



CLINTON, IOWA PLANT

CONTRACTOR SAFETY HANDBOOK

Revision 5 – December 22, 2016

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INTRODUCTION

Welcome to the LyondellBasell Clinton Plant! This plant consists of the Polymers and Olefins operating units, and produces ethylene, propylene, high density polyethylene (HDPE), low density polyethylene (LDPE), and Plexar. These products are used in the manufacture of bottles for household and industrial chemicals, dairy crates, bread trays, industrial liners, heavy-duty garbage bags, dry cleaning bags, freezer bags, food packaging films, heavy-duty bags for mulch and potting soil, and as a tie-layer to bond different plastic materials together.

The Clinton Plant is committed to achieving safety and health leadership in the chemical industry. Every task will be performed with concern for the safety and health of ourselves, our fellow employees, our contractors, our visitors, and the community in which we operate. Our goal is to send all employees, contractors, and visitors home in the same condition in which they arrived.

All employees, contractors, and visitors will follow safety rules, properly use PPE (personal protective equipment), and report and correct unsafe conditions. When unsafe conditions or acts are observed, they are to be corrected immediately, if possible. When immediate elimination of an unsafe condition is not possible, we will work together to mitigate the unsafe condition until elimination can be accomplished. The acceptance and satisfactory performance of our safety responsibilities is required to maintain "approved contractor" status at LyondellBasell.

It is our objective to provide employees and contractors with safe working conditions and a healthy environment. LyondellBasell provides its employees with the necessary PPE clothing and equipment to ensure their safety. Contractors working at the Clinton Plant are required to ensure that their employees are equipped with personal safety equipment, clothing, tools, and other equipment necessary to do their assigned duties in a safe manner. These alone cannot prevent accidents. It is only through our individual efforts that the prevention of incidents will be accomplished.

It is the intent of LyondellBasell to comply with all Federal, State, Local, and Corporate regulations concerning Occupational Safety and Health, Hazardous Waste Management, and Environmental Controls. We use reasonable means to make the Clinton Plant a safe place to work for both LyondellBasell employees and contractors. Safety is a key value and core expectation; therefore, all persons in the plant, employees and contractors alike, shall comply with the plant safety rules at all times.

In 2002, the Clinton LyondellBasell Plant was recognized as an OSHA Voluntary Protection Program (VPP) STAR site and was recertified in 2007 and 2012. VPP is OSHA's way of recognizing and rewarding a company for having and maintaining the necessary programs to protect the safety and health of their employees. STAR is the highest designation that can be obtained in the VPP process. Sites which participate in the VPP are recognized by OSHA as models for their industries. Also, many of the Clinton Plant Contractors have achieved VPP STAR status.

This handbook will introduce you to Plant and Company Health, Safety, and Environmental Policies and Procedures which have been designed to ensure your safety and the preservation of the environment. This handbook does not replace the safety, health, and environmental training that you have received from your employer, nor can it cover in detail all the Health, Safety and Environmental Procedures in place at the Clinton Plant. For additional and more specific guidance regarding any task, procedure, or perceived hazard, contact your Supervisor or LyondellBasell Clinton Site Contractor Coordinator.

PURPOSE AND SCOPE

The Contractor Handbook has been developed to ensure that contractors working at the Clinton Plant understand the established health, safety, environmental, operational, and administrative policies and procedures applicable to all operations in this facility.

This handbook outlines the expectations concerning the standards of behavior and safe work requirements of all contractors working within the facility. Procedures governing interaction between LyondellBasell employees and site operational systems are also included. These rules are based on the firm belief of LyondellBasell Management that a safe workplace is essential to the operation of an efficient and well-run organization and directly contributes to success in a competitive marketplace.

These rules are general in nature and are not intended to provide complete and detailed instructions for specific work. Regulations (OSHA, EPA, etc.), and LyondellBasell procedures and policies should be considered minimum requirements. The contractor is expected to follow generally-accepted good industry practices and to develop and follow their own safe work practices. It is the responsibility of the contractor employer to disseminate and enforce rules with their employees and sub-contractors and to ensure employee compliance with all applicable laws, rules, and regulations.

CONTRACTOR RESPONSIBILITIES

- Ensure that contract employees are trained in the work practices necessary to perform their jobs safely.
- Ensure that contract employees are instructed in the known potential fire, explosion, and/or toxic release hazards related to their jobs and the process, and in the applicable provisions of the emergency action plan.
- Document that each of the contract employees has received and understands all required training. Documentation includes the identification of the contract employee, the date of training, and the means used to verify that the training was understood.
- Make available, upon request, all training records for audit purposes.
- Ensure that each of the contract employees follows the safety rules of the facility, including safe work practices required by the operating procedures.
- Advise LyondellBasell of any unique hazards presented by the contractor's work. This includes stopping the work when it is thought that there could be an unsafe condition that may cause immediate injury or damage to equipment.
- Report all site work-related injuries, illnesses, and incidents immediately to the Clinton Site Contractor Coordinator/Contact and the unit in which the incident occurred.
- Make available, upon request, all written HSE policies and programs.
- Ensure that each employee meets all applicable DOT regulatory requirements.
- Ensure that any subcontractor providing services is specifically approved in writing by the LyondellBasell Purchasing Department.

CONTRACTOR SAFETY MEETING AND SAFETY SELF-AUDITS

Contractors are encouraged to perform safety self-audits on a periodic basis or at a frequency specified by the contract. These are required for resident contractors. The audit should be documented on the Contractor's Audit Report.

Weekly or monthly safety meetings and daily toolbox meetings must be conducted by the contractor and should be relevant to the work being performed.

SECURITY

Contractor employers are responsible for the conduct of their employees while on LyondellBasell property.

Contract employees may not enter the plant without first being issued a contractor identification badge by the Main Gate Guard.

Prior to being issued a Lenel badge, the contract employee must:

- Successfully complete Safety Basic or OSHA 10 training and Site-Specific Training by one of the following methods, and present the certification card verifying successful completion of the course.
 - Clinton Community College
 - Three Rivers Manufacturing Association
 - Houston Area Safety Council or
 - Gatefeed online training (www.gatefeed.com)
- Present a picture ID, which must be kept in immediate possession at all times.
- Complete an Identification Card Application.

A Lenel badge must be used each time passage is made through a gate, turnstile, or door operated by a reader. The Lenel badge must also be displayed on the exterior of the outer-most garment for identification purposes while on the plant premises. To exit the facility, contract employees must "badge out," normally exiting through the same gate used for entrance.

Bypassing readers without first displaying the Lenel badge to the reader, by using emergency release buttons, or by passing through a gate opened for another individual, etc., is prohibited and could result in loss of access. Other Lenel badge violations that may result in loss of access include:

- Damaging the Lenel badge
- Loaning it to another individual for any purpose
- Allowing others to use for access to the plant
- Failure to notify Security immediately in the event of a lost badge
- Failure to return the Lenel badge to Security on final day of employment
- Attempting to enter an unauthorized area

Entry into the Clinton Complex constitutes an implied consent to the inspection of vehicles and/or containers. Inspections are conducted to ensure that prohibited items are not brought on site, and that items do not leave without authorization. Consent to an inspection is required as a condition of access to the plant. Refusal to consent may result in your immediate removal from the site. Searches may be conducted randomly or when there is reason to believe that a violation of

LyondellBasell policies and procedures has occurred. The inspections may include any container (e.g., lunch pails, purses, toolboxes, brief cases, and vehicles). A pass must be issued through the Contractor Contact to remove tools when the contractor has completed work on site.

The contract employee is responsible for keeping valuables (e.g., money, wallets, credit cards, keys, etc.) on his/her person rather than leaving them in a desk drawer, locker, lunch pail, etc.

Unauthorized photography in or around the Clinton Plant or its related facilities is prohibited. Photographs may be taken only after obtaining a Camera Pass (HS-313-107) from your Clinton Site Contractor Coordinator. In addition to the Camera Pass, the appropriate safety permit must be obtained if photographing will occur in an operating unit. The photographer must have the pass on his/her person while taking pictures in the facility. After the photographs are taken, the LyondellBasell representative will be responsible to determine if the film or electronic media needs to be reviewed before the contractor is allowed to remove it from the plant.

Smoking is prohibited within the Clinton Plant except in designated smoking areas. The possession of lighters and/or matches is also prohibited. Electronic lighters are provided in the designated smoking areas. Before leaving a smoking area, ensure that cigarettes are completely extinguished.

The use, sale, purchase, transfer, or possession of illegal drugs or alcohol while on the Clinton Plant premises is strictly prohibited. Any person appearing to be under the influence of alcohol or drugs, or who is suspected of possessing alcohol or drugs, will be removed from the premises. LyondellBasell may conduct unannounced searches for illegal drugs or alcohol inside company facilities at any time.

The following items and activities are also prohibited and will not be tolerated at the Clinton Plant:

- Weapons, firearms (guns, ammunition, etc.) and explosives (including fireworks), even if licensed to carry a concealed handgun by the State of Iowa or any other state that may have a reciprocal agreement with Iowa
- Theft
- Fighting
- Falsifying documents
- Sharing an ID or Lenel badge
- Violating any criminal laws
- Any solicitation, distribution, or employee recruiting

LyondellBasell reserves the right to permanently ban from company property any individual who commits such acts while on the premises.

SAFETY ORIENTATION AND TRAINING

Contract employees must attend orientation/training prior to initial work at a LyondellBasell site, and orientation/training must be repeated annually. Any contract employee entering a LyondellBasell site must have a government or company picture ID badge for identification, in addition to proof of completing the approved safety orientation program. Per LyondellBasell and LyondellBasell Corporate requirement, this training is provided only in English with no coaching or verbal prompting allowed. This is done to ensure that the safety of personnel and the facilities is not compromised and is consistent with LyondellBasell Emergency Planning and Response Process.

The Clinton Plant requires the following specific annual training:

Complete Safety Basic and Site-Specific Training by one of the following methods, and present the certification card verifying successful completion of the course to Security.

- Clinton Community College or
- Three Rivers Manufacturing Association or
- Houston Area Safety Council or
- Gatefeed online training (www.gatefeed.com)

If the worker has OSHA 10 training, that training is good for 2 years versus an annual requirement for Safety Basic Training, and only annual Site Specific training is required.

When new or returning contractor groups report to the plant, a “Meet and Greet” session will be coordinated by the plant Contractor Contact. In addition to the contractors, when available, the group will be addressed by the following site personnel: Contractor Contact, Maintenance Manager, HSE Manager, H&S Unit representative, the Clinton Contractor Safety Council Chairman, and any in-house contractors leads that would be working with the new or returning contractor.

GoalZERO Orientation

GoalZERO Orientation will be conducted for all resident contractors that are working at the Clinton Site (outside Turnaround activities) for extended periods of time. These GoalZERO Orientation sessions are approximately 3-4 hours in duration. A portion of the GoalZERO presentation will be delivered by a member of the Clinton Leadership Team.

During Turnaround activities, a modified GoalZERO Orientation will be delivered to all contractors. A portion of the GoalZERO presentation will be delivered by a member of the Clinton Leadership Team. The turnaround orientation will also include site specific training to negate the need for other site specific training. (Either Safety Basic or OSHA 10 training requirements will still need to be met).

ACCIDENT/INCIDENT REPORTING

Contract employees shall immediately advise their Clinton Site Contractor Coordinator/Contact or the HSE Department of all near misses, accidents, or work related injuries, illnesses, exposures or possible exposures, and environmental incidents that occur to contract employees, sub-contractor employees, or suppliers.

Within the same work shift as the incident, the Contractor must furnish the Clinton Contract Coordinator/Contact with a completed contractor incident report.

MEDICAL TREATMENT

LyondellBasell believes that zero injuries are achievable for both contractors and employees. However, any illness or injury incurred while working must be reported immediately to their Supervisor and the contractor contact to ensure that proper care is received.

Contractors are required to report all injuries to their LyondellBasell Contract Coordinator. The plant Nurse (during normal work hours) or the Clinton Plant EMS will provide and administer first aid services. Contractors are encouraged to use the LyondellBasell medical services for all injuries.

LyondellBasell must be notified of any serious injury and of the need for an ambulance by calling **333** on any in-plant phone line or by calling the Main Gate on radio channel 1.

FATIGUE POLICY

LyondellBasell has a fatigue policy to minimize the potential for personal injury due to fatigue. The following constraints will be incorporated into the work schedule for all contract employees:

- Maximum hours per workday = 16 hours
- Maximum hours per workweek = 98 hours
- Maximum consecutive workdays = 13 days

EMERGENCY RESPONSE

Emergency preparedness is a critical part of safety. Every contractor employee must be familiar with the work-area evacuation plan. Refer any questions related to responding to an emergency to the Clinton Site Contractor Coordinator.

The Clinton Emergency Response Team is an integrated group made up of members from LyondellBasell operating units. The plant alarm can be heard from three sound towers.

The Emergency Response/Alarm System is tested every Wednesday at 15:30 and Saturday at 18:30. Drills are conducted periodically.

If you witness an emergency—such as a fire, gas release, injury, or medical emergency—report the event immediately by contacting a nearby Clinton Plant employee, dialing 333 on any in-plant phone, or calling on the plant radio on channel 1. State your name, the location of the emergency, and the nature of the emergency. Stay on the line until the information has been confirmed.

The alarm system has three distinct tones:

- **Emergency, Fire, Spill, Evacuation, and Weather Warning** – 30-second, alternating high-low electronic tone followed by a public address (PA) announcement.
- **Emergency Response by Rescue/EMS** – 30-second air horn tone followed by an announcement.
- **All Clear** – 30-second wail tone followed by a PA announcement.

Responding to an Emergency Alarm

If an emergency alarm sounds while in the plant, the contractor must:

- Immediately stop all work
- Extinguish all flames and sources of ignition (welding machines, hand tools, motors)
- Pull vehicles to side of road, shut off all engines, and leave the keys in the ignition
- Do not return to work until the “ALL CLEAR” is issued
- Keep streets clear to allow emergency vehicles to respond
- Check with operations to re-establish the work permit before returning to work

When the plant alarm sounds, Contractors are required to use their Lenel badge and badge-in at the nearest safe accountability location. Accountability locations are:

- Insulators shop
- PP&S Office area

- Tank Farm Office
- EOC (for Health & Wellness or EOC responders when needed.)
- Administration Building during normal business hours (M-F 06:00-17:00)
- Main Gate Guard House.
- COB (Contractor Office Building) formerly Employees Recreation Club (for site evacuations only)

If the plant evacuation alarm is announced, Contractors are to follow their designated exit routes to the COB (Contractor Office Building) traveling upwind or crosswind of the area where the emergency has occurred. If the COB (Contractor Office Building) or normal evacuation area routes are impaired, Contractors should report to the Main Gate Rally Point.

Note:

After the emergency alarm has sounded, the plant "Safety" channel is reserved for use by the Emergency Response Team until the "all clear" has sounded.

VEHICLES AND EQUIPMENT

Anyone operating a vehicle or equipment that is involved in a traffic accident, no matter how minor, shall immediately notify Security for the purpose of conducting a traffic accident report. This includes any vehicle or piece of equipment owned by LyondellBasell involved in an off-site traffic accident. Any vehicle or piece of equipment involved in a traffic accident should not be moved until Security or the Clinton Contract Coordinator has had an opportunity to conduct a traffic accident investigation.

Only authorized vehicles driven by persons with valid driver's licenses shall be inside the Clinton Plant. Only authorized and trained operators are allowed to operate equipment at the Clinton Plant. Special liability insurance coverage is required for vehicles and equipment operated in the operating, process, and maintenance areas.

Remember that pedestrians have the right-of-way. Seatbelts must be worn in any moving vehicle equipped with seatbelts. All vehicles must be parked in designated areas. Vehicles shall be operated at the posted speed limit (12 1/2 MPH or 5 MPH). All speed limits and informational signs must be obeyed. Good judgment shall be exercised at all times.

No vehicles or equipment of any kind shall block access or egress to ambulance and fire-fighting equipment. All vehicles parked or left unattended within the boundaries of the operating, processing, and maintenance areas of the site must have the engines turned off, remain unlocked, and have the keys left in the ignition. (Small utility type vehicles may have their keys removed). Authorized vehicles shall display proper vehicle passes, as well as the company name or logo on the side of the vehicle.

The following rules apply for riding in the back of a pickup truck:

- The truck must be stopped before loading and unloading passengers.
- All rear passengers must be seated in the box or on installed benches in the truck.
- The tailgate must be closed and all loose items secured.
- All rear passengers must wear hard hats and safety glasses at all times.

When operating vehicles in congested areas, provide or request assistance for safe passage.

REFUELING OF EQUIPMENT AND VEHICLES

Equipment refueling will be accomplished by using approved containers and methods, including grounding and bonding, turning the equipment off, etc., as detailed in OSHA and DOT standards. A fire extinguisher must be provided in the immediate area of the refueling. Using Clinton Plant fuel pumps to fill contractor equipment is prohibited unless the Contractor has been authorized through their site contact.

When refueling portable equipment, including cars, trucks, compressors, turbines, etc., the contractor is required to be in the immediate area to prevent overfilling.

All fuel containers must be rated for the service that they are being used, and must be properly marked.

LIFTING DEVICES AND EQUIPMENT

Each Contractor will ensure that cranes, crane operators, and lifting devices meet the minimum standards as required by OSHA, ANSI, ASME, and the Clinton Plant. OSHA, ANSI, and/or ASME requirements will precede site requirements. A thorough inspection will be maintained. The Contractor will be required to provide qualified supervision for lifting operations where needed. Contractors will undergo site audits and inspections as required by the Clinton Site Contractor Coordinator.

The following guidelines apply:

Lifting Devices

- Lifting Devices include, but are not limited to:
 - Slings
 - Chokers
 - Spreader Bars
 - Personnel Baskets
 - Material Baskets
 - Hooks
 - Chainfalls (manually-operated winches or come-alongs)
 - Drum Hoist (Air Tugger)
- Contractors must provide training and certification for all personnel who operate portable and manually-operated hoists. Contractors will be required to provide documentation of training and certification.
- Contractors must provide annual certification for all lifting devices.
- Lifting device users must inspect all lifting devices before each use.
- Lifting device users must be competent to perform rigging activities to which they are assigned.
- Lifting device users must be able to recognize damaged or unserviceable hardware or equipment and take the appropriate action.
- Lifting devices shall be discarded immediately if any defects or wear are found that does not meet OSHA, ANSI, or ASME standards and manufacturer's specifications.

Rental and Contractor Lifting Devices

- All lifting devices arriving at the Clinton Site shall be visually inspected and have annual certifications checked by the Clinton Maintenance Shop prior to starting work at the Clinton Plant.
- It is a preferred practice to purchase and utilize commercially manufactured, rated, and certified lifting devices. Devices not specifically designed for use in lifting shall not be used, e.g., buckets, trash bins, or field-constructed devices without a rating and an annual certification.
- Lifting with eyebolts should be avoided if possible. If lifting with eyebolts cannot be avoided, special precautions must be taken:
 - Consult manufacturer for proper installation and lifting with eyebolts.
 - Use engineered and approved eye bolts.
 - Have a competent person check thread holes before installation.
 - A competent person, before use, must inspect eyebolts that have been in service for an extended period of time.

Lifting Equipment and Operation

Contractors are subject to the following Clinton Plant guidelines when operating lifting equipment:

- ***All equipment lifting and rigging will be performed by certified personnel.***
- A lift plan is required that is appropriate for the scope of the lift and that provides for the safe completion of the lift. This can be either verbal or written, depending upon the complexity of the lift.
- Lift planning will address wind direction and the safety of personnel and equipment in the event that a vapor release or other abnormal event occurs which might involve the crane.
- The crane shall be shut down and secured in the event of emergency egress.
- The Contractor will provide qualified supervision for lifting operations where requested by their Clinton Site Contract Coordinator or by contract.
- The Contractor is required to provide a qualified signalman any time a crane is used, when construction equipment/vehicles are used in close proximity to process equipment, or when in congested areas.
- Crane maintenance other than routine inspections will not be performed in the Clinton Plant without permission from the Maintenance Department Management.

Rental and Contractor Lifting Equipment

- The LyondellBasell Maintenance Supervisor or designate must inspect all lifting equipment prior to starting work at the Clinton Plant. The equipment must be delivered to the Maintenance Shop upon arrival at the Clinton Plant. All lifting equipment shall have proof of an annual formal inspection.
- The crane operator, prior to starting work, shall inspect the equipment and provide a written report daily. All daily, monthly, and annual inspections shall be kept with the equipment while on site.
- Contractor cranes and rental cranes are subject to OSHA and ASME/ANSI guidelines, as well as manufacturer's guidelines, to ensure compliance with all crane and rigging operations at the Clinton Plant.
- Contractors shall be subject to in-plant audits and inspections when deemed necessary by the lifting supervisor or designate.

Types of Lifts Designated by the Clinton Plant

- Routine Lift
- Non-Routine Lift
- Critical Lift

Routine Lifts

- Routine lifts present minimal danger to personnel or equipment, i.e., no potential for overload, crane instability, load shift, or other reasonably anticipated risks.
- All lifts will be planned by a competent person and communicated verbally to everyone involved in the lift. A written lift plan is required for all lifts. Approval is not required unless the lift egresses over operating equipment. This will require a signature from an Operations representative.

Non-Routine Lifts

Non-routine lifts are lifts that fall into the following categories:

- Lifts performed with a total load in excess of 25 tons, or greater than 80% but less than 90% of the crane load chart.
- Blind lifts in conjunction with confined space or other blind lifts if deemed necessary by the lifting Supervisor or designate.
- All lifts in the proximity of electrical lines.
- Lifts over operating equipment.
- Lifts performed where there is an additional hazard due to soil condition.

All non-routine lifts shall be reviewed by a designated "Qualified and Authorized" reviewer. A written lift plan is required for all lifts.

Critical Lifts

Critical lifts are those that fall into the following categories:

- Hazardous lifts, due to a total load of 90% or greater of the crane load chart.
- Lifts involving the use of a personnel basket.
- Lifts which involve the moving or lifting of equipment or material which has questionable structural integrity (such as demolition). This includes the potential inability to bring a load to a safe condition after the lift has started.
- Two or multiple crane lifts where either crane reaches or exceeds 90% of the crane capacity as configured.
- Any lifts deemed "critical" by the lifting supervisor or plant crane and rigging personnel.
Note: This could involve lifts over operating equipment, blind lifts, etc. A written lift plan is required for all lifts.

Crane Operator

- Contractors are not allowed to operate LyondellBasell cranes without full certification.
- Crane Operator/Contractor is responsible for:
 - The safe operation of the crane.
 - Refusing a lift if there is a safety concern.

- Reporting any safety concerns to his/her supervisor, continuing only when all safety concerns are rectified.
- Reviewing the manufacturer's operating manual and load chart to be aware of all factors that might reduce crane capacity, and adjusting crane size and configuration in order to achieve the lift safely.
- Inspecting and maintaining the crane, and reporting to his/her supervisor any problems, such as required maintenance or necessary repairs to equipment.
- Checking site conditions that could affect safe crane operation, including setting up and rigging the crane properly.
- Understanding and applying required load rigging practices.
- Operator/Contractor must:
 - Be proficient with crane's load chart.
 - Have a periodic medical physical as required by ASME B30.5.
 - Be certified per NCCOR. Certification should include both a written and performance assessment.
 - Not operate equipment beyond his/her certification.
 - Have had training within two years of when lifting is to be performed. If it has been longer than two years, the training must be repeated before the crane operator can perform the lift.

Lifting Equipment Inspection

- Daily and monthly records of inspections are required for all lifting equipment. All inspections shall be executed using required Clinton forms.
- Annual inspections shall be performed on all lifting equipment. Upon request, inspection documents must be made available to the Clinton Site Contractor Coordinator, Maintenance Supervisor, or designee.
- Other lifting equipment, such as backhoes designed for lifting or forklifts with extendable booms, shall be inspected upon initial entry into the Clinton Plant by the Clinton Maintenance Supervisor or designate responsible for mobile equipment. All other forklifts shall be inspected prior to use by the on-site responsible contractor.

Safe Operating Considerations

- Crane load charts are based on ideal conditions. These conditions cannot be duplicated in the field. Load chart capacities should never be exercised to the upper limit.
- All load chart ratings must be reduced under windy conditions. In windy conditions, avoid handling loads that present large wind-catching surfaces. When wind speeds exceed 20 mph, verbal approval must be obtained from the lifting supervisor or delegated competent person.
- Operating locations must be chosen so that no part of the crane or load can move beyond the minimum distances required for power lines.
- Matting shall be used for all cranes with over 15-ton rated capacity. Matting also shall be used on cranes of 15-ton rated capacity or less when conditions warrant their use, such as unstable or uneven supporting surfaces.
- Crane operations shall cease in the event of inclement weather, e.g., high winds, or lightning. All crane operators shall barricade the lift and swing area with red barricade tape. Red barricade tape signifies that no entry is permitted without permission of the crane operator or rigging(s). The barricade shall be put up prior to the lift.

CELL PHONES

Most cell phones are not intrinsically safe and can be a potential ignition source for flammable gas. In an effort to eliminate potential ignition sources, non-intrinsically safe cell phones may not be used in the operating areas of the Clinton Plant. Cell phones may be used in non-classified areas and outside operating units as well as in offices and conference rooms. No one operating any type of vehicle may talk on a cell phone or text while in the Clinton Plant.

Contractors are allowed to have a cell phone, but they cannot be used in any classified/operating units.

HOUSEKEEPING

Good housekeeping is a safety concern at all times and is the responsibility of every individual working in the Clinton Plant. Debris must not be allowed to accumulate, and spills must be reported and cleaned up immediately. Any hazard that may cause slips, trips, falls, hand traps, etc., must be eliminated immediately or remain barricaded until it is possible to remove the hazard. This includes dismantled or surplus materials, earth, lumber, concrete, etc. Production has the authority to require an area to be further cleaned prior to accepting the return of a Work Permit.

Eating is prohibited in Operating and Maintenance areas. The location for eating lunch and taking breaks will be designated by the Supervisor. Lunch sacks, wrappers, and other trash must be placed in the proper receptacles.

PERSONAL PROTECTIVE EQUIPMENT

The Contractor Company is responsible for ensuring that all Contractors are equipped with approved personal protective equipment. Minimum requirements include:

- Hard Hat with attached safety goggles. Hair that might become tangled in equipment must be tucked up under the hard hat or tied up.
- Safety Glasses with side shields.
- Safety-Toe Footwear (Resident Contractors only). All others must wear sturdy leather shoes with a 3/8-inch heel and no open toes or vented uppers.
- Hearing Protection
- Fire Retardant Garments (FRG). Long-sleeved FRG must be worn with sleeves rolled down and buttoned. Coveralls must be zipped up. (See Appendix 3—Clinton Nomex Clothing Map)

The Contractor Company is responsible for establishing and administering an effective Hearing Conservation program for its employees. In the Clinton Plant, all operating units are considered high noise areas and require hearing protection at all times. When entering high noise areas, colored lines on the ground indicate the proper level of (either single or double) hearing protection.

Depending on job activities, more stringent requirements may apply.

RESPIRATORY PROTECTION

When working in a potentially hazardous atmosphere, appropriate respiratory protection must be worn. The Contractor Employer shall furnish respirators (unless contractually stated otherwise), as well as ensure that the person has medical approval, training, and quantitative fit testing. The

Contract Employee must possess a current fit test card or the Contractor Employer must have records of the employee's most recent fit test available to be reviewed by LyondellBasell personnel.

Additionally, all resident contractors or any contractors required to use a respirator are required to be clean-shaven (no beard, no mustaches below the edge of the mouth, and no long sideburns) to ensure compliance with OSHA's Respiratory Protection Standard. Any questions regarding the proper use of respiratory protective equipment should be presented to the Supervisor or the Clinton Plant Contractor Contact.

HEAT STRESS

Emergencies can be brought about very quickly from exposure to too much heat. It is important that everyone is familiar with how to recognize the signs and symptoms of heat stress, and know how to respond. If a heat-related problem arises, the first thing to do is alert someone to the problem and move the person from the heat to a cool place as soon as possible. The most effective preventative against heat stress is adequate fluid intake.

UTILITIES

Contractor personnel must have the approval of the Operating Unit personnel to use utilities, such as air, steam, water, and nitrogen. The adapting or interchanging of Clinton plant fittings is prohibited. Contractors may adapt their equipment to meet the Clinton plant standards.

HOSES AND FITTINGS

Hoses and fittings brought on the Clinton site by any Contractors must be maintained, inspected, and tested by that Contractor and used in accordance with OSHA regulations.

- Nitrogen Service - Fittings and hoses must be specifically designated for the site's nitrogen system and may not be converted or adapted to fit.
- Worm-screw radiator hose clamps shall not be used on hoses where pressures exceed 15 psig.

WORKING ACCESS – SCAFFOLD USE

All completed scaffolds must be inspected prior to use and have a scaffold inspection tag in place. If the scaffold has no tag, it is considered to be unsafe and must not be used until it has been inspected and approved.

Scaffolding and working platforms shall meet the issue and structural requirements of OSHA 1926.451 and ANSI A10.8, and shall be erected in accordance with those Standards and the scaffolding manufacturer's erection instructions.

- The Contractor who is erecting/dismantling a scaffold must place a tag on the scaffold that indicates "Danger Do Not Use."
- The Contractor who installed the scaffold must ensure that it is inspected by a Competent Person and tagged with an inspection tag.
- Scaffolds shall not be used by any Contractor unless it is tagged with an inspection tag. A common scaffold inspection tag shall be used. These tags may be obtained through the Clinton Site Contractor Coordinator.

- Scaffolds shall not be altered by anyone other than the Scaffolding Contractor who erected and tagged the scaffold.

Ladders authorized in the Clinton Plant must be used in compliance with OSHA 1926.1053 and 1910.26. Portable ladders or extension ladders shall have only fiberglass (non-conducting) side rails. Wooden ladders, metal ladders, and "make-shift" ladders are not allowed.

OVERHEAD WORK HAZARDS

Fire blankets, plywood, or scaffold boards may be required below the work area to prevent small objects from falling through the grating. Buckets shall be used to store small parts. Only buckets with a lifting rating may be used to lift or lower material to and from an elevated work area. Proper barricades must be installed under work areas. Constant housekeeping activities are required.

FALL PROTECTION

Any person working **four** feet or greater in height, in areas not protected from falling by standard guard rails and work platforms, must wear a full-body harness with a SRL (Self Retracting Lanyard) that is secured to a structural support that meets the requirements of OSHA, the Clinton Plant, and Company standards. The SRL device limits the falling distance and force on the wearer. 100% tie-off is always required.

This requirement also applies to exposures of less than **four** feet in height under certain hazardous circumstances, such as working over machinery or other potentially-hazardous objects. The Contractor Employer shall provide their employees with proper fall arrest equipment. Only lanyards designed and manufactured for "tie-back" may be "tied-back" to themselves. A direct tie-back to the web lanyard is not acceptable unless the manufacturer has designed the double-locking snap-hook and gate for that purpose with a 5000-lb. rating. Check with your Clinton Site Contractor Coordinator to ensure compliance to site-specific requirements.

BARRICADES

All barricade tape must be properly tagged with a barricade tape tag to identify the hazard, the date of installation and current update, the person who installed it, and the company or department to contact. Barricades must not have any open sides.

- Yellow Barricade Tape – Yellow barricade tape signifies "CAUTION." Personnel may proceed through the yellow barricade after reading the tag and identifying the hazard.
- Red Barricade Tape – Red barricade tape signifies "DANGER." No one is allowed to cross a red barricade except the personnel working that job. Red barricade tape tags must be updated every shift with the date and time, or they will be removed. Always remove the barricade after the hazard has been eliminated.

Specialty barricade tape will be used for the following hazards:

Asbestos-red, white and black

Benzene-red, white and black

Radiation-red, white and black

Lead Abatement-red with black letters

Overhead work, dropped items, hand lifting materials or tools- Use special yellow with red letter barricade tape. Some situations may require permission to enter the area due to the possibility or severity of dropped material. This requirement will be noted on the barricade tape tag.

FIRE EXTINGUISHERS

Contractor will provide fire extinguishers for their personnel, unless covered by their contract. Plant extinguishers are for emergency use only. The Clinton Plant HSE Department must be notified at once if a fire extinguisher is used. The HSE Department is only responsible for the Clinton Plant's fire extinguishers. Contractor fire extinguishers must be maintained and inspected by the Contractor Employer or the extinguisher owner.

COMPRESSED GAS CYLINDERS

Storage, transportation, and use of compressed gas cylinders must meet or exceed the OSHA requirements and the Compressed Gas Association standards. Any gas cylinder being transported must be firmly secured to the mode of transportation. Additionally, compressed gas cylinders are prohibited inside vessels.

CHECK SIGNALS OBSERVATION PROCESS

We encourage both employee and contractor involvement in taking a proactive approach to safety. The Clinton Plant participates in a safety observation awareness program called "Check Signals Observation Process". Observers conduct behavioral observations on fellow employees and contractors while they are performing their job duties and then give them feedback on all behaviors, whether safe or at-risk.

Check Signals Observations are reviewed monthly and rewards are given (1 for contractors and 1 for employees) for quality observations submitted.

PERMITTING

Contractors may not begin work at the Clinton Plant until they have been authorized to do so with the issuance of a work permit. Permits serve as a communication tool to help ensure that work is done safely and in accordance with all site safety procedures. Permits are used to identify equipment to be worked on and who will be working on it, as well as to ensure that the equipment to be worked on or around is properly prepared. Permits also ensure that those individuals who will be involved with performing the work understand all precautions and restrictions. A work order number or project number is required when obtaining a work permit.

Prior to entering any process area, all contractors, visitors, and non-assigned employees (those not assigned to the process/unit being visited) must sign in on the Unit Entry Log, unless their names are listed on a work permit. The board operator or the shift supervisor shall be notified of the desire to enter the unit. Upon leaving the unit, each person not listed on a work permit must sign out on the Unit Entry Log.

The Clinton Work Permit covers all (hot and cold) work activities at the site. Separate Excavation and 24 Hour Confined Space Entry Permits are required for those two conditions. A work permit will be issued each shift to permit the work activities for that crew. At a minimum, the permit will require two signatures—the Owning Department Technician and the Designated Maintenance Worker (DMW). All work permits will be issued for a time specified, not to exceed twelve hours (the duration of the operations shift). Work can continue for a period of two hours after shift change to allow the oncoming unit technician time to revalidate the permit and work. Typical maintenance shifts do not extend beyond twelve (12) hours. *(See Appendix 1 for a copy of the permit.)*

The Owning Department Technician will ensure that the equipment is prepared for maintenance and is free from recognized hazards prior to issuing the work permit. All personnel in the work group must read, understand, and follow all requirements of the permit. A copy of the permit will be posted in the control building, and the hard copy will be posted at the jobsite. The DMW and the workers can only be listed on one permit at a time with one exception as described in the HOT WORK section below.

When each work group has all of their work completed, a reverse "Show-Me" will be performed at the work location and the work permit will be signed back to the Unit/Equipment Owning Technician by the DMW (Designated Maintenance Worker). For work that continues into the next shift or day, the DMW will legibly sign the permit and in the "Assigned Task Complete" area, select the "No" box. The permit will then be returned to the Unit/Equipment Owning Technician who will also legibly sign the permit. Status of the equipment must be reviewed with the Unit/Equipment Owning Technician, and the work area housekeeping must be kept at an acceptable level.

HOT WORK

If the hot work involves spark-producing activities with low impact (such as using pneumatically-powered tools with spark potential, abrasive blasting, drilling, soldering, or operating internal combustion engines within the operating unit), only the Equipment Owning Department Technician and the DMW are required to sign the hot work permit. These are Low Impact Hot Work permits. Internal combustion engines cannot be left running unattended in a designated hot work area. If the work to be performed will involve burning, welding, grinding, or use of an open flame (high impact) the Operations/Equipment owning Supervisor will also need to sign the work permit. These are High Impact Hot Work Permits. For these types of activities, a fire watch is required to monitor the area for smoldering fires for a period of 30 minutes beyond the end of the work. Fire watches may monitor more than one hot work activity as long as it does not interfere with their ability to perform these duties.

The equipment owner will inspect the area and ensure that it is free from recognized hazards prior to issuing the work permit. All personnel in the work group must read, understand, and follow all requirements of the permit. The Designated Maintenance Worker (DMW) will sign the permit. A copy of the permit will remain posted at a designated location, assigned by the Operations/Equipment Owner.

After the Contractor's work is complete, he/she is responsible for cleaning up the work area of any remaining debris and communicating with the equipment owner. The Contractor will sign off on the work permit to indicate that the work is complete; the Equipment Owner will sign as well when he/she is satisfied that the work is complete and the work area has been cleaned. A "Show Me" must take place in the field.

CONTROL OF ENERGY SOURCES (LOCKOUT/TAGOUT)

Control of Energy Sources (Lockout/Tagout) covers the servicing and maintenance of machines and equipment in which the unexpected energizing or startup of the machines or equipment or release of stored energy could cause injury.

This includes machines and equipment where there is a source of electrical, mechanical, hydraulic, pneumatic, chemical, or thermal energy. Lockout is the primary and preferred means of isolating energy. Tagout is only used when no other method is available to isolate a point and requires.

The purpose of the lockout/tagout procedure is to ensure that machinery or equipment is isolated from all potentially hazardous energy, and that it is locked and tagged out before anyone performs any work. All equipment shall be locked and tagged out to protect against accidental or inadvertent operation when such operation could cause injury to personnel. The Contractor and Crew must follow the procedures exactly in order to be protected from hazardous energy sources.

The DMW (Designated Maintenance Worker) will review the work in the field with the Unit/Equipment Owning Technician and will field verify the isolation and blind lists and initial each point before signing the paperwork. During the walkthrough, the Unit/Equipment Owning Supervisor and the DMW must together positively verify that all energy isolation points are in the proper position as specified in the pre-approved energy isolation checklist (or sketch/checklist when a pre-approved checklist is not available). This positive verification does not require that all locks/chains be removed to verify proper position. However, if deemed necessary by the Unit/Equipment Owning Technician and the DMW, the locks and chains may be removed if needed to positively verify proper position of the isolation point. Acceptance of the isolation of the equipment will be signified by the DMW placing the group lock and tag for that crew on the lock box. The DMW will communicate with all workers in the crew, and each worker will then place a personal lock and tag on the lock box. The DMW shall also place a personal lock on the lock box. The personal locks will be removed daily or as personnel are transferred to another job. The group lock will remain on the lock box until final completion of the work by the Contractor Company. Failure to comply with this policy is a serious offense and will be reviewed between LyondellBasell and the Contract Company Management.

CONFINED SPACE ENTRY

Entry into a confined space requires a 24 Hour Confined Space Entry Permit. A 24 Hour Confined Space Entry Permit also requires a work permit before any work is started. A confined space is defined as a space that is large enough to enter and has limited access or egress and is not designed for continuous worker occupancy. (Must meet all 3 requirements to be a confined space), or an excavation 4' or greater.

One or more of the following conditions may be present, which will require the vessel, space or equipment to be classified as a "Confined Space":

- Contains, or reasonably has the potential to contain, an atmosphere that might be hazardous to the entrant.
- Due to its physical construction, insufficient natural ventilation, or close proximity to sources of contamination, could contain dangerous concentrations of toxic materials, flammable gasses or vapors, a deficiency of oxygen, or an oxygen enriched atmosphere.
- Has potential for engulfment of the entrant.
- Has the potential to trap an entrant because of its internal configuration, such as inwardly converging walls or a floor which slopes downward and tapers to a small cross-section.
- Contains other serious safety or health hazards.

An entry is the action by which a person passes through an opening into a Confined Space. Entry includes ensuing work activities in that space and is considered to have occurred as soon as any part of the entrant's body breaks the plane of an opening into the space.

Note: A 24-Hour Confined Space Entry Permit is required before entry can be made into a Confined Space.

Before entry into a confined space is authorized, the authorized entrant must have received appropriate training. The entrant must know the hazards that may be faced during entry; read, understand, and follow the requirements of the entry permit and sign it; maintain communication with the standby attendant; evacuate the space immediately upon request or if an alarm sounds; and contact the equipment owner at the completion of work for debriefing.

A trained confined space attendant(s) must be stationed immediately outside of the confined space at all times and must perform the following duties: mark legibly the entry permit in the space marked "Attendant" after reading and understanding the precautions identified on the permit; maintain continuous verbal or visual contact with the entrants; perform continuous atmospheric monitoring, utilize the entry/exit log to keep track of the number of entrants in the space at all times; assist in preventing the tangling of electrical cords, welding hoses or cables, air lines, life lines, etc.; and be alert for hazards to personnel in the confined space.

The confined space attendant(s) must also keep unauthorized personnel from entering the space; notify personnel to exit the space in the event of an emergency and prohibit re-entry until the permit has been revalidated; summon rescue help when necessary by voice, radio, or portable emergency alarm signal device, such as an air horn; and remain on the job until relieved by another trained standby attendant or the job has been stopped and all entrants have exited the space. The entryway is to be barricaded when an open confined space will be left unoccupied and unattended. The attendant may not enter or leave the confined space unless replaced by another trained attendant.

EXCAVATION SAFETY

All excavations on Clinton Plant property must be performed in accordance with applicable OSHA regulations.

The Contractor is responsible for providing a "Competent Person" who will remain onsite while work is ongoing in the excavation. This individual must be capable of identifying existing and predictable hazards in the surroundings, or working conditions which are unsanitary, hazardous, or dangerous to employees, and must have authorization to take prompt corrective measures to eliminate them. Through experience or training, he/she must also be able to determine the suitability of equipment or materials used for support systems, shield systems, and other protective systems.

Excavations include any depression deeper than 18-inches, dug either manually or mechanically. The excavation permit must be completed and the drawings reviewed prior to the Contractor arriving on site for planned jobs.

Excavations equal to or greater than four (4) feet deep, require a Confined Space Entry Permit and must be equipped with a shoring protective system in accordance with OSHA regulations.

The Clinton Site Project Coordinator or Contractor Coordinator is the contact regarding soil clearances and underground drawings.

ELECTRICAL TOOLS AND EQUIPMENT

If not double insulated, all electrical tools used in the Clinton Plant must be grounded and be powered with a ground fault circuit interrupter (GFCI). A Grounding Assurance Program requires routine testing of the ground circuit and documentation of those tests. Such documentation must be made readily available upon the request of Clinton Plant personnel.

Electrical cords cannot be modified from their original manufacturer's specification and must be maintained in good repair.

PURCHASED BREATHING AIR

Grade “D” Breathing Air, this is the classification standard developed by ASNI/Compressed Gas Association G-7.1. It is also the standard to which workplace environments must comply to meet OSHA requirements.

Contractors’ Use of Breathing Air:

- Breathing air used on-site will be provided by LyondellBasell
- Upon arrival at the site, the breathing air is tested by the LyondellBasell Health & Safety Department, and a 3 part tag is placed on the bottle indicating that the air passed and has been accepted for use.
- Certificate of Analyses (C of A’s) will be attached to the breathing air cylinders and an electronic copy will be filed by the Health & Safety Department.

TOXIC SUBSTANCE CONTROL ACT (TSCA)

The Toxic Substance Control Act (TSCA) applies to various health and environmental activities at LyondellBasell sites. Contractor employees are obligated to immediately report any information or incident associated with a chemical substance or mixture presenting a risk to health or to the environment. Such reports must be made in writing to your Clinton Site Contractor Coordinator, who will contact the site TSCA Coordinator. Use the form in CLO Procedure #351 “Reporting and Recording Allegations of Health/Environmental Effects” for reporting allegations.

HAZARD COMMUNICATION

The Clinton Complex contains some potentially hazardous chemicals. Below is a brief summarization of the major chemicals, their unit locations, and their associated hazards.

We have designed a Hazard Communication program that provides information concerning hazardous chemicals. This overview is intended to provide only basic information. The Contractor Employee is responsible for providing the Contract Employee with detailed Hazard Communication training.

The best source of information for a particular chemical or substance is the Safety Data Sheet, or SDS. We maintain an SDS for every chemical in the facility. Any Contractor whose job requires bringing hazardous chemicals into the Clinton Plant must have the chemicals approved prior to bringing on the site. A list of the chemicals and an SDS for each chemical must be provided. The SDS contains information on the hazards associated with the chemical, handling and first aid, spill procedures, and much more. Copies of these SDS may be obtained through your Clinton Site Contractor Coordinator.

The Contractor is responsible for ensuring that proper labels are affixed to any chemical brought into the facility. The Supervisor should contact your Clinton Site Contractor Coordinator or Industrial Hygienist with any questions regarding these guidelines.

The site uses a modified NFPA 704 placard system to warn of the various hazards associated with the chemicals on site. This diamond-shaped placard has four sections, each a different color.

- Blue Section: Information regarding the health hazards of a material.
- Red Section: Flammability or the chemical’s fire potential
- Yellow Section: Information regarding the substance reactivity.
- White Section: Special information, such as acidity, corrosiveness, etc.

In addition, the chemical name and hazard information is available on the placard.

PRIMARY CHEMICALS LOCATED IN PROCESS UNITS OF THE CLINTON PLANT:

Ethylene	Dry Additives	Hexene-1	1,3 Butadiene
Isobutane	Vinyl Acetate	Sulfuric Acid	Caustic Soda
Organic Peroxides	Benzene	Chrome/Silica Catalyst	Hydrogen
Propylene			

Additionally, Contractors are responsible for complying with regulatory and plant asbestos requirements. The use of asbestos-containing materials is not permitted without written approval. Asbestos Containing Material (ACM) is material of which asbestos comprises 1% or more by volume. Since non-asbestos insulation is being used at the Clinton Plant on all new work installations, the highest probability for asbestos exposure may come during demolition or removal of gaskets or old insulation within the facility.

The standard for identifying non-asbestos-containing material in piping insulation within the facility is by blue or green banding. All insulation not identified by the blue or green banding and gaskets not verified as asbestos-free should be treated as asbestos-containing until verified otherwise. Only qualified asbestos abatement contractors will be allowed to disturb materials that contain asbestos. There shall be no grinding or buffing of any gasket material within the Clinton Plant unless it has been verified as asbestos-free material.

Contract Employers performing work within the Clinton Plant shall also ensure compliance with all requirements of the Lead Safety Program and applicable OSHA and EPA regulations. Long-term exposure to lead-containing material may result in damage to your blood-forming, nervous, urinary, and/or reproductive systems. The Contractor Coordinator must be notified by the Contractor Employer or Employee in advance of demolition or renovation work on painted or coated surfaces to ensure that the surfaces have been tested or checked for lead content before work is authorized.

Any Contractor Employer who will be working on lead-containing material or suspected lead-containing material must submit their Lead Safety Program to the Clinton Site HSE Department for approval before work is authorized. Regulated areas will be established as needed, with warning signs posted in plain view at all access points, when work on lead-containing materials is performed.

This hazard communication information is presented for the Contractor's knowledge and protection. All of these chemicals are carefully controlled inside the equipment and tanks, but all Contractors need to be aware of their presence within the Plant. This overview of chemicals provides only basic information. It is the Contract Employer's responsibility to provide detailed training on the chemicals located in the Contract Employee's work areas.

ENVIRONMENTAL PROTECTION REQUIREMENTS

General Environmental Requirements

LyondellBasell has developed specific environmental policies and procedures to allow the Complex to comply with relevant federal, state, and local environmental regulations and with Complex permit restrictions. These policies and procedures cover air emissions, water discharges, solid waste, hazardous waste, spills and other similar areas.

The Contractor is required to follow all relevant Clinton Complex Environmental Policies and Procedures and coordinate all related activities with the Complex Solid Waste Coordinator.

Solid Waste Handling and Disposal

All solid waste generated by the Contractor during the project will be disposed of under the supervision of the Environmental Department.

All waste material created at the Clinton Plant must be handled in an approved manner while on site, which includes proper segregation, and must be shipped to an approved site, accompanied by a waste manifest supplied by the Environmental Department.

All uncured concrete and water used to wash out concrete trucks is to be collected in a bermed area to cure. This area cannot drain to a site ditch. Cleanup of cured concrete spoils is the responsibility of the Contractor. The Contractor is to coordinate with the Plant Environmental Department for both the location of a spoils collection area and the disposal of cured material.

Solid waste includes, but is not limited to: paint cans (empty or with residual), empty drums, concrete, soil, scrap metal, asbestos containing materials, and any spent or used chemical.

Contractors who generate hazardous waste are required to conduct hazardous waste training per 40 CFR 264.10. This covers both initial and annual training and the required documentation of the training with proper retention.

During and upon completion of a project, the Contractor will be responsible for the policing of their work area and the appropriate on-site disposal of all debris created by the project, such as depots, general maintenance debris, and any drum storage areas or other waste debris.

Ditches, Spill Reporting, and Containment

The Contractor must provide adequate spill protection and not allow any oil, grease, fuels, lubricants, anti-freeze, paints, solvents, acids, alkalis, soil sediments, or contaminated liquids to migrate to any drain or ditch, or be spilled on the ground.

Storm drainage ditches shall not be used as process sewers. Under no circumstances are the storm water drainage ditches to be used for anything other than storm water. Herbicides and pesticides shall not be used near storm water drainage ditches or runoff areas without prior approval by the Environmental Department.

Should a spill occur, the Contractor should take immediate action to contain the spill, and must report any and all spills immediately to a Plant Area Operator/Control Room. After this initial action has been taken, the Contractor must advise their site contact, who will then report the spill to the Environmental Department for coordination of the cleanup and disposal.

All storage, loading/unloading, and tankage of chemicals, fuels, and other bulk materials must be contained within curbed or diked areas that are approved by the Environmental Department. Refueling of field equipment from a fuel truck is exempt from this regulation. Loading/unloading must stop if a leak is detected until the leak is repaired. Additionally, when refueling portable equipment (including cars, trucks, compressors, turbines, etc.), the Contractor is required to be in the immediate area to prevent overfilling. The Contractor shall not discharge materials, liquids, wastes, chemicals, etc., to any ditch or sump without review and approval by the Environmental Department. This includes wash-down of any parts or equipment in or on areas that eventually drain to ditches or sumps, e.g., parking lots or driveways around maintenance areas or elsewhere.

Contract cleaning, washing, and hydro-blasting of plant process equipment, which has been exposed to chemicals, oil, acids, bases or other contaminants, shall be performed in runoff-contained areas which have drains to the site wastewater system.

Air Emission Requirements

Contractors are prohibited from burning construction debris and other materials on plant property.

Contractors are required to report any unplanned releases of chemicals to the atmosphere to the Clinton Site Contractor Coordinator and the Environmental Department immediately.

Ten days prior to planned maintenance events that may release chemicals to the atmosphere (or as soon as practicable prior to the event if not known ten days prior to the event), Contractors are required to report the expected release to the Clinton Contract Coordinator and the Environmental Department.

All caps on open-ended lines and fugitive emission tags shall be put back in place when the work is completed.

Hazardous Waste Barrels

Contact your company contact or the Environmental Department on how to handle any hazardous waste barrels.

APPENDIX 1: CLINTON HOT & COLD WORK PERMIT (FRONT)

Hot & Cold Work Permit																																																	
(Excavation & Confined Space require separate permits)					Workers Assigned To Job:																																												
Equipment #:		Order #:		Lock Box #																																													
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					Confined Space Entry Control Number: _____ (Number located at the bottom of the 24 Hour Confined Space Entry Permit)																																												
					Worker Supervisor: _____																																												
Work Permit Approval					<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 40%;"></td> <td style="width: 10%; text-align: center;">YES</td> <td style="width: 10%; text-align: center;">NO</td> <td style="width: 10%; text-align: center;">N/A</td> <td style="width: 30%;"></td> </tr> <tr> <td>Unit/Equipment Owning Supervisor:</td> <td></td> <td></td> <td></td> <td>Special procedure created?</td> </tr> <tr> <td>Unit Operator/Equipment Owning Tech:</td> <td></td> <td></td> <td></td> <td>Have known precautions been taken?</td> </tr> <tr> <td>Designated Maintenance Worker:</td> <td></td> <td></td> <td></td> <td>Has <i>Show Me</i> been completed with DMW?</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td>Accountability location / reporting confirmed?</td> </tr> </table>						YES	NO	N/A		Unit/Equipment Owning Supervisor:				Special procedure created?	Unit Operator/Equipment Owning Tech:				Have known precautions been taken?	Designated Maintenance Worker:				Has <i>Show Me</i> been completed with DMW?					Accountability location / reporting confirmed?															
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				Accountability location / reporting confirmed?																																													
IF ALL PERMIT CONDITIONS ARE NOT MET, A SPECIAL PROCEDURE IS REQUIRED (any item marked as "NO" in the Hot or Cold Work General Preparation Items section signifies "Conditions Are Not Met")																																																	
Permit Closure					<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 40%;"></td> <td style="width: 10%; text-align: center;">YES</td> <td style="width: 10%; text-align: center;">NO</td> <td style="width: 10%; text-align: center;">N/A</td> <td style="width: 30%;"></td> </tr> <tr> <td>Assigned Task Complete: <input type="checkbox"/> YES <input type="checkbox"/> NO</td> <td></td> <td></td> <td></td> <td>Tools & equipment removed, work area cleaned?</td> </tr> <tr> <td>Date:</td> <td></td> <td></td> <td></td> <td>Group tags & locks removed?</td> </tr> <tr> <td>Time:</td> <td></td> <td></td> <td></td> <td>Personal tags & locks removed?</td> </tr> <tr> <td>Unit Operator/Equipment Owning Tech:</td> <td></td> <td></td> <td></td> <td>Safety system restored?</td> </tr> <tr> <td>Designated Maintenance Worker:</td> <td></td> <td></td> <td></td> <td><i>Show Me</i> completed and reviewed with DMW?</td> </tr> <tr> <td colspan="4"></td> <td>Comments:</td> </tr> </table>						YES	NO	N/A		Assigned Task Complete: <input type="checkbox"/> YES <input type="checkbox"/> NO				Tools & equipment removed, work area cleaned?	Date:				Group tags & locks removed?	Time:				Personal tags & locks removed?	Unit Operator/Equipment Owning Tech:				Safety system restored?	Designated Maintenance Worker:				<i>Show Me</i> completed and reviewed with DMW?					Comments:					
	YES	NO	N/A																																														
Assigned Task Complete: <input type="checkbox"/> YES <input type="checkbox"/> NO				Tools & equipment removed, work area cleaned?																																													
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Designated Maintenance Worker:				<i>Show Me</i> completed and reviewed with DMW?																																													
				Comments:																																													
IF A FIRE ALARM IS SOUNDED, THIS PERMIT IS CANCELLED *CALL 333 FOR EMERGENCY*																																																	

APPENDIX 1: CLINTON HOT & COLD WORK PERMIT (REVERSE)

"Show Me" List

"Show Me" the equipment to be worked on.

*(Physically go to the job site)

"Show Me" any hazards in the area.

*(Chemical/Thermal/Electrical)

"Show Me" all safety equipment.

*(Showers/Eyewash Stations/Fire Extinguishers)

"Show Me" the job status.

*(Visually check the job site before signing off the permit)

Comments:

Do you understand and continually use "Check Signals" throughout your job?

Check Signals

pre-task analysis



WHAT COULD GO WRONG?
WHAT PRECAUTIONS SHOULD I TAKE?
CAN I DO THE JOB SAFELY?

Focus - Start to Finish

APPENDIX 1: CLINTON 24 HOUR CONFINED SPACE ENTRY PERMIT (FRONT)

lyondellbasell
Clinton Plant

24 Hour Confined Space Entry Permit

This form along with work permit and all supporting documentation will be kept for one year after the date of issuing

Date: _____ Equipment: _____ Area: _____ Lock Box: _____

This Permit is Strictly a Confined Space Entry Permit. Each Work Group Entering A Confined Space Requires the Appropriate Work Permit.						
Post Hard Copy At Vessel/Equipment Being Entered				The Soft Copy Of The Permit Will Be Retained By The Releasing Group At Their Designated Location		
Unit/Equipment Owning Tech Conducting Initial Atmospheric Testing:				Identification of Hazards		
(Mark Legibly)				List any known hazard associated with the entry (such as toxic atmosphere, sludge, residue, sharp objects, etc.) and the required PPE (Respirator cartridge change out times)		
Start Date	Start Time	Oxygen %	LEL %	CO ppm		
Date Valid To:		Time Valid To:				
Material/Service				Answer All Conditions Below Appropriately		
Following an "All-Clear" announcement after a plant emergency alarm or severe weather/lightning event, the Unit/Equipment Owning Tech will revalidate the 24 Hour Confined Space Entry Permit in the area below.				Contents Cleared With		Yes No NA
				Steam		
				Water		
				Nitrogen (N ₂)		
List All Updates in Boxes Below (by Unit/Equipment Owning Tech.)				Energy Isolation Device LOTO		Yes No NA
Date	Time	Oxygen %	LEL %	CO ppm	Initials	
Initial Confined Space Entry issued to: _____				Energy source(s) isolated?		
Confined Space Entry Permit Approval				Lines blinded or disconnected at vessel?		
Unit/Equipment Owning Supervisor/Designee: _____				Hoses/tubing disconnected at vessel?		
Unit Operator/Equipment Owning Tech: _____				Special Precautions		Yes No NA
Worker Supervisor or Designee: _____				Has the Incident Commander or Designee been informed?		
Designated Maintenance Worker: _____				Are openings posted with Confined Space Entry Signs or barricaded?		
				Is a mechanical ventilation/air mover being used?		
				Is low voltage lighting being used?		
				Are GFCI (Ground Fault Circuit Interrupter) circuits being used?		
				Is there alternate lighting available such as flashlights that are rated for the atmosphere?		
				Is a Safety Harness being worn and is a lifeline attached?		
				Is there a radio or air horn available & has it been tested?		
				Are mechanical drivers disconnected?		
				Is a portable compressor being used for air tool supply?		
				Will continuous O ₂ /LEL/CO monitoring be performed?		
				For welding jobs, has H&S (Health & Safety) verified that there is 2000 cfm of ventilation per welder?		
Confined Space Entry Permit Closure				If a respirator is used with chemical cartridges, is the cartridge change-out time defined?		
Permit Closed Before Or At The End Of 24 Hr. Period By: (Mark Legibly)				If the confined space contained a hazardous chemical, was the decon plan approved by H&S?		
Name: _____				Was purchased breathing air checked for O ₂ level by Health & Safety?		
Date: _____ Time: _____				Have Entrants & Attendants responsibilities been reviewed?		
				Is a Rescue Preplan/Hazard Evaluation in place?		
				Special Procedure created (required if any isolation or special precaution is answered with NO)?		
				If all Energy Isolation or Special Precautions are not met (any condition marked "NO"), a Special Procedure is required		
To Report An Emergency, Use The Plant Radio, Air Horn Or Dial 333						
Confined Space Entry # 005755						

Rev. 3.4 05/02/2014

APPENDIX 1: CLINTON 24 HOUR CONFINED SPACE ENTRY PERMIT (REVERSE)

Confined Space Entry Log

Entrant: Notify attendant before entering Confined Space
 Attendant: List entrant IN upon entering Confined Space
 Attendant: List entrant OUT upon leaving Confined Space
 Date: _____

If The Confined Space Is Left Unattended, The Confined Space Atmosphere Is Required To Be Retested Before The Confined Space Can Be Re-Entered.

Entrant's Name (Mark Legibly)	Time In	Time Out	Time In	Time Out	Time In	Time Out	Time In	Time Out	Time In	Time Out
1										
2										
3										
4										
5										
6										
7										
8										
9										
10										
11										
12										
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22										
23										
24										
25										

Mark Legibly		Atmospheric Testing For Confined Space (Filled Out By Confined Space Attendant)				Chemical Results	
Attendant	Relief Attendant	(Never use a dilution tube on any atmospheric monitor being used for a confined space)				* Generally Performed by IH	
		Start Time	LEL (%)	O ₂ (%)	CO (ppm)	Toxic*	
		+ 2 Hours	LEL (%)	O ₂ (%)	CO (ppm)	Toxic*	
		+ 4 Hours	LEL (%)	O ₂ (%)	CO (ppm)	Toxic*	
		+ 6 Hours	LEL (%)	O ₂ (%)	CO (ppm)	Toxic*	
		+ 8 Hours	LEL (%)	O ₂ (%)	CO (ppm)	Toxic*	
		+ 10 Hours	LEL (%)	O ₂ (%)	CO (ppm)	Toxic*	
		+ 12 Hours	LEL (%)	O ₂ (%)	CO (ppm)	Toxic*	
		+ 14 Hours	LEL (%)	O ₂ (%)	CO (ppm)	Toxic*	
		+ 16 Hours	LEL (%)	O ₂ (%)	CO (ppm)	Toxic*	
		+ 18 Hours	LEL (%)	O ₂ (%)	CO (ppm)	Toxic*	
		+ 20 Hours	LEL (%)	O ₂ (%)	CO (ppm)	Toxic*	
		+ 22 Hours	LEL (%)	O ₂ (%)	CO (ppm)	Toxic*	
		+ 24 Hours	LEL (%)	O ₂ (%)	CO (ppm)	Toxic*	

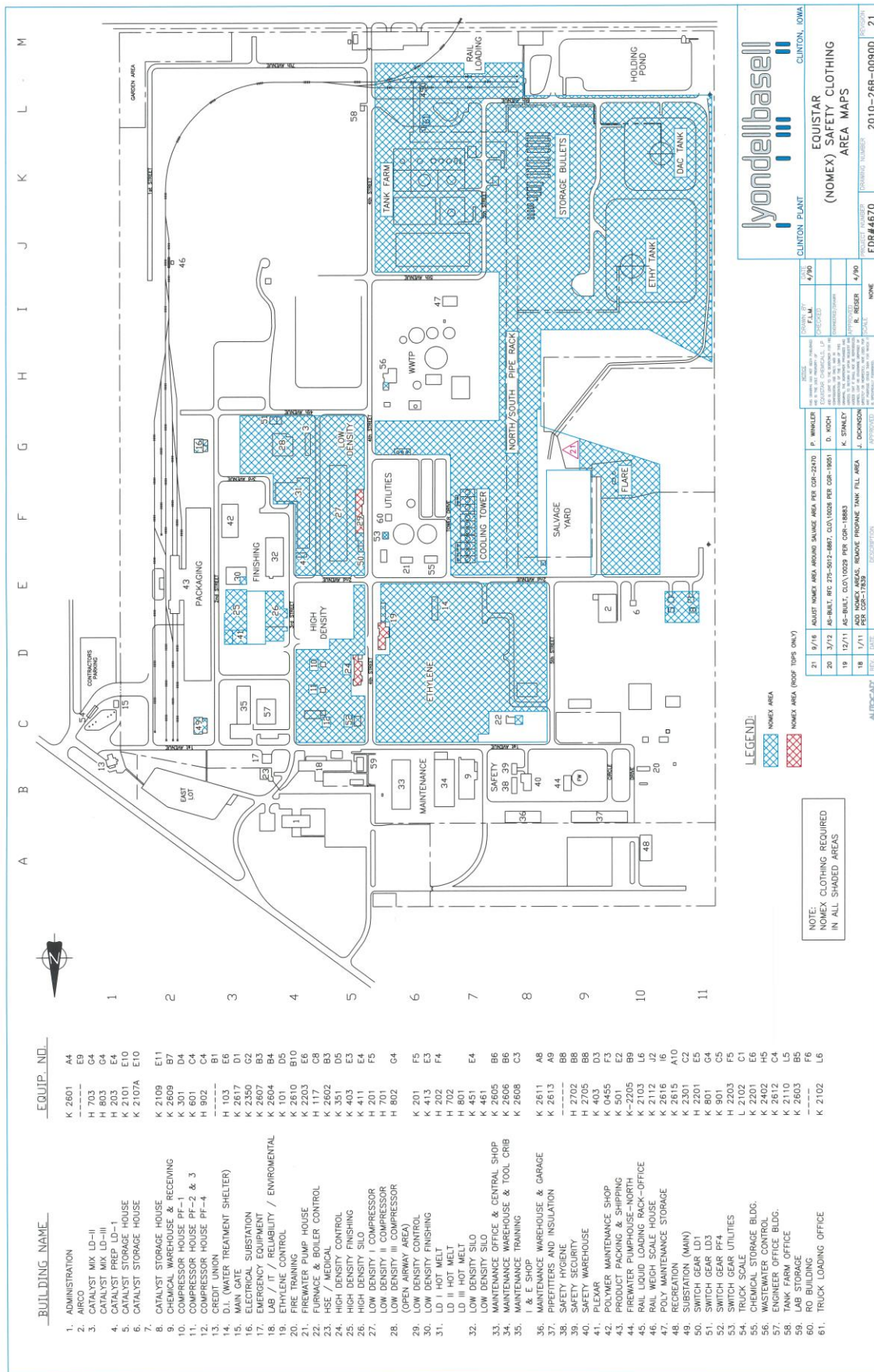
Rev. 3.4 05/08/2014

EXIT GATES

1	MAIN GATE
2	EAST PARKING LOT TURNSTILE GATE
3	ADMIN. GATE
4	WEST TURNSTILE GATE
5	TURNSTILE GATE
5A	TURNSTILE GATE
6	FIRE TRAINING GROUNDS GATE
7	SOUTH GATE
8	GARDEN GATE

OVERALL SITE EVACUATION ACCOUNTABILITY & AED LOCATIONS

ITEM	DESCRIPTION	DATE	BY
1	ADD ADDITIONAL FIRE GEAR-5000	12/13	ADD
2	ADD TORNADO SHELTER FOR GEAR 2333	1/13	ADD
3	ADD TORNADO SHELTER FOR GEAR 2333	1/13	ADD
4	ADD TORNADO SHELTER FOR GEAR 2333	1/13	ADD
5	ADD TORNADO SHELTER FOR GEAR 2333	1/13	ADD
6	ADD TORNADO SHELTER FOR GEAR 2333	1/13	ADD
7	ADD TORNADO SHELTER FOR GEAR 2333	1/13	ADD
8	ADD TORNADO SHELTER FOR GEAR 2333	1/13	ADD
9	ADD TORNADO SHELTER FOR GEAR 2333	1/13	ADD
10	ADD TORNADO SHELTER FOR GEAR 2333	1/13	ADD
11	ADD TORNADO SHELTER FOR GEAR 2333	1/13	ADD
12	ADD TORNADO SHELTER FOR GEAR 2333	1/13	ADD
13	ADD TORNADO SHELTER FOR GEAR 2333	1/13	ADD
14	ADD TORNADO SHELTER FOR GEAR 2333	1/13	ADD
15	ADD TORNADO SHELTER FOR GEAR 2333	1/13	ADD
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42	ADD TORNADO SHELTER FOR GEAR 2333	1/13	ADD
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68	ADD TORNADO SHELTER FOR GEAR 2333	1/13	ADD
69	ADD TORNADO SHELTER FOR GEAR 2333	1/13	ADD
70	ADD TORNADO SHELTER FOR GEAR 2333	1/13	ADD



APPENDIX 4: OPEN AREA MAP

