anchorage point in the lift prior to movement of the equipment.
- 5.3 Equipment must be equipped with strobe lights/back up alarms.
- 5.4 Only authorized persons shall operate an aerial or scissor lift. A list must be provided to the VW representative upon request.
- 5.5 All lifts should be equipped with operator's manual and / or checklist. All operators should become familiar with and fully comply with all manufacturers' safety instructions.
- 5.6 A placard or sign identifying the lift's load capacities must be visibly displayed somewhere on the lift. Maximum weight capacities of the lifts should never be exceeded under any circumstances.
- 5.7 Lift operators should never ignore, disable or alter an installed safety device, switch or alarm.
- 5.8 Lift operators must be conscious of their surroundings, with respect to pedestrian traffic and nearby activities on the ground near the base of the lift.
- 5.9 Lift controls shall be tested each day prior to use to determine that such controls are in safe working condition. Documented, daily inspections of the aerial/scissor lift must be conducted by the operator prior to operation of the equipment.

- 5.10 All materials, tools or components being elevated in the lift, must remain on the floor and not so positioned that they are protruding through the handrails, or could fall from the lift. Rails of the aerial/scissors lift may not be used to support material being transported.
- 5.11 Lifts should only be operated on flat, level surfaces and the working area **must be taped off with red danger tape** to prevent someone from walking underneath the overhead work. If moving frequently then the use of a spotter is acceptable. The spotter must have no other tasks and remain with the lift 100% of the time.
- 5.12 Employees working from scissor-lifts / aerial lifts must remain on the floor of the basket at all times and shall not sit or climb on the guardrails or edge of the basket or use planks, ladders or other devices for a work position.
- 5.13 In aerial lifts, personal fall arrest systems must be used and secured to the boom or basket during lift operation.
- 5.14 Never climb up the side of the lift to enter it. Always use the steps located at the base of the lift, or equivalent, to gain access to the platform.
- 5.15 Keep the end gate or chain secured at all times during use.
- 5.16 Fire extinguishers must be installed in the basket of a scissors/aerial lift if hot work is performed from the lift.

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## Section 23: Fire Prevention and Protection

### 1. Fire Prevention and Protection Procedures

- 1.1 Portions of this section may be referenced in OSHA 1926, Subpart F.
- 1.2 Temporary Heating Equipment
  - A. Contractor is responsible for the operation and maintenance of temporary heating equipment. Heaters must bear the UL label (or approved equal).
  - B. Contractor is responsible to ensure that heaters are in working order and provide trained personnel to be in attendance at all times while heaters are in operation.
  - C. Contractor is responsible to supply a tip over shut-off device that must be included for space heating equipment.
  - D. Workers must not place clothing or flammable or combustible items on or near heaters.
  - E. Contractors are responsible to ensure workers are trained for fire watch and use of fire extinguishers and the contractor must retain the training documentation.
  - F. Contractor is responsible to provide adequate ventilation when using liquid fuels in an enclosed environment, and conduct atmospheric testing as needed. All costs associated with atmospheric testing are the responsibility of the contractor.

### 2. Flammable and Combustible Materials

- 2.1 Definitions:
  - A. *Combustible liquids* mean any liquid having a flash point at or above 140 deg. F. (60 deg. C.), and below 200 deg. F. (93.4 deg. C.).
  - B. *Flammable* means capable of being easily ignited, burning intensely, or having a rapid rate of flame spread.
  - C. *Flammable liquids* means any liquid having a flash point below 140 deg. F. and having a vapor pressure not

exceeding 40 pounds per square inch (absolute) at 100 deg F.

- D. Storage and use of flammable liquids is prohibited without the written approval of VW Site Environmental.
  - E. Store and handle flammable and combustible materials with regard to their fire characteristics. Materials must be clearly labeled.
  - F. Store flammable liquids and gasses outdoors in an approved manner and dispense only in approved safety containers.
  - G. Separate and store combustible materials or equipment in non-combustible containers in a proper manner.
  - H. If approved for use, do not store more than a one-day supply of combustible materials or containers in one location within the building. Locate supplemental firefighting equipment in the vicinity of these containers and materials.
- 2.2 Contractors must furnish fire protection for all phases of the work as required by law.
  - 2.3 In protected (completed) areas, Contractors must furnish fire extinguishers no less than every one hundred feet of travel.
  - 2.4 Fire extinguishers should only be used by employees who have received documented fire extinguisher training within the past 12 months. Training must be documented and on file.
  - 2.5 Use fire resistant materials for temporary structures.
  - 2.6 Provide access to the work area and around the perimeter. Maintain access in a serviceable condition suitable at all times for use by heavy firefighting equipment.
  - 2.7 Do not drive trucks and motor vehicles within the perimeter of buildings, unless they are designed for that purpose and approved by site security.
  - 2.8 Perform torch-cutting and welding operations in accordance with the applicable fire and safety regulations.

Use fire resistant tarpaulins when torch-cutting or welding.

- 2.9 Contractors must ensure that all portions of the building are protected when performing hot work activities. Contractors must assess areas adjacent and below the hot work and provide fire protection and a fire watch below the hot work being performed overhead.
- 2.10 Remove combustible waste materials, rubbish, and debris daily.
- 2.11 Replace temporary fire fighting or fire protection equipment immediately after use, and remove when the work is complete.
- 2.12 Do not fuel equipment while the motor is running.
- 2.13 Provide proper safety waste cans with lids for disposing oily rags or combustible materials.
- 2.14 Sprinkler systems and fire alarm systems must be placed in service as early in the project as possible.
- 2.15 Once building is enclosed, the contractor must provide one 20 lb ABC extinguisher for every 3000 square feet of enclosure or no more than 100 feet of travel in any direction.
- 2.16 Gasoline or diesel powered portable generators must be approved by the site safety manager and used only when a qualified operator is present.
- 2.17 Post "No Open Flame" signs and all other danger signs where applicable.

### **3. Temporary Fuel Tanks**

- 3.1 Temporary fuel tanks (gasoline, diesel, and fuel oil) are only allowed when approved by VW fire.
- 3.2 Tanks must meet construction and design criteria.
- 3.3 Temporary fuel tanks require a permit in accordance with local, state and federal regulations.
- 3.4 Temporary fuel tanks shall have required marking and signage. Contractor will provide secondary containment.

- 3.5 Post "No Open Flame" signs and all other danger signs where applicable.

## **Section 24: Work Area Conditions**

### **1. General Information**

- 1.1 Portions of this section may be referenced in 1926, Subpart D, G and M.
- 1.2 Contractor employees must define and clearly identify work areas using tape, signs, or barricades to prevent unwarranted entry.
- 1.3 The contractor is to provide the equipment needed to mark work areas.

### **2. Drinking Water**

- 2.1 Contractors must provide an adequate supply of drinking water where employees are working with individual cups or containers for personal use. The contractor must also provide a container for disposing of cups or containers.
- 2.2 Clearly mark containers used for drinking water and do not use them for other purposes.

### **3. Toilets and Washing Facilities**

- 3.1 Contractors will provide toilets for their employees, including subcontracted employees according to applicable sanitary work standards and where required by state or federal law.
- 3.2 Contractors will provide adequate washing facilities for employees.
- 3.3 Contractors may refer to OSHA Standard 1926.51, Subpart D - Sanitation; however, additional toilet and washing facilities will be required depending on the maintenance and cleanliness of these components and the ratio of male to female employees.

#### 4. Lighting

- 4.1 Light work areas, ramps, runways, corridors, offices, shops, and storage areas to at least the minimum illumination intensities listed below while work is in progress.

Foot-Candles	Area of Operation
5	General areas, ramps, warehouse
10	Operations involving machinery

#### 5. Material Use and Waste Management

- 5.1 Contractor is responsible for placing receptacles and dumpsters around the work area for collection of waste materials.
- 5.2 Contractor is responsible for placing covered receptacles for food waste around the work and break areas.
- 5.3 Hazardous waste or potentially hazardous waste, as determined by the methods and definitions from environmental regulations, must be stored and collected in approved containers in special areas.
- 5.4 Do not abandon material in the work area. If material found in the work area is traced to a contractor, that contractor is responsible for expenses involved in collecting, moving, disposal of the material, and clean up.
- 5.5 Waste haulers, disposers, recyclers, and scavengers are not allowed in the work area without permission from the VW plant infrastructure. It is the responsibility of the contractor to provide copies of licenses, permits, and authorization.
- 5.6 Do not remove hazardous waste from the work area without authorization from VW environmental. Do not bring waste into the work area and dispose of it using VW systems or facilities. Contractors must inspect dumpsters



frequently and remove potentially hazardous material or waste and place it in the appropriate storage area. The costs associated with dumpster inspections is the responsibility of the contractor.

- 5.7 Do not allow used oils, paint waste, or similar products to accumulate or be dumped in the work area. Spills must be immediately cleaned up by the creator of the spill to the satisfaction of VW Environmental Manager. Costs associated with clean up are the responsibility of the creating contractor.
- 5.8 Contractors are responsible for assuring that employees do not remove construction debris from the construction site without written approval of their VW representative.

## **6. Dust and Erosion Control**

- 6.1 Creating uncontrolled dust by any means is not acceptable. It is the responsibility of the contractor to:
  - A. Prior to starting work, contractor is responsible for identifying / documenting the means and methods of dust control for work that is expected to produce dust.
  - B. Contractor is responsible for watering construction roadways, lay down areas and access points for dust control.
  - C. Contractor is responsible for flat grading and stone replacement on construction roadways, lay down areas and access points for erosion control.
  - D. Take immediate action to control or eliminate dust that may be inadvertently created.
- 6.2 Tree protection, erosion and sediment control must be provided and maintained where applicable.
  - A. Contractors that create or could create tree loss or erosion must take the steps necessary to control and guard against these situations.
  - B. Settling basins and/or straw barricading around existing storm sewers is required for work (excavation or disturbance of soil) that could cause silt to enter a storm sewer.

- C. Contractors are responsible to have a storm water operator who is responsible for assessing erosion and maintaining erosion control methods. He or she will work with the VW Environmental Manager.

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## Section 25: Special Equipment

### 1. General Information

- 1.1 Portions of this section may be referenced in 1926, Subpart D and E.

### 2. Lasers

- 2.1 Laser operators must take the steps necessary to prevent unintentional laser beam exposure to workers and the public per OSHA 29 CFR 1926.54.
- 2.2 Contractors are responsible to provide only qualified and trained laser operators. Qualifications and training must be kept on file.
- 2.3 Contractors are responsible for posting signage and providing barriers around work where laser beam exposure may exist.

## Section 26: Motor Vehicles and Heavy Equipment

### 1. General Information

- 1.1 Portions of this section may be referenced in 1926, Subpart O.

### 2. Motor Vehicle and Heavy Equipment Procedures

- 2.1 Construction vehicles and heavy equipment brought on project site must be inspected, tested, and certified to be in safe operating condition. The certification documentation must be available for review by VW safety prior to bringing the equipment on the project site.
  - A. Vehicle and equipment passes will be issued by site security.
  - B. Site vehicles (company trucks) must have ID and insured prior to use – Company owned and logo's. Personal vehicles used by Supervisors or Managers on site must have company ID, and must meet the insurance requirement.

- C. Equipment operators must be trained, licensed or certified to operate that equipment.
  - D. Certification is required for crane operations (CCO Designation), power industrial trucks, and others as required by OSHA.
  - E. Training documentation must be current and be provided to VW safety upon request.
- 2.2 Use of motor vehicles to transport hazardous material must comply with DOT requirements.
  - 2.3 Motor vehicles must be properly equipped and maintained in accordance with the manufacturer's recommendations.
  - 2.4 Only authorized, licensed drivers are allowed to operate vehicles or equipment.
  - 2.5 Drivers and / or operators will shut off the engine during fueling and maintenance, or when leaving a motor vehicle or equipment unattended.
  - 2.6 Use wheel chocks during unloading and anytime the vehicle could possibly roll.
  - 2.7 Do not use a motor vehicle or equipment having an obstructed view to the rear, unless the vehicle has a backup alarm audible above the surrounding noise level or an escort. Pickups and personal vehicles allowed on site are exempt from having back up alarms.
  - 2.8 Heavy machinery, equipment, or their parts which are suspended or held aloft by slings, hoists, or jacks must be substantially blocked or cribbed to prevent falling or shifting.
- A. Personnel are not allowed to work under or between suspended loads.
- 2.9 Bulldozer and scraper blades, end-loader buckets, dump bodies, hydraulic lifts, and similar equipment must be either fully lowered or blocked when being repaired or when not in use. Controls must be in neutral position, with motors stopped and brakes set, unless the work being performed requires otherwise.

- 2.10 Hauling vehicles for which the payload is loaded by cranes, power shovels, loaders, or similar equipment must have a cab shield and/or canopy adequate to protect the operator from shifting or falling materials.
- 2.11 Arrange and label control handles for tailgates, dump trucks, and heavy equipment for ease of identification when dumping.
- 2.12 Check vehicles at the beginning of each shift to ensure that equipment and accessories are in safe operating condition, and free of damage that could cause failure while in use.
- 2.13 Do not ride with arms or legs outside of the truck body, in a standing position, on running boards, seated on side fenders, tailgates, truck cabs, cab shields, rear of truck, or on the load. Every passenger must be able to sit on a equipment manufacturer's supplied seat while on or in the vehicle.
- 2.14 If a piece of equipment has a seat belt, then the operator and passengers must wear the seat belt.
- 2.15 Do not drive above the posted speed. Weather, traffic, width and characteristics of the road, type of motor vehicle, and existing conditions may reduce the speed limit.
  - A. Drivers / Operators may not use phones or other mobile devices while operating the equipment, unless the mobile communication device is necessary for the safe performance of the specialized task.
- 2.16 If it is necessary to take or make a call while driving, the vehicle must be stopped or parked until the phone call is completed.
- 2.17 Conspicuously post rated load capacities, operating speeds, and special hazard warnings on equipment. Instructions or warnings must be visible to the operator while at the control station.
- 2.18 A competent person must document and inspect machinery and equipment prior to each use. Deficiencies must be corrected and defective parts replaced before continued use.

- 2.19 Belts, gears, shafts, pulleys, sprockets, spindles, drums, flywheels, chains, or other reciprocating, rotating, or moving parts of equipment must be guarded if parts are exposed or create a hazard.
- 2.20 An accessible fire extinguisher of 5BC rating or higher must be available at the operator stations or cabs of construction vehicles.
- 2.21 Rollover protection specified by OSHA is required for applicable equipment operated in the work area.
- 2.22 Operators of vehicles or equipment are to use seat belts or other restraint devices at all times during operation of vehicles or equipment.

### **3. Special Equipment – Golf Carts or “Gators”**

- 3.1 Contractors must provide a list of personnel trained and authorized to operate golf carts or gators
  - A. Documentation of training must be made available to VW safety.
- 3.2 Golf carts and gators must be equipped with the following:
  - A. Chevron Flag (high visible – minimum 6 foot high)
  - B. Strobe light
  - C. Head lights
  - D. Audible signal when in motion. Forward must differ from reverse, and both must be capable of being heard above ambient noises.
  - E. Horn
- 3.3 Use of phones
  - A. The use of phones, two way radios or other communication devices may not be used when equipment is in motion. If driving, the vehicle must be stopped / parked until the phone call is completed.

#### **4. Loading Dock Vehicle Safety**

- 4.1 Motor vehicles parked in a loading dock area must have the engine turned off (except for motors required for refrigeration).
- 4.2 When loading or unloading a motor vehicle at a dock, set the emergency brake and place wheel chocks under both sides of the rear wheels, and engage dock-locks if available, to prevent the vehicle from rolling.
- 4.3 Where chains or other dock fall protection are removed to allow safe unloading or loading, it must be replaced when the vehicle is moved or the space is open.
- 4.4 The contractor is responsible to assure that the driver has all applicable PPE and is dressed for the site.

## **Section 27: Transporting Hazardous Materials**

### **1. General Information**

- 1.1 Portions of this section may be referenced in 1926, Subpart D, and in DOT regulations.
- 1.2 This section references regulatory requirements and corporate policies designed to protect employees, the public, and the environment; to promote safe transportation of chemical, biological, and radioactive materials; and to enhance compliance with state, and federal transportation laws and regulations.
- 1.3 The policies and procedures in this section apply to contractors, subcontractors, and vendors who transport or ship chemical, biological, and radioactive materials to, from, or within the site. Deviation from these policies and procedures is not permitted without written approval from the VW representative.

### **2. Transportation Procedures**

- 2.1 Contractor employees involved in transporting or shipping chemical, biological, and radioactive materials are responsible for regulatory compliance and for promoting the safe transportation of dangerous goods.

- 2.2 Only employees who have completed DOT training may package and prepare chemical, biological, and radioactive materials for transport.
- 2.3 Contractors that ship hazardous materials are responsible for complying with site-specific procedures and for ensuring that their employees complete the appropriate DOT training.

## Section 28: Confined Space Entry

### 1. Confined Space Entry Procedures

- 1.1 For the purpose of this section, all referenced materials may be found in 29 CFR 1910.146.
- 1.2 A confined space is an enclosed area that has a limited means of egress and is subject to the accumulation of toxic or flammable contaminants or has an oxygen-deficient atmosphere.
  - A. Confined spaces are also large enough to enter and perform work, and is not designed for continuous human occupancy
- 1.3 Entry into a confined space is not allowed unless applicable work permits are being used in accordance with site facility requirements.
- 1.4 Prior to entry, the entry contractor must provide a copy of the company's written confined space program and documentation of effective confined space entry training in accordance with OSHA requirements. This program and documentation will be reviewed before entries can be made.
  - A. Training for all contractors participating in the confined space entry permit must be within the previous 12-month period and will be provided to VW Fire and Security upon request.
- 1.5 Personnel, equipment, and supplies needed for entry must be present at the confined space before beginning work.
- 1.6 The contractor must use the site permit provided by VW Security, which must include all items required by OSHA. Contractors must abide by the provisions and restrictions



of the site permit. Security must be notified prior to entry and upon exiting the space.

- 1.7 If space or work conditions change, the contractor must terminate the work and request a new permit.
- 1.8 Violation of these requirements may result in immediate removal from project site.

## **2. Confined Space Monitoring**

- 2.1 The contractor is responsible for providing monitoring equipment and being qualified to use it. Prior to use, all monitoring equipment must be calibrated each day according to the manufacturer's guidelines.
- 2.2 If the confined space needs to be continuously monitored, the contractor must supply the required equipment and the required personnel to provide the monitoring.
  - A. Monitoring must be conducted by a trained or qualified worker. Monitoring must be documented on the confined space permit.
- 2.3 Contractors are responsible for the safety and health of their employees and must not allow them to enter a confined space that is unsafe or enter a confined space without a permit.
- 2.4 The contractor must pay the costs of additional inspection, evaluation, or consultation provided for the benefit of the contractor concerning the safety of the confined space. An employee, engineer, architect, visitor, or vendor who enters a controlled confined space must abide by site-specific confined space procedures.
- 2.5 Additional confined space entry equipment may be needed as determined by VW Fire personnel.
  - A. Contractors must ensure that employees, visitors, vendors, consultants, or other persons under their direction or assisting them are thoroughly trained and understand these requirements before they are allowed to enter a confined space.

## **3. Working in Confined Spaces**

- 3.1 The following rules apply to work performed in confined spaces:

- A. All confined spaces, regardless if permit or non-permit, will be monitored initially for oxygen deficiency or enriched atmosphere, CO, toxic gasses and flammable gasses.
  - B. Contractors must provide ventilation, which must be of adequate volume to safely maintain the airflow within the confined space.
  - C. Employees or the person supervising the work must report unsafe conditions immediately.
  - D. Welding, cutting, brazing, and purging operations have restrictions on their use in confined spaces. Contractors must be aware of these specific requirements.
  - E. Chemicals used or transported inside the confined space have restrictions on their use in confined spaces. Contractors must be aware of these specific requirements.
  - F. Tools such as grinders, drills, and sanders have restrictions on their use in confined spaces. Contractors must be aware of these specific requirements.
  - G. Rescue and response plans and resources must be available, trained, and equipped as required by OSHA (1910.146).
- 3.2 The contractor will stop confined space entry during an emergency and not allow entry except as necessary to respond to the emergency.
  - 3.3 Employees and the issuer of the permit will determine sources of power, fluids, gases, ventilation, and other means of disturbing the work area within the confined space. Potential disturbances must be locked, tagged, and secured prior to allowing entry in a manner consistent with the Lockout and Tagging section of this manual.
  - 3.4 Employees must be able to identify any location of a purge gas release and where the gas is being vented. Purge gas must not be vented inside a building or in a confined space.
  - 3.5 Wear hearing protection if the noise level inside the confined space is greater than 85 decibels.

- 3.6 Do not run equipment near the entry of confined spaces.
- 3.7 Do not take compressed gas cylinders into confined spaces.

## Section 29: Floor, Roof, and Wall Openings

### 1. Floor, Roof, and Wall Opening Procedures

- 1.1 Portions of this section may be referenced in 1926, Subpart M.
- 1.2 The use of double headed nails to construct guard rail, hand rail or stair rails is prohibited.
- 1.3 Contractor is responsible for protecting and controlling conditions where there is a danger of employees or materials falling through floor, roof, or wall openings, or from floor or roof perimeters.
- 1.4 Remove guarding and covers only after other means of fall protection are in place. Employees installing or removing guarding and covers must be protected by alternative fall protection throughout the process. The contractor responsible for the removal of guarding and covers is responsible for their replacement.
- 1.5 Perimeter, floor, roof, and wall opening protection must be maintained throughout all phases of the work. Notification of a violation that is not corrected immediately will result in implementation of the disciplinary procedures outlined in this manual.
- 1.6 In accordance with OSHA standards, installation of a standard railing is required for floor perimeter and wall opening protection.
  - A. A standard railing consists of a top rail, a mid rail, toe boards, and four-foot vertical debris nets and posts.
  - B. Wire rope used as railing (as top rail and mid rail) must be 1/2 inch in diameter with at least three J-type fist grip wire rope clamps at each connection and turn buckles every 100 feet, and thimbles must be used where the wire rope is connected.

- C. Perimeter, floor and wall opening guarding must be flagged or identified during its construction or erection to prevent inadvertent use by others.
- 1.7 Maintenance activities would include routine maintenance such as inspection or minor repair of equipment or the roof.
- 1.8 For construction work or maintenance activities performed on low sloped roofs (less than 4:12 pitch), conventional fall protection systems (see Section 14, Part 6) or a combination of them is required whenever workers are within fifteen feet of unprotected sides or edges.
- 1.9 There is no exception to the fall protection requirements noted above for contractors performing roofing work.

## **2. Stair Railings**

- 2.1 Stair railings must be constructed similar to a standard railing, but the vertical height must be 34 to 36 inches from the top rail to the surface tread in line with the face of the riser, at the forward edge of the riser.
- 2.2 Provide a minimum clearance of 3 inches between the handrail and other surfaces or objects.
- 2.3 Stair railings must be smoothed to remove burrs or splinters from injuring workers who are using them.

## **3. Floor Opening Covers**

- 3.1 Floor opening covers must be used for any openings greater than 2 inches and must be capable of supporting the maximum intended load and installed to prevent accidental displacement.
- 3.2 Protect floor openings by a cover and/or standard railing and protect from movement. Clearly mark and anchor covers.

## **4. Stairs**

- 4.1 Stairs consisting of four or more risers must have handrail or stair rail on any open side(s).

- 4.2 During construction, provide temporary stairs on structures that are two or more floors or more than 20 feet high until permanent stairways are in place.
- 4.3 Daily documented inspections of these temporary stairs must be done by a qualified person.
- 4.4 Temporary stairs must be erected by a qualified contractor.
- 4.5 Keep stairways free of hazardous objects. Do not allow debris and loose material to accumulate on stairways. Storage of combustibles under stairways is NOT allowed.
- 4.6 Permanent steel stairways having hollow pan-type treads and landings that are to be used prior to concrete placement must have the pans filled with solid material to the level of the nosing.
- 4.7 Temporary stairs must have a landing not less than 30 inches wide in the direction of travel for every 12 feet of vertical rise.
- 4.8 Provide uniform riser height and tread width throughout the flights of stairs.

## 5. Runways and Openings

- 5.1 Install standard guarding at wall openings from which there is a drop of more than 3 feet.
- 5.2 Chains and latches used to protect wall openings must be secured at all times. Wall opening guards may be temporarily removed to land materials or lower equipment/materials, etc. to the ground.
- 5.3 Personnel involved with the above procedures must be 100% fall protected during the task.
  - A. Wall opening protection must be reinstalled as soon as task is complete.
  - B. Guard runways using a standard railing, or the equivalent, on open sides above the floor or ground level. When tools, machine parts, or materials are likely to be used on the runway, provide a toe board on each exposed side.

- 5.4 Regardless of height, open-side floors, walkways, platforms, or runways above or adjacent to dangerous equipment and similar hazards must be guarded with a standard railing.

## Section 30: Cranes and Rigging

### 1. General Information

- 1.1 Portions of this section may be referenced in 1926 Subpart H & N.
- 1.2 Contractors whose activities require the use of cranes are responsible for proper set up and operation. Evidence of up-to-date crane inspections (annual) must be provided upon request. Cranes may be rejected for any defect, no matter how minor.
- 1.3 This procedure applies to the following types of cranes. Crawler cranes, locomotive cranes, wheel mounted cranes of both truck and self-propelled wheel type and any variations that have the same fundamental characteristics.
  - A. This procedure also applies to other powered vehicles that may be used to hoist or lift equipment or material that breaks the roof line. All Job Hazard Analyses and Lift Plans must contain a contingency section regarding handling emergencies should a crane collapse, turn over, or drop a load.
- 1.4 All lifts which require breaking a roof line, more than one piece of equipment, exceed 75 percent of the lifting capacity of the equipment, or involve the lifting of specialized equipment require a Job Hazard Analyses and Lift Plan. Job Hazard Analyses and Lift Plans must be approved by site safety. Job Hazard Analyses and Lift Plans must contain crane, rigging and load details as well as sketches or electronic drawings that include both a plan view showing swing direction and crane placement with respect to the facility and a crane elevation showing the boom angle and extension extremes of the lift.
- 1.5 If a material or equipment lift does not require a formal lift plan according to the above criteria, a Job Hazard Analysis of the lift must be performed prior to the lift.

- 1.6 For all lifts, a pre-lift meeting shall be conducted for all personnel involved with, or in the area of, the lift so that all are aware of the planned activity and the potential hazards associated with the lift.
- 1.7 Cranes being delivered or erected on the project site must have a crane inspection conducted by a third party. This may be in addition to the annual crane inspection as required by OSHA. Contractors are responsible for any associated costs of the third party inspection.
  - A. Prior to any lift, contractors will provide documented evidence of an annual inspection in accordance with OSHA requirements for all crane, hoisting, and associated rigging equipment brought onto the site. If the inspection record is not produced, if one year has elapsed since the last inspection, or if the crane or its associated rigging exhibits any damage or excessive wear, the crane cannot be used.
- 1.8 The crane operator or other competent person will perform a daily inspection of cranes. The person performing this inspection will document results in writing, and the documentation will be available for examination upon request. In addition to daily inspections, if a crane is moved or the process changes during operations it must be re-inspected prior to performing the lift in order to reflect the changes.
- 1.9 A third-party crane inspection, which has been conducted within the previous 90 days, may be required for all critical lifts. A critical lift may include, but is not limited to:
  - A. Any lift exceeding 75% of the crane's rated capacity at the required lifting configuration;
  - B. Any lift that requires the use of more than one crane or is made in combination with other lifting equipment;
  - C. Any lift located in an area where there is exposure to electrical hazards, overhead piping systems, vessels, operational buildings, etc.
- 1.10 A critical lift may also involve the lifting of specialized equipment which has been designed, engineered or fabricated for a specific process or function, the loss of which would severely impact the Project. The determination of what constitutes a critical lift shall be

made by the VW representative on the basis of the submitted lift plan. If it is determined that this is deemed a “critical lift” then a critical lift plan must be approved by VW prior to the lift taking place.

- 1.11 At no time will any lift be made over occupied space, personnel, active roadways, or moving or parked vehicles.

## **2. Recordkeeping**

- 2.1 Records pertaining to crane inspections will be kept on site with the crane or in the contractor's temporary office.
- 2.2 The crane operations and maintenance manual shall be available for inspection at each crane or hoisting equipment.

## **3. Operator Qualifications and Operating Procedures**

- 3.1 Only designated crane operators who have been licensed by an approved agency and who meet the minimum DOT requirements as provided in DOT 391 may operate cranes and hoisting equipment.
- 3.2 Crane operators must be certified (CCO).
- 3.3 Rental cranes and other lifting equipment not subject to DOT requirements must have the operator approved by the site safety manager.
- 3.4 No one other than the designated operator will be in or on the crane during operations. Exceptions are oilers or supervisors whose duties may require their presence.
- 3.5 Crane operating procedures must be in accordance with OSHA requirements. (1926.550) Subpart N.
- 3.6 Any crane service, repair or maintenance performed at heights greater than six feet require 100% fall protection.
- 3.7 No crane will be operated near overhead power lines, transmission boxes, etc. without pre-planning the activity.

## **4. Maintenance**

- 4.1 Records indicating a preventative maintenance program based on the equipment manufacturer's recommendations must be made available if requested.



- 4.2 In addition to the annual inspection, cranes must be inspected according to their use. OSHA requires regular and periodic inspections. These are in accordance with manufacturer's recommendations.

## **5. Rigging Requirements**

- 5.1 A qualified rigger must inspect rigging equipment prior to each use and immediately remove from service and destroy any damaged or defective slings.
- 5.2 Contractor is responsible to provide a documented monthly inspection of all rigging equipment.
- 5.3 Rigging devices, including slings, must have permanently affixed identification stating size, grade, rated capacity, and manufacturer.
- 5.4 Remove rigging not in use from the immediate work area.
- 5.5 Hang rigging and slings on a rigging frame to eliminate bends and kinks.
- 5.6 Do not leave slings lying on the ground or exposed to dirt or the elements.
- 5.7 Do not shorten slings using bolts, knots, or other devices.
- 5.8 A licensed (professional) engineer or the manufacturer must certify lifting beams and spreader bars as to their configuration and lifting capacity.

## **6. Work Platforms Suspended from Cranes**

- 6.1 Cranes used with work platforms to hoist, lower and suspend personnel is prohibited.

## Section 31: Excavation and Trenches

### 1. Definitions

- 6.1 *Excavation* means any man made cut, cavity, trench or depression in an earth surface, formed by earth removal.
- 6.2 *Ramp* means an inclined walking or working surface that is used to gain access to one point from another and is constructed from earth or structural materials such as steel or wood.

### 2. General Information

- 2.1 Portions of this section may be referenced in 1926, Subpart P.
- 2.2 This manual establishes requirements for trenching and excavation undertaken by contractors on the project site.
- 2.3 The contractor will maintain a list of persons who are trained to serve as the "competent person" as well as a list of additional personnel that have received training on the basics of hazard recognition and safe work practices for excavation operations and will be working in or around excavations.
  - A. Training is required to be current within the previous 12 months.
  - B. In addition, VW may request to review and evaluate standard practice instruction:
  - C. On an annual basis
  - D. When regulatory requirements change
  - E. When facility operational changes occur that require a revision of the manual
  - F. When there is an accident or near miss that relates to this section of the manual
- 2.4 Fall protection is required when working at the top edge of trenches or excavations which are greater than six feet deep.

### 3. Training Requirements

- 3.1 Contractors shall provide training to ensure the purpose and function of the trenching and excavation program is understood by their employees and subcontractors under their control and possess the knowledge and skills required for safe trenching and excavation operations on the VW site.
- 3.2 The site safety manager reserves the right to request employees be re-trained in the event of an incident, when periodic inspections reveal a need, or when the site safety manager has reason to believe there are deviations from or inadequacies in the employee's knowledge or use of these procedures.

### 4. Excavation Permit

- 4.1 Excavation performed on the project site by any type of machine or tool requires an excavation permit prior to starting work. This would include using stakes (i.e., for concrete forms), erecting tents and putting up signs.
- 4.2 The contractor in charge of the work must perform the following tasks:
  - A. Complete the excavation permit and forward it to Plant Infrastructure for approval.
  - B. Ensure that the utility providers and other locating services are contacted and that the area impacted is free from utilities and other hazards prior to beginning work.
  - C. Ensure that approval signatures on the permit are obtained after the required personnel have reviewed the field drawings or sketches. Electronic approval is acceptable, such as fax or e-mail.
  - D. Present the completed permit to the operator
  - E. Protect the excavation area from unauthorized personnel by means of barricades or fencing.
- 4.3 Do not begin excavation until the permit is present at the excavation site and signed by the company safety representative, the operator and the VW representative.

- 4.4 The Excavation Permit must remain at the excavation site during the entire time of the excavation.

## 5. Protection Design

- 5.1 Excavations and trenches over four feet deep must be sloped, shored, benched, braced, or supported. When soil conditions are unstable, excavations less than four feet must be sloped, shored, or supported as required by regulations.
- 5.2 Each employee in an excavation will be protected from cave-ins by an adequately designed protective system. Protective systems shall have the capacity to resist without failure all loads that are intended or could reasonably be expected to be applied or transferred to the system.
- 5.3 Slopes and configurations of sloping and benching systems will be properly selected and constructed as follows:
  - A. Determination of slopes and configurations is made using 29 CFR 1926.652 Appendices A and B "Maximum Allowable Slopes".
  - B. A sloping and benching system approved by a professional engineer registered in the state where the project site is located for excavations deeper than 20 feet.

## 6. Design and Construction of Protection Systems

- 6.1 Contractor will ensure shoring materials and equipment are in good condition. Materials and equipment used for protective systems shall be free from damage or defects that might impair their proper function.
- 6.2 Contractor will ensure that all manufactured materials and equipment used for protective systems shall be used and maintained in a manner that is consistent with all specifications, recommendations and limitations issued or made by the manufacturer and in a manner that will prevent employee exposure to hazards.
- 6.3 Contractors will ensure that any deviation from the manufacturer's specifications, recommendations and

limitations will only be allowed after the manufacturer issues specific written approval.

- 6.4 Timber shoring of any kind is unauthorized on this site.

## **7. Inspections**

- 7.1 Daily inspections of excavations, the adjacent areas, and protective systems shall be made by a competent person for evidence of a situation that could result in possible cave-ins, indications of failure of protective systems, hazardous atmospheres, or other hazardous conditions.
- 7.2 An inspection shall be conducted by the competent person prior to the start of work and as needed throughout the shift. Inspections shall also be made after every rainstorm or other events that could appreciably increase the likelihood of a hazard when employee exposure can be reasonably anticipated. Water must not be allowed to accumulate in a trench or excavation.
- 7.3 Dewatering is required whenever there is a water accumulation in the excavation.
- 7.4 If dangerous ground movements such as tension cracking are apparent, stop work in the excavation until the problem has been corrected.

## **8. Egress**

- 8.1 Egress means shall be provided from trenches and excavations. A stairway, ladder, ramp or other safe means of egress shall be located in trench excavations that are four feet (1.22 m) or more in depth so as to require no more than 25 feet (7.62 m) of lateral travel for employees.
- 8.2 Ladders must be in good condition, extend from the floor of the trench to three feet above the top of the excavation, and secured at the top.

## **9. Completion of Work**

- 9.1 Support systems shall be installed and removed in a manner that protects employees from cave-ins, structural collapses, or from being struck by members of the support system.

- 9.2 Individual members of support systems shall not be subjected to loads exceeding those which those members were designed to withstand.
- 9.3 Before temporary removal of individual members begins, additional precautions shall be taken to ensure the safety of employees, such as installing other structural members to carry the loads imposed on the support system.
- 9.4 Removal shall begin at, and progress from, the bottom of the excavation. Members shall be released slowly so as to note any indication of possible failure of the remaining members of the structure or possible cave-in of the sides of the excavation.
- 9.5 Backfilling shall progress together with the removal of support systems from excavations.

## 10. Drilling Operations

- 10.1 An Excavation Permit is required for drilling operations.
- 10.2 Inspect the drilling area for hazards before starting the drilling operation. Utility lines must be located and marked prior to any drilling operations. OSHA mandated clearance from power lines is required.
- 10.3 Drill crews and other employees must stay clear of augers or drill stems that are in motion.
- 10.4 Barricades must be installed around the auger or drill while it is in motion.
- 10.5 After auger or drilling is complete, the hole must be covered to protect workers from inadvertently falling into the hole.
- 10.6 When drill helpers assist the drill operator during installation or operation of a drilling rig, the helpers must be in sight of or in communication with the operator at all times.
- 10.7 Attend drilling rigs while in operation. Do not drill from positions that hinder access to the controls, or from insecure footing or staging.
- 10.8 A competent person must inspect drilling equipment and any associated rigging at the start of each shift, and defects must be corrected before the equipment is used.

- 10.9 Warn workers in the area around the drilling operation before each drilling cycle is started.

## **Section 32: Concrete and Formwork**

### **1. General Information**

- 1.1 Portions of this section may be referenced in 1926, Subpart Q.
- 1.2 The following procedures apply to the erection of concrete formwork, placement of concrete for either cast-in-place or precast work and masonry work.

### **2. Concrete and Formwork Procedures**

- 2.1 Equipment and materials used in concrete construction and masonry work must meet the applicable U.S. national requirements.
- 2.2 Employees working more than six feet above an adjacent work surface while placing reinforcing steel or setting/dismantling forms must use a personal fall arrest system (PFAS) with two lanyards. Positioning devices may be used with the PFAS, but not by themselves unless the work performed is less than 6 feet from the adjacent surface below.
  - A. Follow 100 percent tie-off and fall protection practices.
- 2.3 Contractors must ensure that no work is performed near power lines per OSHA requirements
- 2.4 Mixers must be locked out prior to maintenance or repair work
- 2.5 Cover protruding reinforcing steel with a minimum of 2-inch thick material or standard caps where employees may be required to work above or pass through.
- 2.6 Do not work above vertically protruding reinforcing steel unless the steel has been protected to eliminate the hazard.
- 2.7 Affix impalement caps on reinforcing steel that is less than six feet high.

- 2.8 Riding concrete buckets or operate concrete buckets over occupied areas is prohibited.
- 2.9 Cover reinforcing mats used as walkways with plywood for safe footing.
- 2.10 Wear NIOSH-approved, supplied-air respirators and hoods when sandblasting.
- 2.11 All concrete cutting (saw cutting) must be performed wet, and slurry is to be cleared as necessary to maintain safe walking and working surfaces around the work area.
- 2.12 Hearing protection must be worn when sandblasting or saw cutting as indicated.
- 2.13 The contractor is responsible for the cost associated with any air monitoring required to determine permissible exposure levels of hazardous materials.
- 2.14 Concrete workers must wear appropriate shirts, boots, and gloves to reduce the danger of concrete burns.
  - A. Contractors must provide additional PPE as indicated for the work performed. Costs associated with additional PPE are the responsibility of the contractor.
- 2.15 Remove excess materials from the work area.
- 2.16 Concrete mixer drivers must have and wear all applicable PPE when on site
- 2.17 Washout of mixer trucks will take place in designated areas only
- 2.18 Concrete mixer truck drivers must use 100% fall protection when performing washout. Contractors are responsible for informing their suppliers of the site-specific 100% fall protection requirements when work is performed over six feet from the ground.

### 3. Masonry

- 3.1 Masonry contractors must establish a limited access zone surrounding wall formations prior to the start of construction to protect other (non-authorized) workers
- 3.2 Walls greater than 8 feet tall which are under construction must be braced and secured to adequately



protect it from overturning or collapsing until permanent supporting elements of the structure are in place.

- 3.3 Scaffolds used during masonry work must not be overloaded, and excess materials must be removed from any scaffold at the end of the work day.

## Section 33: Steel Erection

### 1. Definitions

- 1.1 A *barricade* is a device used to direct or protect pedestrian or vehicular traffic from a work activity.
- 1.2 *Christmas treeing* is the practice of suspending multiple structural steel members from one another horizontally and hoisting them in a single lift.
- 1.3 *Controlling Contractor* is the contractor responsible for steel erection. The controlling contractor will manage steel erection with the Construction Manager.
- 1.4 An *outrigger* is a structural member of a supported scaffold used to increase the base width of the scaffold to provide increased stability.
- 1.5 A *tag line* is a rope that is tied to a structural member and used to control the movement of the member during placement.

### 2. Training

- 2.1 Portions of this section may be referenced in 1926, Subpart M & R
- 2.2 A qualified person is required to train exposed workers in fall protection and workers engaged in special, high risk activities.
- 2.3 Inspection also requires a qualified person.

### 3. Hoisting and Rigging

- 3.1 All steel erection work requires a Job Hazard Analysis detailing specific components of the work activities. Inspection of the work area and equipment must be carried out at the beginning of each shift by a qualified

person. A qualified rigger must also inspect the rigging prior to each shift.

- 3.2 For crane operations, safety latches on hooks may not be deactivated unless a qualified rigger determines it is safer to place purling and joists without them, or equivalent protection is provided in a site-specific erection plan.
- 3.3 The standard allows employees engaged in initial steel erection or hooking/unhooking to work under loads in some specific instances. The load must be rigged by a qualified rigger.
- 3.4 Crane operators are responsible for operations under their control and have the authority to stop and refuse to handle loads until safety has been assured.
- 3.5 This project prohibits the use of cranes to hoist personnel.
  - A. When employees work under loads (allowed in specified instances) requirements in OSHA 1926.753(d) must be followed.
  - B. Multiple lift rigging (with a maximum of 5 "Christmas Treeing" of steel members in one load) is permitted as long as the requirements of OSHA 1926.753(e) are met.

#### **4. Permanent Floors**

- 4.1 Install permanent floors as soon as practical following the erection of structural members. Do not allow more than two floors (24 feet) of unfinished bolting or welding above the foundation or the uppermost secured floor.

#### **5. Temporary Floor**

- 5.1 Solidly plank the erection floor over its entire surface except for access openings. Use planking that is fully able to bear the loads, full size, undressed, laid tight, and secured against movement. Guard access openings with standard guard rail.
- 5.2 A guarding system must be installed and include the following.
  - A. A standard railing consists of a top rail, intermediate rail (mid rail), toe board, four-foot (4 ' ) vertical debris nets, and posts.

- B. The top rail must be approximately 42 inches from the upper surface of the rail to the floor, platform, or ramp level. The top rail, if using wire rope, must be half-inch (1/2") wire rope with at least three J-type fist grip wire rope clamps at each connection, and turn buckles every 100 feet. Use thimbles where wire rope is connected.
- C. The mid rail is located halfway between the top rail and the floor, runway, platform, or ramp. The mid rail must be half-inch (1/2") wire rope with three J-type fist grip wire rope clamps at each connection and turn buckles every 100 feet. Use thimbles where wire rope is connected.
- D. The toe board must be at least four inches (4 ") in height, securely fastened, and not have more than a quarter inch (1/4") gap between it and the floor level where vertical debris nets cannot be installed.

## 6. Steel Work

- 6.1 Prior to the start of steel erection, decking and other associated tasks, the steel erector (controlling contractor) will establish the site layout for steel erection, the lay down areas for steel erection and the construction sequence.
  - A. This plan will be submitted to the CM and Volkswagen representative for review and approval prior to the start of steel erection.
- 6.2 When setting structural steel, secure each connection with at least two wrench-tightened bolts before the load is released.
- 6.3 Do not hoist material to a structure unless it is ready to be put in place and secured.
- 6.4 Comply with the site fall protection requirement (see Section 14 - Personal Protective Equipment) for work performed over six feet. **(One hundred percent fall protection is required for steel erection work.)**
- 6.5 When loads are being hoisted, walking under the lift or permitting an employee to be exposed to the swing of the lift is prohibited.
- 6.6 Use a tag line to control loads.

- 6.7 Post barricades and "Danger Men Working Overhead" signs around the erection area
- 6.8 All persons working below steel erection must be protected from falling objects using any and all applicable methods.

## Section 34: Fall Protection

- 1.1 Deckers, connectors, and all others engaged in steel erection must be protected at heights of 6 feet or more with fall protection. Connectors must wear fall arrest or restraint equipment and be able to be tied off or they must be provided with another means of fall protection that is compliant with applicable laws and regulations.
- 1.2 Contractors installing perimeter cable for fall protection are responsible for maintaining the perimeter cable until relieved of responsibility by the VW representative.
- 1.3 Portions of this section may be referenced in 1926, Subpart M
- 1.4 Fall protection is required on this site whenever work is performed at a height of six feet or more above existing grade.
- 1.5 Contractors must develop their own site specific safety plan to reflect the requirements of the Volkswagen site, and must train all affected personnel to the standards of this site.
- 1.6 Where ever possible, provisions should be in place for self-rescue in the event of a fall from heights of six feet or greater
- 1.7 Contractors must assess their elevated work to determine the need for supplemental fall protection such as self-retracting lanyards, beam clamps, attachment points on roofs, or decks and other similar methods of fall protection.

## Section 35: Roadway Work

- 1.1 Work on or adjacent to existing public and work site roadways must be performed in accordance with the requirements of the most current version of the *Manual on Uniform Traffic Control Devices* (available through

Federal Highway Administration), and portions of this section may be referenced in 1926, Subpart G.

- 1.2 Contractors are to obtain any permits required by local, state, or federal law.
- 1.3 Unless otherwise specified, the contractor performing this work is responsible for furnishing, setting-up, and maintaining traffic control signs, devices, barricades, arrow boards, and flag-persons.
- 1.4 The contractor must ensure that:
  - A. Roadways, walkways, and other means of access and egress are free of trash, rubbish, mud, sand, and loose material.
  - B. Where required, a wheel wash station is provided.
  - C. Vehicles and equipment are clean prior to leaving the site. The contractor is responsible for immediate cleanup and public liability.
- 1.5 Retro reflective vests are to be worn at all times during performance of roadway work, including unloading of trailers and delivery trucks.

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## Section 36: Helicopters

### 1. General Information

- 1.1 Portions of this section may be referenced in 1926, Subpart N
- 1.2 Any and all helicopter lifts require a Job Hazard Analysis detailing the scope of work and the requirements of the helicopter lift
- 1.3 Prior to any helicopter lift, a planning meeting must be held at least 2 weeks prior to the planned lift.
  - A. The contractor is responsible for detailing the flight plan
- 1.4 The plan must include detailed work activities of all personnel, MSDS for the chemicals used during the lift, insurance coverage by the helicopter company (including any “additional Insured”) training for their employees who are participating in the helicopter lift, coordination with site safety, medical and security, signage, etc.
  - A. Helicopter operations must comply with all applicable regulations of the Federal Aviation Administration.
  - B. No unauthorized person will be allowed to approach within fifty (50) feet of the helicopter when the rotor blades are rotating, all employees will remain in full view of the pilot and keep in a crouched position.
  - C. Employees will avoid the area from the cockpit or cabin rearward unless authorized by the helicopter operator to work there.
  - D. Whenever approaching or leaving a helicopter with blades rotating, all employees will remain in full view of the pilot and keep in a crouched position.
  - E. Employees will avoid the area from the cockpit or cabin rearward unless authorized by the helicopter operator to work there.
  - F. Every practical precaution will be taken to provide for the protection for the employees from flying objects in the rotor downwash.

- G. All loose gear within one hundred (100) feet of the place of lifting the load, depositing the load and all other areas susceptible to rotor downwash will be secured or removed.
- H. Good housekeeping will be maintained in all helicopter loading and unloading areas.
- I. Loads will be properly slung. Tag lines will be of a length that will not permit their being drawn up into rotors. Pressed sleeve, wedge eyes or equivalent means will be used for all freely open or cable clamps from loosening.
- J. When visibility is reduced by dust or other conditions, ground personnel will exercise special caution to keep clear of main and stabilizing rotors. Precautions will also be taken by the employer to eliminate, as fast as practical, reduce visibility.
- K. Signal systems between aircrew and ground personnel will be understood and checked in advance of hoisting the load. This applies to either radio or hand signal system.
- L. There will be a constant reliable communicative between the pilot and the designated employee of the ground crew who acts as a signal person during the period of loading and unloading.
- M. This signal person will be distinctly recognizable from other ground personnel.
- N. The helicopter operator will be responsible for the size, weight and manner in which loads are connected to the helicopter.
- O. If, for any reason, the helicopter operator believes the lift cannot be made safely, the lift will not be made.
- P. When employees are required to perform work under hovering craft, a safe means of access will be provided for employees to reach the hoist line hook and engage or disengage cargo slings. Employees will not perform work under hovering craft except when necessary to hook or unhook loads.
- 1.5 Hearing protection shall be required for all personnel working within 100 feet of the helicopter.

