



	AFFECTED AREA ArcelorMittal USA	 ArcelorMittal
Author: M. Ryan Approved by: S. Thompson	TITLE Contractor Safety, Health and Environmental Handbook	Revised: January 18, 2019 Original: May 5, 2006 Revision: 6

Contractor Safety, Health and Environment Handbook

This Contractor's Safety, Health and Environment Handbook is part of ArcelorMittal USA LLC's comprehensive contractor safety program which includes ArcelorMittal USA policies, procedures and general contract terms and conditions. Except as otherwise agreed, where there are variations between the contract sections relating to safety, health, and environmental requirements, and the requirements contained in this handbook, the handbook takes precedence.

Individual sites may supplement this Handbook with information pertaining to forms, emergency phone numbers, environmental reporting information and other requirements that are unique to their operations.

New rules and/or changes of substance are noted with a delta (▲).

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Scope and Application


These requirements apply to all contracted work activity on ArcelorMittal USA property. ArcelorMittal USA property includes all property owned, managed, leased, operated or controlled by ArcelorMittal USA and includes entry roads, parking lots, grounds, and offices. Categories of contracted work include:

- Construction
- Consulting
- Demolition
- Maintenance
- Repair and services

ArcelorMittal USA will not hire a contractor until the contractor understands and agrees to observe the requirements and safe work practices contained in this Handbook applicable to the contractor's work. The term "Contractor" encompasses the contracting entity, and entity's employees, subcontractors and any subcontractor employees.

Personnel found to be in violation of safety requirements including but not limited to the Contractor Handbook are subject to sanctions up to and including a lifetime ban from ArcelorMittal sites.

Contractor employees should consult with their supervisors if they any safety, health or environment questions. Under no circumstances should you ever take unnecessary risks.

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Introduction

Safety is a fundamental value at ArcelorMittal USA. ArcelorMittal USA personnel strive to achieve a goal of zero injuries and illness for all persons at its operations. ArcelorMittal USA's Health & Safety Policy is designed to



- Prevent injuries and occupational illnesses
- Improve health and safety management and performance
- Comply with applicable legal and other requirements
- Share the responsibility for a safe and healthy workplace

Sustainability is also a fundamental ArcelorMittal value. ArcelorMittal USA is committed to the responsible management of its operations to minimize adverse environmental impacts. ArcelorMittal USA's Environmental Policy is provided to all contractors.




The safety, health and environmental performance of contractors working on ArcelorMittal USA property can have a serious impact not only on ArcelorMittal employees, equipment and property.

ArcelorMittal USA does not undertake to manage, direct, control or otherwise assume responsibility for the safety performance of contractors, nor does ArcelorMittal USA assume any duty with respect to the safety of the contractor's or subcontractor's employees, invitees or licensees, not otherwise existing under common law, statute and/or regulation. Compliance with Handbook requirements is designed to help ensure safe work performance by contractors. Contractor employees are independent contractors and have independent obligation to comply with applicable federal, state, and local environmental, safety, and health requirements applicable to the work they perform for ArcelorMittal USA. These are minimum requirements that contractors are obligated to establish for the work being performed. Contractors must follow the ArcelorMittal USA Health and Safety Golden Rules. Contractors shall establish additional rules and work practices as may be necessary to minimize risk and comply with applicable laws. Contractors must ensure the abatement/correction of all at-risk conditions and behaviors.

Contractors must ensure that their employees are competent to perform the work and have the necessary education, training or experience, before beginning work. Also, before beginning work, contractor's employees must understand:

1. The requirements set forth in this "Handbook" which are pertinent to the work assignment.
2. The health, safety, and environmental consequences, actual or potential, of their work activities, their behavior, and the health, safety, and environmental benefits of improved personal performance.

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3. Their roles and responsibilities and the importance in achieving conformity to the Health & Safety policy, Environmental policy and associated procedures.
4. The specified operating procedures and the importance in achieving conformity to the Health & Safety Policy, Environmental policy and associated procedures.
5. Local plant emergency preparedness and response procedures.
6. The safety implications of their actions when planning a change in operations or procedures.


The contractor must retain associated records to demonstrate that the above-mentioned competency has been achieved. Contractors must attend ArcelorMittal USA site safety training sessions at least annually. Contractors are responsible for conveying information presented at annual or periodic training sessions to their employees and to their subs' employees. Contractors are to conduct periodic employee safety training² with their employees throughout the contract work period. Annually, contractors are to review with their employees the ArcelorMittal Contractor Awareness Training PowerPoint, administer the quiz and document and maintain the quiz results. The sites will provide the training PowerPoint. Contractors are responsible for training each employee in job-related hazards, safe work behaviors, environmental impacts, and actions to take in the event of emergencies. The site designated ArcelorMittal USA representative will communicate any relevant site specific and other requirements to the contractor and reserves the right to randomly check contractor's activities for compliance with safety requirements.

Contractor's designated representative or supervisor is responsible for the continued observation and coaching for adherence to all existing and new safety compliance rules, work practice behaviors, conditions and regulatory requirements. ArcelorMittal USA reserves the right to amend or add to its established rules, procedures and regulations affecting safety, health, environment and fire protection at any time.

1.0 Pre-Job Safety, Health and Environmental (SH&E) Checklist Communication

For each job, and before starting work at the job site, a contractor representative must meet face-to-face with the ArcelorMittal USA representative responsible for the work and discuss the work to be performed and any specific safety requirements of the job. The purpose of the pre-job meeting is to discuss requirements for the work, and hazards of the contracted work and identify those contractor representatives who will be responsible for the work and interact with ArcelorMittal representative with respect to the work being performed. The Pre-Job SH&E Checklist or similar document such as a Work Authorization Form must be properly completed and signed by the ArcelorMittal USA representative and the Contractor's authorized representative. The Contractor representative, by signing the Pre-Job SH&E Checklist Form (AMU CON-1) or similar form, agrees to review the information with the appropriate contractor and sub-contractor employees doing the work. For frequently performed tasks which are identical in scope and hazard, a previously completed Pre-Job SH&E Checklist may remain applicable for up to one year.

In addition, prior to each shift, contractors must conduct a formal risk assessment by completing a Hazard Identification, Risk Assessment and Control checklist such as the HIRAC-Lite or similar document in accordance with the plant's procedure(s) for same. For each hazard identified a plan must be put in place to control or eliminate the hazard while the work is being performed. If the job deviates (change of condition) from the original plan, the hazards must be reassessed, and control measures must be put in place to address those as well.

1.0	Pre-Job Safety, Health, and Environmental Checklist	AMU CON- 1 - 2017			
Contractor Name		PO		Location	
Job Description		Date		Phone	
Production Hazards		Emergency Response		Special Requirements	
	Contractor Safety Rules (See Handbook Section for more details)	Applicable YES NO	Permit Reqd.	COMMENTS (Required)	
2.0	Barricades				
3.0	Borrowed Equipment				
4.0	Confined Spaces (<u>Permit</u>)				
5.0	Construction Trailers				
6.0	Contractor Training				
7.0	Cranes & Mobile Equip. / No Hands-on Lifts				
7A.0	Demolition				
8.0	Electrical Hazards				
9.0	Energy Control Lockout Tagout Tryout				
10.0	▲ Environmental Issues including Asbestos and Waste Generation & Disposition				
11.0	Excavations / Digging / Drilling (<u>Permit</u>)				
12.0	Explosives				
13.0	Explosive-Activated Tools				
14.0	Fire Prevention / Protection (<u>Permit</u>)				
15.0	Flammable and Combustible Hazards (<u>Permit for coke oven gas / COG lines</u>)				
16.0	Gas Hazards				
17.0	Horseplay				
18.0	Housekeeping				
19.0	Lasers				
20.0	Medical / Emergency Response / Evacuation				
21.0	Mobile Equipment Grounding				
22.0	Overhead Work – Fall Prevention & Protection / Fixed Ladders				
23.0	Personal Protective Equipment				
24.0	Pipelines				
25.0	Pneumatic Tools and Lines				
26.0	Radiation				
27.0	Rail Safety and Railroad Tracks				
28.0	Safe Work Environment				
29.0	Safety Monitoring/ Auditing/ Tool & equipment condition				
30.0	Sewers				
31.0	Vehicular Traffic				
32.0	Welding and Burning (<u>Hot Work Permit</u>)				
33.0	Working on or Near Energized Electrical Equipment / Overhead Lines (<u>Elect Permit</u>)				
34.0	Site Specific Emergency Contacts				
Monitor –ArcelorMittal USA			Monitor-- Contractor		
Signed ArcelorMittal USA Representative			Signed Contractor Representative		
Date			Date		

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- 1.1 If a job extends longer than one shift the contractor representative must check-in with the designated ArcelorMittal USA representative before beginning work to assess hazards and ascertain any changed operating conditions which may relate to safe performance of the contracted work and to secure any required work permits. Additionally, identify those ArcelorMittal USA and contractor monitors assigned to monitor the work during the shift.

Contractors must prepare in advance detailed written job procedures that address the known hazards known to exist in performing the work. These procedures must provide step by step instructions to perform the jobs in the safest way possible. The procedures must be provided to the ArcelorMittal USA representative responsible for overseeing the work for review in advance of performing the job.

Job procedures must include a requirement for work stoppage when the work deviates from the original scope. Any new hazards that might occur due to the changed condition must be evaluated and measures put in place to control or eliminate the hazards before the job can proceed. The ArcelorMittal USA representative responsible for the work must be made aware of the changed conditions and changes in the job plan that are required to address newly identified safety hazards.
- 1.2 Contractor is responsible for developing and maintaining an appropriate emergency evacuation plan. The Contractor must review the evacuation plan with its employees. In addition, the contractor and sub-contractors are responsible for coordinating with ArcelorMittal USA in determining applicable emergency response procedures for releases or spills during performance of the job, including required communication to ArcelorMittal USA and informing all their respective employees of the procedure. Such procedures shall be consistent with Section 10.7 of this Handbook. The contractor must also investigate all releases or spills and identify and notification and disclosure obligations that might arise relative to the spill or release.
- 1.3 The designated ArcelorMittal USA representative or designee may observe but under no circumstance's direct contractors' work. Contractor is solely responsible for determining and implementing the proper means and methods for performing the work. ArcelorMittal reserves the right but not the obligation to inspect the work site; review of necessary work permits and gas checks; and observing whether ArcelorMittal USA safe work rules and practices as set forth in this handbook are being followed. The contractor must also monitor its employees during the job to ensure compliance with applicable job site requirements and is responsible for the safe performance of the work by its employees and those of its subcontractors.
- 1.4 ArcelorMittal USA in its discretion may stop or suspend work in the event the contractor does not comply with established safety, health and environmental regulations. Violation of any safety rule or work practice in this Handbook may be sufficient cause for termination of contractor work at ArcelorMittal USA.
- 1.5 Communications with the Contractor should be through the designated ArcelorMittal USA representative except in cases of imminently dangerous safety, health or environmental conditions or violations.
- 1.6 Only trained and authorized contractor personnel are permitted to operate any type of equipment. Proof of the operator's qualifications must be provided upon request.
- 1.7 Contractor employees are not to enter areas where performance of the contracted work does not require their presence.

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- 1.8 Contractor's must investigate all injury and non-injury incidents involving their employees. For OSHA recordable injury cases, high potential incidents such as a near fatality, and incidents involving property damage, a written investigation report must be prepared by the end of the turn and a copy provided to the designated ArcelorMittal USA representative. The report is to include the corrective actions taken to prevent recurrence. Some sites may require written reports for all injuries and/or near miss incidents.
- 1.9A Contractors must have and administer a formal substance abuse policy. The manufacture, distribution, dispensation, possession, sale or use of alcohol, illegal drugs on ArcelorMittal USA property is strictly prohibited. Contractor employees when reporting to work and while on the job on ArcelorMittal USA's property are required to be fit for work and free from the effects of alcohol, illegal drugs, and the abuse or misuse of prescribed drugs and over-the-counter medications. Contractor employees who do not meet these requirements are to be removed from the work site immediately by their employer. ArcelorMittal USA retains the right to refuse entry to and have removed from its property any person who ArcelorMittal USA believes is in violation of the contractor substance abuse policy.
- 1.9B Upon request, Contractor must provide proof of pre-hire 10 panel drug screening per the United States Department of Health and Human Services and/or Department of Transportation regulations for all contractor and subcontractor personnel performing services at ArcelorMittal. Where applicable, the area Building Trades drug and alcohol testing programs will be honored meeting these requirements. Periodic validation of compliance will be in accordance with the Building Trades local area guidelines or ArcelorMittal stipulated requirements for that facility. In the event of an accident on ArcelorMittal premises, Contractor shall require that its personnel involved in the accident submit to drug screening.
- 1.10 ArcelorMittal USA forbids the possession of firearms and deadly weapons by contractor employees on ArcelorMittal USA property. Contractors must enforce this policy and ArcelorMittal USA retains the right to refuse entry to any person from its property who it believes is in violation of the ArcelorMittal USA policy.
- 1.11 Entry of contractors onto ArcelorMittal USA property constitutes consent to inspection of vehicles and personal effects when entering, while on or upon leaving ArcelorMittal USA property. Anyone refusing to permit inspection will be barred from ArcelorMittal USA property.
- 1.12 ArcelorMittal USA believes that all individuals are entitled to a safe, non-threatening workplace and adheres to a zero-tolerance practice. Any form of violence, harassment or threatening behavior will not be tolerated. Contractors and their employees are expected to adhere to this. Any individual in violation is subject to removal from ArcelorMittal USA property. Retaliation against any individual who, in good faith, brings forth a complaint of violent, harassing, threatening or intimidating behavior is prohibited.

2.0 Barricades

- 2.1 Contractors, where necessary, must take proper measures to protect pedestrian and vehicular traffic from their work activities.
- 2.2 The work area must be properly barricaded by barricades, tape, signs, warning devices or other measures to make the area safe. The aforementioned methods are only acceptable for use as a general non-protective, hazard warning device, not for use as an aid in fall protection.

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- 2.3 Every floor hole and open-sided floor, platform or runway 4 feet or more above adjacent floor or ground level into or off which a person can accidentally walk must be guarded by a standard hand railing and toe board or cover.
- 2.4 Flaggers or watch persons are to be used for additional protection when deemed necessary by the contractor or the designated ArcelorMittal USA representative.
- 2.5 Keep all tools and equipment inside the barricaded area where possible.
- 2.6 Upon completion of work, all barricades, signs, and warning devices must be removed and returned for storage according to the sound housekeeping practices.

3.0 Borrowed Equipment

- 3.1 Permission to use ArcelorMittal USA equipment must be coordinated through the designated ArcelorMittal USA representative. Contractor employees are not permitted use of ArcelorMittal USA equipment for any purpose before receiving the approval of the designated ArcelorMittal USA representative. If there is no approval, it is at the sole risk of the contractor and the violating employee(s).
- 3.2 If ArcelorMittal USA equipment is used by a Contractor in accordance with ArcelorMittal procedures, it is provided in an "as is" condition with no warranties as to its condition. Contractor is responsible for inspecting the equipment prior to use. Defective equipment must be taken out of service. Contractor must confirm that the borrowed equipment meets applicable federal, state and local safety and health standards before allowing its use by its employees. Contractor must also assure that its employees have had sufficient training and are certified to safely operate or use the equipment. Gas detection or air monitoring instruments are to be provided and maintained by the Contractor. Contractors must perform proper testing of confined spaces before and while its employees are working in those areas.

4.0 Confined Spaces

- 4.1 A confined space is a space which is large enough and configured that an employee can bodily enter and perform assigned work. The space by definition has limited or restricted means for entry and exit and is not designed for continuous employee occupancy. Before entering any confined space, contractors must review ArcelorMittal USA/plant/department confined space entry and permit procedures with its personnel. (A sample Checklist and Confined Space Permit is attached at the end of this document.) Before entering the space, through the designated ArcelorMittal USA representative, the contractor must obtain entry approval and the necessary permits. Confined space entry must be in accordance with the OSHA confined space entry standard, 29 CFR 1910.146. Contractors must conduct a formal risk assessment by completing a Hazard Identification, Risk Assessment and Control Checklist such as a HIRAC-Lite or similar document in accordance with the plant procedure for any work involving confined spaces.
- 4.2 Contractor employees must not enter any pre-existing (i.e., not created by their own work) confined space without first determining if the confined space is a permit-required confined space. Permit space entry is allowed only if the contractor has a permit space program satisfying all requirements of OSHA 29 CFR 1910.146. Contractor must conduct air monitoring with their own air monitoring instruments prior to entering and provide continuous monitoring during the job for 1) Oxygen deficiency, 2) CO and 3) flammable

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gases. Additional monitoring may be necessary to determine if other gases or chemical vapor exposures may be present as required by the particular job. Individual / Personal air monitors may also be required.

- 4.3 The designated ArcelorMittal USA representative will provide any precautions or procedures implemented for protection of employees in or near permit spaces in which contractor employees will be working.
- 4.4 Before entering any vault, manhole, boiler, tank, pipeline, silo, transformer, or other such confined space, contractors must review with all the affected employees established ArcelorMittal USA/plant/department confined space entry and permit procedures. Before entering the space, through the designated ArcelorMittal USA representative, the contractor must obtain entry approval and the necessary permits. Confined space entry must be in accordance with the OSHA confined space entry standard, 29 CFR 1910.146.
- 4.5 The contractor must also implement any available information regarding entry precautions and procedures that ArcelorMittal USA has implemented for the protection of employees entering the space. The contractor must arrange for rescue services.
- 4.6 Below grade elevator pits that are sometimes present in the lower portion of elevator shafts meet the criteria of a confined space if they are large enough and so configured that a can bodily enter and perform assigned work, have a limited or restricted means for entry or exit; and are not designed for continuous employee occupancy.
- 4.7 Prior to entry, elevator pits must be assessed to evaluate potential hazards and may be reclassified as non-permit required confined spaces after certifying that the hazards (hazardous atmospheres, moving parts, etc.) in the space have been eliminated through approved methods, including but not limited to Lockout/Tagout/Tryout, isolation procedures, or forced air ventilation, and that entry into the space is not necessary to make the space safe for entry or to initiate the reclassification to a non-permit required confined space..

5.0 Construction Trailers

Contractors are to comply with following:

- 5.1 Construction trailer sites are assigned by the designated ArcelorMittal USA representative.
- 5.2 Contractors are to post trailer fronts with their name and telephone number.
- 5.3 Trailers must be positioned so fire hydrants or other emergency installations, such as sprinkler shutoffs, fire standpipe connections, electrical switches, gas valves, etc., are not blocked and remain readily accessible at all times.
- 5.4 Trailers must be position so that emergency equipment has access.
- 5.5 Trailers must not be positioned inside buildings, or close to any gas line, electrical line, tower or other utility to avoid creating a fire exposure or emergency access problem.
- 5.6 Trailers must not be positioned in a way that they could cause an exposure problem to any ArcelorMittal USA structure.
- 5.7 Position trailers at least five feet apart, except trailers set contiguously to form a larger complex.

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- 5.8 Position trailers at least ten feet from any flammable/combustible liquid storage tank/area or dispensing facility.
- 5.9 Contractors must provide and maintain at least one portable fire extinguisher in each trailer at a highly visible, inside location.
- 5.10 Trailers used as offices, lunch rooms or change rooms must meet all applicable NFPA and OSHA life safety regulations and if greater than 1,000 square feet there must be at least two identified unobstructed exits.
- 5.11 Contractors must post emergency telephone numbers at all telephones and at each first-aid station.

6.0 Contractor Training

Contractors are responsible for training their employees on the safety rules and safe work procedures that pertain to the contracted work. This includes safety information exchanged in any interaction between ArcelorMittal USA operations and their work.

6.1 Safety, Health and Environment Orientation

Contractors must conduct a safety, health and environment orientation for each contract employee before beginning work. The orientation must include, at a minimum, all the following applicable elements of the contractor safety program:

- Contractor safety policy
- Contractor established safety, health and environment rules and procedures
- First-aid equipment locations and how and where to obtain services
- Reporting of injury, illness and non-injury incidents
- Personal protective equipment use requirements
- NFPA Electrical 70 E Standards
- Housekeeping plan and responsibilities
- Emergency evacuation procedures
- Substance abuse policy and program
- Workplace violence and harassment policy and program
- Pre-shift job briefing and safety contact
- Observation and coaching of at-risk behaviors or conditions
- Facility/department specific safety rules
- Hazard communication, hazardous chemicals list, Safety Data Sheets
- Gas hazards, gas checks, and gas safe work guidelines
- Fire prevention and protection (CARDOX)
- Work-site specific hazards and safe work rules and practices
- Emergency response procedures in case of a release or spill
- ArcelorMittal USA Environmental Policy – Each facility should have an environmental orientation to cover site specific environmental requirements (including policy, significant environmental aspects, spill reporting, environmental operational control procedures etc.
- ArcelorMittal Health & Safety policy applicable to the site.

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- How and when to complete HIRAC assessments

6.2 Toolbox Safety Meetings

Contractors are to conduct a pre-shift job briefing - safety meeting at the work site to discuss job-related safety, safe-job procedures for the work to be conducted and to provide employees the opportunity to ask questions and offer suggestions for creating a safer worksite. The HIRAC – Lite or similar document can be completed and/or reviewed during this meeting.

6.3 Safe Job Procedures

The contractor must train employees on safe-job procedures for the work being conducted. The contractor must evaluate the need for written safe job procedures. The contractor must provide the designated ArcelorMittal USA representative a copy of these procedures before beginning the work if the work involves coordination with ArcelorMittal USA employees working at the site.

6.4 Specialized Training

The contractor is to provide specialized training as required for specific work site hazards and required work permits. Proof of training must be provided upon request by an ArcelorMittal USA representative. This may include, but is not limited to:

- Lockout Tagout – Control of Hazardous Energy Sources
- Confined spaces entry
- Gas hazards
- Asbestos and lead abatement
- Hot work permits for fire prevention
- Electrical safe work practices
- Energized Electrical Work permits for electrical work
- Electrical safe work practices and NFPA 70E
- Proper waste disposal procedures, Hazardous Waste Management, Hazmat
- Excavations and trenching
- Blasting and Use of Explosives
- Lasers
- Radiation
- Rail Safety
- Fall Protection
- Demolition

7.0 Cranes and Mobile Equipment / No Hands-on Lifts

- 7.1 Contractor supervision must consult with the designated ArcelorMittal USA representative before assigning employees a job in which they can be exposed to movement of ArcelorMittal USA cranes or mobile equipment.

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- 7.2 Contractor supervision must obtain permission from the designated ArcelorMittal USA representative before their employees are permitted to board an overhead crane or enter a crane runway for any purpose.
- 7.3 The contractor must provide necessary safety watch(s) for the protection of its employees and must adhere to all rules, regulations and instructions of the local operation when the contractor's employees are exposed to the movements of cranes and mobile equipment.
- 7.4 Permission to use an ArcelorMittal USA crane must be coordinated through the designated ArcelorMittal USA representative.
- 7.5 Without the specific authorization from the designated ArcelorMittal USA representative, under no circumstances may contractor employees operate any ArcelorMittal USA overhead crane or mobile equipment or walk on crane runways while overhead cranes are in operation.
- 7.6 Before operating a mobile crane, aerial work platform, or similar elevating or lifting equipment in an area where elevating equipment could potentially be struck by an overhead crane, such equipment use must be coordinated with the operating department through the designated ArcelorMittal USA representative.
- 7.7 ArcelorMittal USA crane operators will not make lifts for contractors unless instructed and authorized by the designated ArcelorMittal USA representative. It is the responsibility of the contractor to obtain authorization from the designated ArcelorMittal USA representative before requesting ArcelorMittal USA crane operators to make lifts. The designated ArcelorMittal USA representative will arrange with the operating department to make the lifts. The contractor is responsible for directing the lifts.
- 7.8 Contractors must provide certification that crane and mobile equipment operators are trained, evaluated, and determined qualified to safely operate such equipment.
- 7.9 Contractor employees are to visually inspect lifting equipment for defects and practice proper rigging techniques. Contractor employees are to use standard hand signals.
- 7.10 Upon completion of the work, the contractor must notify the designated ArcelorMittal USA representative.
- 7.11 All lifts made with a mobile crane must be made with the outriggers extended to the outermost position possible. "Pick-and-carry" lifts are excluded from this requirement during traveling.
- 7.12 Seatbelts must be securely worn while operating mobile cranes and mobile equipment, including forklifts, with the exception of equipment not designed with roll over protection.
- 7.13 Mobile cranes must be equipped with load moment indicators (LMIs) as well as load charts and be operated by individuals trained and competent in the use of LMIs and load charts.
- 7.14 When high risk/abnormal lifts, e.g. multiple mobile crane lifts, mobile crane lifts in buildings with overhead cranes, lifts over power lines, lifts involving personnel cages or lifts over areas that may endanger personnel, are performed a lift plan must be developed. The lift plan must include:
 - Lift data: equipment weight, rigging weight, total weight, height of lift, radius of lift and equipment surface area, center of gravity.
 - Equipment data; manufacturer, model, size, boom length, jib length block, material size

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- Rigging data: sling diameter, length, sling configuration, hook type, shackle size and capacity
- Lift computation: boom length, radius of lift, equipment capacity, size of outrigger footplates, and wind speed, including ground stability and slope
- Proximity to power lines, pipe racks and process areas: mobile cranes working in proximity to energized power lines must operate under an organization, which define exclusion zones and spotter duties
- Local hazards and their controls: including the route of the crane, ground stability, proximity of people or equipment and agreed communication method.

7.15 No Hands-on Lifts Standard is to minimize the risk of injuries associated with caught between, struck by and puncture type accidents when using lifting equipment.

- Hands and fingers must remain off the load bearing component of lifting devices and the load immediately prior to and during tensions being applied to the load.
- If assistance is necessary for lifting equipment, adjustment (lift, pull or maneuver) during hoisting or while applying tensions, a no touch device must be used.
- The use of positioning tools such as hand hooks, rods, bars, push sticks, positioning straps, ropes, tag lines, and other means must be used to help guide and maneuver lifting equipment and the loads into position.

7.16 The riding of hydraulic lift gates by personnel is prohibited. Hydraulic lift gates are only to be used for the loading and unloading of tools, equipment, or material. All other uses are prohibited.

▲ **Note:** Contractors may be required to provide current inspection records for mobile cranes and other mobile equipment and crane operator certification records.

7A.0 Demolition

7A.1 Prior to the start of demolition, a competent person must make a safety review of the structure to determine the condition and the possibility of unplanned collapse of any portion of the structure.

7A.2 A pre-job review meeting must be conducted between the ArcelorMittal USA representative(s) and the demolition company representative(s) to discuss the requirements of the work and the detailed demolition plan. This pre-job review must also include any plant specific requirements such as SOP's, checklists and permits. A competent person must evaluate the demolition project for any potential lead paint or asbestos containing material. Any asbestos containing material must be abated according to Section 10.10 of this handbook and plant abatement procedures.

7A.3 A dedicated safety person (competent in demolition safety) must be employed by the demolition contractor to oversee the safe operation of the job and ensure that all appropriate rules and work practices are followed. The demolition contractor and the site must identify safety monitors and establish inspection frequencies for smaller demolition projects.

7A.4 Engineered lift plans are required for all major lifts. These plans must include at a minimum: crane capacity, cable sizes and attachment details.

7A.5 Proper lifting and rigging techniques must be used. No lifts are to be made unless load is completely free.

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- 7A.6 All electric, gas, water, steam and other service lines must be shut off, capped or otherwise controlled and protected. Live utilities must be identified to prevent inadvertent damage. An Electrical Demolition Permit may be required at some sites.
- 7A.7 Mechanical equipment must not be used on floors or working surfaces unless such floors or working surfaces are of sufficient strength to support the equipment and load.
- 7A.8 During demolition, continuous inspections by a competent person must be made as the work progresses to detect hazards resulting from weakened structures.

8.0 **Electrical Hazards**

- 8.1 Use of ArcelorMittal USA electrical lines and utilities are at the contractor's sole risk. The contractor must inspect and certify that the system and all equipment, the contractor's or ArcelorMittal USA's, are equipped with all required safety and health devices.
- 8.2 Minimum electrical clearances between people or equipment and energized electrical lines and equipment must conform to applicable OSHA regulations and NFPA 70E regulations and established plant practices. Working on or near Energized Electrical Equipment-Overhead Lines contractors must follow the OSHA Regulations and NFPA 70E Tables and use the Energized Electrical Work Permit (see Energized Permit 34.3). Consult the designated ArcelorMittal USA representative regarding all work around energized electrical lines and equipment. Consider electrical lines and equipment energized until isolated, tested, locked out and/or tagged out and grounded.
- 8.3 Mobile cranes, vehicles and equipment operating or capable of being elevated near energized electrical equipment or lines must be intentionally grounded with a 4/0 cable grounding set. Permit only qualified employees trained in proper grounding techniques to attach or detach grounding sets. Employees working at ground or floor level near the point of grounding may not stand at the grounding point. Additional precautions, such as the use of barricades or insulation, may need to be taken to protect employees from hazardous ground potentials that develop outward from the grounding point.
- 8.4 The contractor must prepare written procedures (switching order) for the opening or closing of electrical switches or circuits, unless wholly owned and solely used by the contractor. Before performing the switching work, the contractor must provide the written procedure to the designated ArcelorMittal USA representative for review with the plant's electrical management. During switching, follow the switching procedure steps in the order written (step 1, 2, 3, etc.), and do not deviate from the order of steps.
- 8.5 The contractor must equip any cord and plug-connected electric tool, or equipment not supplied by premises wiring with a cord containing an equipment-grounding conductor connected to the tool frame and to a ground at the other end or be of the double insulated type. Additionally, the contractor must use ground fault circuit interrupters (GFCIs) with all cord and plug connected tools and equipment. Contractors must test cord and plug connected tools and equipment, cords and GFCIs before each use and inspect at least annually.
- 8.6 Contractors are responsible to ensure all employees working on or near energized electrical equipment are properly trained and meet the OSHA and NFPA70E requirements as "qualified persons". Contractors are to provide the appropriate insulating protective equipment and PPE for the task or job activity. Contractors are to ensure that these employees perform the work in a safe manner and in accordance with established

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standards per OSHA, NFPA 70E and the Corporate Electrical Safe Work Practice Standard. The Corporate Electrical Safe Work Practice Standard can be obtained by request through the ArcelorMittal USA site safety department.

- 8.7 Contractors are prohibited from testing electrical hot rails by throwing chains across the rails. If they must be tested to ensure there is no power, appropriate electrical testing equipment must be used.
- 8.8 Contractors are NOT PERMITTED under any circumstances:
- to be near electrical power stations, cabinets, rooms or electrical areas without permission from ArcelorMittal USA representative
 - to remove cabinet panels exposing live parts without being authorized and a written electrical permit is completed
- 8.9 Equipment must be de-energized wherever possible, and if it can't the electrical permit must be filled out. Work on energized parts is only permitted after authorization and permit completed, and only by qualified, trained persons. Work performed on energized parts may only be done so by maintaining safe work distances, wearing approved NFPA 70 E apparel and using appropriate testing equipment for the task.

9.0 Isolation / Energy Control Program – Lockout / Tagout Tryout

- 9.1 Contractors are to comply with the requirements of the OSHA standard for the control of hazardous energy sources (lockout/tagout). Contractor employees must not attempt to operate any ArcelorMittal USA equipment unless specifically authorized. Contractors are to implement a hazardous energy control (lockout/tagout) program consisting of written energy control procedures, employee training and periodic inspection. Energy control measures to prevent the unexpected start up or release of stored energy, and that render machinery or equipment inoperable during servicing and maintenance work, are to be taken. This applies to all forms of energy such as: kinetic, electric, radiation, hydraulic, mechanical, chemical, thermal, pneumatic, stored, steam and other potential energy. Sources must be de-energized, brought to a zero-mechanical state, verified and locked out, when performing lockout by contractors or their sub-contractors.
- 9.1.1 Where equipment must be de-energized to prevent inadvertent activation, the contractor must consult with ArcelorMittal USA representative on the appropriate lockout procedures. Contractor employees must not initiate energy reactivation or isolation of electrical, mechanical or stored energy systems without being qualified and prior to consulting with ArcelorMittal USA representative and notifying affected employees. Contractor employees must not turn on any utility or motor without permission. Contract employees, who may initiate lockout activities, must be provided with a standardized lock. All locks utilized, individual or shop/continuity must be identified with the individual's and company name. Contractor is responsible for furnishing locks and tags to its employees.
- 9.1.2 Contractor is responsible for insuring the lockout procedures are followed by its employees. If there are any switches or operating devices that cannot be locked, or there is any doubt as to how to lock out a piece of equipment, contractor employees must contact their supervisor for assistance. When performing, the operator must be certain which valve or other energy isolating devices apply to the equipment being locked out. ArcelorMittal USA representative is to be consulted if

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any questions on lockout procedures exist. Certain equipment may involve more than one energy source such as; kinetic, electric, radiation hydraulic, mechanical, chemical, thermal, and pneumatic, stored, steam and other potential energy. In such instances, all energy sources must be de-energized, brought to a zero-mechanical state, and locked out. When performing lockout, contractor must give full consideration to and address in its written safety procedures the following;

- Identification of all sources of energy - both kinetic energy (energy in motion) and potential energy (stored energy) that must be neutralized.
- Neutralization of all energy since stored energy that hasn't been neutralized could set a machine part in motion.
- Isolation of electrical power by breaking the circuit. (In cases where a removable circuit breaker is involved, a qualified employee must trip and rack the breaker out of its cubicle. Employees performing work on de-energized equipment must place their safety lock on apparatus provided to ensure the breaker cannot be re-installed.)
- Lowering of all suspended parts to lowest (rest) position whenever possible.
- Blocking of movable parts.
- Venting of air pressure from pneumatic lines.
- Draining or bleeding hydraulic lines.
- Releasing or blocking spring energy.
- Attachment of a lock to the main energy source that has been placed in the "off" position or main shutoff valve that has been closed. The safety lock must be locked in place and tested to be sure it is latched. This is done to ensure that other employees cannot remove the safety lock. If more locks are needed than what has been supplied, the employee must contact their supervisor.

9.1.3 Where there is more than one person locking out, a multiple lockout device must be used, and each employee must attach their lock. One lock may be used to lockout equipment for a crew but a lock box or its equivalent must also be used to assure that each crew member has control of the lockout system by attaching their personal lock. After the lockout has been completed, an attempt must be made to start the equipment to ensure it has been deactivated.

9.1.4 Where equipment must be operated at intervals to complete the repair work, a written procedure should be established for removal and replacement of safety locks or provide for an equally safe alternative. There must be face-to-face, clear and positive communications between the persons removing the lock and operating the equipment and the persons at the equipment who may be aligning or performing other work in conjunction with the repair.

9.15 In order to ensure the continuity of lockout/tagout protection, there must be an orderly transfer of lockout/tagout device protection between off going and oncoming employees. To minimize exposure to hazards from the unexpected energization or startup of the machine or equipment, or release of stored energy, one of the following methods must be deployed;

- The off going employee must communicate with the oncoming employee as to the machine or equipment status and compliance with the lockout/tagout procedures prior to leaving shift.

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- The off going employee must either leave their locking or tagging device affixed to the machine or equipment and the oncoming employee add their own locking or tagging device to the existing previous shift's locking/tagging devices; or
- If only involving a single locking or tagging device, the off going employee must accompany the oncoming employee to the affected equipment or machine where isolation devices (locks and tags) will be appropriately changed over without energization.

- 9.2 ArcelorMittal USA and the contractor are to inform each other of their respective energy control programs, including what equipment is subject to lockout. Contractor energy control procedures are to be at least as protective of ArcelorMittal USA employees as the procedures used by ArcelorMittal USA, ensure that ArcelorMittal USA employees are not placed at an increased risk, and that ArcelorMittal USA employees understand the contractor's/subcontractor's energy control program and procedures.
- 9.3 If there are other steps needed to ensure the protectiveness of the contractor's procedures, the designated ArcelorMittal USA representative will provide the contractor with adequate support and information. If any of the steps of the contractor's/subcontractor's procedures fail to cover significant or essential conditions of the workplace which could adversely affect the safety of ArcelorMittal USA employees, the ArcelorMittal USA designated representative will take action to minimize the potential for injury to ArcelorMittal USA employees.
- 9.4 Contractors may not make any connection to electrical, gas, steam, air, oxygen, nitrogen, acid, water, hydraulic, sewer, or process line unless authorized by the designated ArcelorMittal USA representative. No discharges are to be made to the sewer without pre-authorization by the ArcelorMittal USA Environmental Management Department.

10.0 Environmental Management

- 10.1 It is the contractor's responsibility to be aware of all procedures related to environmental management in the area in which work is being conducted and to follow those procedures.
- 10.2 The contractor representative should communicate to the designated ArcelorMittal USA representative any potential impact that the work being performed may have on the environmental aspects of the facility, and any new aspects that should be evaluated as a result of the work being performed, including impacts to ArcelorMittal permits. The contractor should specify the method by which the environmental aspect related to the work being performed will be managed in order to minimize the impact.
- 10.3 The designated ArcelorMittal USA representative should identify and communicate relevant procedures and requirements related to identified environmental aspects to contractors.
- 10.4 The contractor must comply with all applicable federal, state, county and municipal laws, regulations, codes, and ordinances, and any other applicable environmental legal requirements and standards ("environmental laws"). The contractor must comply with all applicable requirements provided in the facility's permits, approvals, registrations, licenses or certifications, and any modifications or renewals thereof, and/or be required to obtain its own permit for the applicable work, including but not limited to any applicable National Pollutant Discharge Elimination System permit, hazardous, solid or residual waste facility

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permit, air source operating permit, permit to install, construction permit, building permit or other permits and licenses of a temporary nature, that are or become applicable, required or necessary for the performance of the work, and submit all plans or reports required under any federal, state or local law or regulation. The contractor must not conduct the work in such a manner as to cause a public or private nuisance.

- 10.4.1 Contractors, upon request, must provide the site 's Environmental Department with a copy of any reports or applications submitted to state or federal agencies (i.e. Title V deviation report, Annual Compliance Certification, permit modification applications, etc.) associated with contractors' work at ArcelorMittal USA operations.
- 10.4.2 Contractors must provide copies of any complaints, Notices of Violation, referrals to enforcement, or Agreed Orders received from a state or federal environmental agency that related directly or indirectly to the work performed for ArcelorMittal USA.

10.5 Hazardous Chemicals / Substances and Materials / Safety Data Sheets:

- 10.5.1 The storage, transportation, use and disposal of hazardous substances and hazardous wastes must be in compliance with all Environmental Laws, ArcelorMittal USA regulations, and other applicable requirements (including the requirements of any applicable permits, licenses, registrations, certifications or other approvals) and the recommendations of the manufacturer as outlined in the Safety Data Sheet for the product. The contractor may not treat, store, or dispose of hazardous wastes or hazardous substances on the premises; however, the contractor may store such wastes and substances temporarily in approved tanks or containers in accordance with all environmental laws and with the approval of the designated ArcelorMittal USA representative.
- 10.5.2 All chemicals, hazardous substances, or materials that the contractor or its subcontractor's will bring into an ArcelorMittal facility must be pre-approved for use by the facility's Environmental and Health & Safety Departments. Safety Data Sheets must be maintained by Contractor at its work area for all chemicals it has brought into the facility and by each subcontractor at its work area for all chemical it has brought into the facility. Safety Data Sheets must be provided to the facility Environmental Management Department.
- 10.5.3 Before beginning work, contractors, must provide to the designated ArcelorMittal USA representative a list of all potentially hazardous substances to be brought on-site, their quantities and a current SDS for each substance. Contractors are required to update the hazardous substance list and provide an SDS as new hazardous substances are brought on-site.
- 10.5.4 The Contractor must make SDS's for on-site hazardous substances readily available to employees during their work shift. Updated SDS's must be made available to contractor employees and the designated ArcelorMittal USA representative.
- 10.5.5 All trial hazardous chemicals or hazardous chemicals furnished without cost that are brought into the facility by the contractor or any of its subcontractors for use by ArcelorMittal USA personnel must be accompanied by a "no charge" purchase order obtained from the facilities Purchasing Department. These chemicals must be approved for use within the facility by the facility Environmental Department.

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- 10.5.6 The Contractor must ensure that each work site hazardous substance container is labeled, tagged or marked in accordance with hazard communication, right-to-know, or other regulations. Labeling must identify container content, appropriate hazard warnings, and the name and address of the manufacturer or other responsible contact person.
- 10.5.7 Contractors are responsible for removing any unused hazardous substance from the work site as work progresses and for removing all hazardous substances upon job completion.
- 10.5.8 Contractor must notify the ArcelorMittal USA representative before bringing in fuel/chemical storage containers/tanks of at least 55 gallons onto plant property.
- 10.5.9 Contractors encountering material suspected of containing asbestos must presume that such material contains asbestos and treats it as such. Work is to immediately stop, and the designated ArcelorMittal USA representative must be notified.

10.6 Waste Water Discharges

- 10.6.1 No process wastewater, non-contact cooling water, storm water or sanitary wastewater may be discharged or disposed of by the contractor or any of its subcontractors into the facilities industrial wastewater, non-contact cooling water, storm water, sanitary wastewater systems, or any other water systems without the prior written approval of the facility Environmental Department.
- 10.6.2 No process wastewater, non-contact cooling water, storm water or sanitary wastewater may be discharged by the contractor or any of its subcontractors into any manholes within the facility without the prior written approval of the facility Environmental Department.
- 10.6.3 No hazardous or non-hazardous materials, substances or wastes, may be discharged or disposed of by the contractor or any of its subcontractors into the facility's industrial wastewater, non-contact cooling water, storm water, or sanitary wastewater systems, other water systems, or into any manholes.

10.7 Spills and Releases

- 10.7.1 Any spills or releases by the contractor or any of its subcontractors of hazardous materials, including, without limitation, any substance containing hazardous materials substances, hazardous waste, pollutants or contaminants, or spills of other materials or substances that pose or could pose a threat to human health or the environment must be immediately reported to the appropriate facility Environmental Department.
- 10.7.2 In the event of a spill or release, steps must immediately be taken to stop and contain the spill in a safe manner. In particular, steps must be taken to prevent the spilled material from entering waterways or storm water, sanitary sewer or other manholes. Steps also must be taken to prevent spilled material from contacting personnel involved in trying to contain the spill. Contractor must investigate all spills or releases and a formal report must be submitted to the facility Environmental Department. Releases or spills subject to regulatory notification must be reported by the contractor in coordination with the facility Environmental Department.

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10.7.3 Materials (e.g., oils and chemicals) must be stored in a manner that prevents spillage. Materials must be stored within secondary containment and away from storm drains.

10.7.4 All spills and releases within the facility caused by the contractor or any of its subcontractors will be cleaned up by the facility, its designee or, at the facility's discretion, by the contractor or subcontractor. The contractor must reimburse ArcelorMittal USA for all costs incurred by ArcelorMittal USA in responding to and cleaning up any such spill or release, including all documentation and analytical cost required for clean closure under environmental laws. All costs associated with any clean up performed by the contractor or subcontractor will be borne by the contractor and must be performed to the facility's satisfaction. If the facility directs the contractor to complete the cleanup activities, the contractor must complete all clean up and disposal of the spill material and/or residues in accordance with environmental laws and will restore the affected area to its original condition (or acceptable alternative approved by the facility).

10.8 PCB's - The following requirements are applicable to substations containing PCB transformers and other PCB equipment:

10.8.1 Any PCB-related label or sign at the facility that is removed by the contractor or any of its subcontractors must be promptly replaced by the contractor.

10.8.2 Combustibles must not be stored within five (5) meters (approximately 15 feet) of any PCB transformer.

10.8.3 Employees whose job functions do not require them to be in substations containing PCB transformers must not enter the substations. Substations must not be used as walkways break/lunch rooms or workshops.

▲ 10.8.4 The entrance doors to substations containing PCB transformers must remain closed and secured at all times.

▲ 10.8.5 Leaks or spills of transformer fluid of which the contractor or any of its subcontractors are aware must be immediately reported to the facility Environmental Department and an extension to be provided by the facility. No attempt to clean up the fluid must be made, and steps must be taken to ensure that the fluid does not contact personnel.

In addition, for the PCB capacitors in service at the facility, any fluid or liquid leaking from capacitors or electrical equipment of which the contractor or any of its subcontractors is aware must be immediately reported to the facility Environmental Department. No attempt to clean up the fluid must be made, and steps must be taken to ensure that the fluid does not contact personnel.

10.9 Solid Waste

10.9.1 The contractor is responsible for the proper handling of all solid waste materials generated by the contractor or any of its subcontractors.

10.9.2 No waste materials associated with the work performed by contractors or subcontractors, including, but not limited to, construction, demolition, and excavation materials, may be disposed of by the contractor or any of its

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subcontractors without the prior written approval of the facility's Environmental Department.

10.9.3 No materials, including, without limitation, trash, may be brought into the facility for disposal and/or recycling.

10.10 Asbestos

10.10.1 Any material that is suspected to be asbestos or asbestos containing material (ACM) must not be disturbed. The facility Environmental or Health & Safety Department must be contacted at an extension to be provided by the facility to arrange for the sampling and testing of suspect materials identified by Contractor. Materials determined to be asbestos or ACM must be removed by a licensed asbestos abatement contractor as approved by the facility Environmental Department. If more than one hundred sixty (160) square feet or thirty-five (35) cubic feet of asbestos or ACM or more than two hundred sixty (260) linear feet of asbestos or ACM pipe insulation are to be removed, a 10-day notification/waiting period is required before the start of the asbestos abatement, which could affect the contractor's work schedule.

10.10.2 All thermal system insulation and sprayed or troweled-on surfacing material at the facility, and all other generic types of potential asbestos-containing materials in the facility, such as flooring, roofing, siding, valve packing and gaskets, and electrical insulation and mounting materials, must be treated as ACM unless the material is known or determined not to contain asbestos. Vermiculite that has been used as building insulation and or cable tray fire suppression should also be considered potential ACM, unless known or determined not to contain asbestos.

10.11 Open Burning

10.12.1 The open burning of any materials is not permitted and there are no exceptions to this rule. This applies to all areas on ArcelorMittal premises.

▲ 10.12 Environmental Management System (EMS)

ArcelorMittal USA facilities have developed facility Environmental Management Systems (EMS). The EMS standard requires that all persons working for or on behalf of the organization that works at an ArcelorMittal facility be provided environmental awareness training. The site-specific environmental orientation includes:

- Environmental Policy
- Facility significant aspects
- Facility spill response and reporting responsibility
- Facility emergency contacts
- Benefits of enhanced environmental performance
- Implications of not conforming with the EMS requirements, including not fulfilling the organization's compliance obligations

Contractors are required to comply with the environmental policy. The designated ArcelorMittal representative is responsible for informing the contractors of the significant environmental aspect(s) in the work area, if applicable. Contractors are responsible for

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following procedures where they apply and manage environmental issues as outlined in this Handbook.

11.0 Excavations and Trenching

- 11.1 Contractors must protect and effectively guard excavations by guardrail systems, covering, fencing and barricades or by such combination as may be necessary. Protection must be visible both day and night. Walkways, ramps, and bridges provided to permit employees to cross over excavations and trenching, require standard guardrails. The crossing will be made of tightly secured uniform planking.
- 11.2 Contractors must treat excavations over 4 feet deep as a confined space. Contractors are to protect each employee in an excavation from cave-in through use of an adequate protection system. Protective systems must have the capacity to resist all loads intended for the system or reasonably expected applied or transmitted to the system. Contractors are to select and construct protective systems according to applicable OSHA standards. The contractor's competent person must construct sloping and benching. The contractor must provide ladders, steps, ramps or other safe means of access and egress at intervals of 25 feet in trenching four feet or more in depth and secure and extend ladders three feet above ground level.
- 11.3 Excavations, trenching and adjacent areas must be inspected by the contractor's competent person after every rainfall, as soil conditions change, at the start of and as needed throughout each work shift. If there is evidence of hazardous conditions, the contractor must take the necessary safety precautions before any additional work in that section of the excavation begins.
- 11.4 Before excavating, contractors must obtain from the designated ArcelorMittal USA representative information on the location of pipelines, conduits, cables, etc., known or suspected to be within or near the excavation site, and any work permit requirements. A digging permit must be completed and signed by the ArcelorMittal USA representative and the contractor performing the work. A copy of the permit must be kept at the job site for the duration of the job. (A sample permit is attached at the end of this Handbook).
- 11.5 Contractors are to cease and promptly report to the designated ArcelorMittal USA representative any pipeline, conduit, cable, warning tape or material unexpectedly uncovered while excavating, trenching, grading or dismantling. The work must not resume until the designated ArcelorMittal USA representative determines such work may safely continue.

12.0 Explosives

- 12.1 The use of explosives requires prior authorization from the designated ArcelorMittal USA representative. Contractors must notify the designated representative of each separate intention to blast. No explosives are to be brought on ArcelorMittal USA property without prior authorization from the designated ArcelorMittal USA representative.
- 12.2 The handling, storage, transport and firing of explosives must be performed in accordance with local, state and federal regulations and the recommendations of the explosive manufacturers.

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- 12.3 Only blast under the direction of a trained, qualified, and currently licensed contractor blaster.
- 12.4 All blasting materials must be counted and accounted for each day during the contracted work. All explosives must be under the direct control of the blaster or locked up while on the job and removed at the end of each day.

13.0 Explosive-Activated Tools

- 13.1 The use of explosive-actuated tools requires the prior authorization of the designated ArcelorMittal USA representative. Use explosive-actuated tools in accordance with OSHA requirements and established safe work practices. Before using an explosive-actuated tool, the contractor operator must inspect the tool to determine that it is clean, that all moving parts operate freely, and that the barrel is free from obstructions. Any tool found not in proper working order or that develops a defect during use must be tagged as defective and removed from service by the contractor until properly repaired. Use only indirect acting explosive-actuated tools.
- 13.2 Contractor must employ only trained, qualified employees to operate an explosive-actuated tool. Adequate eye, ear, head, face and/or any other personal protective equipment as necessitated by working conditions must be used by the tool operator as well as other persons in the immediate area.

14.0 Fire Prevention and Protection

- 14.1 Before beginning the contracted work, Contractors must familiarize themselves with site fire protection facilities including the availability and operation of portable fire extinguisher and established procedures for reporting a fire and summoning emergency assistance. A HOT WORK PERMIT may be required depending on the work, location and local site requirements. A sample HOT WORK PERMIT FORM is attached at the end of this Handbook. Local operations may utilize a different form. Contractors must inquire about this form to ensure they follow all of the local standards and ensure the permit is properly completed.
- ▲ 14.2 Contractors are responsible for providing sufficient, appropriate, and conspicuously located portable fire extinguisher in the work area. Contractors are responsible for the immediate replacement and /or off-site disposal of any used extinguisher.
- 14.3 Contractors must implement fire prevention measures to protect all employees, equipment and buildings in the work area and on all job sites.
- 14.4 Standpipe hose connections and hydrants must not be impaired. Standpipe hose connections and hydrants are to be readily accessible and immediately available in case of fire. Maintain a minimum clearance of 15 feet on the street or roadway side and five feet on all other sides around all hydrants. Standpipes and hydrants must not be used as water supplies for purposes other than firefighting. The designated ArcelorMittal USA representative must obtain specific permission from the plant fire safety representative, before contractors can use standpipes or hydrants for purposes other than firefighting.
- 14.5 Contractor employees must obey all signs and rules regarding smoking, sparks and open flames.

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- 14.6 In the event of a fire, Contractors must follow established plant procedures to summon emergency assistance. The designated ArcelorMittal USA representative is to explain the plant's procedures for summoning emergency assistance before the contracted work begins. Until arrival of emergency assistance, Contractors are to do what they SAFELY can do to control the fire during the initial or incipient stage. Contractors must report every fire to the designated ArcelorMittal USA representative and must investigate and determine the fire's cause. Actions necessary to prevent recurrence must be implemented.
- 14.7 Before the contractor is permitted to use electric, gas or oil-fired heaters and other similar heating equipment, the designated ArcelorMittal USA representative must obtain approval from the plant ArcelorMittal USA representative or fire safety representative to use this equipment. Open fires are prohibited.
- 14.8 Before the contractor installs tarpaulins in buildings for windbreaks, isolation or covering purposes, the designated ArcelorMittal USA representative must obtain approval from the plant ArcelorMittal USA representative or the facility fire safety representative on the type of tarpaulin that can be used.
- 14.9 The contractor must use spark-proof tools for work in areas where a HIRAC or risk assessment has identified fire and/or explosion hazards.
- 14.10 A designated fire watch must remain in the hot work area 60 minutes following the completion of the hot work, or interruption of the hot work in order to ensure there are no smoldering or rekindling fires as required. The fire watch must be alert to changes in conditions that may increase the potential for fire. ArcelorMittal sites may require additional length of time for the designated fire watch.

15.0 Flammable and Combustible Hazards

- 15.1 Because potential hazards posed by flammable and combustible materials are quite diverse, there is no one set of recommendations covering all situations and conditions. Contractors must consult, through the designated ArcelorMittal USA representative, with the plant fire safety representative to ensure compliance with all applicable federal, state, local, plant and department fire safety codes.
- 15.2 General requirements contractors are to observe for storing flammable or combustible materials are as follows:
 - 15.2.1 Paint, solvent and other flammable or combustible materials must be stored in an area building, cabinet, or metal container approved by the designated ArcelorMittal USA representative.
 - 15.2.2 Smoking is strictly prohibited in bulk storage areas or when handling flammable materials. Post "No Smoking" signs at the perimeter of all flammable/combustible material storage locations.
 - 15.2.3 Electrical equipment and installations in flammable material storage locations must conform to the applicable National Electric Code provisions and NFPA 70E.
 - 15.2.4. Materials that may become hazardous in combination with each other must be stored so they cannot come in contact.
 - 15.2.5 Store as low in height as possible.

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- 15.2.6 Storage areas should have adequate lighting and be kept free of combustible materials.
- 15.2.7 Salamanders, portable heaters or other open flames are not to be used in flammable/combustible material storage areas.
- 15.2.8 Maintain the quantity of flammable liquids at the work site to the quantity necessary for immediate use or application. Bulk quantities must be stored in an approved storage location that meets NFPA standards.
- 15.3 Flammable liquids must be handled in Factory Mutual or Underwriters Laboratories (FM-UL) approved safety cans, containers or portable vented tanks, which been approved by the plant fire safety representative.
- 15.4 In-service flammable liquid containers and portable tanks must be grounded. When transferring flammable liquids from one container to another, the two containers must be bonded before pouring. Clearly label all containers of flammable liquids as to their contents and hazards.
- 15.5 **SPECIAL PRECAUTIONS REQUIRED FOR PERFORMING WORK ON COKE OVEN GAS LINES** ---On February 2, 2001, a fire occurred at Burns Harbor (Bethlehem Steel) plant when workers were attempting to remove a slip blind and a cracked valve from a coke oven gas line leading to a decommissioned furnace. During removal of the valve, flammable liquid was released and ignited. Before commencing this type of work a pre-job checklist MUST be completed and signed off by an ArcelorMittal USA and contractor representative. The job must be thoroughly reviewed, and precautionary steps taken to safely drain potentially flammable material. All persons must be trained with regard to the potential presence of flammable liquids when working with or opening coke oven gas (COG) or condensate piping or equipment. A written procedure must be developed prior to performing this work. In order to keep lines from freezing, insulation must be replaced when removed for maintenance. Authorization must be provided for management review, approval, and oversight for jobs that present higher levels of risk, such as opening lines potentially containing flammable liquids where there is no low drain point. During the task, monitoring must take place to address potentially hazardous changes in condensate accumulation rates and flammability. The SDS for COG must be consulted and reviewed prior to commencing work. Any employees engaged in the work of involvement of flammable liquids, system low points, system draining, control of potential sources of ignition etc., must ensure a field team consultation takes place and that all safety precautions are implemented.

16.0 **Gas Hazards**

- 16.1 Contractor employees working in proximity to a known or potential gas hazards environment must be knowledgeable of the gas hazards and the safe work practices for the area and be equipped with calibrated detection equipment. Specific gas safety training may also be required of contractor representatives and their employees in the Iron Producing, Steel Producing, Anneal Shops or other areas in the site as determined by local requirements communicated to Contractor by the local ArcelorMittal site representative.
- 16.2 Purging will be determined by the site requirements. The Contractor must be informed by designated ArcelorMittal USA representative whether a pipe line has been or requires purging before beginning work. The contractor is responsible for monitoring that the purge

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is maintained for the duration of the contracted work. Contractors must receive authorization from the designated ArcelorMittal USA representative to open or close gas valves. Where a formal Gas Committee exists, the contractor will be expected to participate and follow those procedures outlined by the committee.

- 16.3 Contractors must select and provide appropriate respiratory protection and gas detection equipment for their employees use during the performance of all jobs and work requiring gas detection equipment. Contractors must provide and use only NIOSH certified respiratory protection equipment. Contractor provided detection equipment must be approved for use by the ArcelorMittal representative before the start of the work.
- 16.4 The contractor representative must be knowledgeable of the safe use procedures and limitations of the respiratory protection and gas detection equipment provided and is responsible for ensuring the contractor employee's use in accordance with all recommended operating and maintenance instructions.
- 16.5 Contractors employees must be evaluated, including medically qualified, and trained in the proper use of respiratory protection and gas detection equipment. Employees must be trained at a minimum on how to monitor the work site, how to respond to an alarm condition, who to inform of the alarm condition and when it is safe to resume work in the affected area.
- 16.6 Contractors must have written certification from a physician or other licensed health care professional that employees required to wear respiratory protection equipment have been medically evaluated and are capable of using such equipment without medical restrictions. Certification must be obtained by the contractor before fit testing and initial training and assignment of the employee to work requiring respiratory protection and at least annually thereafter, unless circumstances require more frequent certification.
- 16.7 Contractor employees before beginning work in known or potential gas hazard areas require training on established ArcelorMittal USA, plant or department safe work practices for working in these areas.
- 16.8 Contractor employees working in a known or potential gas hazard or oxygen-deficient area must use gas or oxygen detection equipment. Contractors must ensure that necessary gas checks are conducted and that contractor employees inform the ArcelorMittal USA department supervision before entering and after leaving the area. Contractor employees must observe all applicable regulatory requirements for working in a known or potential gas hazard or oxygen deficient area.
- 16.9 ArcelorMittal deploys special signs identifying CARDOX protected areas. Contractor employees must notify the ArcelorMittal USA department supervision before entering and upon exiting a CARDOX protected areas. Contractor employees who must enter CARDOX protected areas may do so only in accordance with established ArcelorMittal procedures.
- 16.10 Contractor employees working in CARDOX protected areas must immediately evacuate the area upon pre-discharge alarm. Contractors must train their employees in how to identify the pre-discharge alarm, exit routes and require employees to exit the area if the CARDOX pre-discharge alarm is deployed.
- 16.11 Only approved explosion-proof electrical equipment and spark-proof tools in flammable vapor/gas areas are permitted.
- 16.12 Contractors using internal combustion engine driven equipment inside of enclosed area must vent/pipe engine exhaust outdoors. Contractors are responsible for monitoring and

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maintaining carbon monoxide levels inside the enclosed area or building below permissible exposure limits.

17.0 Horseplay

- 17.1 Contractor employees must not engage in horseplay or practical jokes of any kind while on the work site or on ArcelorMittal USA property.

18.0 Housekeeping

- 18.1 The contractor is responsible for work site housekeeping and cleanliness. At all times, the contractor is to maintain the work site in a condition as clean and safe as practical and free of refuse and rubbish. In performing the contracted work, the contractor is responsible for any waste generated from its operations and responsibility for its clean up and disposal in compliance with all applicable laws and regulations. The contractor must dispose of all solid/liquid waste material in accordance with any instruction provided by a representative of the Environmental Department. In no case is trash to be disposed of by open fire burning.
- 18.2 Contractors must keep aisles, exits, stairs, catwalks and roadways clear and open.
- 18.3 Contractors must locate and pile materials in such a way as not to create a hazard to persons or equipment or interfere with the operation of fire protection equipment. Floor loading limits must not be exceeded.
- 18.4 Precautions must be taken to prevent tripping hazards from hoses, welding leads, electrode stubs, water lines, tools, small material, etc.

19.0 Lasers

- 19.1 Use of lasers sources are governed by all applicable federal, state and local regulations.
- 19.2 Contractor use of lasers, whether they are Contractors or ArcelorMittal's, requires approval of the ArcelorMittal site representative.

20.0 Medical / Emergency Response / Evacuation

- 20.1 Contractors must be prepared to arrange for the treatment of employees injured or who become ill on the work site and provide as required, adequate first aid supplies, suitable facilities for quick drenching or flushing of eyes or body, and employee medical surveillance. Evacuation routes and methods for accounting for all personnel must be arranged for at each job site.

21.0 Mobile Equipment Grounding

A potential electrical hazard exists when mobile and elevating equipment is operated within limited approach boundary of unguarded conductors or equipment. Contractors must make a connection between the equipment and the best ground available in the immediate work area with 4/0 grounding set. Attach the grounding set to ground source first, then equipment. When removing ground set, detach ground set from equipment first, then from ground source. Stretch out ground set fully.

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- 21.1 Rod or Pipe Electrode Rules: Rod and pipe electrodes must not be less than 8 feet in length, and must consist of the following materials and must be installed in the following manner:
- 21.1.1 Pipe or conduit electrodes must be not smaller than 3/4-inch trade size and if made of iron or steel, must have the outer surface galvanized or otherwise metal coated for corrosion protection.
 - 21.1.2 Steel or iron electrodes must be at least 5/8 inch in diameter. Nonferrous rods or their equivalent must be listed and must be not less than 1/2 inch in diameter.
 - 21.1.3 Install electrodes to a depth of not less than eight feet in soil. Where rock is encountered, drive electrodes at an oblique angle not to exceed 45 degrees from the vertical or bury in a trench that is at least 2-1/2 feet deep. The upper end of the electrode must be flush with or below ground level unless the aboveground end and the grounding lead attachment are protected against physical damage.
- 21.2 Building or Structural Grounding: When a building or structural ground is used as a grounding source, the connection must be made in a manner that will ensure an effective ground.

22.0 Overhead Work – Fall Prevention & Protection / Fixed Ladders

- 22.1 Contractors are to provide fall hazard protection wherever an employee is four feet or more above a lower level and wherever there is a potential hazard of an employee falling into dangerous equipment, regardless of the height.
- 22.2 Contractors are to assess the work site and select and provide fall protection measures compatible with the work performed. Fall protection generally can be provided through use of guardrail systems, safety nets, and personal fall arrest systems, positioning systems, warning lines, and controlled access zones.
- 22.3 Guardrail systems must meet OSHA requirements for guardrail systems.
- 22.4 Personal fall protection systems require the use of a body harness, lanyard or self-retracting lifeline and anchorage capable of supporting at least 5,000 pounds of force per attached employee for non-certified anchorages. Snap hooks must be a locking type or sized compatible with the member to which connected to prevent disengagement. 100% tie off must be maintained during transitioning.
- 22.5 Fall arrest anchorages must be selected by the contractor's competent person and be independent of any anchorage used to support or suspend platforms.
- 22.6 The design and installation of horizontal lifelines must be under the supervision of the Contractor's competent person.
- 22.7 Before each use, Contractor must inspect personal fall arrest systems for damage or deterioration. Defective components must be tagged and removed from service.
- 22.8 Contractor must securely tie, brace, or require one of its employees to hold in place portable ladders to prevent accidental slipping or falling.
- 22.9 Contractor must flag off and post areas beneath overhead work with signs reading: "Danger -- Employees Working Above" or "Danger -- Falling Material," to keep employees on the ground/floor clear of overhead work.

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- 22.10 Equipment and materials must be lowered to ground level by hand line or some other control method. Dropping or throwing material is prohibited.
- 22.11 Contractors must designate a trained, competent person to oversee scaffold erection, dismantling and use. Contractors must train each employee involved in erecting, disassembling, moving, operating, repairing, maintaining, or inspecting a scaffold to recognize, control and minimize any hazards associated with the work. A tag or sign must be displayed on the scaffold indicating the last inspection date and safety status.
- 22.12 Contractor must inspect scaffolding each work shift and after any event that could affect the structural integrity of the scaffold.
- 22.13 Only trained, authorized employees may operate aerial lifts. Employees must stand firmly on the floor of the lift and not climb out of the elevated basket. If entry or exit is performed at elevation, the person(s) entering or exiting must follow all fall protection rules regarding the use of harnesses and lanyards. If transition from the aerial platform to another location must be made, it can only take place after the fall hazard has been (1) eliminated or (2) 100% fall protection tie-in (twin leg lanyard or two separate lanyards) is used. When transitioning, one leg of the employee's twin leg (or Y) lanyard must be attached to an approved connection point in the work area being entered. The other leg of the lanyard or the other lanyard (if using two separate lanyards) must be tied off to the anchor point of the aerial lift. When re-entering the aerial lift from the work location the same procedure must be followed.
- 22.14 Before initially going on any plant roof, tank or vessel roof, ArcelorMittal site representative must be contacted. The contractor must assess the condition of the roof prior to performing work and must evaluate potential exposure to electrical utilities. Certain roofs, i.e. transite, resolute and galbestos, present special hazards due to their inability to bear weight. The contractor must initiate additional safety practices when structural weaknesses are suspected regardless of the materials of construction. Safety harnesses and fall protection systems must be worn while on any roof within the facility unless a safety plan has been developed and approved by the ArcelorMittal site representative in writing. When working overhead, the area below must be flagged off or other equivalent measures taken to protect workers in the area. Access to roofs and other unguarded platforms four feet high or higher that are not equipped with an engineered fall protection system is restricted to "Authorized Personnel Only". Ladders leading to roofs and unguarded platforms are controlled by locked guards and/or doors. Follow specific plant procedures for accessing these ladders.
- 22.15 Safety Rules Applicable to Fixed Ladders
- 22.15.1 Before climbing a fixed ladder, contractors must visually and manually inspect the fixed ladder for damage or defects, including, but not limited to, the following:
- broken rungs
 - bent rungs
 - loose rungs
 - lack of sturdy side handrails
 - instability of the fixed ladder
 - substance such as greases, oil or dirt on the fixed ladder
 - obstructions

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- 22.15.2 If a contractor notes any damage or defect to a fixed ladder during the contractor's inspection of the fixed ladder, the contractor must not climb the ladder and must report the damage and/or defect of the fixed ladder to the designated ArcelorMittal USA representative.
- 22.15.3 If a contractor has any safety concerns regarding a fixed ladder, the contractor must not climb the fixed ladder and must report the safety concerns of the fixed ladder to the designated ArcelorMittal USA representative.
- 22.15.4 Contractors must face a fixed ladder and maintain a three-point contact at all times while ascending or descending a fixed ladder. Three-point contact consists of two feet and one hand or two hands and one foot which is safely supporting the contractor's weight while ascending and descending the fixed ladder. Contractors must have at least three limbs (two feet and a hand, or two hands and a foot) in contact with the fixed ladder at all times.
- 22.15.5 Contractors must not carry any materials with them which will prevent them from holding onto a fixed ladder with both hands while ascending and descending a fixed ladder.
- 22.15.6 Contractors must only use a fixed ladder one person at a time.
- 22.15.7 Contractors must wear the appropriate slip resistant steel toe or safety toe shoes while ascending or descending a fixed ladder.

23.0 Personal Protective Equipment

- 22.1 Contractors must ensure personal protective equipment (PPE) and clothing is provided, used, and maintained by their employees whenever necessary because of work, job or site hazards. Contractors are to comply with any established plant or department protective equipment specific use requirements. PPE must be of safe design and suitable for the work to be performed.
- 23.2 Contractor employees are responsible for inspecting their PPE before each use. Do not use defective or damaged PPE. Do not alter PPE.
- 23.3 Contractors are responsible for training their employees: when PPE is necessary; what type; how it is worn; its limitations; proper care and disposal.
- 23.4 Wear safety hard hats of a non-conductive material at all times.
- 23.5 Wear foot protection at all times which meets or exceeds ASTM 2413-05 I75/C75 standards for impact and compression. As a minimum, this means steel toe or safety toe shoes; sneakers are not permitted.
- 23.6 Safety glasses with side shields as a minimum must be worn at all times. Additional suitable eye-face protectors must be worn as required by work-site or job activity hazards.
- 23.7 Persons who use corrective spectacles and are required to wear eye protection must wear either safety glasses with protective lenses providing optical correction or goggles over corrective glasses. Normal street wear frames and safety lenses are not in compliance.
- 23.8 Contractor must medically evaluate, train and fit test employees performing work requiring respiratory protective equipment before providing respiratory protection equipment.

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Contractor employees required to wear respirators are not permitted to work in respirator required areas if facial hair interferes with the face and the face-piece seal.

- 23.9 Contractor employees required to wear respirators must perform a user's seal check each time a respirator is worn.
- 23.10 Contractors may provide respiratory protection to employees requesting its use after determining that such use will not create a hazard, or the employee does not have a medical restriction. Where respirator use is voluntary, Contractors are to provide employees with the information in Appendix D of OSHA respiratory protection standard, 29 CFR 1910.134.
- ▲ 23.11 Work clothing consisting of long pants and waist length shirts with long sleeves is to be worn on the work site as a minimum. Flame-retardant work clothing must be worn when there is potential for exposure to flame or arc. Additional protection such as an aluminized coat and carbonX must be worn wherever there is potential for exposure to molten iron or metal.
- 23.12 Whenever the wearing of personal protective equipment is required in the facility, Finger rings, wedding rings, and exposed and dangling earrings and other loose jewelry are prohibited.
- 23.13 Contractors must provide the appropriate insulating protective equipment and PPE for the task or job activity. Contractors are to ensure that these employees perform the work in a safe manner and in accordance with established standards per OSHA, NFPA 70E and the Corporate ArcelorMittal USA Electrical Safe Work Practice Standard.
- 23.14 Cut-resistant level four over the elbow-arm protection (i.e., sleeves or jackets with cut resistant sleeves) and gloves must be worn when walking through coil fields, walking/working in coil fields or coil staging areas, i.e., marking/scanning coils, conducting coil inventories, etc., walking/working within arm's length of a coil or strip, i.e., banding or cutting bands, taping laps, applying labels, scraping coils or handling coil scrap material, collecting samples and when handling non-protected edge sheet samples and sheet metal scrap.

24.0 Pipelines

- 24.1 The contractor must treat work performed on or near pipelines as though the pipelines are carrying hazardous substances until determined otherwise.
- 24.2 Valves, other than those belonging to the contractor, must not be opened or closed without permission from the designated ArcelorMittal site representative. Any valve closed by the contractor, with permission from the designated representative, must be locked and tagged if required by established lockout procedures.

25.0 Pneumatic Tools and Lines

- 25.1 Use of ArcelorMittal USA compressed air lines are at the contractor's sole risk. The contractor must inspect and certify that the system, and all equipment, regardless of ownership, is equipped with all required safety devices.
- 25.2 Attach air hoses only to compressed air lines. Compressed air must not be used for cleaning purposes, except where reduced to less than 30 psi and then only with use of effective personal protective equipment. Compressed air should never be directed towards

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another employee or used in horseplay. Oxygen is not a substitute for compressed air. Consult the designated ArcelorMittal USA representative if there is any question as to the contents of a line.

- 25.3 The designated ArcelorMittal site representative must approve the location of contractor compressed air lines, as well as any tie to ArcelorMittal systems. Compressed air lines, hoses and tools must be in proper condition and proper safety precautions must be taken in their use.
- 25.4 Temporary pipelines require labeling at each outlet.

26.0 **Radiation**

- 26.1 Contractor use of X-ray equipment or radioactive material is subject to all applicable federal, state and local regulations and site requirements.
- 26.2 Contractors through the designated ArcelorMittal site representative must clear the details of procedures with the plant radiation safety officer, sufficiently in advance so that all required precautions can be implemented.

27.0 **Railroad Tracks and Rail Safety**

BLUE SIGNAL RULE - A railroad blue signal is a metal plate minimum 14" wide, painted blue on a metal rod that can be attached to the rail by day and or a blue light by night. A blue signal signifies that workmen are working adjacent to, on, over or under a railroad track or rolling equipment. Rolling equipment may not pass a displayed blue signal or couple to blue signaled equipment.

- 27.1 Contractors must request permission to take tracks out-of-service when working adjacent to, on, over or under a railroad track or rolling equipment, or when rails movements may endanger persons or equipment. Obtain clearance to display a blue signal through the railroad yardmaster or designated ArcelorMittal USA representative from the department responsible for the track before work begins. The area that controls the track segment (railroad or department) must be ascertained before asking permission to interfere with the tracks. The contractor/subcontractor must display a blue signal after track clearance is granted. At the time of permission, the site representative and the contractor should establish a method of immediate communication. When work is completed, and a need no longer exists to interfere with the track(s), the communication must be made with the area that controls the track segment (railroad) or department) to inform that the contractor is clear.
- ▲ 27.2 The contractor must display a blue signal at or near each switch or derail providing access to or exit from the section of track where the contractor employees are to work. Derails must be placed at least 150 feet, when track configuration permits from the work area and in the clear view of potential crews free of line of site obstructions. For tracks equipped with crossovers, the contractor must line and lock both crossover switches against movement to the track. Where it is not possible to place the blue signal at the switch or derail, the protection may be established at the next point of switch located away from the target area. Line each switch or derail against movement to the track and lock with a locking device.
- 27.3 For remotely controlled switches, contractors are to notify the switch operator to line the switch against movement to the track and lock the switch lever or control with a locking

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device. The lock is removed only when the contractor informs the switch operator that it is safe to do so.

- 27.4 Only the employee, or representative from the group of employees that placed the signal may remove it, except, if the employee leaves the work site and cannot be located and it is necessary to clear the track, contractor supervision must check the track area thoroughly, and if no hazard is found, may remove the blue signal and notify the area that controls the track segment (segment or department). Where two or more contractors are working in the same location, each must place a blue signal.
- 27.6 Keep railroad tracks unobstructed and maintain a minimum 10-foot clearance alongside of track at all times. The only exception to this is when clearance is obtained from the area that controls the track segment (railroad or department), AND the railroad blue signal rule is followed.
- 27.7 The contractor must instruct its employees on the following rules:
- Stop, look, and listen before crossing railroad tracks when walking or driving.
 - Cross tracks inside or outside of buildings only at designated crossings.
 - Do not step or stand on rails when crossing. They are tripping and slipping hazards.
 - Do not cross tracks while lights are flashing.
 - Unauthorized persons are not permitted to ride railroad engines and cars or locomotive cranes.
 - Maintain a safe distance from all railroad equipment. Be particularly attentive to distance from remote-controlled locomotives and railroad equipment transporting hot metal or slag. Hot metal or slag can erupt and splash a considerable distance.
 - When crossing between uncoupled railroad cars or around the ends of railroad engines and cars, or locomotive cranes, maintain a 20-foot clearance from the body to any railroad equipment.
 - Never cross between coupled railroad cars.
 - Only authorized persons are permitted to move railroad cars. Never release brakes or remove blocking unless authorized to do so.
 - No one may remove a warning device except the person or group of person who placed it. In the event that a person does not remove his warning device and cannot be located, it is the responsibility of an ArcelorMittal site representative to make a thorough inspection of the track area before removing the warning device.

28.0 Safe Work Environment

- 28.1 Contractors must not create an atmosphere, using internal combustion engines, toxic substances, or other unspecified methods, that could have an adverse health effect on any persons in the area. For example: vent internal combustion engines operating within an enclosed area to the outside.
- 28.2 Contractors must not create any other conditions that could cause injury or adverse health effects to any person. For example: when working overhead there must be adequate warning or protection for persons on the ground.

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29.0 Safety Monitoring

Contractors are expected to strive for continuous improvement in safe job performance and safe work site conditions and practices.

29.1 Inspections

- 29.1.1 Due to an ever-changing work site, contractors must monitor the work site during each work shift for at-risk and potential at-risk conditions and practices, and if found, correct them immediately.
- 29.1.2 Tools and equipment must be inspected by the user before use. Contractors must immediately tag and remove from service faulty tools and equipment for repair or replacement. Contractor must confirm in writing that all tools and equipment to be used are in a safe condition. This can be done with the Pre-job Safety, Health and Environmental checklist or the attached Tool & Equipment condition Form.
- 29.1.3 Powered vehicles are to be inspected by the vehicle's operator daily or prior to the vehicle's use. Tag and remove from service any vehicle found in need of repair or in any way unsafe or contributing to an unsafe condition for repair, and not operate until restored to safe operating condition.

30.0 Sewers

- 30.1 All sewer work requires a confined space entry permit or certification. Hydrogen sulfide must be tested for along with other requirements for the particular space.
- 30.2 Contractors must protect open manholes or catch basins by an adequate barricade. Contractors must replace open manhole covers promptly when work is suspended, or provide adequate protection, including warning lights to guard the hazard.
- 30.3 Contractors must obtain approval from the facility Environmental Management Department before directing to or disposing of material in any facility sewer or drain.

31.0 Vehicular Traffic

- 31.1 Contractor employees must observe established facility traffic rules, signs and speed limits at all times. Extreme care must be taken particularly at posted equipment crossings to safeguard pedestrians and equipment. Failure to do so may result in revocation of in-facility driving privileges or banned from the premises. Contractors must park only in areas designated by the designated ArcelorMittal site representative. Maintain emergency vehicle travel lanes at all times.
- 31.2 Always yield right of way to railroad trains, fixed rail equipment, coil carriers, slab carriers and all types of mobile equipment and vehicular traffic. Contractor vehicles and mobile equipment are to stop, look, and listen at all rail crossings.
- 31.3 Use of cellular phones are prohibited used while operating any moving equipment such as e.g. trucks, pickups, cranes, forklifts, ambulances, vehicles of patrimonial security, locomotives, private vehicles, etc.
- 31.4 All vehicles used for work purposes must be fitted with fixed seats and safety belts for the driver and all passengers unless the risk assessment specifies otherwise. The driver and all passengers must wear their seat belts, where fitted, at all times.

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- 31.5 Vehicles must have mirrors and be equipped with working lights, signals and brakes. Windows must be maintained for visibility. Other installed safety devices not specifically mentioned must also be maintained.
- 31.6 Vehicle headlights must be on whenever the vehicle is in operations on an ArcelorMittal USA site.
- 31.7 All vehicles driven for work purposes must be subject to an appropriate pre-operation safety check based on a risk assessment. There must be a system that ensures that no vehicle is driven if key equipment is found to be faulty e.g. brakes and tires.
- 31.8 Vehicles cannot be used to tow any equipment, unless engineered to do so.
- 31.9 No person is allowed to listen to earphone-based music via a cellular phone, I-Pod, MP3 player or any other similar device when in the operating environment.
- 31.10 Vehicle Traffic and Parking
 - 31.10.1 All vehicle traffic must be limited to paved road surfaces and approved unpaved roadways approved by the facility for use by contractor.
 - 31.10.2 Traffic barricades must be used and maintained to prevent vehicle traffic from traveling through areas and on roadways not approved by the facility.
 - 31.10.3 Vehicles hauling materials within the facility must be loaded in a manner that prevents spills during transport.
 - 31.10.4 If the contractor or any of its subcontractors' desires to use an area for parking, such area may be used if approval is given by the facility and the contractor or its subcontractor desiring to use the area paves the area.
 - 31.11.5 The installation of temporary or new permanent roadways and parking areas must be in accordance with facility standards and must be coordinated through the facilities Engineering Department. A written request must be submitted to the facility general manager's office to secure assistance from the facilities Engineering Department.

32.0 Welding and Burning

- 32.1 Hot Work
 - 32.1.1 Hot work is any job or activity that uses or produces flames, sparks and/or heat that could act as an ignition source for any flammable or combustible liquid, gas or combustible material in the work area.
 - 32.1.2 The contractor must thoroughly inspect the hot work area for potential flammable and/or combustible hazards and properly completes a hot work permit. Hot work requirements apply to work conducted indoors as well as outdoors.
 - 32.1.3 Based upon the completed hot work permit, the contractor must assign a trained, knowledgeable, properly equipped fire watch to ensure that all hot work precautions are followed and be alert for fires during the performance of the hot work. The contractor must ensure that operable fire extinguishers or a dedicated charged water hose line are immediately accessible and available within the hot work area.

	AFFECTED AREA ArcelorMittal USA	 ArcelorMittal
Author: M. Ryan Approved by: S. Thompson	TITLE Contractor Safety, Health and Environmental Handbook	Revised: January 18, 2019 Original: May 5, 2006 Revision: 6

- 32.1.4 When hot work is contemplated, the contractor must consider use of saws, bolts, bolt cutters, wrenches or other non-sparking tools as an alternative to burning or welding equipment. In all situations where hot work is to be performed in hazardous areas such as coal bins, crusher buildings, acid storage, benzoyl yards, etc., special job plans must be developed by the contractor and approved by an ArcelorMittal department representative and the ArcelorMittal plant fire safety representative.
- 32.1.5 When hot work is necessary, the equipment upon which the hot work is to be performed must, where possible, be removed from any potential fire hazard. If this is not possible, remove combustible storage or combustible deposits from the hot work area so that a minimum 35-foot area surrounding the hot work of all combustible hazards is maintained. Use non-combustible covers or wet down to protect immovable combustibles.
- 32.1.6 The contractor must include in all inspections for potential fire hazards opposite sides of walls, partitions, roofs and floors below. Contractors must block floor and wall openings to prevent hot material from entering the adjacent areas and seal ductwork or duct openings with metal covers.
- 32.1.7 Hot work must not be performed in areas protected by automatic fire protection systems until approved by the plant fire safety representative to ensure no life hazard exists from activation of carbon dioxide, Halon or dry chemical extinguishing systems. The contractor must provide backup fire protection before the hot work begins and prepare a red tag permit for shutting down fire protection equipment. The contractor must not undertake hot work if the automatic fire protection system is shutoff, damaged, or frozen.
- 32.1.8 When hot work is performed above ground level, above machinery, pits or cellars, and where there is limited access for firefighting equipment, the contractor must in advance notify the plant fire safety representative through the designated ArcelorMittal USA representative and assign a fire watch. There are no exceptions to this requirement.
- 32.1.9 During and after completion of the hot work, the fire watch must be alert for the ignition of combustible materials within an area of 35 feet from where the hot work is being performed.
- 32.1.10 The designated fire watch must remain in the hot work area for a minimum of 60 minutes following the completion of the hot work, or interruption of the hot work in order to ensure there are no smoldering or rekindling fires as required. The fire watch must be alert to changes in conditions that may increase the potential for fire. At the end of the 60-minute fire watch, an observation of the work area must be conducted to verify that potential ignition will not occur, and/or additional fire watch time is not needed.
- 32.1.11 The fire watch must be trained to operate the available fire extinguishing equipment and know the equipment's limitations. The fire watch must know the location of telephones in the area, emergency assistance numbers to call, and procedures for summoning emergency assistance.
- 32.1.13 The contractor must notify the designated ArcelorMittal USA representative of the completion of all hot work.

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32.1.14 Contractors are to limit the use of oxygen-fuel gas equipment to only trained and authorized employees. Oxygen-fuel gas equipment use must meet the standards of all applicable federal, state and local codes.

32.1.15 Oxygen-fuel gas systems must include proper backflow and flashback protection. Rubber hose must meet American Gas Association/Rubber Manufacturers Association specifications.

32.1.16 Contractor use, handling, storing and disposal of oxygen and fuel gas must be in accordance with established facility practices.

32.1.17 Contractors are required to obtain the approval of the ArcelorMittal USA engineering group before burning holes into or welding onto any structural or building member.

32.2 Compressed Gas Cylinders Storage

32.2.1 Contractors must store cylinders erect and secured to a fixed object in well-protected, well-ventilated, dry locations, away from sources of heat (radiators, open flame, molten metal). Contractors must close valves on empty cylinders and replace valve protection caps.

32.2.2 Contractors must place cylinders where they cannot be struck by moving equipment; where materials cannot be dropped on them, and where they cannot become part of an electric circuit.

32.2.3 Contractors must keep cylinders far enough away from any welding or cutting work activity, so sparks, hot slag, or flame will not reach them; provide fire-resistant shields if needed.

32.2.4 Contractors must replace valve protection caps; hand tight, on cylinders not connected for use. Regulators must not be connected on any cylinders during transit in a motorized or powered vehicle.

32.2.5 Contractors must separate oxygen cylinders in storage from fuel-gas cylinders or combustible materials (especially oil or grease), by a minimum distance of twenty (20) feet or by a non-combustible barrier at least five (5) feet high having a fire resistance rating of at least one-half hour.

32.2.6 Contractors must ensure that compressed gas cylinders are legibly marked to identify content, by either the chemical or the trade name.

32.3 Compressed Gas Cylinder Handling

32.3.1 Contractors must move cylinders in a pushcart designed to firmly secure the cylinders to the cart in an upright position and the valves must be protected.

32.3.2 Contractors must secure cylinders on a cradle, sling board or special pallet for hoisting. Remove regulators and replace valve protection caps. Contractors must not use valve protection caps for lifting cylinders. Choker slings or electro-magnets are not to be used to transport cylinders.

32.3.3 Where a special wrench is required it must be left in position on the stem of the valve while the cylinder is in use. Contractors must not use cylinders as rollers or work supports.

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32.3.4 Contractors must avoid handling oxygen cylinders or apparatus with oily hands, gloves, rags, or tools.

32.3.5 Contractors must secure cylinders transported by a powered vehicle in an upright position.

32.4 Electric Welding

32.4.1 Electric welding must be performed only by qualified welders in well-ventilated areas.

32.4.2 Contractor welders are to use required personal protective equipment.

32.4.3 Contractors must screen or shield welding arc from others in the same area.

32.4.4 Contractors must ground welding in a way that individuals or equipment does not become part of the ground circuit. Ground welding must be as close to the welding as possible. Electrical conduit or piping systems containing hazardous materials or gases may not be used as a welding ground.

32.4.5 Contractors must ground frames of electric welding machines.

33.0 **Working On or Near Energized Electrical Equipment and Overhead Lines**

Work on or near electrically energized installations, requires that the equipment and/or overhead lines be de-energized, and grounds installed or that other protective measures such as rubber blankets taken before beginning the work. Contractors must be electrically qualified (per OSHA and NFPA 70E Standards) and follow established safe electrical work procedures established by the OSHA Standards and the Corporate ArcelorMittal USA Electrical Safe Work Practices Standard. Crews cannot de-energize electrical equipment, overhead lines or low voltage feeders without obtaining through the designated ArcelorMittal site representative's permission from the plant's electrical management. (A Hot Work Electrical Form is attached at the end of this document and must be used anytime hot work is performed.)

Only qualified (Per OSHA and NFPA 70E Standards) employees may work on or near, or in an area where there are exposed energized parts operating at 50 volts or more with proper PPE (per OSHA and NFPA 70E Standards) and use the Energized Electrical Work Permit. Consider electric lines and equipment as energized unless they have been de-energized, tested, locked out or tagged out, and grounds installed. Contractor is responsible for instructing qualified and unqualified employees on where they can and cannot work and what prohibitions or limitations apply in areas where they may be exposed to energized parts or equipment.

34.0 **Site Specific Emergency Contacts**

This document references facility safety and environmental contacts, each site is responsible for providing facility specific emergency contact information.

The ArcelorMittal Golden Rules

	I will come to work in a “fit and able” condition
	I will use fall protection or prevention whenever and wherever required according to our standards
	I will follow the lockout/isolation procedure when working on equipment
	I will follow the confined space entry procedure before entering as well as during the full duration of the task
	I will respect all the rules of load handling at all times and never stand under a suspended load
	I will respect all the traffic rules
	I will respect rail priority and stay out of close clearance areas without proper precautions being taken
	I will respect the rules for entering and/or working in hazardous gas areas
	I will not disable safety devices
	I will respect all the Health & Safety basic rules, standards and signals and I will wear the required PPE

36.0 Sample Forms

The following sample forms are provided; (Sites may require their own forms)

Confined Space Pre-Entry / Entry Checklist

Confined Space Entry Permit

Excavations and / or Concrete Cutting Clearance

Hot Work Approval Form

Energized Electrical Work Permit

PPE Guide

Approach Boundaries to Energized Electrical Conductors or Circuit Parts for Shock for Alternating Voltage Systems

Energized Electrical Work Procedure

▲ HIRAC-Lite

Request to Use or Borrow Equipment Form

Tools & Equipment Condition Form

ArcelorMittal USA

Confined Space PRE-ENTRY/ENTRY Checklist *(Sample Form)*

ISSUED (date & time): _____ EXPIRES (date & time): _____

Job Site: _____

Equipment Involved: _____

Work to be Performed: _____

PRE-ENTRY	ENTRY
1. Atmospheric Checks: Time _____ Oxygen _____ % 19.5-23.5% Explosive _____ % LEL < 5% Toxic _____ Contaminant _____ Concentration	1. Entry, standby and backup persons: Yes No Successfully completed req'd training? Is it current?
2. Source Isolation (No Entry): N/A Yes No Energy sources (incl. engulfment) blinded, blocked, disconnected or locked out, etc.	2. EQUIPMENT: N/A Yes No Direct reading monitor - tested? Safety harness and lifelines N/A Yes No for entry and standby persons Hoisting equipment Powered communications SCBA's - entry & standby persons Protective clothing
3. Ventilation Modification: N/A Yes No Mechanical Natural ventilation only	All Electrical Equip: class 1, group D, division 1 and non-sparking tools N/A Yes No ± ± ±
4. Atmospheric Checks: (after isolation & ventilation) Time _____ Oxygen _____ % 19.5-23.5% Explosive _____ % LEL < 5% Toxic _____ Concentration	3. RESCUE PROCEDURE: _____ _____ _____ _____ _____ _____
<p><i>* Entry and work duration limits to be set prior to entry</i></p> <p>If there is no reason to believe that conditions exist to require ± Permit permit entry then complete the Pre-Entry checklist and classify ± Non-Permit accordingly</p> <p>If NONPERMIT, then follow JSA procedures and follow continuous monitoring practices.</p> <p>If PERMIT space or there is reason to believe that conditions may change adversely, then proceed to the Entry Checklist portion of this permit.</p>	
<p><i>We have reviewed the work authorized by this permit and the information contained herein. Written instructions and safety procedures have been reviewed and are understood. Entry CANNOT be approved if any squares are marked in the "NO" column.</i></p> <p>Entry Supervisor/Crew Lead: _____ (Name) (Signature)</p> <p>Authorizing Entry Supv./Crew Lead: _____ (Name) (Signature)</p>	

ArcelorMittal USA

CONFINED SPACE ENTRY PERMIT (Sample Form)

PERMIT ISSUED: _____

PERMIT EXPIRES: _____

SITE LOCATION & DESCRIPTION: _____

PURPOSE OF ENTRY: _____

Supervisors/Crew Ldrs	Phone #	Crew Type	Supervisors/Crew Ldrs	Phone #	Crew Type

BOLD DENOTES MINIMUM REQUIREMENTS to be COMPLETED & REVIEWED PRIOR TO ENTRY

REQUIREMENTS COMPLETED	YES	NO	REQUIREMENTS COMPLETED	YES	NO
Lock-out / De-energize / Try-out			Full Body Harness w / "D"-Ring		
Line(s) Broken - Capped - Blanked			Life Lines		
Purge - Flush and Vent			Fire Extinguishers		
Ventilation			Lighting (Explosion Proof)		
Secure Area (Post & Flag)			Protective Clothing		
Breathing Apparatus			Respirator(s) (Air Purifying)		
Resuscitator - Inhalator			Burning and Welding Permit		
Emergency Escape Retrieval Equip.			Other		

NOTE: Items that do not apply, enter "N/A" in the blank.

CONTINUOUS MONITORING TEST(S) TO BE TAKEN	PERMISSIBLE ENTRY LEVEL	Record Results Periodically
Percent of OXYGEN	19.5% - 23.5%	
Lower Flammable Limit	< 5.0%	
TOXIC Atmosphere	ppm*	
Carbon Monoxide	ppm*	
Hydrogen Cyanide	ppm*	
Hydrogen Sulfide	ppm*	
Sulfur Dioxide	ppm*	
Acid Fumes	ppm*	
Organic Vapors	ppm*	

** Entry and work duration limits to be established prior to entry.*

REMARKS: _____

Gas Tester Name and Clock #	Instrument(s) - Model / Type - Serial / Unit #

Attendants	Clock #	Date/Time	Attendants	Clock #	Date/Time
Authorizing Supervisor	Phone #	Date/Time	Department	Emerg. / Rescue Phone#	

NOTE: Permit is not valid until all required items are completed.

NOTE: Attach list of all authorized entrants by name and clock #.

ArcelorMittal USA

EXCAVATION AND/OR CONCRETE CUTTING CLEARANCE *(Sample Form)*

Location Name _____

WORK TO BE DIRECTED BY: _____
(NAME OF INDIVIDUAL AND/OR JOB TITLE)

TO: _____
(NAME OF INDIVIDUAL AND/OR JOB TITLE)

YOU ARE AUTHORIZED TO COMMENCE EXCAVATION OR CONCRETE CUTTING ON THE FOLLOWING JOB,
AS LAID OUT IN THE FIELD, BY THE USE OF POWER EXCAVATION AND/OR DRILLS AND CONCRETE
BUSTERS AS OF _____.
(DATE)

(NEW CLEARANCE REQUIRED IF JOB NOT STARTED WITHIN 30 DAYS OF THIS DATE). GENERAL SAFETY
RULES FOR GROUNDING OF TOOLS MUST BE FOLLOWED. ANY EXCAVATING OR CONCRETE
DEMOLITION REQUIRES ENVIRONMENTAL SIGNATURE.

JOB LOCATION _____

JOB ORDER NO. & DRAWING NO _____

SPECIAL INSTRUCTIONS _____

LIMITATIONS _____

ENVIRONMENTAL RESTRICTIONS _____

APPROVALS		DATES
ENGINEERING/OR SITE Rep	TITLE	
ENVIRONMENTAL (as required)	TITLE	
ELECTRICAL/MECHANICAL Rep	TITLE	
DIVISION MANAGER	TITLE	

ArcelorMittal USA

Hot Work Approval Form (Sample Form)

Division _____ Dept _____ Area _____

Hot Work (grinding, burning, welding, or open flame) is required on or near the following processes, equipment or area(s): _____

Expected Start Date _____ Time _____ (am/pm)

Expected End Date _____ Time _____ (am/pm)

Individual(s) supervising employees performing Hot Work: _____

Submitted By: _____ Representing _____ Date _____

Name(s) _____ Title _____

This APPROVAL requires the items (X) for minimum fire protection prior to performing work:

PRECAUTIONS	X	COMMENTS
Gas monitoring required e.g. O ₂ , LEL, CO, HCl (describe type and frequency in COMMENTS section)		
Controls required e.g. Blanking, Bleeding, Venting, Purging, Cleaning (Describe written method in detail for potentially hazardous flammable liquids, system low points, system draining, in coke oven gas COG lines.		
Clean-up/remove combustible materials from area		
Protect immovable combustibles with flameproof tarps or metal guards, etc.		
Cover floor & wall openings to prevent sparks from entering other areas		
Electrical equipment locked and or tagged out		
Fire watch provided during job and at least 1 HOUR after (describe requirements in COMMENTS section)		
Portable fire extinguisher(s) circle type A B C D No. _____ Size _____ Lbs. _____		
Pressurized fire hose on site (except in electrical rooms)		
Pre-soak area with water (do not spray near motors of control boxes)		
Cover area with wet sand, dry chemical of similar noncombustible material		
Cover manholes, sewers, drains, ventilation ducts, conveyors, etc.		
Area(s) roped off		
Describe additional precautions to be taken		
APPROVAL BEGINS ON	Time	Date
AND EXPIRES ON	Time	Date
Approved By:	Name(s)	Date
Operating or Maintenance Representative (s)		
Engineering Rep. (s) (if applicable)		
Contractor Rep. (s) (if applicable)		
APPROVAL EXTENSIONS: (Approval is active until last date indicated)	Extended to (time and date)	Name and Date of Person(s) Giving Approval

A COPY OF THIS FORM MUST BE KEPT ON FILE IN THE DEPARTMENT AND POSTED AT THE JOB SITE UNTIL HOT WORK IS COMPLETED. A COPY MUST ALSO BE FORWARDED TO THE DESIGNATED PERSON ON SITE.

Appendix F - Energized Electrical Work Permit

The permit is required for any manipulative work on “Live” parts greater than 240 volts nominal or greater than 125kva and not to exceed 600 volts. This includes DC and battery systems. Electrical Work Permit is good for duration of activity.

PART I: TO BE COMPLETED BY THE REQUESTER

Job/Work Order Number _____

Safe Job Procedure(s) # _____

- (1). Description of circuit/equipment/job location: _____
- (2). Description of work to be done: _____
- (3). Reason Circuit cannot be De-Energized: _____

Have all Avenues to De-Energize been exhausted prior to Work? Yes No

Requestor/Title	Date	Person in Charge	Date
-----------------	------	------------------	------

Part II: TO BE COMPLETED BY THE ELECTRICALLY QUALIFIED PERSONS DOING THE WORK:

Flash Hazard Boundary _____	Voltage _____
Restricted Approach Boundary _____	KVA _____
Limited Approach Boundary _____	PPE Hazard Risk Category _____

Note: Refer to Boundary Chart, PPE, and Energized Electrical Work Procedure (Detailed Steps)

	Check	When
Complete		
1. Detailed job description procedure to be used: _____	<input type="checkbox"/>	
2. Description of safe work practices to be used: _____	<input type="checkbox"/>	
3. Safe work zone established: _____	<input type="checkbox"/>	
4. Insulated tools, special equipment and PPE needed: _____	<input type="checkbox"/>	
5. Addition training and preparation needed: _____	<input type="checkbox"/>	
6. Notification to affected employees in the area of work to be performed: _____	<input type="checkbox"/>	
7. Evidence of completion of a job briefing including discussion of any job related hazards: _____	<input type="checkbox"/>	

Do you agree that the above described work can be done safely? (If no, return to requester) Yes No

Electrically Qualified Person(s) (signature)	Date Electrically Qualified Person(s) (signature)
Date	

Part III: APPROVALS TO PERFORM THE WORK WHILE ELECTRICALLY ENERGIZED:

Division Manager or designee (signature)	Date
--	------

**** For a definition of diagnostic or manipulative work, consult the ArcelorMittal USA Electrical Safe Work Practices Standard.

PPE Guide

Category II PPE (Everyday Wear)	Category IV PPE
1. Arc Rated - Long Pants and Long Sleeve Shirt or Coveralls at a minimum 8 Cal. Rating.	1. Arc Rated - 40 Cal. or Higher Required – 40 Cal. Blast suit or layered FR clothing approved by manufacturer to meet 40 Cal. Rating.
2. Safety Glasses and side shields (Non-Conductive)	2. Arc Rated Gloves or appropriate voltage rated gloves with leather protectors.
3. Class E 20,000 Volt Rated Hard Hat	3. Blast Hood – 40 Cal. or higher (70% or greater light transmission shields are available)
4. Electrically rated Leather work boots	4. Safety Glasses and side shields (Non-Conductive).
5. Leather Gloves or “OO” (500 volts) rated Voltage Gloves with leather protectors Heavy- duty leather gloves are made entirely of with minimum thickness of 0.03 inches (0.7mm).	5. Class E 20,000 Volt Rated Hard Hat
6. Arc Rated Balaclava – minimum 8 Cal rating	6. Electrically rated leather work boots
7. Arc Rated Face Shield – minimum 8 Cal rating	7. Ear Canal Hearing Protection.
8. Ear Canal Hearing protection.	

Approach Boundaries to Energized Electrical Conductors or Circuit Parts for Shock for Alternating Voltage Systems

-1	-2	-3	-4
Nominal System Voltage Range, Phase to Phase	Limited Approach Boundary Exposed Movable Conductor	Limited Approach Boundary Exposed Fixed Circuit Part	Restricted Approach Boundary; Includes Inadvertent Movement Adder
<50V	Not specified	Not specified	Not specified
50 V-150V	10 ft. 0 in	3 ft. 6 in	Avoid contact
151V-750V	10 ft. 0 in	3 ft. 6 in	1 ft. 0 in
751 to 15 kV	10 ft. 0 in	5 ft. 0 in	2 ft. 2 in
15.1 kV to 36 kV	10 ft. 0 in	6 ft. 0 in	2 ft. 7 in
36.1 kV to 46 kV	10 ft. 0 in	8 ft. 0 in	2 ft. 9 in
46.1 kV to 72.5 kV	10 ft. 0 in	8 ft. 0 in	3 ft. 3 in
72.6 kV to 121 kV	10 ft. 8 in	8 ft. 0 in	3 ft. 4 in
138 kV to 145 kV	11 ft. 0 in	10 ft. 0 in	3 ft. 10 in
161 kV to 169 kV	11 ft. 8 in	11 ft. 8 in	4 ft. 3 in
230 kV to 242 kV	13 ft. 0 in	13 ft. 0 in	5 ft. 8 in
345 kV to 362 kV	15 ft. 4 in	15 ft. 4 in	9 ft. 2 in
500 kV to 550 kV	19 ft. 0 in	19 ft. 0 in	11 ft. 10 in
765 kV to 800 kV	23 ft. 9 in	23 ft. 9 in	15 ft. 11 in

Energized Electrical Work Procedure

Job Assignment: _____

Location: _____

Procedures: _____

Was Job Briefing and planning checklist completed? ☐ Yes ☐ No

Device or Equipment Affected by Procedure:

Steps to Perform this Procedure

This image shows a single sheet of white paper with horizontal blue ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.



HIRAC-lite

STOP – THINK – ACT SAFELY

We make the job safe or we don't do it!

Hazard Identification, Risk Assessment & Control

Task and location _____

Names _____

Shift _____ Date _____ Time _____

This checklist is meant to generate a pre-task or change in condition plan to identify hazards and to help develop a safe method to perform the task. Consider all activities, maintenance and break-down situations. Please meet for 5 – 10 minutes prior to the start of the task to develop your safety plan.

Questions:

- | | YES | n/a | NO |
|---|-------------------------------------|--------------------------|-------------------------------------|
| 1 Is there a written job procedure for the work? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 2 Is a current and valid isolation (LOTO) procedure used? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 3 Has everyone on the job reviewed the procedure? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 4 Do we have the proper lines of communication established? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 5 Are there any surrounding conditions that need to be considered (noise, weather, etc.)? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 6 Are adjacent work crews exposed (including contractors)? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 7 Are there potential hazards or high risk job steps (if so, list below)? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

List all energy sources that need to be controlled.

- 8 ☐ electrical ☐ mechanical ☐ chemical ☐ gas ☐ stored energy
☐ none other _____

- 9 Do we have the correct tools for the job (including no-touch tools)? ☒ ☐ ☐

- 10 Do we need additional PPE? (list below) ☐ ☐ ☒
- ☐ respiratory protection ☐ fall protection ☐ chemical protection
☐ burning/welding protection ☐ electrical arc flash protection
☐ dust protection for the eye ☐ cut resistant PPE
☐ other _____

Are permits required?

- | | YES | n/a | NO |
|---|-------------------------------------|--------------------------|-------------------------------------|
| Confined space entry? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Excavation/digging/drilling? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Hot work (burning/welding)? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Energized electrical work? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| High risk/abnormal lift (formal HIRAC required) | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| No hands on lift exemption? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
- (If a yellow box is checked, ensure that the permit/HIRAC is completed)

All accidents can be prevented

Hierarchy of Controls:

- | | | |
|---------------------------|-----------------|-------------------------|
| 1. Elimination | 2. Substitution | 3. Engineering controls |
| 4. Administrative control | 5. PPE | |

YES n/a NO

- | | | | |
|----|-------------------------------------|-------------------------------------|--|
| 11 | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Is there a potential for chemical exposure (alloys, lime dust, etc.)? |
| 12 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | Has everyone applied a personal safety lock (1 person, 1 lock)? |
| 13 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | Do we have all the information needed to perform the job safely? |
| 14 | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Can we be caught in or between anything? |
| 15 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | Are all the energy sources controlled and verified? |
| 16 | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Can we be hurt as the result of a fall from height? |
| 17 | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Can something fall on or strike me or someone else? |
| 18 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | If working in a confined space, are we properly trained? |
| 19 | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Do we need a gas meter where we will be working? |
| 20 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | Are flags and derails/rail stops in place if we are working on or near rail? |
| 21 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | Have overhead cranes and/or mobile equipment been inspected prior to use? |
| 22 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | Has lifting equipment been inspected and in good order? |
| 23 | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Can we slip or trip on anything (including travel to and from the job)? |
| 24 | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Can we strain or overexert ourselves (get help if more than 1 person cannot handle)? |
| 25 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | Have we notified all affected people prior to beginning the task? |

For all hazards identified (checked red shape ☒) ensure that the proper controls are in place to safely perform the task (list below).

Hazard Control

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

YES n/a NO

- 26 ☐ ☒ ☐ Is there a change in condition? (if yes, then list)

Do we need future documentation?

- | | YES | n/a | NO |
|---|--------------------------|--------------------------|--------------------------|
| Is the job procedure adequate? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Do we recommend additional procedures be developed? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Do we recommend a formal HIRAC be developed? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
- Contact person(s) _____



ArcelorMittal USA
Request to Use or Borrow Equipment Form

_____ hereby requests that ArcelorMittal USA loan
Name of Company

us the equipment or materials described as follows: _____

Description of Equipment or Material

The reason for this request is: _____

The contractor named herein represents that contractor's employee(s) have had sufficient training to safely operate or use the equipment described above. The contractor must indemnify and hold Owner harmless from any liability of any kind arising out of the possession, maintenance, use, operation, and/or failure of said machinery, equipment, instrumentation or tools whether defective or not. If the said property becomes damaged due to the fault of the contractor while in the possession of the contractor, the contractor must immediately cease to use the said property, report the damage to the Owner and will be responsible for cost of repairs. The contractor must have the damaged property repaired to the satisfaction of the Owner. Note, Gas detection or air monitoring instruments are to be provided and maintained by the contractor. Contractors are to make their own tests for their employees in confined spaces. This form incorporates the requirements stated in Section 3.0 of the Contractor Safety, Health and Environment Handbook.

Annual Approval Expiration Date

For ArcelorMittal / Date

For the Contractor / Date

Tool & Equipment Condition Form

The contractor named below confirms that all tools and equipment used are in a safe condition prior to commencing and while performing work at ArcelorMittal USA.

Contractor Site Representative

Date

ArcelorMittal USA
Site Representative

Date

Receipt and Approval

The contractor named below has been retained by ArcelorMittal USA to provide certain on-site work. The contractor named below acknowledges that it has been furnished with copies of:

Contractor Safety, Health and Environment Handbook dated January 18, 2019.

Also, the contractor's employees and sub-contractors who perform services on-site (now and in the future) have been made aware of the same. In addition, contractor's individual training records will be maintained and be made available upon request.

Signature: _____ Date: _____

Print Name: _____

Title: _____

Company: _____