

CONTRACTOR RULEBOOK



CROP PROTECTION



SEEDS



LABS &
GREENHOUSES



ADMIN &
COMMERCIAL



FACILITIES &
CONSTRUCTION



DIGITAL AG

Welcome to Corteva Agriscience™!

Our purpose at Corteva Agriscience™ is to enrich the lives of those who produce and those who consume, ensuring progress for generations to come. We thank you for being a part of our ongoing journey to produce the best agricultural products on the market that will help with our initiative to **feed the world**.

Corteva Agriscience™ believes that all injuries and occupational illnesses are preventable by using the hierarchy of controls and having an active, engaged, and empowered workforce. We commit to creating a workplace where every person is motivated and committed to **“Living Safely”** and creating a hazard-free work environment, ensuring the safety of all Corteva employees and contractors. This also requires the commitment of every individual to do his or her job safely every time, every day. Through individual and team efforts, we can truly have a workplace where no one gets hurt.

Each employee and contractor has a responsibility to ensure that our products and operations meet applicable government or Corteva Agriscience™ standards, whichever is more stringent. We have created this manual to give you an overview of a variety of situations and environments that you will encounter while working on our property. **We never want to create an environment that compromises the safety of our Corteva Agriscience™ team. Today as a contractor or vendor, you too are part of the team.**

Welcome to Corteva Agriscience™,
Global EHS&S, Engineering, and Facilities Leadership

This Contractor Rulebook was published by the Corteva Agriscience™, Environment, Health, Safety, & Security Services (EHS&S) Organization. This is not the full extent of the guidelines that contractors will encounter at Corteva Agriscience™. The rules and procedures contained within are intended to summarize and communicate Corteva Agriscience™ Standards to the audience of “Contractors.” Full copies of each standard, forms, and referenced items can be obtained through your Corteva Agriscience™ contact.

Note: Many of the items listed within have additional requirements and resources in the form of Corteva Agriscience™ standards, policies, rules, guidelines, and SOPs. Contact your EHS&S representative or your Corteva Agriscience™ Project Manager for more site-specific rules and requirements. Contractors are required to inquire, acquire, and follow all standards as listed and referenced.

“Regulatory agency, regulation, etc.” refers to the applicable governmental agency(s), standards, or requirements specific to the context of the topic and each unique geographic location; i.e. EPA & OSHA for US, HSE for Europe, and Ministry of Labour for Canada.

Contact EHS&S at EHSS.Communications@corteva.com for more information.

This document may be used and reproduced for Corteva Agriscience™ business only.

All Hard-copy documents are uncontrolled unless otherwise indicated on the document by the standard owner.

Check the website/system to ensure you have the most current version.

Table of Contents

I. New Contractor Access Process	8
II. Forward, Introduction, Goals, and Core Values	9
III. Security	14
<i>a. Cameras</i>	14
<i>b. Driving and Parking</i>	14
<i>c. Electronic Devices</i>	17
<i>d. Identification and Access</i>	18
<i>e. Railroad Operations</i>	20
<i>f. Security Inspection</i>	20
<i>g. Solicitation and Distribution</i>	20
<i>h. Theft</i>	20
<i>i. Weapons</i>	20
IV. Violence Policy	21
V. Emergency Procedures	23
<i>a. Accidents and Chemical Exposures</i>	24
<i>b. Emergency Procedures Reporting</i>	27
VI. Incident Review and Reporting Process	28
<i>a. Contractor Incident Review Process</i>	28
<i>b. Triggers</i>	28
VII. General Rules	30
<i>a. General Rules that Apply to all Corteva Agriscience™ Sites</i>	30
<i>b. Disposal of Universal Waste</i>	32
<i>c. Housekeeping and Littering</i>	32

<i>d. Rubbish/Garbage Disposal</i>	34
<i>e. Lifting Guidelines and Ergonomics</i>	34
<i>f. Power Line Clearance Requirements</i>	35
<i>g. Substance Abuse Program</i>	36
VIII. Industrial Hygiene (IH) & Chemical Related Standards	37
<i>a. Air Quality</i>	37
<i>b. Asbestos: Handling, Removal, and Disposal</i>	37
<i>c. Chemical Hazard Communication</i>	38
<i>d. Hexavalent Chromium</i>	40
<i>e. Lead: Handling and Exposure</i>	41
<i>f. Mold</i>	41
<i>g. Noise</i>	41
<i>h. Radiation</i>	42
<i>i. Silica</i>	43
IX. Supplemental Hazard Planning Documents	44
X. General Permit Requirements	46
<i>a. Confined Space Entry Permit (CSE)</i>	49
<i>b. Core Permit</i>	51
<i>c. Demolition Permit and Process</i>	53
<i>d. Excavation (Ground Breaking) Permit</i>	55
<i>e. Hot Tap Permit</i>	56
<i>f. Hot Work Permit</i>	57
<i>g. Hydroblasting and Pressure Washing</i>	58

<i>h. Isolation of Energy (IOE) Sources/Lock Out and Tag Out (LOTO)</i>	59
<i>i. Line and Equipment Opening (LEO) Permit</i>	61
<i>j. Roof Access Permit</i>	62
XI. Signs, Signals, and Barricades	63
XII. Return to Operations (RTO) Policy	65
XIII. Personal Protective Equipment (PPE)	65
<i>a. General Requirements</i>	65
<i>b. Electrical Flash Protection</i>	67
<i>c. Eye Protection</i>	67
<i>d. Foot Protection</i>	68
<i>e. Hand Protection – “Glove Policy”</i>	69
<i>f. Arm Protection</i>	69
<i>g. Head Protection</i>	70
<i>h. Respirators and Breathing Apparatus</i>	71
<i>i. Work Near or Over Water</i>	72
XIV. Open Bladed Knives & Cut Injury Prevention Policy	73
XV. Fall Protection/Elevated Work	74
<i>a. General Requirements</i>	74
<i>b. Critical Elevated Work</i>	76
<i>c. Ladders</i>	78
<i>d. Temporary Openings (Critical Guard)</i>	80
<i>e. Scaffolds</i>	80
<i>f. Aerial Lifts, Boom Lifts, and Scissor Lift</i>	83

XVI. Excavating, Ground Breaking, Trenching, and Shoring	86
XVII. Powered Industrial Trucks (PITs) – Fork trucks	88
XVIII. Cranes, Hoists, and Mechanical Lifting	90
<i>a. Requirements for all Mechanical Lifting Activities and Equipment</i>	90
<i>b. General Rigging Requirements</i>	91
<i>c. Mechanical Lifting with a Crane Being Utilized:</i>	92
<i>d. Critical Lift Criteria</i>	94
XIX. Electrical Safety General	95
XX. Fire Protection and Prevention	97
<i>a. General Rules</i>	97
<i>b. Flammable Material Transportation</i>	97
<i>c. Outside Storage and Handling of Flammable Liquids</i>	97
XXI. Hot Work - Welding and Cutting Operations and Equipment	100
<i>a. The following rules apply to welding and cutting</i> <i>(see Section XXI. Electrical Safety General regarding annual testing of</i> <i>generators used for welding):</i>	100
XXII. Tools	104
XXIII. Site Specific Requirements	106
XXIV. Variance	107
XXV. Document and Records Management	107
XXVI. Definitions and Acronyms	108
<i>a. Definitions</i>	108
<i>b. Acronyms</i>	111

I. New Contractor Access Process

CONTRACTOR COMPANY PRE-APPROVAL

Contractors complete Corteva Agriscience™ financial (for Prime Contractors) and safety pre-qualification (All Contractors)

ARRIVAL ON SITE

Personnel arrive at the site's designated visitor entrance/reception area.



All personnel check in by following the site-specific process (i.e. sign in/out boards, ID badges)



The Corteva Agriscience™ Representative is notified of your arrival when necessary.



AUTHORIZATION FOR SITE ACCESS

Authorization for access and/or identification cards are given once the following items are verified:

1. Pre-qualification status of the company
2. Individual has met site-specific substance abuse requirements
3. Individual has completed site-specific orientation



AUTHORIZATION TO BEGIN WORK

Individual is authorized to begin work by one of the following methods:

1. Accepting a Core Permit and other applicable permits/checklists
2. Being authorized to use a written procedure
3. Performing a task listed on the site's Core Permit Exempt List

Note: The specific steps for contractor access and onboarding will vary site-to-site.

II. Forward, Introduction, Goals, and Core Values

A. Contractors who perform work for and on behalf of Corteva Agriscience™, whether pursuant to the terms of a contract, purchase order, or otherwise, are independent contractors and are responsible for compliance with this document and all applicable federal, state, and local safety and employment laws.

B. Corteva Agriscience™ has developed various Environment, Health, Safety, and Security (EHS&S) standards and procedures that are intended to provide its employees, suppliers, visitors, and contractors a safe environment while on Corteva Agriscience™ property. The rules and procedures in this book are taken from EHS&S Standards and pertain to construction, demolition, and maintenance activities. These rules and procedures are in addition to the requirements of regulatory agencies, site or project specific rules or programs, Corteva Agriscience™ Standard Operating Procedures (SOPs), Corteva Agriscience™ standards or regulations, and additional federal and state standards. Contractors are responsible for assuring that their employees are knowledgeable of, and comply with, these rules and procedures, regulations, as well as other applicable laws. Any training or certifications required by federal, state, or local laws shall be provided by the contractor. In situations not specifically covered by law or these rules and procedures, individual judgment and discretion are very important. Disregard for laws or these rules and procedures will be cause for corrective action, up to and including termination of contract and removal from Corteva Agriscience™.

C. The contractor is responsible for safety at the job site. The contractor's responsibility for job safety extends to each of the contractor's employees and to each subcontractor and their employees.

D. These rules and regulations are intended to be minimal requirements. Contractors are encouraged to adopt and consider additional methods to ensure an incident-free work site. Should this document or its contents be in conflict with an established or communicated rule or regulation, the more stringent rule shall be followed.

Note: If you need a detailed explanation of any policy or procedure contained or referenced in this book, please contact your Corteva Agriscience™ Representative or Project Manager.

E. This rulebook sets forth safety guidelines and rules. It is preferred that this book be carried (or readily accessible online) while on site. This rulebook is not intended to cover every situation you may encounter. Each job, regardless of the type of work involved, presents problems that require special alertness, awareness, and good judgment on everyone's part. In addition, the requirements established by the particular site where the work is being performed shall be reviewed with your Corteva Agriscience™ Representative.

F. It is extremely important that each individual understand how to accomplish each task safely, and if the task is not known or understood, stop and ask before the work begins. If, while working, something changes on the job that was not planned for, stop and ask before continuing.

G. Corteva Agriscience™ Core 10: In addition to our basic safety goals and rules, we also have 10 safety standards that are of utmost importance. Failure to meet any of these rules presents a serious and immediate threat to your safety and to that of others.



1. Confined Space Entry: Protects people from being exposed to health and safety hazards associated with work in a confined space.



2. Core Permit: Identifies, communicates, and mitigates hazards in the work area, and authorizes work prior to start and when changes occur.



3. Electrical Safe Work: Protects people from exposure to electrical shock, arc flash injuries, and other hazards associated with electrical work.



4. Fall Protection:
Prevents people falling from elevated work locations or into hazardous equipment.



5. Hot Work:
Provides the controls necessary to eliminate an unplanned fire event during work activities.



6. Isolation of Energy: Prevents injury by protecting against the unexpected, inadvertent, or accidental release of energy or materials.



7. Line and Equipment Opening: Protects people and the environment from hazards associated with releases and exposures when opening lines and equipment.



8. Machine Safety:
Protects both equipment operators and others from machine hazards.



9. Motor Vehicle Safety: Prevents or mitigates the impact of motor vehicle collisions.



10. Powered Industrial Trucks Safety:
Protects both operators and pedestrians interacting with powered industrial trucks.

H. In the event of regulatory violations or unsafe practices involving imminent danger to Corteva Agriscience™ or contractor personnel, immediate action will be taken to stop work and correct the hazardous situation. Corteva Agriscience™ may also exercise the option of terminating the contract in accordance with the General Conditions or Master Service Agreement.

I. Corteva Agriscience™ reserves the right to remove from its property, and prohibit re-entry at its discretion, any individual who does not comply with the requirements of the work.

III. Security

A. Cameras

1. Due to the proprietary nature of our business and intellectual property rights issues, photographs and videos are not permitted at any Corteva Agriscience™ location without prior authorization. This includes cellular telephones that are used to take photographs.

a. Follow local process for approval. Some sites have capability to issue a camera pass. It shall always be present and visible.



B. Driving and Parking

1. Contractors driving Corteva Agriscience™ owned vehicles shall complete Corteva Agriscience™ driving training in accordance with the site and as specified by the owner.
2. Drivers have the responsibility for the safe operation of vehicles on the site. The speed limit shall be adhered to as posted.
3. All vehicle accidents shall be reported immediately to the Corteva Agriscience™ Representative and Security.
4. Hand held or hands-free cellular phone usage or texting while driving on the site is prohibited. The operator shall pull over to a safe location to make or receive calls. This includes the use of a hands-free device.
5. All occupants of any seat in a moving vehicle shall wear seatbelts and/or appropriate restraints.
6. Vehicles shall meet all local and regional laws governing safe mechanical working condition (brakes, lights, signals, horn, muffler, etc). The front seat of any vehicle is limited to 3 persons, driver included. Drivers shall maintain a valid operator's license and registration. They shall notify their supervision if license expires, is restricted, or suspended.

7. On construction sites: Heavy equipment/machinery shall be equipped with a back-up alarm. Examples include: Dump trucks, readymix concrete trucks, bulldozers, excavators, backhoe, graders, powered industrial trucks, etc.
8. Material handling equipment shall be provided with roll over protective structures (ROPS) which meet regulatory requirements, where such requirements exists.
9. Certain sites may require that company owned vehicles be identified with the name of the company.
10. Do not block roadways, service drives, loading docks, dumpsters, or fire hydrants. Do not leave vehicles running near building air intake vents. Fumes may be pulled inside, setting off alarms or harming building attendants.
11. Unattended vehicles shall not be left running except for:
Emergency vehicles responding to an unplanned event, diesel trucks when external temperatures are at or below freezing, and personal vehicles under preparation for the purpose of safe winter travel, i.e. snow and or ice removal through defrosting.
12. Whenever it is necessary to park a vehicle in a process area or under pipelines, it may be necessary for the owner to leave the keys within the vehicle.
13. Contractor busses and vehicles used to transport workers shall be equipped with appropriate ramps or stairs for safe access. Loading and unloading of workers within the site shall be performed only in points agreed upon with the Corteva Agriscience™ Representative.

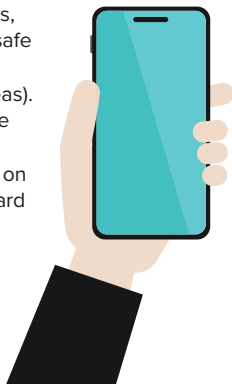


14. Buses or other vehicles used to transport workers shall be required to pull off the roadway into areas far enough away from streets so that traffic or pedestrians will not be a threat to each other. Drivers should caution passengers leaving the vehicle that traffic does not stop.
15. Pedestrians have the right of way. Pedestrians should use walkways where provided. If walkways are not provided, pedestrians should walk on the side of the road facing oncoming traffic. Shortcuts shall not be taken through operating areas, buildings, or other areas.
16. Where permitted by regulation, passengers are required to use appropriate restraint when riding in open-ended vehicles. Appropriate restraint is defined as seat-belted in behind the cab that has lap-type seatbelts.
17. Personnel are not allowed to ride in the bed of a vehicle.
18. Fuel tanks on vehicles shall not be filled while the engine is running.
19. Material that overhangs the end of a truck or trailer that may cause a hazard shall be flagged.
20. Trucks hauling waste or demolition materials shall be equipped with an adequate top and rear closure to prevent material from dropping or blowing onto the roadway.
21. Consult your site Corteva Agriscience™ Representative for specific requirements regarding transporting oversize loads on-site (width, height, length, or weight).
22. Dragging or skidding material or objects along roadways is prohibited.

23. Back into or pull through parking spaces when possible. This allows for better visibility when exiting a parking space.
24. A flagman shall be provided when a work crew or equipment in operation partially blocks a road or when the operation of the equipment could present a hazard to personnel or property. A flagman, however, is not used for normal railroad traffic at crossings. Flagmen shall be trained in proper flagging techniques and shall wear a high visibility vest.
25. Operation of power equipment near or over process of utility pipelines may require a permit. Operation of power equipment is not allowed within 20 feet (6.1 meters) of overhead electrical lines and cables without written authorization. A Corteva Agriscience™ contact shall be consulted before work is begins.
26. Refer to the Corteva Agriscience™ Representative for more information on the Corteva Agriscience™ Motor Vehicle Standard.

C. Electronic Devices

1. Cellular telephones, pagers, two-way radios, smart phones, and other non-intrinsically safe devices are prohibited from restricted and flammable areas (i.e. Class 1 Division 2 areas). Use of any of these devices in any of these areas requires a hot work permit. Consult with Corteva Agriscience™ Representative on the Corteva Agriscience™ Hot Work Standard for further details. To find out where these areas are located, contact your Corteva Agriscience™ Representative to receive the site-specific hazardous area classification drawing(s).



2. These devices shall not be used while working, driving, or operating equipment. See the Corteva Agriscience™ Representative for exemptions (i.e. radio signals).
3. Unless otherwise approved by your Corteva Agriscience™ Representative, television sets, headsets, or earphone speakers are prohibited. Personal radios may be used if approved by the Corteva Agriscience™ Representative.

D. Identification and Access

1. Personnel, equipment, and materials shall enter and exit the site only through the designated entry points or areas.
2. Contractor employees may be required to obtain Corteva Agriscience™ contractor access cards (or site equivalent). Requirements will vary site to site based on their capabilities and site-specific processes. If issued, access cards shall be worn and visible at all times while on Corteva Agriscience™ property. A lost card shall be reported immediately to Corteva Agriscience™ Security.
3. Access cards shall be issued only after contractor employees have successfully completed the Contractor Safety Orientation, Prequalification, and Substance Abuse Program Verification. See site specific security rules.
4. The access cards are the property of Corteva Agriscience™. Access cards shall be kept secure when not worn, are not to be defaced, and shall be returned to Corteva Agriscience™ Security upon completion of the job or each day, depending upon the direction of the Corteva Agriscience™ Representative. Never loan your access card to anyone. If you do, it will be confiscated, and you will not be issued a new one.



5. Prior to working in a department or plant, personnel shall be provided a safety orientation specific to that department. The orientation will include department rules, emergency procedures, hazards, chemicals, and protective equipment.
6. The propping of outside building doors, or any doors with card access, requires the approval of site security.
7. Many sites require company name to be identified on all power tools, ladders, vehicles, gang boxes, and hard hats.
8. All guests and visitors shall be escorted by the Corteva Agriscience™ contact person. Your Corteva Agriscience™ contact person shall inform you of any hazards in the area you are visiting and instruct you in the appropriate personal protective equipment (PPE) for entry to that area.
9. Each contractor is responsible for supplying contact information to Corteva Agriscience™ Representatives upon request.
10. Follow site specific rules for signing in and out of specific facilities, plants, buildings, etc.



E. Railroad Operations

1. Many Corteva Agriscience™ sites have railroad operations on the site. Ask your Corteva Agriscience™ Representative for more site-specific information and requirements for working near railroads.
2. For sites with railroad operations and no site-specific requirements in the site-specific documents, the following shall apply. The contractor shall not interfere with the normal operation of the plant rail system. Personnel and equipment shall not work or be operated within 8 feet (2.5 meters) of the rail centerline without the consent of Corteva Agriscience™. Working on or within 8 feet (2.5 meters) of the centerline requires that all potentially affected individuals lock out the track at a point designated by a Corteva Agriscience™ Representative.

F. Security Inspection

1. Personnel, vehicles, and equipment are subject to search upon entering, leaving, or while on the site premises.

G. Solicitation and Distribution

1. Collecting contributions, vending, soliciting, or distributing notices, handbills, posters, or any other written or printed material for any purpose while on the site is prohibited.

H. Theft

1. Stealing or pilfering from the owner, a contractor, or an individual is prohibited.
2. Do not take any object, material, tool, or equipment you may encounter on the owner's premises, including those discarded as waste.

I. Weapons

1. Bows, arrows, guns, ammunition, or open bladed knives which have not been approved for use by EHS&S are not allowed to be carried on Corteva Agriscience™ property.

IV. Violence Policy

A. Acts or threats of violence include conduct that is sufficiently severe, offensive, or intimidating so as to alter the employment conditions at the company or to create a hostile, abusive, or intimidating work environment for one or more company employees. Examples of workplace violence include, but are not limited to, the following:

1. Threats or acts of violence occurring on company premises, regardless of the relationship between the company and the parties involved in the incident.
2. Threats or acts of violence by an employee or agent of the company occurring off the company premises if the threats or acts affect the legitimate interests of the company.
3. Threats or acts resulting in the conviction of an employee or agent of the company performing services for the company, which adversely affect the legitimate interests and goals of the company.

B. Specific examples of conduct, which may be considered threats or acts of violence include, but are not limited to, the following:

1. Hitting or shoving an individual
2. Threatening to harm an individual or their family, friends, associates, or property
3. The intentional destruction, or threat of destruction, of company property
4. Harassing or threatening phone calls
5. Harassing surveillance or stalking
6. The suggestion or intimation that violence is appropriate
7. Unauthorized possession or inappropriate use of guns or weapons

C. The company's prohibition against threats and acts of violence applies to all persons involved in the company's operation, including, but not limited to: Company personnel, contract and temporary workers, and anyone else on company property. Violations of this policy by an individual on company property, by any individual acting as a representative of the company while off company property, or by any individual acting off of company property when his or her actions affect the company's business interests will lead to disciplinary action (up to and including termination) and/or legal action as appropriate.

D. Every employee and every person on company property is required to report incidents of threats or acts of violence of which he or she is aware. The report should be made to the reporting individual's immediate supervisor, another supervisory employee if the immediate supervisor is not available, or to Corteva Agriscience™ Security. Nothing in this policy alters any other reporting obligation established in company policies, or in state, federal, or other applicable law.

V. Emergency Procedures

A. Each site will have specific emergency procedures they shall share with the contractor. See the Corteva Agriscience™ Representative for details.

B. Each site shall review a version of this plan with each contractor when they arrive on-site.



1. Emergency Plans

- a. Review the building floor plans located throughout the building (at elevators, stairwells, entry doors, etc.) for information on exits, safe sites, and severe weather safe areas.
- b. In the event of a fire, the building fire alarm horns and strobe lights will activate. Immediately exit the building with your escort, go to the building's safe site, and wait for instructions.
- c. In the event of severe weather, the paging system, or another system as appropriate, will be used to inform the building occupants. Immediately go to the nearest severe weather safe area in the building with your escort and wait for further instructions.
- d. In the event of a medical emergency or accident, dial the site-specific emergency or security phone number. Also notify the Corteva Agriscience™ Representative as soon as possible.

2. Blood Borne Pathogens

- a. Hypodermic needles used for personal administration of medications and all other personal biological sharps (i.e., personal razors) shall not be disposed on Corteva Agriscience™ property, except in an approved and authorized bio-hazard container.

- b. Uncontaminated sharps and objects that can penetrate the skin, including, but not limited to needles, scalpels, broken glass, broken capillary tubes, etc., shall be disposed of in designated receptacles other than common trash receptacles.
- c. Biologically contaminated sharps shall be kept separate from all other sharps and disposed of under the guidance of emergency medical response personnel (i.e., Health Services or EHS&S).
- d. Contact with blood or body fluids should be avoided. In the case of an accidental blood spill, contact EHS&S for decontamination. If accidental contact with blood or body fluids occurs, the individual shall obtain a follow-up through Health Services. If contact occurs after hours, the affected individual should contact EHS&S.

C. Accidents and Chemical Exposures

- 1. The Corteva Agriscience™ Contractor EHS&S Contact and Corteva Agriscience™ Project Manager shall be notified when a contractor is involved in an incident (injury, illness, property damage, significant near miss, etc.) regardless of the severity.
- 2. Contact the Corteva Agriscience™ Representative for site specific emergency telephone numbers.
 - a. It is the expectation that all contract personnel that require medical treatment or incur chemical exposure shall contact the site emergency phone number or the Corteva Agriscience™ Representative. Appropriate treatment and transportation shall be provided.

- b. Personal injuries, illnesses, or medical treatments that may be aggravated by the type of work performed on the job shall be reported to the employee's supervisor.
- c. Depending on the nature of a personal injury, illness, or medical treatment, the employee's supervisor may require an employee to review his or her case with Health Services (Corteva Agriscience™).
- d. Personnel taking prescription medications that may affect their ability to function in a safe manner while on the job shall inform their supervision and shall be medically cleared to work by either Health Services (Corteva Agriscience™) or their personal care physician.
- e. The following precautions shall also be taken:
 - *Foreign body in eyes: Corteva Agriscience™ recommends examination by a doctor regardless if it may have been removed through on-site flushing or not.*
 - *If foreign material gets in one's eye, the eye shall be washed immediately at an eyewash station/bottle for 15 minutes. Contact local emergency services if necessary.*
 - *Skin exposure: All chemicals or suspected contaminants that contact the skin shall be washed off immediately at a safety shower for a minimum of 15 minutes and immediately reported to supervision. All clothing, footwear, and jewelry shall be removed, and EHS&S shall be called. Contaminated clothing shall be isolated at the site until supervision provides directions for decontamination or disposal.*

- *Inhalation exposure: Get to fresh air immediately and call the emergency phone number. Wash with flowing water at the nearest safety shower. Remove shoes and clothing while showering if possibly contaminated. If goggles were worn, do not remove them until the chemical is washed away.*
- *First Aid: Site supplies are only to be used until appropriate treatment can be provided.*
- *Contractor(s) shall verbally report injury incidents to the Corteva Agriscience™ Representative, Contractor Safety, and the Core Permit issuer as soon as the incident is under control, regardless of severity. A preliminary written report shall be submitted to the Corteva Agriscience™ Representative and Contractor Safety within 24 hours. Upon the Contractor's completion of the incident investigation, the final report shall be submitted. Written reports are also required for any near miss, unplanned event, fire, spill, line strike, hazardous condition, or property damage incident, even if an injury did not occur.*
- *All Required Medical Treatment Cases (MTCs) (OSHA Recordables) and "significant" events will require an owner's review with Contractor Management and Corteva Agriscience™ leadership.*
- ***Corteva Agriscience™ reserves the right to request an RCA for any event.***

3. Do not alter the state of any accident spot unless the preservation of the current state poses a certain threat for the safety of responders or other people, and the safety of the equipment and structures. Record any change for later referral. For example, in case of an electrical shock taken by a victim, one needs to remove the power from the area and needs to note what switch was activated to take off power.

D. Emergency Procedures Reporting

1. In the event of an emergency, such as a spill, gas release, fire, explosion, power failure, chemical exposure, or injury or illness/incident, the site-specific emergency telephone number shall be called.
2. State the nature and location of the emergency and the name of the chemical, if such is involved, and the name of any injured person. Give your name, location of the emergency, and stay on the telephone until you are told to hang up. (Emergency personnel will be dispatched while you are talking.)
3. Any other information, such as the equipment involved and the specific location in the structure or building, will be helpful in reporting.
4. Any observed leak, break, spill, or gas release shall be reported to Corteva Agriscience™ Security and local Site Operations personnel immediately. This includes, but is not limited to personal vehicles, construction equipment, delivery vehicles, temporary material storage areas, etc.
5. The making or publishing of false, vicious, or malicious statements concerning any owner employee, contractor, the owner, or owner products is prohibited.

VI. Incident Review and Reporting Process

A. Contractor Incident Review Process

1. This policy covers the requirement that all contractors are to review all significant injuries as well as precautionary and first aid injuries. Near misses should be identified for learning values. All Process Safety and Containment Events (PSCE), injuries, and incidents are to adhere to Corteva Agriscience™ guidelines. Consult a Corteva Agriscience™ representative or Corteva Agriscience™ Project Manager.

B. Triggers

1. Any time an incident occurs that results in an individual receiving medical treatment, vehicle involvement, or property damage, a review of the event by Corteva Agriscience™ is required.
2. When a near miss occurs that has contractor involvement, a review of the event by Corteva Agriscience™ is required.
3. All Process Safety and Containment Events (PSCE) shall adhere to Corteva Agriscience™ guidelines. Reportable PSCE require review of the event by Corteva Agriscience™.
4. When a trigger has been met, the following will occur:
 - a. The EHS&S contact, site leader, Corteva Agriscience™ Project Manager, EHS&S Tech, Project Safety Specialist, or Contract Administrator shall contact the involved contractor(s), informing them that a review shall be scheduled.
 - b. The contractor shall come prepared with necessary information/documents for the incident review.

c. The Corteva Agriscience™ EHS&S contact will work with appropriate resources to schedule the meeting with the following attendees:

- *Contractor Management: Management can decide who else from their firm should attend*
- *Appropriate Corteva Agriscience™ Representatives, EHS&S Specialists, Site Leader*
- *Additional attendees relevant to the situation*

5. The contractor shall be asked to record any action items from the meeting and communicate the result of those items to the contractor EHS&S contact on a monthly basis until complete.

**REPORT
IMMEDIATELY**



VII. General Rules

A. General Rules that Apply to all Corteva Agriscience™ Sites

1. Unless otherwise authorized, contractor personnel shall not wander about the site. They shall stay on the job site unless moving to and from the site entry point, to a new job site, construction trailer, or designated break area. Upon permission from the Corteva Agriscience™ Representative, facility access to restrooms and cafeteria may be permitted.
2. All necessary tools and equipment, including personal protective equipment, shall be properly maintained and shall be appropriate for the safe accomplishment of the task. Further, all such equipment shall be used only by employees who have been properly trained and are otherwise qualified to use the tools and equipment safely. The owner retains the right to refuse or restrict the use of tools, equipment, or chemicals on the site. Report stolen tools, material or equipment to security.
3. Falsification, unauthorized duplication, destruction of business documents (including, but not limited to, owner proprietary information), or unauthorized removal of such records from owner property is prohibited.
4. Each employee shall be alert and attentive to his or her job while on duty. An employee shall not sleep or give the appearance of sleeping during working hours.
5. Horseplay, fighting, gambling, and the possession or use of guns, weapons, ammunition, alcoholic beverages, and illegal drugs are prohibited. Explosives are not allowed except where approved by the Corteva Agriscience™ Representative. Individuals are responsible for treating others with dignity and respect. They are accountable for their behavior and for not tolerating any incidents of discrimination or harassment.

6. Smoking is prohibited on Corteva Agriscience™ property unless in areas approved by the Corteva Agriscience™ Representative. Additionally, smoking is not permitted in vehicles inside the site at any time. Some sites may have more extensive requirements for tobacco use/restrictions. Consult your Corteva Agriscience™ representative.
7. The consumption of food and/or drinks is not permitted in any process area, lab area, or maintenance shop (Construction sites shall have designated areas for eating/drinking).
8. Refrigerators used for chemical storage should be marked "Chemical Storage Only; No Food."
9. Contractor personnel shall not operate, or make inoperative, safety devices such as relief valves, deluge valves, gauge valves, electrical and mechanical interlocks, guards, electrical switches, etc. without a Core Permit and permission from the owner.
10. Any accidental interruption of lines or equipment in service shall be reported immediately to the Corteva Agriscience™ Representative and Corteva Agriscience™ Security.
11. Contractor personnel shall not ride a load being handled by a crane, nor shall they ride the slings, hook or ball of the crane, bucket of excavators, forks of a forklift, or in a bed of a truck. Contractors shall be in an approved attachment and have corresponding paperwork for that attachment on-site. See Corteva Agriscience™ Representative for the equipment specific Corteva Agriscience™ safety standard for further details and approvals required.

12. Rings, Jewelry and Loose-Fitting Articles:

- a. Loose articles such as neckties, unrestrained long hair or beards, loose clothing and jewelry that could become entangled (dangling or hoop earrings/body piercings, rings, necklaces, bracelets, watches without a breakaway band, etc.) are not permitted for construction, maintenance, and operations activities.

13. Do not block emergency equipment, electrical disconnect switches, breaker panels, or safety showers. Cables, ropes, barricade tape, hoses, or welding leads shall not be attached to such equipment.

14. Keep access routes to and from work sites and safety aisles free and clear of obstructions and adequately lighted.

B. Disposal of Universal Waste

1. Any materials that are regulated as universal waste shall be managed in compliance with federal, state, and local regulations. Please coordinate with the Corteva Agriscience™ Representative for the materials and requirements that apply in your geographic area.

C. Housekeeping and Littering

1. All areas on Corteva Agriscience™ property, including, but not limited to process areas, loading areas, shops, labs, warehouses, etc., shall maintain a high level of housekeeping at all times.
2. Littering or contributing to unsafe or poor and unsanitary conditions is prohibited.

3. Each contractor shall have a housekeeping plan for their job site and employee parking areas. It shall define storage and lay down areas and how materials, parts, debris, waste, etc. will be managed. Areas shall be continuously maintained to prevent accumulation and cleaned daily. Hazards, such as holes and ruts from equipment, in the walking and work areas shall be filled or smoothed as soon as feasible to maintain the safe working conditions.
- a. No rolling materials shall be stored on the floor and all work areas shall be cleaned daily.
 - b. All materials, including cords and hoses, shall be stored up off the ground and in a stable position using pallets, cribbing, racks, or a similar method.
 - c. Under no circumstances shall materials, tools, carts, etc. be stored in such a way that they could fall to a lower level. Carts shall be organized and staged away from guardrails.
 - d. Safe access to all work areas and emergency exits shall be maintained.



4. Any equipment that uses internal or external site roads and causes the tracking of material onto these roads is the responsibility of the contractor. Thus, any material on these roads is to be cleaned by the contractor to the standard of which the area is maintained.

D. Rubbish/Garbage Disposal

1. Proper disposal of all materials and waste shall be discussed before starting work. Aerosol cans shall not be put in dumpsters or general trash containers. Scrap, trash, and other wastes shall be placed in designated containers. For existing locations contact the Corteva Agriscience™ Representative.
2. Corteva Agriscience™ does actively participate in recycling programs. See site specific policies and appropriate areas to dispose of refuse.
3. The removal of any refuse or material, whether it is Corteva Agriscience™ or contractor owned, without the owner's consent is strictly prohibited.

E. Lifting Guidelines and Ergonomics

1. Always evaluate the amount of lifting that will occur. Also evaluate repetition, weight, time, travel, etc. Based on this information, determine if mechanical equipment would be more appropriate.
2. If an employee has a pre-existing condition, which limits their ability to lift safely, notify a supervisor and take that into account before performing any lifting activity.
3. Before carrying materials, objects, etc., survey the area for slipping and tripping hazards, uneven footing, potential for material to catch or snag on loose fitting clothing or some other object, etc. Plan your route and minimize these potentials.



4. If an object weighs more than 50 pounds (22.7 kilograms), evaluate if one person is capable of safely lifting and transporting the object. Divide the load into smaller loads and seek help using mechanical means or another person when appropriate. This weight can be less for smaller stature people or in cases where the lift is performed under less than ideal circumstances (i.e. twisting, bending, required).
5. A submittal sheet, shipping ticket, or scale shall be used to determine the weight of any object in question. Weights may be estimated by supervision for demolished materials.

F. Power Line Clearance Requirements

1. For any work or activity where personnel, materials, or equipment will be within 20 feet (6.1 meters) of an overhead power line, specific requirements will apply (See Corteva Agriscience™ Representative for more information on the Corteva Agriscience™ Electrical Standard). This includes cranes, aerial lifts, mobile equipment, scaffolds, ladders, and other types of elevated work platforms.
2. Under no circumstances shall personnel or the materials they are handling enter the “Minimum Clearance Distance” for overhead power lines as stated in the Corteva Agriscience™ Electrical Standard.



20 feet (6.1 meters)

The diagram shows a black utility pole with several power lines extending from it. A horizontal line is drawn across the page, parallel to the power lines, with the text '20 feet (6.1 meters)' written in blue. This line represents the minimum clearance distance that must be maintained from the power lines.

3. Any equipment, personnel, or the materials they are handling shall not enter the 20 feet (6.1 meters) “Minimum Clearance Distance” for overhead power lines. If work must be done within this zone, specific requirements must be followed (i.e. insulating lines, de-energizing, warning lines, etc). A formal approval by owner of the line or dispatch coordination shall be attached to the permit. This must be coordinated with your Corteva Agriscience™ representative.
4. Crane work has additional requirements. See the Corteva Agriscience™ Representative for more information on requirements in the Corteva Agriscience™ Electrical Standard.

G. Substance Abuse Program

1. Contractors will have a Substance Abuse Management Program to verify that workers are not impaired by substances. Laws and regulations governing substance abuse programs vary by region and other factors. See Corteva Agriscience™ Representative for the site-specific requirements.
2. Unless prohibited by law, minimum elements of a substance abuse program include:
 - a. Illegal drugs or alcohol are prohibited in the work place or on Corteva Agriscience™ property.
 - b. Employees have passed a drug test within the past year.
 - c. Testing of employees if there is a reasonable suspicion of impairment
 - d. A process in place to recognize the signs of impairment and effectively manage the situation, including basic training for supervisors
 - e. A system of random drug/alcohol testing for employees



VIII. Industrial Hygiene (IH) & Chemical Related Standards

A. Air Quality

1. Examples of work tasks that create an air quality concern are:
 - a. Welding
 - b. Chemical use
 - c. Cutting, sawing, grinding, and sanding operations
 - d. Engine operation
2. Prior to beginning any work that will decrease air quality, the Hierarchy of Controls shall be considered, including:
 - a. Ventilation controls
 - b. Substitution of a less harmful chemical
 - c. Appropriate detectors (air monitor instrumentation)
 - d. Location of work (including barricading and signage)
 - e. Personnel affected
3. Consult the Corteva Agriscience™ Representative for guidance.

B. Asbestos: Handling, Removal, and Disposal

1. Before you work on or demo an area, contact the Corteva Agriscience™ Representative or building maintenance personnel to see if you will be working in an area with asbestos.
2. Asbestos-containing material (ACM) is defined as any material containing 1% or more asbestos and shall not be used for new installations or repair work. All applicable federal, state, and site regulations for removal, handling, and disposal of ACM shall be followed.
 - a. *ACM can be found in numerous places including:*
 - Insulation
 - Fireproofing
 - Lab stone
 - Floor tiles
 - Transite
 - Gaskets
 - Roofing felts, mastics, or flashing
3. Only licensed (in the appropriate geographic region) asbestos abatement contractors shall remove or alter asbestos on Corteva Agriscience™ property.

4. If any item is suspected of being or containing asbestos, it should be tested by the owner prior to any remediation, demolition, or renovation actions taking place.
5. All asbestos work will be accomplished in accordance with the “Corteva Agriscience™ Asbestos Standard.”

C. Chemical Hazard Communication

1. Corteva Agriscience™ has available to each contractor the information concerning the chemical hazards in your work area created or owned by Corteva Agriscience™. Routine questions regarding chemical hazards should be directed to your immediate supervisor or Corteva Agriscience™ Representative. For information in emergency situations, contact Corteva Agriscience™ Security (or equivalent).
- a. Contractors shall maintain current Safety Data Sheets (SDS) on-site.
 - SDS: Contractors bringing chemicals onto Corteva Agriscience™ sites shall be able to provide the SDS for each specific chemical upon request from any requesting party or Corteva Agriscience™ personnel.
 - SDS shall be kept on-site and in a centralized location. For example, in a shop, job trailer, or truck (if on-site centralized location isn't available)
- b. SDS for Corteva Agriscience™ owned or used chemicals are available to contractors upon request.

- c. Information regarding specific chemical hazards is included in the Contractor Orientation. Each contractor employee shall complete the Contractor Orientation for each site or building in which they will perform work.

2. Hazardous Materials

- a. Consult your Corteva Agriscience™ Representative for requirements and/or approval for bringing hazardous materials on site. Special considerations (i.e. storage, diking, grounding, venting, etc.) may be applied to hazardous materials over 55 gallons (200 liters).
- b. All spills shall be contained, immediately reported to your Corteva Agriscience™ Representative, and then promptly cleaned up. Only properly trained employees using appropriate PPE are authorized to clean up any spill.
- c. Hazardous materials shall be transported, stored, applied, handled, and identified in accordance with federal, state, and local regulations.
- d. Flammable liquids shall be stored in their original, unopened shipping containers or in UL or FM “industrial safety” cans identified according to contents. Dispensing of small quantities of flammable liquids shall be from UL or FM “industrial safety” cans identified according to contents. Other hazardous materials shall be kept in approved containers.
- e. Drums or portable containers shall not be pressured or padded to remove contents unless designed to do so.
- f. While pumping into a drum or portable container, provisions shall be made to vent vapor.
- g. Drums and containers shall be grounded properly.

- h. When a drum or portable container is heated, provisions shall be made to avoid overpressuring and rupturing the drum.
- i. Acids, caustics, flammables, or other hazardous materials shall not be stored, handled, applied, or used without detailed instructions, safety precautions, and proper personal protective equipment.
- j. Gasoline shall be used only as an engine fuel.
- k. When process lines that have been in service are disconnected, process materials shall be expected to be encountered and personnel shall protect themselves accordingly. Areas shall be barricaded, and standby personnel and emergency procedures and equipment shall be available.
- l. Storage tanks located outside a process area must be labeled with the owner department name and 24-hour phone number or control center.
- m. All non-Corteva Agriscience™ owned storage tanks, except those on service vehicles, must be identified with NFPA Fire Hazards of Materials symbols (for US or equivalent requirements for other regions) and be labeled with owner company name and 24-hour phone number.

D. Hexavalent Chromium

- 1. All construction work (e.g. stainless-steel welding) where an employee may be occupationally exposed to Hexavalent Chromium (Chromium VI) shall comply with local and regional requirements.
- 2. In addition, all work associated with Hexavalent Chromium (Chromium VI) shall be accomplished in accordance with the “Corteva Agriscience™ Hexavalent Chromium Standard.” Contact the Corteva Agriscience™ Representative for additional information.

3. If Hexavalent Chromium exposure is possible, work with the Project Manager or Corteva Agriscience™ IH Representative in which work will take place to determine the necessary control measures.

E. Lead: Handling and Exposure

1. All construction work where an employee may be occupationally exposed to lead shall comply with local and regional requirements regarding lead exposure in construction.
2. In addition, all work associated with lead or lead containing substances shall be accomplished in accordance with the “Corteva Agriscience™ Lead Standard.” Contact the Corteva Agriscience™ Representative for additional information.
3. If any item is suspected of containing lead, it should be tested by the owner prior to any remediation actions taking place.
Note: You are not allowed to use lead-based paint on any Corteva Agriscience™ projects.

F. Mold

1. If you discover mold during your work activities, contact your Corteva Agriscience™ Representative to address it.

G. Noise

1. Contractors shall adhere to the requirements of the Corteva Agriscience™ Noise Exposure Control and Management Standard and local and regional requirements, whichever is more stringent. The following are the base expectations for hearing conservation and noise while working on a Corteva Agriscience™ site. Additional requirements may apply depending on the process area being worked in and/or activities being performed:

- a. Workers shall wear hearing protectors when exposed to steady-state noise levels of 85 dBA and above (83 dBA for workers assigned to 12-hour shifts) or impact noise levels above 140 dBC.
- b. Hearing protection devices used should attenuate the noise to a level of 85 dBA as a minimum.
- c. All areas in which noise levels are >85 dBA shall be identified, appropriately demarcated, and communicated to workers. Process areas within the site may require hearing protection and these areas are posted.
- d. The Corteva Agriscience™ Representative can assist the contractor in determining noise levels created by Corteva Agriscience™ operations. No one should be exposed to a noise level greater than 85 dBA at any time without appropriate hearing protection.



H. Radiation

1. All Corteva Agriscience™, state, and federal rules or regulations governing use, storage, or handling of a radioactive source or ionizing radiation producing machine (x-ray) shall be followed by the contractor.
2. The Site Radiation Safety Officer or site safety resource shall be contacted prior to purchasing, installing, moving, transferring, or disposing of radioactive devices and materials.
3. No contractor shall install or remove any Corteva Agriscience™ radioactive device, except under the immediate presence of a Corteva Agriscience™ (EHS&S) Representative. Contact the Corteva Agriscience™ Representative to make arrangements.
4. Areas where a radiation source is used and a possible hazard exists shall be barricaded at a safe distance from the source.



5. If there is a possibility of someone entering the area, a second person shall be posted to ward off entrance.
6. No contractor shall bring a radioactive device or source onto Corteva Agriscience™ property without approval from the Radiation Safety Officer (RSO) or Corteva Agriscience™ EHS&S Representative if the site does not have an RSO.
 - a. A thorough assessment of the area, facility, or site shall be conducted to ensure the scope and location of the work does not create an exposure issue for other workers.

I. Silica

1. All work where an employee may be occupationally exposed to Silica (chipping, cutting, drilling, or grinding soil, sand, granite, or other minerals) shall comply local and regional requirements.
2. The employer must ensure that employee exposure to Silica is at or below the Permissible Exposure Level (PEL) 25 µg/m³ (0.025 mg/m³) as an 8-hour Time Weighted Average (TWA) using engineering controls, work practice controls, and/or respiratory protection. Compliance methods include:
 - a. Following Table 1: Specified Exposure Control Methods When Working with Materials Containing Crystalline Silica controls or,
 - b. Demonstrate exposures do not exceed PEL by air monitoring or objective data.
3. Medical surveillance - The employer must make medical surveillance available at no cost to the employee, and at a reasonable time and place, for all employees:
 - a. Who will be required to wear a respirator for protection from respirable silica for 30 days or more per year.

IX. Supplemental Hazard Planning Documents

A. Supplemental Hazard Planning Documents are used in the process to evaluate tasks to determine potential hazards and safeguards to protect all workers. Examples include Job Safety Analysis (JSA), Job Hazard Analysis (JHA), Pre-Task Analysis (PTA), Corteva Agriscience™ Hazard Analysis Tool (CHAT), Safety Task Analysis Card (STAC), etc.

B. Additional Hazard Planning Tools will be identified based on the task or employee type.

C. The supplemental hazard planning tools shall be completed prior to requesting a Core Permit to identify both the hazards of the task and how to mitigate the hazards. The individual(s) is responsible to check with Corteva Agriscience™ to verify understanding of Corteva Agriscience™-based hazards to ensure those hazards and related mitigations are incorporated into the plan.

D. The plans are typically developed at the work crew level.

E. The plan must be detailed enough to cover the specifics of the work that will take place.

F. Once completed, the plan shall remain at the work location for auditing and review. Individual plans can be kept on the person.

G. Either a Corteva Agriscience™ specific plan shall be utilized, or a company/individual specific plan.

H. The format of the daily safety plan is at the discretion of the site and/or individual. It is required, however, that the plan include the following elements:

The image shows a screenshot of a 'JOB SAFETY ANALYSIS' form. The form is divided into several sections: 'JOB DESCRIPTION', 'HAZARDS', and 'MITIGATIONS'. The 'HAZARDS' section is a table with columns for 'HAZARD', 'SEVERITY', and 'MITIGATION'. The 'MITIGATIONS' section is a table with columns for 'MITIGATION', 'DATE', and 'INITIALS'. The form is titled 'JOB SAFETY ANALYSIS' and includes a 'CORTeva' logo in the top right corner. The form is designed to be filled out by a worker to identify potential hazards and develop mitigation strategies for a specific job.

1. The plan shall involve the supervisor and all members of the work crew. The most effective plans are developed with the high engagement of all crew members. All personnel involved in the work shall understand and sign the plan, including those who arrive at the site or join the crew after the plan is completed. Plans can be group based or specific to the individual.
2. Subcontractors shall be involved in the daily plan. Depending on the complexity of the task, subcontractors may need to complete their own daily plan for their scope of work.
3. Discuss and clarify the criteria to stop work. Emphasize that anyone has the authority to stop work for safety concerns.
4. The supervisor shall verify that all workers are capable and ready to perform their work and that all needed tools and equipment needed to perform the job safely are on-hand.
5. Emergency response information and processes are understood by all.
6. The plan shall be completed each day and reviewed or revised if needed, when conditions change.
 - a. For example: Change in tool, job scope, weather, personnel, hazards, and safeguards.

I. In addition to planning and documentation, it is required that supervisors conduct a pre-task briefing for workers involved. The supervisor ensures all workers understand the plan and are prepared to complete work per the plan. Workers who join the work after the briefing is provided shall also be briefed before starting work.

X. General Permit Requirements

A. All permits shall be obtained through your Corteva Agriscience™

Representative, Corteva Agriscience™ Safety, EHS&S, or Corteva Agriscience™ Project Manager. *Note: All permits are immediately canceled during an alert or evacuation (excluding drills) in the affected area and shall be reauthorized after the all clear signal. Refer to Corteva Agriscience™ Representative for the site specific requirements.*

1. Contractor activities on the site shall not be performed until:

CORE PERMIT	PROCEDURE	EXEMPT
The contractor receives a permit issued by a Corteva Agriscience™ Representative, or	The contractor is trained and authorized to use approved operating procedure in place of a permit, or	The contractor is performing a task specifically listed on the sites permit exempt list (See site specific list)

2. Corteva Agriscience™ should be notified in advance when a situation arises, which requires a permit.
3. A permit shall cover the specific job or activity, the location, and the safety requirements that shall be followed (including co-signatures when necessary).
4. The contractor shall inform its employees and subcontractors involved with the activity requiring a permit of all requirements listed in the permit.
5. Permits and checklists shall be posted at the worksite when required.

B. Contractors shall use the specific Corteva Agriscience™ permits and checklists that applies to their scope of work. (Table 1)

1. Permitting process shall be in line with the local legal requirements for specific activities, e.g. for crane operation a valid licence issued by state authority is required for type of equipment involved.
2. Table 1: Commonly Required Work Permits and Authorizations (Not all inclusive – Consult your Corteva Agriscience™ Representative for permits used at that specific site)

TYPE OF PERMIT	WHEN REQUIRED
Aerial Lift Operation Permit	To authorize use of an aerial work platform (i.e. scissor, boom lift)
Confined Space Entry (CSE) Permit	To enter vessels and confined spaces such as underground manholes
CORE Permit	For work of any type. Required unless individual is performing an exempt task or utilizing an authorized procedure for which he or she has been authorized to use at that facility or location.
Crane Operation Permit/Plan	Use of mobile cranes on site
Crane Suspended Work Platform Permit	To authorize use of any crane suspended work platform (i.e. man basket).

TYPE OF PERMIT	WHEN REQUIRED
Critical Elevated Work Permit	Used for specific fall protection tasks
Critical Guard Permit	To authorize use of temporary critical guard used for fall protection (i.e. guardrail systems)
Demolition Permit	To authorize removal of existing buildings, facilities, and associated components
Energized Electrical Work Permit	To perform work on or near energized electrical equipment
Excavation (Ground Breaking) Permit	For any excavating (including drilling) in earth, roads, parking lots, slabs, and slab floors (including slab floors above-grade in some buildings) and for installing fence posts and grade or lay-out stakes
Hot Tap Permit	When installing a branch connection to a line while it is in operation.
Hot Work Permit	For flame or spark producing activity
Line & Equipment Opening (LEO) Permit	To open any line or process to the atmosphere

TYPE OF PERMIT	WHEN REQUIRED
Open Blade Permit	For approval to use specific open blades knives and tools with exposed blades.
Pressure Washing and/or Hydroblasting Permits	For pressurized water use
Rigging Permit	For all lifting and rigging activities
Roof Access Permit	To allow access to a roof
Trenching Log	Required daily for all trenches over 4 feet (1.2 meters) in depth.

C. Confined Space Entry Permit (CSE)

1. Follow the site-specific heritage company Confined Space Entry (CSE) program at the location you are working. Consult your Corteva Agriscience™ Representative for details.
2. A confined space is a space that:
 - a. Is large enough and so configured that an employee can bodily enter and perform work; AND
 - b. Has limited or restricted means for entry and exit (for example, tanks, vessels, silos, storage bins, hoppers, vaults, and pits are spaced that may have limited means of entry.); AND
 - c. Is not designed for continuous human occupancy.



3. A Permit Required Confined Space has one or more of the following characteristics:

- a. Contains or has a potential to contain a hazardous atmosphere;
- b. Contains a material that has the potential for engulfing an entrant;
- c. Has an internal configuration such that an entrant could be trapped or asphyxiated by inwardly converging walls or by a floor which slopes downward and tapers to a smaller cross-section; or
- d. Contains any other recognized serious safety or health hazard.

4. Permit Required Confined Space Requirements:

- | |
|---|
| a. A Core Permit |
| b. A CSE Permit |
| c. A CSE Operating Procedure |
| d. Secondary approval |
| e. An Attendant(s) present |
| f. Safe and unrestricted means of entry and exit |
| g. Rescue personnel and equipment available according to the rescue plan |
| h. Personnel wearing the PPE identified from the hazard monitoring |

5. All Confined Spaces on Corteva Agriscience™ property are labeled or affixed with signage. If you come across an unlabeled space, the work creates a confined space, or you bring a confined space on site, contact the Corteva Agriscience™ Representative immediately.

D. Core Permit

1. A Core Permit is required for all contractor activities (*unless the task is on the site's permit exempt list or contractors are authorized procedure users using an approved procedure*). See the Corteva Agriscience™ Representative for more information on Corteva Agriscience™ Core Permit Standard and site-specific rules.

2. After job site inspection, the Core Permit shall be finalized and signed off according to the Core Permit standard.

3. The Work Crew
Supervisor or work crew
is responsible for the
following:

- a. Obtain the Core Permit from an authorized Corteva Agriscience™ representative.
- b. Participate in job-site inspection before the Core Permit is issued.
- c. Obtain other permits as needed (see site specific permits).
- d. Communicate Core Permit conditions to the work crew.
- e. Discuss job scope and associated hazards with the work crew.
- f. All crew members names

[illegible]

- g. By signing, individuals are stating they understand the job hazards and controls.
 - h. Permit ownership is transferred as required.
 - i. Communicate unsafe conditions discovered during course of activity.
 - j. Maintain crew accountability.
 - k. Review the Core Permit(s) of contractors working in the immediate work area.
 - l. Contact the Core Permit Issuer when conditions change; requesting additional permit(s).
 - m. Complete after job site inspection.
4. The following activities shall always require a Core permit (even if a procedure is approved for the work):

- | |
|---|
| a. Confined space entry (Without a detailed operating procedure addressing work tasks) |
| b. Hot tap |
| c. Hydroblasting |
| d. Work on exchangers with exposed tube plugs |
| e. Crane usage (See the Corteva Agriscience™ Cranes, Hoists, and Mechanical Lifting Standard.) |
| f. Lifting personnel in suspended work platforms |
| g. When requested by person doing the work |
| h. All activities near uninsulated, weather-proofed, or bare power lines |
| i. Potential hazardous electrical switching |
| j. Energized electrical work |
| k. Rope access |

E. Demolition Permit and Process



1. Follow site-specific rules and processes for conducting demolition work. The defined tasks that may be classified as demolition vary from site-to-site.
2. Demolition is often defined as the destruction or removal of existing or put-in-place buildings, facilities, and associated components. The removal of non-permanent components that are not built, constructed, or attached as permanent structure (e.g. furniture, wall hangings) are not considered demolition and do not apply to the Demolition Standard guidelines. Typical demolition projects as defined by Corteva Agriscience™ may include the following:
 - a. Structures, walls, or members
 - b. Mechanical systems
 - c. Roads, driveways, or parking areas
 - d. Equipment (size/scale)
 - e. Piping and conduit (building or subterranean)
 - f. Concrete
 - g. Coverings
 - h. Landscaping
 - i. Fencing and signs
3. A process shall be established prior to completing any demolition operations that include a protocol for defining when materials are ready for removal, and in full compliance with the Corteva Agriscience™ Core 10 EHS&S Standards.
4. Corteva Agriscience™ reserves the right to request a Written Demolition Plan as a function of the demolition process.

5. Prior to performing demolition work, the following items shall be reviewed by all personnel involved in the task.

a. General Demolition

- The accountable engineer has the prime responsibility for controlling and planning all demolition work.
- A competent person, one capable of identifying existing and predictable hazards, shall conduct an engineering survey to determine the exact scope of work and the method for safely executing it.
- Depending upon the complexity of the work or hazards involved, a written job plan may be required.
- Employees shall be trained in the use of personal protective equipment (PPE) for demolition task(s).
- All safety procedures pertaining to demolition tasks shall be reviewed prior to starting work.
- The job shall be stopped, reevaluated, and a new plan developed if conditions change. No shortcuts!
- Demolition tasks shall be led and performed by qualified personnel who are trained in demolition methodology and procedures.
- Isolation of energy requirements shall be adhered to during demolition activities.

b. Pipe Demolition

- The physical isolation and elimination of stored energy within piping systems or equipment is the primary control for protecting personnel.

- Before removing any piping systems, ensure that the correct lines are identified, isolated, cleared of hazards, and physically marked.
- Only employees who have been approved by contractor supervision and trained to make first-line breaks may perform this work.
- No construction employee may begin making a line break until they have received and acknowledged understanding of specific safety instructions. (See the Corteva Agriscience™ Line and Equipment Opening Standard).
- Give special consideration to the condition of the pipe or equipment prior to rigging and removal.
- Maintenance and construction shall be done in accordance with the appropriate technology piping and equipment specifications. Deviations from written specifications require specific Corteva Agriscience™ approvals.

c. Electrical Demolition (above 50 volts)

- Cables or conductors shall be electrically isolated from their source and disconnected on both ends prior to demolition.

F. Excavation (Ground Breaking) Permit

1. An Excavation (Ground Breaking) Permit is required when working in, penetrating, digging, or altering an excavation or trench with heavy equipment or hand tools (including driven posts). See site specific requirements for the trigger depth (i.e. 6 inches). Daily Trenching Inspections will be required for excavations 4 feet (1.2 meters) or greater.

2. The excavation job representative and the excavation Core Permit Issuer will review the completed excavation (ground breaking) permit when issuing an excavation Core Permit. If any gaps or issues are identified, they will need to be resolved before work begins.



3. The Underground Reference Drawing (URD) shall be present at the time of issuance and issued to the ground penetrating contractor.
4. All utilities, both private and public, shall be identified.
5. Follow the excavation requirements listed in the section: Excavating, Ground Breaking, Trenching, and Shoring.

G. Hot Tap Permit

1. Hot tapping a pipeline is the process of installing a branch connection to a line while it is in operation.
2. Hot taps are only performed when it is not feasible or it is impractical to shut down, clean, and prepare the equipment for modification.
3. Hot taps are changes to pressure equipment or piping. Equipment owners shall ensure that changes to equipment or piping are properly evaluated using the approval processes.
4. See site-specific information if a Hot Tap Permit or checklist will be required.

H. Hot Work Permit



1. Each site will have specific hot work requirements. See site specific requirements. The following are guidance to follow when performing hot work activities.
2. Hot work may be defined as any work that may generate a source of ignition to flammable or combustible materials such as welding, burning, flame cutting, soldering, brazing, grinding, powder actuated tools, use of pneumatic hammers, or spark producing tools and activities, requires a Hot Work Permit before work may start.
3. Hot Work Activity Requirements:
 - a. Obtain the permit from an authorized Corteva Agriscience™ Representative before work begins.
 - b. Remove or control (shields, screens, fire blankets, etc.) all flammables and combustibles in the work area.
 - c. Review hazards with all crew members.
 - d. Report any unsafe conditions.
 - e. Use all required personal protective equipment.
 - f. An additional fire extinguisher shall be provided and be appropriate for the hazard. See site specific rules for minimum fire extinguisher requirements.
 - g. The fire extinguisher shall be located within close proximity; in some instances, additional guarding (screens, shields, and blankets) may be required.
 - h. A trained safety attendant (fire watch) is required per the Corteva Agriscience™ Hot Work Standard.
 - i. Ensure the proper completion of the activity and housekeeping.
 - j. Return the permit to the issuer.

- k. Fire watch shall stay for a minimum of 30 minutes after hot work has been completed or stopped.
 - l. Any smoke detectors shall be disabled during work and approved by security if necessary.
4. See Welding and Cutting Operations and Equipment section.

I. Hydroblasting and Pressure Washing

1. Hydroblasting is the use of water sprayed at more than the trigger point from the tip. See site specific requirements for thresholds of acceptable pounds per square inch (PSI) and gallons per minute (GPM). Refer to the Corteva Agriscience™ Hydroblasting and Pressure Washing Standard.
2. Requirements: A Core Permit shall be obtained for all hydroblasting and pressure washing.
 - a. A hydroblasting or pressure washing checklist shall be completed before work begins (if applicable at site).
 - b. An authorized procedure may be used in place of the Core Permit and pressure washing checklist if all individuals are authorized to use the procedure by the site.
 - c. Barricades around the work area and a safety attendant is required for hydroblasting.
 - d. PPE is required while performing hydroblasting and pressure washing. Reference the Corteva Agriscience™ Hydroblasting and Pressure Washing Standard.
 - e. Provide notification of unsafe conditions to the permit issuer.
 - f. Complete housekeeping and return the permit and checklist to the issuer.

J. Isolation of Energy (IOE) Sources/Lock Out and Tag Out (LOTO)

1. These requirements apply to the servicing and maintenance of machines, processes, and equipment in which the unexpected or unintended energization or start-up of the machines, process, or equipment, or release of stored energy, could cause harm.
2. The purpose of Isolation Tags (Red Tags) is to prevent injury to personnel by prohibiting operation of isolating devices through the use of Isolation Tags to guard against unexpected, inadvertent, or accidental release of energy.
3. Contractors who participate in work requiring lockout must demonstrate appropriate knowledge of the company Isolation of Energy Management System (IOEMS) and its application.
4. Contractors shall request that a Corteva Agriscience™ Authorized Person (Isolator/Verifier) facilitate the process, oversee the shut down, and verify that the isolation is complete.
5. Contractor employee(s) assigned to work on equipment owned by the facility will attach a personal lock on a group lockbox or signify their acceptance through a signature on a Master Document when utilizing the Complex System.
6. No equipment may be operated, demolished, or removed from service until the Isolation Tag has been reconciled by the authorized Corteva Agriscience™ Representative. The isolation shall be verified by your authorized Corteva Agriscience™ Verifier before work can begin.



7. Under normal circumstances, Corteva Agriscience™ does not allow external contractors to initiate the lock out/tag out of equipment. However, in a situation where an external contractor needs to initiate the lock out/tag out process, the following requirements shall be met:

- a. Shall be approved by the Facility Leader
- b. Shall have the necessary training, knowledge, and skills. They shall be trained as an authorized worker by Corteva Agriscience™ or an equivalent training provided by their employer.
- c. A LO/TOP is in place. The LO/TOP shall be reviewed and approved by the Facility Leader or designee.
- d. A Core Permit shall be issued before isolation is complete.

8. Contractors shall be trained by their employers to perform the duties associated with their assigned role during Isolation of Energy.

9. See your Corteva Agriscience™ Representative for further information on Corteva Agriscience™ Isolation of Energy Sources Standard.



☐ Individual ☐ Complex

Master Number: _____

Date Isolated: _____

Isolator: _____

Tag Number: _____

Additional Information: _____



K. Line and Equipment Opening (LEO) Permit

1. Each site may have varying methods for addressing the hazards of line and equipment opening (i.e. line breaks). See site specific rules and processes. A line and equipment opening is commonly defined as opening a process or part of a process to atmosphere or removing or opening equipment that is connected to a process in any manner. This includes, but is not limited to: Breaking into pipelines, disassembling lines or equipment, installation or removal of slip blinds (i.e. blanks, cookies, etc.), or opening confined spaces, tanks, or any equipment used in chemical manufacturing.

2. Personnel doing LEO work shall:

- a. Review the scope of work and obtain a LEO permit or LEO operating procedure (if applicable) from the Corteva Agriscience™ Representative.
- b. Follow isolation of energy/lockout tagout procedures.
- c. Know the potential hazards and safeguards for the LEO.
- d. Properly wear appropriate PPE for the job or task.
- e. Know how to safely open the lines and equipment.
- f. Perform a job site inspection by physically marking the location of the LEO using a Line Break Identification Tag (see site specific rules). If a tag or mark is not used, a Qualified Corteva Agriscience™ Operations Representative shall be present to point out the exact location of the LEO as each break is initiated.
- g. Report unsafe conditions to the permit issuer.



- h. Complete housekeeping requirements and return the permit.

Note: All lines (including those assumed or verified to be abandoned) are required to complete the above process.

3. Do not remove protective equipment until necessary repairs have been completed or equipment has been properly blanked or otherwise secured.
4. A line that is opened that cannot be isolated may be classified as a Hot LEO, which will have specific requirements and/or approvals.
5. See your Corteva Agriscience™ Representative for further information on the Corteva Agriscience™ Line & Equipment Opening Standard.

L. Roof Access Permit

1. Prior to starting work on or from a roof, the contractor shall participate in a pre-job planning session with the Corteva Agriscience™ Representative. During the pre-job planning, a roof access permit will be obtained.
2. If the roofing materials being removed contain asbestos, the contractor shall contact a Corteva Agriscience™ Representative.

XI. Signs, Signals, and Barricades

A. The following lists the rules for barricades:

- 1. Barricades are required around work areas, excavations, holes, openings in floors, roofs, elevated platforms, around overhead work, and wherever necessary to warn people of a particular hazard.
- 2. Barricades shall be erected to prevent or limit access to an area where a temporary hazard exists or to warn personnel of a temporary hazard in an area. Barricades shall be removed when no longer needed.
- 3. Red danger tape areas are not to be entered without prior approval from the contractor, the Corteva Agriscience™ Representative, or the individual responsible for the barricade.
- 4. Attached to each barricade shall be a properly completed barricade tag/sign that lists the reason (scope/hazards) for the barricade, the company name, duration, and the person(s) responsible for the barricade.
- 5. Barricades that are placed in roadways or walkways shall be visible both day and night.
- 6. Before barricading roadways, even partially, notify your Corteva Agriscience™ Representative for approval.
- 7. Guards used for fall protection shall be installed, tagged, modified, or removed by personnel who have been properly trained and authorized through a Core Permit. See the Corteva Agriscience™ Fall Protection Standard.

B. The following table describes tags and their intended use.

The following tags shall be provided by the Corteva Agriscience™ Representative. See site specific rules for details of use.

NAME OF TAG	INTENDED USE
Barricade Tag / Sign	To be filled out and attached to all barricades.
Critical Guard Tags	Barricades that are erected for purposes of protection of a fall hazard may have additional site and tagging requirements. Contact the Corteva Agriscience™ Representative.
Information/Caution Tag (Yellow)	Used to display a caution statement or only information
Isolation of Hazardous Energy Danger Tag/Red Tag	Meant to be used by operations and as a means of identifying isolated equipment. They should not be removed, added, or altered by anyone that is not properly authorized.
Line & Equipment Opening (LEO) Tag	To be placed at the location of a line break/opening (if tagging is the method of identifying the line break).
Out of Service / Faulty Equipment Tag	For equipment removed from service (not connected to energy) for repair, replacement, and demolition. Do not use a red tag for this purpose.
Scaffolding Tags	Red, yellow, or green tags placed on a scaffold to communicate the intended use, limitations, and hazards

XII. Return to Operations (RTO) Policy

- A.** If required by the scope of work, contract documents, or by Corteva Agriscience™ request, the contractor shall participate in a Return to Operations (RTO) Process (site-specific) to ensure the integrity of equipment is maintained during construction, maintenance, turn-arounds, etc.

XIII. Personal Protective Equipment (PPE)

A. General Requirements:

- 1. The contractor shall comply with all PPE requirements per:

a. The hazards present or perceived
b. Regulatory agency
c. Manufacturer
d. Safety Data Sheets (SDS)
e. PPE Grid
f. Company or project requirements
g. Corteva Agriscience™ policy

- 2. Contractor personnel shall wear clothing that is safe and proper for a laboratory, operations, or agricultural site and the specific job that is being performed. Clothing shall be free from offensive or obscene terminology or pictures. Long pants are required in all areas. Long sleeve requirements may vary per site. Common areas requiring long sleeves may include agricultural fields, laboratory, and process areas. Any exceptions or differences shall be discussed at a Pre-Job, Core Permit process, or Site Orientation. In other areas of the site, sleeves shall be worn as hazards dictate.

- a. Cut-off jeans or pants, sleeveless shirts, tank tops, skirts, or short pants shall not be worn in any type of production, construction, maintenance shop, or laboratory area.
3. Fire Resistant Clothing (FRC) may be required for work in certain operations areas. This will be determined at the Pre-Job Safety Meeting or when the Core Permit is issued. When required, FRC must be worn as the outermost layer (except when welding: refer to Cutting and Welding).
4. Contractor personnel working near (typically 10 feet or 3 meters) of an active roadway or drive aisle, on a construction site, or performing back-up operations shall wear a Class II reflective vest, clothing, or jacket. See site specific rules.
5. Personal Flotation Devices (PFD) are required for each employee when working over or near water.
6. All PPE shall meet the appropriate American National Standards Institute (ANSI), the National Institute for Occupational Safety and Health (NIOSH) Standard, or regional equivalent.
7. PPE shall be worn for its intended purpose and design as required by the facility or craft hazard tasks being performed.
8. PPE shall not be altered in any way that could reduce its effectiveness.
9. Downgrading PPE can only be done after agreement between the permit writer and receiver, or if written in an approved plan or procedure. Consideration shall be given to all subsequent hazards associated with the work following downgrading of PPE. Reference facility PPE grids.

B. Electrical Flash Protection

1. Follow labels as posted on all electrical equipment. If the label is missing, please contact your Corteva Agriscience™ Representative for acknowledgement and replacement. Contractors shall follow, at a minimum, all NFPA 70E PPE requirements (for US), IEC 61482-2 and EN 1149-5 (for EU) or applicable requirements (other regions), and the Corteva Agriscience™ Electrical Standard.
2. For direction on flash protection in unmarked areas, contact the Corteva Agriscience™ Representative, Operations, or Engineering.



C. Eye Protection

1. Safety glasses with side shield protection/ wrap-around, or goggles are mandatory for all contractors when performing any work activities. (Both must meet ANSI Standard Z87.1 for US work). (For outside United States activities equivalent rating such as EN 166 should be followed.)
2. Tinted lenses and sunglasses shall meet the requirements of ANSI Z87.1, (EN 166 for EU or other applicable requirements per region) for safety glasses and chemical goggles.
 - a. Only clear glasses shall be worn inside buildings when visibility is a concern. Greenhouses are considered “outside”.
3. A face shield shall be worn over safety glasses or chemical goggles when grinding or buffing. A face shield with chin protector is recommended.
4. The appropriate chemical goggles may be required in certain areas (chemical processes). These areas are posted and/or communicated at the Pre-Job Safety Conference.



- a. Direct vented goggles provide protection where impact from particulates is the hazard.
- b. Indirect vented goggles provide protection from particulate and liquid splash hazards.
- c. Non-vented goggles provide protection from particulate, liquid splash, and vapor hazards.
- d. When wearing goggles, they are not to be attached to a hard hat or any other item that might cause the goggles to be blown or knocked from the eye protection position. The goggle strap shall make contact with the wearer's head and not stretch over the hard-hat suspension or the hard-hat when the goggle is being worn.

D. Foot Protection



- 1. Protective footwear, meeting ASTM International standards F 2412 and F2412 (or equivalent impact rating for OUS – EN345 / EN ISO 20345:2007 / EN ISO 20345:2011/EN ISO 20347:2011 in EU) shall be worn on all construction sites. Safety-toed shoes or boots are required when working in operations or site areas. On all other sites, protective footwear shall be worn when the conditions of the job are likely to cause a foot injury. (See site specific rules.)
- 2. The wearing of canvas or mesh shoes, sandals, open-toed, or heeled shoes is prohibited.
- 3. When working in and around areas that have chemicals, footwear shall not be made of material that readily absorbs chemicals.
- 4. Contractors that are engaged in demolition shall wear appropriate metatarsal protective footwear (safety shoes with metatarsal protection) meeting ANSI Standard Z41.1 (EN ISO 20345:2011 for EU).

E. Hand Protection – “Glove Policy”

1. Contractors are required to wear the appropriate glove that protects them from the task and hazards present (e.g. thermal, electrical, cut, etc). See Corteva Agriscience™ Representative for the site specific requirements.



2. Properly fitted gloves shall be worn while performing hands-on work unless the wearing of the glove would prevent the performance of the job task or would create a greater hazard. Examples of activities during which glove use is not normally advised due to the possible increase in hazards are:
 - a. Working with high torque rotating equipment where gloves are prohibited by the manufacturer (does not include handheld power tools that may also rotate, such as grinders, etc.)
 - b. Equipment operation (in the cab of cranes)
3. Specialty gloves shall be required for certain high-risk jobs. If so, the type of glove to be worn shall be specified through the Core Permit process, Operating Procedure, or by supervision, and shall be appropriate to the job hazard.

F. Arm Protection

1. Cut resistant sleeves shall be worn when performing tasks or working materials that may cause lacerations to the arm (handling sheet metal, ductwork, glass, mirrors, metal studs, etc).



G. Head Protection



1. Approved hard hats shall be worn on all construction sites and in construction areas. Sites may also determine that hard hats are required in chemical plant processing areas. Hard hats are required in all areas where there is the potential for injury from falling objects or where overhead obstructions present a hazard.
2. Approved hard hats are those marked as meeting ANSI Standard Z89.1 (US) or EN 397 (for EU).
3. Bump caps are not ANSI nor EN-rated and are not suitable for applications that require an ANSI/EN-rated hard hat. They protect from light bumps caused by stationary objects. Consult your Corteva Agriscience™ representative for site specific requirements and approval.
4. Metal hard hats and “bump” caps are not permitted.
5. Hard hats shall fit securely to the head of the individual. Garments worn under hard hats should not allow the hard hat to fit loosely or impede the suspension of the hard hat. Only items specifically designed by the manufacturer for use under hard hats are permitted. At no time shall a ball cap be worn under a hard hat.
6. Hard hats shall be worn with the brim forward. Personnel may wear their hard hat backwards if it is approved by the manufacturer and for only certain approved activities.
7. Some sites may require that the contractor’s company name and the employees name be listed on the front of the hard hat.
8. Hard hats should be regularly inspected and replaced according to the manufacturer’s recommendation, usually after 5 years.

H. Respirators and Breathing Apparatus



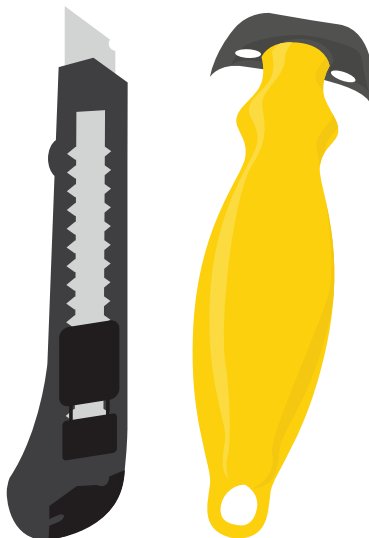
1. You shall be medically evaluated, fit tested, and trained before you may use a respirator on Corteva Agriscience™ facilities.
 - a. The contractor shall assure that training in respirator use and maintenance is provided for their personnel.
 - b. Proof of medical evaluation, fit testing, and training shall be provided upon request.
2. Pressurized “Site Air” does not meet breathing air requirements.
3. Some process areas within the site may require respirators to be carried or worn by each individual.
4. The use of respirators may be required for some jobs. It is the contractor’s responsibility to ensure that the appropriate respirator is provided and worn.
5. Proper use of certain types of respirators shall require employees to be clean shaven. Clean shaven is defined as absent of hair in the areas where the respirator makes contact with the skin.
6. Consult your Corteva Agriscience™ representative for requirements regarding voluntary use of respirators and filtering facepiece respirators.

I. Work Near or Over Water

1. When working over or near water (i.e. within 5 feet/1.5 meters or a distance where equipment could tip into water) and the danger of drowning exists, a Coast Guard approved (US) or ISO 12402 certified (OUS) life jacket or buoyant work vest shall be worn. See site specific rules for distances from water and pertinent requirements. Vests shall be inspected for defects and defective units shall be removed from service and replaced.
2. When working over open water, ring buoys with at least 90 feet (27.4 meters) of line shall be readily available for emergency use. The distance between ring buoys shall not exceed 200 feet (61 meeters). In addition, at least one lifesaving skiff shall be immediately available.
3. For additional guidance, see the Corteva Agriscience™ Fall Protection Standard.

XIV. Open Bladed Knives & Cut Injury Prevention Policy

1. Most sites limit use of open blade knives and may not allow their use without an exemption or variance. See site specific rules.
2. Acceptable alternatives to open blade knives include cutters, cable preparation tools, wire cutting pliers, scissors, shielded blades, spring loaded blades, etc.
3. The right tool must be used for the job (use of inherently-safer alternatives) to prevent lacerations and other open bladed knife injuries. Many sites have developed a pre-determined list of approved cutting devices.
4. The Corteva Agriscience™ Representative can deny use at their judgement.



XV. Fall Protection/Elevated Work

A. General Requirements

1. If elevated work is required, a documented fall hazard analysis shall be performed via a Core Permit or written procedure. It shall include specific mitigations for each of the identified hazards.

2. Workers shall be protected from fall hazards:

a. Where an unprotected side, edge, or opening exists which exposes workers to a fall of **4 feet (1.2 m)** or greater from the lowest point of the body, to a lower level, elevation, or the ground.



b. When over dangerous equipment, materials, or other hazards, which, if fallen into or onto, would be generally accepted as life-threatening, regardless of height

c. When work creates a fall hazard by:

- Removing grating or permanently installed fall prevention or protection (e.g., guardrails) or
- Creating an opening through which a person may fall
- Using aerial lift devices at any height

3. Reclassifying to a Construction Area

a. To use a **6-foot (1.8 m)** fall height instead of the standard **4 feet (1.2 m)**, a facility shall reclassify an area from an operating facility (general industry), to a construction area.

b. Workers in a construction area may use a **6-foot (1.8 m)** fall height trigger criteria instead of a **4-foot (1.2 m)** trigger for fall protection.

- c. The space shall be designated as a construction area and meet the following criteria:
 - It is a specified area, sufficiently segregated and distinguished from areas where normal, day-to-day operational tasks are performed.
 - Documented approval is granted by all of the following:
 - EHS&S Leadership
 - Facility or Work Group Leadership (Line Management)
 - Project Manager or Maintenance Leader
 - d. The area is clearly distinguished using barricades or other equally effective methods.
 - e. Specific, conspicuous, signage is posted stating:
 - “DANGER: CONSTRUCTION AREA”
 - Minimum required PPE for the area
 - Fall height requirement
 - Effective dates
 - Contact information of area owner (construction or project manager)
4. A rescue plan shall be completed when a person may be exposed to a fall that would place them in a position of suspension in fall protection equipment without a solid surface beneath them to stand on.

5. All holes or openings 2" in least diameter shall be properly covered with materials able to withstand 2x the intended load, secured, and labeled "'Danger - Hole Cover - Do Not Remove'".
6. When working over water, consult with your Corteva Agriscience™ Representative to determine the appropriate fall protection and additional measures (i.e. lifesaving skiff, life jackets, ring buoys, etc.)
7. Warning Lines and/or Safety Monitors have specific requirements. Often, they may only be used as a final resort and in conjunction with an approved fall protection plan.
8. A competent person shall oversee all fall protection related activities.
9. All employees engaged in fall protection activities shall be trained in fall protection, the specific system, and the equipment in use.
10. Each component of a fall protection system shall be inspected, at a minimum, prior to use and annually by a competent person.
11. Before any type of grating (regardless of location, type, or height) is removed, individuals shall notify and get approval from the appropriate Corteva Agriscience™ Representative.

B. Critical Elevated Work

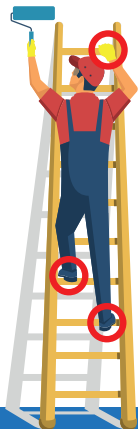
1. If critical elevated work cannot be avoided, a critical elevated work permit shall be completed by a competent person in consultation with a qualified person (as necessary) and approved by the facility or work group leadership or their designee.
2. The following tasks shall be considered "Critical Elevated Work".

CRITICAL ELEVATED WORK

- a.** Work on elevated surfaces where an established fall protection plan has not been documented and protected by a permanently installed fall prevention or protection system
- b.** Work on top of (or inside of) cable trays, conveyers, and pipe racks
- c.** Critical scaffold erection and dismantling:
- d.** Suspended fall protection such as rope access or rope descent
- e.** Exiting an aerial lift device or man basket while in an elevated position
- f.** Engaging drive tires on an aerial lift device while in an elevated position
- g.** Work that creates an opening where a fall hazard exists (e.g., by removing grating, removing manhole covers, removing permanent guardrails, digging a deep hole, etc.)
- h.** Work that will take place on a steep roof (i.e., greater than a 4/12 slope or 18.5 degrees from horizontal) even when the work takes place greater than 6 feet (1.8 m) from the leading edge
- i.** Any work floor, platform, walkway, or surface above a hazardous process where no standard railing or fall protection (such as an engineered anchor point) is in place
- j.** Work that will take on tank roofs and internal vessel components when personnel load, including equipment, exceeds 500 pounds (227 kilograms).
- k.** Activities to be considered First Man Up
- l.** Other unstable or unusual working surfaces above a fall hazard
- m.** Other tasks involving complex fall protection strategies (e.g., work over or near water, or on a rail bridge)

C. Ladders

1. A risk assessment for fall protection shall be made before any work is performed from a portable ladder.
 - a. Use the ladder for its intended use only.
 - b. Ensure the ladder is secure and stable for use.
 - c. No objects shall be in an employee's hands while ascending and descending a ladder.
 - d. Fall protection shall be used when a fall hazard exists, and the worker cannot:
 - Maintain 3 points of contact with the ladder, and
 - Maintain their center of gravity between the rails
2. Manufacturer's instructions for use and care of the ladder shall be on a label on the ladder or kept in a separate location available to workers.
3. Wooden and metal ladders shall not used. See Fall Protection Standard for approvals.
4. Extension and straight ladders:
 - a. Shall not exceed 36 feet (11m) in length when fully extended.
 - b. Extend at least 3 rungs above the surface or a grab rail shall be provided.
 - c. Secure ladder from movement by tying the top of the ladder off.



- d. Straight ladders shall not exceed 20 feet (6.1m) in length.
 - e. Be positioned so the horizontal distance from the top support to the base is approximately one-quarter the working length of the ladder.
 - f. Shall support a minimum of 300 pounds (135 kg)
5. Some sites may require that ladders be clearly and permanently identified with the contractor company name.
 6. The user shall inspect every ladder before using it. Remove from service any ladder found defective.
 7. If it is necessary to place a ladder in or behind a doorway, barricade the work area and post warning signs on both sides of the door.
 8. Face a ladder when working from it. Keep both feet on the ladder steps or rungs. Do not reach out too far; keep your belt-buckle area inside the side rails of the ladder. Do not place one foot on a line or piece of equipment and the other on a ladder step or rung. Change the position of the ladder as often as necessary to keep within reach of the work.
 9. More than one person on a ladder is not allowed unless the ladder is designed to support more than one person. Never exceed the rated capacity of the ladder
 10. Under no circumstances shall chairs or other furniture be used as ladders.
 11. The design capacity shall not be exceeded (total weight of person plus materials).

D. Temporary Openings (Critical Guard)

1. Temporary openings and unprotected sides or edges shall be protected by a critical guard (CG) or a safety attendant (2 hours maximum) in that order of preference.
 - a. Critical guards shall be compliant guardrails, hole covers, or barricade systems.
2. Must be approved by the facility or work group leader (or designee), or by the project manager (or designee) for designated construction areas.
3. Be inspected at least every 7 days for condition, necessity, and labeling.
4. Be approved by the site leader or project manager after 30 days.
5. Be labeled on all sides by the work group responsible for the area with a unique tag containing the guard number, date erected, facility, and owner's phone number.
6. The responsible party for the work area shall keep a Critical Guard roster of individuals authorized to approach the temporary opening or fall hazard.

A vertical rectangular tag with a white background and red diagonal stripes on the top and bottom. The top section has the word "DANGER" in large, bold, black letters, followed by "CRITICAL GUARD" in smaller, bold, black letters. Below this, in even smaller text, it says "TEMPORARY PHYSICAL GUARD OR BARRICADE" and "DO NOT REMOVE OR MODIFY". The middle section contains several lines of text with blank spaces for information: "Tag Number ID: _____", "Erected Date: _____", "Time: _____", "Owning Area/Facility: _____", "Owning Area/Facility Contact: _____", "Hazard Description (if applicable): _____", and "Other Information/Directions/PPE Requirements (if applicable): _____". The bottom section features the CORTEVA agriscience logo, which consists of a stylized 'C' made of three curved lines, followed by the word "CORTEVA" in bold and "agriscience" in a smaller font below it. A small "v0" is in the bottom right corner.

E. Scaffolds

1. Rules for Scaffolds (See Corteva Scaffold Standard for further information).
 - a. Scaffolds erected in operational facilities over 4 feet (1.2 meters), or 6 feet (1.8 meters) in designated construction areas, require the continuous use of Fall Prevention or Protection.

- b. All persons using a scaffold shall be supervised by a Competent Person or Scaffold Owner.
- c. Front-end loaders, forklifts, scissor lifts, and pieces of equipment shall not be used to support scaffolds, platforms, or scaffold components.
- d. Scaffolds shall not be moved horizontally while workers are on them.
- e. Ladders or other makeshift devices shall not be used on the top of scaffolds.
- f. Workers shall be prohibited from working on scaffolds in inclement weather, high wind, or when covered with snow, ice, or other slippery material.
- g. Debris shall not be allowed to accumulate on platforms.
- h. Scaffolds shall not be loaded in excess of their design and/or manufacturing limitations.
- i. In addition to wearing hard hats, each worker on or adjacent to a scaffold shall be provided with additional protection from falling tools, debris, and other small objects through the installation of toe-boards, screens, guardrail systems, or through the erection of debris nets, catch platforms, or canopy structures that contain or deflect the falling objects.
- j. Where there is a danger of tools, materials, or equipment falling from a scaffold and striking workers below, the following provisions apply:
 - The area below the scaffold to which objects can fall, shall be barricaded.
 - Workers shall not be permitted to enter the hazard area.

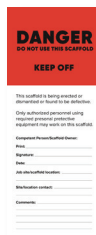
2. Scaffold Inspection, Identification, and Repair

a. After erection or modification is complete, a competent person shall perform a written inspection of all scaffold components and communicate inspection results using a tagging system:

- “Do not use” (Red) tags/signs indicate not safe for use
- “Caution” (Yellow) tags/signs indicate that special precautions shall be taken when accessing the scaffold, (i.e. under erection, being dismantled, limited use, or unique fall protection requirements, etc.) and provide instruction on those precautions.
- “Safe for Use” (Green) tags/signs indicate the scaffold is safe to use.

b. “Caution” and “Safe for Use” tags and signage shall contain the minimum following information:

- The name and signature of the Competent Person or Scaffold Owner
- The intended purpose or use
- The location of the scaffold
- The name of the facility or location’s contact person
- The name of the scaffolding company
- The load class, weight capacity, or rating
- The date of approval
- Modifications, inspections, and approval (date, name, and signature)
- Space for comments



DANGER
DO NOT USE THIS SCAFFOLD
KEEP OFF

This scaffold is being erected or dismantled or found to be defective. Only authorized personnel using required personal protection equipment may work on this scaffold.

Competent Person/Scaffold Owner:
Name: _____
Signature: _____
Date: _____
Job site/scaffold location: _____
Facility/location contact: _____
Comments: _____



CAUTION
Special Precautions Required
Access to this scaffold requires special precautions that must be taken.

Special Precautions:
- [] No OTC Fall Protection required to inspect
- [] Other: _____

Remarks:
- [] Complete scaffold
- [] Complete deck surface
- [] Personal protection
- [] Other: _____

Competent Person/Scaffold Owner:
Name: _____
Signature: _____
Date: _____
Scaffold Company: _____
Job site/scaffold location: _____
Facility/location contact: _____
Intended use/purpose: _____

Weight Capacity (pounds per square foot):
- [] Light Duty
- [] Medium Duty
- [] Heavy Duty

Comments: _____



SAFE FOR USE
DO NOT ALTER OR OVERLOAD

Competent Person/Scaffold Owner:
Name: _____
Signature: _____
Date: _____
Scaffold Company: _____
Job site/scaffold location: _____
Facility/location contact: _____
Intended use/purpose: _____

Weight Capacity (pounds per square foot):
- [] Light Duty
- [] Medium Duty
- [] Heavy Duty

Comments: _____

- c. Defects shall be corrected, per manufacture and regulatory requirements prior to use.

3. Scaffold Access

- a. Any scaffold requiring access over 24 inches (61 centimeters) requires a ladder or stairs.
- b. Straight, affixed, or integrated vertical scaffold ladders over 15 feet (4.6 meters) require 100% fall protection or an approved control measure, during ascent and descent, per the Fall Protection Standard. Gates or hatches shall be installed at each landing that allow employees to pass from the ladder to the landing unobstructed
- c. Items shall not be carried in hands while ascending or descending a ladder.
- d. When gates cannot be installed, the method for passing from the access point to the landing shall be approved by the Core Permit Issuer.
- e. Cross braces shall not be used as a means of access.

F. Aerial Lifts, Boom Lifts, and Scissor Lift

- 1. All new aerial lift devices purchased or leased for use on Corteva Agriscience™ property shall be in good working order and designed in accordance with the manufacturer's specification.



2. General operating requirements and the manufacturer's guidelines shall be followed when operating the aerial lift device.
3. Aerial lift devices shall be inspected when obtained, before use, and annually.
4. Alterations and field modifications to aerial lift devices shall be approved by the manufacturer.
5. Forklift Man-Basket and their use for lifting personnel shall be approved by EHS&S leadership.
6. Workers shall be trained for each specific type of aerial lift device prior to operating it.
7. During the CORE permitting process, a specific documented hazard assessment shall be completed prior to operating (elevating) aerial lift devices.
8. Occupants shall use fall arrest or restraint systems attached to the manufacturer's approved anchor point when such an anchor point is provided.
9. Personnel shall not climb or stand on the midrail, toeboard, or handrail of the aerial lift device platforms, nor shall they place planks, ladders, or other devices on the midrails, toeboards, or handrails to be used as work platforms.
10. If drive tires are to be engaged while elevated:
 - a. It has been approved by a Critical Elevated Work Permit Approver.
 - b. Review ground and aerial travel paths immediately prior to movement.

- c. Movement shall be made only in low speed range.
 - d. Movement shall only be made on a firm, level surface, maintaining a safe distance from debris, holes, depressions, ramps, etc.
 - e. Maintain a clear view of the path of travel.
11. The platform or basket shall not be covered with a combustible material during hot work.
12. Units shall only be towed with “Manufacturer Approved” tow bar or on a trailer.
13. When planning to operate an aerial lift device within 20 feet (6.1 m) of an energized electrical line, the electrical standard shall be followed for precautions and distance requirements.

XVI. Excavating, Ground Breaking, Trenching, and Shoring

A. The following lists the rules for ground breaking, excavating, trenching, and shoring:



1. All equipment operators shall be trained on the specific piece of equipment they are operating and provide proof of training when requested.
2. A company designated competent person shall be present for all excavations.
3. Ground breaking, excavation, earth penetration, and working in an excavation shall be done in a manner to protect people, environment, and property. This includes the proper management of excavations and the subsequent disposal or relocation of soil, groundwater, and other materials resulting from these excavations.
4. Contact your Corteva Agriscience™ Representative if you encounter potentially contaminated soil, or any unknown obstruction/pipe. Your Corteva Agriscience™ Representative will determine the proper method of disposal.
5. The contractor performing the excavation or earth penetration shall:
 - a. Obtain an excavation (ground breaking) permit for all excavations greater than the site's trigger depth for excavation (commonly 6 inches or 15.2 centimeters).
 - b. Complete both private and public locates in the area and surrounding areas.
 - c. Ensure the Underground reference drawing and Excavation (Ground Breaking) Permit stays on the job site.
6. Hand dig or other acceptable means shall be used to expose all lines within close proximity (Site-specific rules apply for distances) of any buried, suspected, or located objects. Consult with a Corteva Agriscience™ Representative for more information.

- a. Have a copy of the site pipeline locations present and available on-site and have identified the location of their excavation in relation to these pipelines and all utilities (i.e. Underground Reference Drawing).
 - b. No excavation may take place within the site-specific distances from easements without written authorization from the Corteva Agriscience™ Representative.
- 7. Excavations 4 feet (1.2 meters) or greater in depth may be considered a confined space (i.e hazard atmosphere). Follow site-specific rules for Confined Space classification as it pertains to excavations.
 - 8. Any excavations 4 feet (1.2 meters) or greater in depth and with limited access and egress shall be initially monitored for the potential existence of a hazardous atmosphere.
 - 9. A stairway, ladder, or ramp shall be in place for all excavations 4 feet (1.2 meters) or greater in depth to require no more than 25 feet (7.5 meters) of unobstructed lateral travel for personnel.
 - 10. Soil sampling may be required prior to allowing any personnel to enter an excavation.
 - 11. Proper barricades shall be extended around the outside of all excavations.
 - 12. Personnel working in excavations 5 feet (1.5 meters) or greater in depth shall be protected from cave-ins by an adequate protection system. This may include:
 - a. Sloping or benching systems
 - b. Timber shoring
 - c. Aluminum hydraulic shoring
 - d. Trench boxes

XVII. Powered Industrial Trucks (PITs) – Fork trucks

A. Requirements for Powered Industrial Equipment

1. All personnel operating powered industrial equipment shall be trained on that equipment and have certification to allow them to operate that equipment.
2. Forklifts and other Powered Industrial Trucks (PIT) must be inspected thoroughly before each work shift.
3. Operators must always fasten and wear a seat belt when it is available on the PIT.
4. Talking and texting on a mobile phone while operating a PIT are prohibited, and other distractions, like eating and drinking, should be avoided.
5. Operators must always operate at a speed that will permit the PIT (with or without a load) to be brought to a stop in a safe manner no matter the travel conditions (see site specific rules).
6. Operators must slow down or stop, sound the horn, and watch for pedestrians when approaching intersections, corners, stairways, doors, exits, and entrances.
7. PITs must be parked in designated areas and the load engaging means (i.e. forks) must be lowered to the ground and the parking brake set.



8. Modifications or additions to a PIT that may affect its capacity or safe operation, including the use of attachments, shall only be performed with prior written authorization from the manufacturer or approval by a qualified, registered professional engineer, and only after a thorough risk assessment of the safety impacts that the modifications or additions may potentially have on the design and safe operations (e.g., lifting capacity, weight distribution, and stability) of the PIT.
9. PITs and platforms (e.g., man baskets) used to elevate personnel shall only be considered for use when no other options are feasible and shall require a critical elevated work plan (refer to the company Fall Protection Standard). Homemade man baskets are prohibited.

XVIII. Cranes, Hoists, and Mechanical Lifting

A. Requirements for all mechanical lifting activities and equipment:

1. All mechanical lifting equipment and devices shall be utilized in accordance with manufacturer requirements.
2. Attachments shall only be utilized when approved by the manufacturer.
3. All equipment labels, placards, and markings shall be legible and visible.
4. The weight of the lift shall be known or calculated prior to lifting or hoisting.
5. Cranes shall have the load charts, recommended operating speeds, special hazard warnings, instructions, and operator's manual in the cab at all times and shall be followed.
6. Lifting, hoisting, and rigging activities cannot proceed until the following requirements are communicated and provided:
 - a. Documented verification to show adequate ground conditions and/or supporting structures exist.
 - b. Equipment manufacturer's specifications for adequate support and degree of level
 - c. Presence of known underground hazards (voids, tanks, utilities, piping, sewer lines, etc.)
 - d. All supporting structures using rigging points shall be verified to support the maximum working load limits of all equipment and objects.



7. Physical barricades and notices shall be erected to prevent all individuals from entering a work area and fall zone.
 - a. All non-essential individuals shall be evacuated from the work area.
 - b. Individuals shall not be permitted into the fall zone while a load is suspended.
8. All hoisting or lifting activities require an approved form of communication agreed upon by all parties.

B. General Rigging Requirements

1. All rigging shall be performed by a qualified rigger.
2. Rigging equipment and its associated components shall be used in accordance with the manufacturer's requirements.
3. Multiple loads cannot be connected to the hook at the same time.
4. All rigging operations shall be planned and documented using one of the following methods:
 - a. Crane Lift Plan (including documented Rigging Plan)
 - b. Standard Operating Procedures (SOPs)
 - c. Rigging Permit
5. Storage for rigging equipment and components shall be clean, dry, and free of contamination.

C. Mechanical Lifting with a Crane Being Utilized:

1. Submit a written Crane Plan to the Site Designated Crane Focal Point for all crane activities listing:

a. Detailed review of scope of crane activities
b. Proximity to nearby power lines, process equipment, or other site-specific hazards
c. Crane selection, placement, and escort
d. Crane proof of inspection (annual or daily)
e. Operator, rigger, and signal person proof of training
f. Load weight(s)
g. Mat size requirements
h. Underground conditions
i. If the lift is classified as a Critical Lift (see trigger criteria)
j. Rigging Plan
k. Crane and worksite barricading and shutdowns
l. Other applicable hazards such as fall protection, weather conditions, crush by, etc.

2. Operators of a crane, winch truck (boom truck, crane truck, etc.) shall have on their person a Certificate Crane Operator (CCO) or regional equivalent which indicates they are a trained Competent Person and authorized to operate the equipment.
3. Proper measures shall be taken to ensure individuals are aware of the ball or block of the cranes and similar equipment. (Sites may choose to paint it fluorescent red or orange, or wrap with danger tape.)

4. Safety devices, limit switches, and equipment indicators shall be required on all crane equipment unless otherwise specified by the manufacturer. At no point shall they be tampered with or bypassed.
5. No work may take place within 20 feet (6.1 meters) of an energized power line.
 - a. Provisions to encroach within 20 feet (6.1 meters) shall be approved and conducted in accordance with the Corteva Agriscience™ Crane Standard and approved by the Corteva Agriscience™ Representative.
6. At the discretion of the site leader, EHS&S, or the Corteva Agriscience™ Project Manager, a meeting may be called to review the written plan. A meeting is required for all Critical Lifts.
7. The use of crane suspended work platforms require additional requirements. See the Corteva Agriscience™ Cranes, Hoists, and Mechanical Lifting Standard for details.



20 feet (6.1 meters)

The diagram illustrates a utility pole with multiple power lines extending from it. A horizontal line is drawn across the page, representing a safety boundary. The text '20 feet (6.1 meters)' is placed between this line and the pole, indicating the required clearance distance from the energized power lines.

D. Critical Lift Criteria:

1. A critical lift meeting shall be completed before any critical lift is performed.
2. A critical lift is a lift made under any of the following conditions:

a. Lift that exceeds 75% of the rated capacity of the crane

b. Lifts that exceeds 50% of the rated capacity over powerlines, process lines, or equipment

c. Lift that involves the use of a crane-suspended work platform or man basket (requires an additional permit)

d. Lift that requires the use of more than 1 boom or another mobile lifting device

e. Working with any part of a crane or load closer than 20 feet (6.1 meters) to an overhead electric line

f. Lift over an occupied building, structure, or building designed to be occupied

g. Crane traveling with a load that poses a hazard or exceeds 50% of the crane's load chart under lifting condition

h. The Designated Site Crane Focal Point determines it to be a Critical Lift

XIX. Electrical Safety General

A. The following lists the rules for electrical safety general:



1. No contractor may shut off owner equipment without notification to, and authorization by, the Corteva Agriscience™ Representative.
2. General Requirements: Maintain a minimum separation distance for shock hazard protection from energized exposed parts. Notify the Corteva Agriscience™ Representative of the presence of any overhead lines. Do not work within 5 meters (16 feet) of such lines (20 feet (6.1 meters) for crane activities).

Note: Equipment and tools are considered to be extensions of the body. Examples include ladders, pipe, conduit, and similar conductive equipment that can extend the reach of the body to an unsafe distance.

3. Fiberglass ladders are the only permitted ladder for contractor work (see site specific rules).
4. Do not work on, near, or with exposed energized electrical circuits and equipment. Any energized work will require a site specific Energized Electrical Work Permit.
5. Do not perform electrical repair work or diagnostic work on energized or non-isolated electrical equipment. You must have authorization to perform work on de-energized and isolated electrical equipment.
6. Do not walk or stand on any cables which have not been properly protected.

7. Do not enter rooms or spaces with unguarded live parts while the electrical supply lines or equipment are energized.
8. Any construction, installation, demolition, or maintenance work that might damage or penetrate existing guarding or insulation of energized parts shall be considered energized electrical work.

B. Portable Electrical Equipment: All temporary use and portable electrical equipment shall be used with a Ground Fault Circuit Interrupters (GFCIs).

1. Portable electrical equipment and extension cords shall be used with GFCIs unless the equipment is included in the grounding assurance program and is within the inspection date.
2. For work in “standing water” conditions, electrical equipment shall not be used without the advanced review by an Electrical Skilled Person.
3. The use of adapters that convert a three-wire plug to a two-wire plug or modification of a ground prong or grounding conductor on three-wire equipment is prohibited.
4. Portable electrical equipment shall be inspected by the user prior to use.
5. Electrical cords shall be elevated from walkways, doorways, and traffic areas.



XX. Fire Protection and Prevention

A. General Rules

1. The following lists the rules for fire protection and prevention. Thresholds may vary site to site. Refer to site specific policies.
 - a. Fire or smoke detection systems shall not be disabled without prior notification of Corteva Agriscience™ Security (or equivalent).
 - b. Sources of ignition must have a permit when in a Hazardous Area Classification. Refer to site specific maps for hot work areas.
 - c. Prior to use the Corteva Agriscience™ Representative shall approve any use of heating equipment.
 - d. The use of solid or liquid fuel salamanders shall not be permitted without prior approval. A Hot Work Permit is required.
 - e. Read and understand Corteva Agriscience™ EHS&S Standards and permit systems; Core Permit, Hot Work Permit, Line and Equipment Opening Permit, and Confined Space Entry Permit.



B. Flammable Material Transportation

1. All flammable material transported or moved on-site roads shall be in an approved container, marked, placarded, and meet local regulatory requirements (DOT and OSHA in the US).

C. Outside Storage and Handling of Flammable Liquids

1. The following lists the rules for outside storage and handling of flammable liquids (see site specific requirements):

- a. Coordinate the storage of all flammable liquids with your Corteva Agriscience™ Representative.
- b. Storage systems for gasoline and diesel fuel used to refuel non-road equipment shall be approved by your Corteva Agriscience™ Representative before being brought onto Corteva Agriscience™ property.
- c. Truck or trailer mounted refueling equipment shall use listed equipment with UL or FM labels. Equipment shall also be approved by the Corteva Agriscience™ Representative prior to use within the site.
- d. All cans used for transporting or transferring flammable liquids, shall be in U.L. approved safety cans painted red, with a flame arrestor, and a self-closing cap. Lube oils and non-fuel liquids and oils shall not be placed in red cans. All cans shall be marked identifying the contents.

2. The following lists the rules for tanks:

- a. The Corteva Agriscience™ Representative shall specify the location of the contractor fuel tanks.
- b. Portable tanks or containers are limited to a maximum volume of 300 gallons. Fifty-five-gallon drums are not allowed. Gasoline and diesel fuel tanks shall be labeled accordingly. Contents shall be identified on 2 sides of the tank with letters a minimum of 3 inches (7.6 centimeters) high. See site specific rules.

- c. Tanks or containers shall be located a minimum of 40 feet (12.2 meters) from a building and a minimum of 25 feet (7.5 meters) horizontal distance from pipelines, electrical lines, or conduits. Combustible material shall not be within 10 feet (3 meters) of tank. See site specific rules.
- d. Storage tanks shall be equipped with the following U.L. approved accessories:
- Fill opening flame arrestor and locked
 - Vent with flame arrestor
 - Fusible link discharge valve
 - Conductive discharge hose
 - Self-closing or automatic nozzle
 - Tank ground cable and grounding rod
 - Ladder to service tank (if elevated)
 - Level float indicator
 - 20 pound (9 kg) dry chemical fire extinguisher placed between 25 to 50 feet (7.6 to 15.2 meters) away from tank and conspicuously marked
- e. Tank hazard symbols shall be installed on each side of the tank. Markings shall be provided by the Corteva Agriscience™ Representative. Markings are to be removed by the contractor when tanks leave Corteva Agriscience™ property.

A. Follow the requirements and guidance detailed in the Corteva Agriscience™ EHS&S Hot Work Standard. Use the hot work permits identified in the standard.



1. A hot work permit and fire watch is required for all welding, brazing, cutting, or use of tools or operations that produce an external flame. Hazardous Areas that may have an air fuel mixture hazard require a Hot Work permit for electric hand tools, mobile equipment or tasks that may create a spark with a tool, or by static electricity.
2. Fixed Station Hot Work should be evaluated for work in a shop or outside in a yard area, as detailed in the Corteva Agriscience™ EHS&S Hot Work Standard. Exemptions to the Corteva Agriscience™ hot work permit system shall be approved by EHS&S, the site leader, and the Corteva Agriscience™ Project Manager. Contact Corteva Agriscience™ Representative for details on Fixed Stations Hot Work conditions.
3. Reference site specific hazardous area classification maps for requirements of working in locations that may have an air fuel mixture hazard and can be easily ignited. This applies to low energy hot work (e.g. non-intrinsically safe tools and equipment, mobile equipment with combustion engines, or tasks that could generate static discharge.) For tasks in these locations, use the Hazardous Area, Hot Work Permit, and requirements detailed in the Corteva Agriscience™ EHS&S Hot Work Standard (see Corteva Agriscience™ Representative for further details).
4. The fire extinguisher required by the Hot Work Standard is a portable 20-pound (9kg), ABC multi-purpose dry chemical type, or equivalent. Minimally, one fire extinguisher for each fire watch.

5. For work locations where combustible materials are of concern to smolder and burn, contractors shall remove all materials that may burn to a radius of 35 feet (11 meters) around the work location or cover with fire-retardant welding tarps, or wet sand, if the item is impossible to move.
6. In Hazardous Areas, where the possibility of an air fuel mixture may exist, atmospheric monitoring shall be conducted initially and continuously during high energy hot work using the appropriate gas detection monitoring equipment. Readings of zero percent (0%) Lower Flammable Limit (LFL) must be obtained during the tasks. The 0% requirement demonstrates the area free of flammable gas, vapors, combustible gas, and dust or powder concentrations.
7. A functional “bump” test or equipment calibration of combustible gas meters shall be done before each day’s use by using an appropriate test gas. In case of a functional test failure, a full calibration procedure shall be followed before further use.
8. Employees performing burning or welding and employees assisting them shall be wearing suitable clothing made of FRC (fire resistive clothing) label garments, natural fiber, such as cotton, and no garments that could melt. Arms and hands shall also be protected. For clothing suitable to be worn while welding and burning in an area requiring “flame-resistant” clothing, contact the Corteva Agriscience™ Representative.
9. Wear an approved welding hood with appropriate filter shading. Hard hat-hood combination shall be worn in hard hat areas. All skin exposed to the arc shall be covered to protect against UV exposure. This includes the hands, arms, neck, and face. Refer to the site location PPE matrix for additional requirements.

B. The following rules apply to welding and cutting (see Section XXI. Electrical Safety General regarding annual testing of generators used for welding):

1. Hoses and welding leads shall not pass through doorways. If there is no alternative, the door shall be braced open and the hoses and leads protected from damage. Hoses/Leads shall be protected from other industrial equipment that may damage them such as fork trucks driving over the leads.
2. The area around and below shall be barricaded, screened, and protected from sparks, flash, and slag.
3. The work on which the operator welds shall be grounded by a grounded metal floor, platen, connection to a grounded building frame, or by a direct ground to the machine. A wire used for grounding a work piece shall be capable of carrying the full welding current.
4. The welding circuit shall be kept as short and direct as possible. The work lead clamp (commonly referred to as a ground clamp) shall be connected to the work or as close as possible to the work. All power sources with grounds to the same work shall be the same polarity.
5. A welding current shall not be carried through the following:
 - a. Lifting equipment used for carrying a load, such as a chain, wire rope, hoist, crane, or elevator
 - b. Machinery
 - c. Flanged pipe joints
 - d. Common building steel
(exemption for initial construction)
 - e. Electrical conduit containing an electrical conductor



6. When welding on equipment, the contractor shall take special care so that no damage will occur to the tank lining, bearings, seals, etc. due to arcing.
7. All grounding and leads need to be inspected.
8. All leads need to be elevated and in good working condition with no repairs within 10 feet (3 meters) of stinger.
9. Hoses shall be broken down, capped, and bled down at the end of the workday.
10. Ventilation shall be adequate for the material being welded or burned. Personnel should avoid breathing fumes. An exhaust system, blower, or respirator should be used as required.
11. Do not weld over manhole covers or sewers unless they are properly covered to prevent slag or sparks from entering.
12. Gauges shall be removed from all gas cylinders and safety cap installed prior to the cylinder being transported via motorized vehicles.
13. All welding power supplies and generators shall be megger tested for ground leakage prior to connecting the units to Corteva Agriscience™ 480-volt power system. The contractors shall provide records of testing documentation to Corteva Agriscience™; quarterly checks are required. Upon verification, a sticker shall be attached in a conspicuous location on the welding machine and be marked with the date of the inspection. Inspections shall be made by a qualified person.
14. Secure all compressed gas cylinders upright to an adequate support while they are in storage, transit, or use.
15. Place cylinders and hoses where they are not exposed to sparks or slag from a burning operation.

XXII. Tools

A. Contractors shall have the handbook for all power tools and equipment on-site. Tools and equipment shall be inspected and used in accordance with the handbook.

B. Defective tools and equipment shall be removed from service for repair or disposed of immediately. Tools and equipment that are to be repaired must have a “WARNING” tag attached stating the nature of the defect.

1. It is the contractor’s responsibility to comply with all tool and equipment training, maintenance, and licensing requirements set forth by the manufacturer or regulatory agency.
2. The use of the owner’s tools or other equipment by the contractor personnel is not allowed without prior written agreement between the contractor and the owner (see site specific rules).

C. The following lists the rules for tools:

1. The use of powder actuated tools shall be approved by the Corteva Agriscience™ Representative. The tool and its use must be in compliance with regulatory agency requirements. A Hot Work Permit is required to operate powder actuated tools.
2. Safety devices such as protective guards, alarms switches, interlocks, limit switches, etc., shall be present and not be disabled on tools or equipment.
3. Tools shall be used as their design was intended. Modification or replication of an existing tool or creation of a new tool shall be reviewed and approved by the Corteva Agriscience™ Representative.

4. Tool handbooks and safety instructions shall be reviewed by employees and available on-site.
5. All training shall be completed and made available upon request.
6. Cheater bars should not be used unless no alternatives are available on site.
7. A tool holder that prevents a body part from being in the line-of-fire shall be used for any hammer struck tool or object (examples of tools and objects: chisels, wedges, hammer wrenches, stakes, etc.).
8. Only portable lights approved and labeled by a recognized testing lab, such as UL, FM, or CSA, shall be used in electrically classified areas.
9. Two types of portable lights are approved for Class I, Groups C&D, and Class II, Group G areas:
 - a. Battery-operated hand lamps and flashlights
 - b. Explosion-proof extension work lights
10. Work lights shall be visually inspected before each use. Trained personnel shall do assembly, maintenance, and the annual inspection.



XXIII. Site Specific Requirements

XXIV. Variance

A. Variance from the owner’s rules covered in this book shall have prior written approval obtained through the Corteva Agriscience™ Representative and EHS&S. The specific procedures that will be followed in lieu of the stated rule shall be described and approved in writing.

XXV. Document and Records Management

Document and Records Management	The current procedure is filed in the Document Management System, Electronic Component, under Procedures.		
Review history	The following information documents at least the last 3 changes to this document, with all the changes listed for the last 6 months.		
Revision	Date	Reviewed By	Comments
0.0	5/14/20	Jeff Fox	Corteva Agriscience version 0.1
	6/29/20	Jeff Fox	Non-intent formatting changes throughout the entire document

XXVI. Definitions and Acronyms

A. Definitions

NAME	DEFINITION
Authorized Operator	A qualified and properly trained person assigned by the Contract Supervisor to operate a given vehicle, piece of equipment, or tool.
Competent Person	A person who is capable of identifying existing and predictable hazards in the surroundings or working conditions which are unsanitary, hazardous, or dangerous to employees, and who has authorization to make prompt corrective measures to eliminate them.
Complex System (Isolation of Energy)	A complex system isolation is accomplished when an authorized person has isolated a system for other workers to work on the isolated system, and each worker signified their acceptance through a signature on a Master Document or personal lock on a group lockout box.
Construction Contractors	Contractors and their employees in construction, maintenance, or demolition work.
Construction Sites	Construction areas that are identified either by barricades, postings, or some other means so people coming onto the site or into the area will be aware of the protective equipment requirements.
Contractor	One who, in pursuit of independent business, undertakes to perform a job or piece of work, retaining in himself control of means, method, and manner accomplishing the desired results.
Contract Supervisor	An experienced supervisor whom the contractor designates to carry out the contractor's supervisory, statutory, and contractual obligations, and to represent the contractor at the work site.

NAME	DEFINITION
Corteva Agriscience™ Representative	The Corteva Agriscience™ individual or contractor authorized by Corteva Agriscience™ to serve in specific roles with pre-determined responsibilities. This will vary from site to site.
Electrical Supervisor	A contractor employee who has worked as a journeyman electrician.
Fall Prevention	The elimination of a fall hazard. Fall prevention, where achievable, is always preferred over fall-protection techniques.
Fall Protection	The use of fall-arrest equipment in conjunction with other measures such as nets or work practices to minimize fall exposure when elimination of the fall hazard was not achievable.
Individual System (Isolation of Energy)	A system where an individual attaches a personal securement at each isolation point for the individual to complete the work themselves.
Job Safety Analysis	Job Safety Analysis (JSA) provides a mechanism for listing crew tasks, identifying the hazards associated with those tasks, and reviewing the possible corrective actions. This can be a companion to the Core Permit process and/or the PTA or CHAT card.
Owner	Corteva Agriscience™
Pre-Task Analysis	Pre-Task Analysis (PTA) cards provide a mechanism for listing your personal and individual tasks, identifying the hazards associated with those tasks, and mitigating hazards by reducing risks through proper personal protective equipment, engineering controls, and adherence to safety policies and standards. Interchangeable with: CHAT card.

NAME	DEFINITION
Production/Functional/ Facility Leader	The Corteva Agriscience™ employee in line management with primary responsibility for a specified plant, operating unit, facility, or department.
Project	Any contractor work area defined by a fence, boundary, barricade, signage, contract, or agreement.
Qualified Person	A person who, by possession of a recognized degree, certificate, or professional standing, or who by extensive knowledge, training, and experience, has successfully demonstrated his or her ability to solve or resolve problems related to the subject matter, the work, or the project.
Regulatory Agency	Independent government commission charged with setting and enforcing standards for specific industries. Examples include OSHA in the US and HSE in the UK.
SDS	Safety Data Sheet - A publication, required by federal law, which describes the safe handling, storage, and disposal of a hazardous material. It gives details on chemical and physical dangers, safety procedures, protective equipment, and emergency response techniques. An SDS, plus the safety equipment required by the SDS, shall be available to anyone handling the material.
Service Contractors	Contractors and their employees involved in specialized lower risk maintenance, repairs, or providing expertise or testing work (or who do not fit the Construction Contractors category).
Site	This term shall mean any Corteva Agriscience™ owned, operated, or leased location where contractors perform activities.

NAME	DEFINITION
Supervision	An individual who has been given the authority to direct and oversee the specific actions of a worker or work group (Corteva Agriscience™ or contractor).
Vendors/Delivery	Firms and their employees involved in delivering or supplying materials and/or equipment into the site.
Visitors	Any other non-Corteva Agriscience™ employee who does not meet the criteria of the above listed contractor categories; people not performing work on site.

B. Acronyms

ACM	Asbestos-Containing Material
ANSI	American National Standards Institute
ASTM	American Society for Testing and Materials
AWP	Aerial Work Platform
BBP	Blood Borne Pathogens
CE	European Standards
CCO	Certificate Crane Operator
CG	Critical Guard
CHAT	Continuous Hazardous Analysis Tool
CR (IV)	Chromium IV (Hexavalent)
CSA	Certified Senior Advisor
CSE	Confined Space Entry
dBa	Decibel, A-Weighted
dBc	Decibel, C-Weighted
DOT	Department of Transportation
EHS&S	Environment Health Safety and Security
EN	European Standards

EU	European Union
EPA	Environmental Protection Agency (USA)
FM	Factory Mutual
FRC	Fire Resistant Clothing
FT	Feet
GFCI	Ground Fault Circuit Interrupter
GPM	Gallons per Minute
HSE	Health and Safety Executive (UK)
IDLH	Immediately Dangerous to Life and Health
IEC	International Electrotechnical Commission
IOE	Isolation of Energy
IOEMS	Isolation of Energy Management System
ISO	International Organization for Standardization
JHA	Job Hazard Analysis
JSA	Jobsite Safety Analysis
Kg	Kilogram
LEO	Line Equipment opening
LFL	Lower Flammable Limit
LOTO	Lock Out Tag Out
MOC	Management of Change
MTS	Medical Treatment Case
NESHAP	National Emission Standards for Hazardous Air Pollutants
NFPA	National Fire Protection Agency (USA)
NIOSH	National Institute for Occupational Safety and Health
OCIP	Owner Controlled Insurance Program
OSHA	Occupational Safety and Health Association (USA)
OUS	Outside United States
PACM	Presumed Asbestos Containing Material

PE	Professional Engineer
PEL	Permissible Exposure Limit
PFAS	Personal Fall Arrest System
PFD	Personal Flotation Device
PIT	Powered Industrial Truck
PPE	Personal Protective Equipment
PSCE	Process Safety Containment Event
PSI	Pounds per Square Inch
PSM	Process Safety Management
PSS	Project Safety Specialist
PSSP	Project Specific Safety Plan
PTA	Pre Task Analysis
RCA	Root Cause Analysis
RCI	Root Cause Investigation
ROPS	Roll Over Protection System
RSO	Radiation Safety Officer
RTO	Return to Operations
SOP	Standard Operating Procedure
SDS	Safety Data Sheet
TWA	Time Weighted Average
UL	Underwriters Laboratory
UK	United Kingdom
URD	Underground Reference Drawing
US	United States
WLL	Working Load Limit

CORE FOR LIFE

SAFETY • ENVIRONMENT • HEALTH



CORTEVA™
agriscience