
GEORGIA GULF CHEMICALS & VINYLs, LLC
ABERDEEN PLANT
SAFETY & HEALTH MANUAL

Subject: **Safety Control Permit System**

Code: ASHP 6 Revision: 5 Effective: July 1, 2000

Approved By: **CMM Signature on File** Safety & Health Manager

Approved By: **PJK Signature on File** Plant Manager

1. Purpose

To establish a safety control permit system and to outline the minimum requirements for safely performing work controlled by the permitting system.

2. Scope

This procedure applies to all Georgia Gulf Chemicals & Vinyls, LLC employees and contractors working in the Aberdeen Plant. With the exception of confined space work, it covers all non-operational work as defined in section four of this procedure. Procedures for confined space work are covered in the Confined Space Entry Procedure. The procedures for safely performing operational work (including laboratory and maintenance shop work) are included in the appropriate area procedure.

3. Definitions

3.1 Excavation

Excavation is digging by any means (including drilling) below existing ground level.
Excavations do not include:

- 3.1.1 Removing the top layer of gravel, asphalt or concrete (up to a maximum of six inches);
- 3.1.1 Digging or removing previously piled dirt from above the existing ground level;
or
- 3.1.1 Leveling surfaces, provided that the leveling activities do not extend below the existing ground level.

3.0 Definitions - Continued

3.2 Hot Work

Hot work is any activity, which can produce a spark, flame, or other ignition source. Some examples of hot work would be activities involving welding, grinding, torch cutting, brazing, soldering, chipping, operating a vehicle or other internal combustion engine, and operating non-intrinsically safe or non electrically-approved electrical tools or equipment.

3.3 General Plant Work Permits

A *general plant work permit* is a Safe Work Permit issued for work at several locations at once or at an unspecified location in the plant (Example: A permit issued to change out light bulbs throughout the plant). **General plant work permits are not allowed at the Aberdeen Plant.**

3.4 Mechanic

For the purposes of this procedure, a *mechanic* is the person to perform the work covered by the permitting system

3.5 Authorized Permit Writer

The person(s) authorized to issue Work Permits in specified areas of the plant. Responsibilities and limitations of authority are noted in applicable sections of this procedure. Those employees authorized to issue permits are as follows:

Vinyl - Unit Supervisor, Shift Supervisor, and Chief Lead Operator.

Compound - Unit Supervisor, Shift Supervisor, "A" Technician, or P1 Operator.

Utilities - Maintenance Manager, Utilities Supervisor, and "A" Technician.

Lab - Lab Supervisor, QC Supervisor, and Lab Lead Technician

Yard - Yard Supervisor, and Yard Operator.

Warehouse - Purchasing / Warehouse Supervisor

General Plant Areas (Offices, parking lots, etc.) - Safety Department, Maintenance Manager, or a project engineer coordinating building renovations or repairs.

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4.0 Which Jobs Require a Work Permit?

A work permit is required whenever maintenance, construction, or contractor work is being done anywhere in the plant except the maintenance shop and contractor fabrication yards. Normal operations tasks do not normally require a safe work permit. However, there are exceptions to both of these general rules. The exceptions and some further clarifications are given below. Detailed descriptions of the requirements of each type of work permit used by the plant are given in Sections six and seven of this procedure.

- 4.1 All excavations, regardless of location or purpose, require work permits.
- 4.2 OSHA Permit required and basic confined space entries are defined and described in the Confined Space Entry Procedure.
- 4.3 With the following exceptions, all hot work, regardless of purpose, requires a work permit.
 - 4.3.1 Operating on major roadways outside of process areas does not require a work permit; however, the planned work that requires the use of the vehicle may require a work permit.
 - 4.3.2 Movement or switching of railcars does not require a work permit.
- 4.4 Blind installation or removal, while it may be considered a normal operations task, requires a work permit.
- 4.5 Any job that requires equipment isolation, clearing, lockout/tagout or other safety preparation, regardless of the purpose of the job, will require a work permit .
- 4.6 Deliveries to the contractors' fabrication yard do not require a work permit.
- 4.7 Changing out or emptying the trash dumpsters does not require a work permit.
- 4.8 Weed control or mowing inside of the plant is considered maintenance and does require a work permit.
- 4.9 Cleaning out a settling basin or loading pond resin does require a work permit.

Since work permits are not required for all activities in the plant, the applicability of the requirements will always be subject to some variability in interpretation. If in doubt about whether or not a task requires a work permit, contact the Shift Supervisor before starting the job. If the Shift Supervisor requires a work permit, then a work permit must be obtained before starting the job.

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5.1 Permit Types

The plant has four types of work permits, which are designed to address both general hazards, and hazards unique to certain jobs. In some cases, more than one type of permit may be required for the same job.

A brief discussion of each type of permit follows. The Authorized Permit Writer is responsible for determining which permit(s) is or are applicable to a particular task.

5.1 Basic Safe Work Permit

These permits cover those tasks which do not involve hot work, excavation, or confined space entry. They must be signed or initialed by the following people before they are valid:

5.2.1 The Permit Writer;

5.2.2 The person requesting the permit (all other mechanics on the job will read & sign the field copy of the permit).

Refer to Section Six of this procedure for a discussion of the requirements of a Safe Work Permit.

5.2 Hot Work Permit

Hot work introduces special hazards beyond those covered by the standard Safe Work Permit and requires additional preparation and precautions. A Hot Work Permit is required anytime hot work is performed on plant property except as otherwise exempted by this procedure.

Hot Work Permits require the signatures and initials listed for the Safe Work Permit, plus those of the:

5.2.1 Firewatch (if a Firewatch is required)

5.2.2 Shift Supervisor (Compound and P1)

5.2.3 Utilities Supervisor (Boiler House / Water Plant)

5.2.4 Yard Supervisor (Tank Farm, Loading / Unloading areas)

5.2.5 Warehouse / Purchasing Supervisor (Warehouse)

Refer to Section Seven of this procedure for a discussion of the requirements.

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5.0 Permit Types - Continued**5.3 Excavation Permit**

An Excavation Permit is required anytime an excavation is to be performed on plant property. No areas of the plant are exempt from this requirement.

Excavation Permits require the signatures and initials listed for the standard Safe Work Permit, plus those of:

5.3.1 A Safety Dept. representative; and

5.3.2 The Georgia Gulf Chemicals & Vinyls, LLC representative responsible for the execution of the job.

Refer to Section seven of this procedure for a discussion of the requirements.

5.4 Confined Space Entry Permit

Refer to the Confined Space Entry Procedure for a discussion of the requirements for permitting and performing a confined space entry.

6.0 General Requirements Of All Work Permits**6.1 Issuing Permits**

6.4.1 The Permit Writer is responsible for issuing work permits.

6.2 Job Preparation and Verification

6.2.1 The permit writer is responsible for verifying that all job preparations such as line depressuring, blinding, lockout/tagout, gas testing, etc. have been properly performed before any work permit is issued. This responsibility includes a requirement to **field check** (at the site of the proposed work) that the preparations are complete, that no conflicting operations are occurring, and that no conflicting work permits are outstanding.

6.2.2 Also, because of the importance of a thorough field verification, permits to perform work at unspecified locations (i.e., General Plant Permits) are not allowed. Each work permit must designate the specific area(s) in which the work will be performed, so that potentially conflicting operations or work can be identified

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6.0 General Requirements of All Work Permits – Continued**6.3 Permit Posting and Distribution**

- 6.3.1 A copy of each permit must be kept at the job site for inspection and review while the work is going on. The original copy of the permit will be kept in the permitting area until the job is completed or the approval time has expired.

6.4 Permit Duration

- 6.4.1 All permits are to be issued for a specified time period and only when the work is ready to start. Permits may be issued for a maximum of 12 hours. If additional work is required after the time limit has expired, the Authorized Permit Writer may extend the permit for up to an additional 12 hours.
- 6.4.2 Hot Work and Confined Space Entry Permits must be re-verified in the field before they can be extended by the Authorized Permit Writer. No permit is valid for more than 24 hours.
- 6.4.3 Where conditions exist which limit the time in which the job may be performed, the permit writer will establish the time limitations on the work permit.

6.5 Follow-up and Job Completion**6.5.1 Changes in Conditions**

- 6.5.1.1 All plant and contract employees share an equal responsibility within the scope of their activities for observing and identifying changes in conditions that might make work unsafe. When such changes occur, work is to be immediately stopped until safe conditions are re-established, and the Supervisor of the affected area is to be immediately notified.

6.5.2 Changes in Personnel

- 6.5.2.1 When changes occur in operating personnel, the Shift Supervisor and other on-shift Permit Writers being relieved **must** communicate information on all outstanding maintenance / construction work being done in the plant to their corresponding relief personnel. The relieving Permit Writers for the affected area must also review each outstanding work permit to be fully aware of the work going on.

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6.0 General Requirements of All Work Permits - Continued

6.5.2.2 If there is a change in mechanic(s) who requested the permit, the new mechanics must inform operations of the personnel changes, read/review the job permit, and initial the field copy of the permit.

6.5.3 Job Completion

6.5.3.1 Upon completion of a job or shift, the person performing the work must return the field copy to the Permit Writer.

6.5.3.2 When a permit is turned in at the completion of a job, the Permit Writer will field verify that the work has been completed, to including clean-up. When this field verification is complete, the work permit is checked as complete.

Except where otherwise noted, all completed permits shall be retained in the permit writing area until the end of the shift. (Refer to Confined Space Procedure for permit retention requirements for OSHA Permit Required Confined Space permits and documentation)

6.5.4 Incomplete Work

6.5.4.1 Where permitted work is incomplete, but terminated for that day / shift, the mechanic(s) shall communicate the job status when turning in the permit to the authorized permit writer. In such cases, the permit is marked incomplete, additional status information noted (cannot be operated, emergency use only, etc.), and the permit is retained for communications purposes.

6.5.4.2 In cases where an operations logbook is maintained, the status of incomplete work can be documented in this logbook for communications, and the permit discarded.

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7.0 Special Permitting Requirements**7.1 Hot Work**

Hot work jobs can be grouped into two separate categories, each having a different degree of hazard. Both categories require the completion of a Hot Work Permit before a job can begin. However, the necessary precautions and the applicable sections of the permit vary widely between the two categories. To minimize confusion, this procedure will address the two categories of hot work separately.

7.1.1 The first category includes tasks involving the use of non-intrinsically safe equipment, but for which the equipment does not come into direct contact with process equipment, nor does it produce open sparks or flames. Examples of work that falls into this category include, but are not limited to:

7.1.1.1 Vehicle operation or other use of internal combustion engines in process areas; and

7.1.1.2 The use of a flash camera, non-intrinsically safe, or non-approved electrical equipment in process areas.

As a part of the permitting requirements for hot work in this first category, the Permit Writer must:

7.1.1.3 Visually check the area and outstanding work permits for potential sources of flammable or combustible discharges (Examples could be equipment opening or purging going on, or a visual leak), and

7.1.1.4 Check with the fixed-point monitor system to see if any leaks are in the area.

If a leak or conflict is found, the Hot Work Permit must not be issued.

7.1.2 The second category includes all other hot work, including welding, grinding, chipping, torch cutting, brazing, and soldering. Requirements for this category follow.

7.1.2.1 Hot work will be allowed in the Vinyl unit and Tank Farm area only when it has been determined to be absolutely essential with no reasonable alternative to performing the work available. Consideration must be given to cold methods for performing the work.

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7.0 Special Permitting Requirements – Continued

- 7.1.2.2 The Permit Writer must visually check the work area and outstanding permits for potential sources of flammable or combustible discharges and both the fixed point monitor and a portable hydrocarbon monitor must be used to verify that no leaks are occurring in the area.
- 7.1.2.3 A Firewatch is required. The normal duties of the Firewatch include:
 - 7.1.2.3.1 Assuring that sewer openings in the work area are kept covered;
 - 7.1.2.3.2 Remaining alert to changing conditions which could impact the work going on;
 - 7.1.2.3.3 Having a fire extinguisher at the location;
 - 7.1.2.3.4 Watching for fires which may be created by the hot work;
 - 7.1.2.3.5 Halting the work if there is any question concerning the safety of continuing the job;
 - 7.1.2.3.6 Extinguishing fires that can be safely handled;
 - 7.1.2.3.7 Taking precautions to keep people from entering any areas underneath the hot work; and
 - 7.1.2.3.8 Ensuring that the job site is visually monitored for at least 30 minutes after completion of the hot work to guard against smoldering fires. This may mean that the Firewatch must stay at the job site himself/herself during the 30-minute period, but the requirement can also be met if the Firewatch makes arrangements with other personnel to continuously monitor the job site for the required period (for example, an operator or other Firewatch personnel in the near vicinity).
- 7.1.2.4 Hot work in the vinyl production areas and in the VCM tank farm (VCM areas) shall require a Georgia Gulf Chemicals & Vinyls, LLC firewatch.

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7.1.2.5 All firewatches must have training on the following:

7.1.2.5.1 O₂ / Combustible Meters (VCM areas)

7.1.2.6 The Firewatch may have additional duties if the hot work is being done in areas containing flammable compressed gases (Examples include, but are not limited to: New Module, Old Module, and Tank Farm). The additional duties include:

7.1.2.6.1 Wetting down the area where hot sparks fall or where sewer openings are covered, and

7.1.2.6.2 Wetting down sparks as they hit the ground.

7.1.2.7 When hot work is to be performed on process lines or equipment, the lines or equipment must be isolated from process and utility services.

Acceptable methods of isolation may include the installation of blinds or the physical disconnection and capping of lines. **Blocked in valves are not normally acceptable methods of isolation.**

7.1.2.8 When hot work is to be performed on process lines or equipment:

The lines or equipment must be depressured.

7.1.2.8.1 The lines or equipment must be cleared or purged such that no flammable or combustible process materials remain.

7.1.2.8.2 The lines or equipment must be cleared or purged such that no flammable or combustible process materials remain.

7.1.2.8.3 The lines and equipment must be checked before issuing a Hot Work Permit to determine if flammable conditions exist inside the lines or equipment. Hot work will not be permitted if the combustible gas meter indicates that hydrocarbon vapors are present at a concentration above 0% LEL.

7.1.2.9 Flammable or combustible materials must be removed or protected within 35 feet of hot work.

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- 7.2.1.10 Hot work on process lines or equipment will be performed only after decontamination and isolation are verified.
- 7.2.1.11 Welding or cutting is not permitted in buildings with impaired sprinkler systems unless alternate protection has been provided and approved by the Safety & Health Manager.
- 7.2.1.12 Welding and cutting is not permitted on walls, roofs, or metal partitions having combustible coverings or of sandwich-type construction.
- 7.2.1.13 Confined space welding may require supplied local exhaust ventilation or a supplied air respirator if ventilation is not adequate to remove welding fumes.
- 7.2.1.14 Hot work will not be allowed in any confined space where there are other activities in progress which could increase flammable gas levels in the space or create hazards for others in the space.
- 7.2.1.15 For welding jobs in areas where personnel may come into contact with the heated surfaces, barricades or other protection against the post-welding hazards of the hot metal may be required.
- 7.2.1.16 Welding on lines or receivers pressurized with plant air is prohibited.
- 7.2.1.17 For elevated hot work over process equipment, sewers, or other hazards, sparks must be totally contained. For elevated hot work in other areas, containment is not required if provisions are made to prevent personnel and equipment from passing below the hot work.

7.2 Welding & Cutting Equipment

- 7.2.1 All welding machines must be properly grounded, and the grounds connected as close to the work as possible.
- 7.2.2 Compressed gas cylinders (except for cylinders used for respiratory protection) must be kept outside of vessels.
- 7.2.3 Hoses and torches must not be allowed to remain in a vessel when not in use.
- 7.2.4 Arc welding leads and oxygen/acetylene hoses must be inspected before *each* use. Leaking hoses, or damaged leads must be replaced or repaired before use.

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7.0 Special Permitting Required - Continued

- 7.2.5 Welding machines must not be left unattended while running. When welding is temporarily suspended (such as for lunch, breaks, or overnight), all electrodes must be removed from their holders, the holders placed so that accidental contact will not occur, and the leads disconnected from their power source.
- 7.2.6 Compressed gas cylinders shall be kept at a safe distance from the welding or cutting operation.
- 7.2.7 Fittings and valves of gas and oxygen cylinders shall be inspected for leaks prior to use.
- 7.2.8 Oxygen hoses and fittings shall be maintained to prevent contact with oil or grease. If contact does occur, then the equipment shall be decontaminated or replaced prior to use.
- 7.2.9 Hoses and cables shall be arranged and / or protected from damage due to crushing or melting.
- 7.2.10 Back-flow prevention valves shall be provided on all oxygen and acetylene hoses next to the pressure regulator.
- 7.2.11 Valves on cylinders and torches shall be closed, and the pressure from the regulators and hoses shall be released when oxy-acetylene equipment is not in use.
- 7.2.12 When arc welding is to be performed in wet conditions, special precautions against electric shock shall be taken.
- 7.2.13 Welding or cutting equipment mounted on wheels that can unintentionally roll during use, shall be blocked to prevent movement.

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Page 13 of 21**7.0 Special Permitting Required – Continued****7.3 Hot Taps**

- 7.3.1 Refer to the Aberdeen Hot Tap Procedure and Engineering Standard on Hot Taps.

7.4 Excavation

- 7.4.1 The Georgia Gulf Chemicals & Vinyls, LLC representative responsible for the execution of the job will consult the master set of drawings and plot plans to determine if underground lines are likely to be in the excavation area. Where the drawings indicate that a utility line may be in the area, precautions such as probing or other test methods may be required to locate the line before the excavation can proceed.
- 7.4.2 A Safety Department representative and the Georgia Gulf Chemicals & Vinyls, LLC representative responsible for the job will inspect the proposed site of the excavation for signs that underground lines not shown on the drawings may exist. Signs could include nearby electrical pits, or piping or electrical lines observed to enter or exit the ground nearby.
- 7.4.3 Based on their findings regarding line locations, the Safety Department Representative and Georgia Gulf Chemicals & Vinyls, LLC representative responsible for the job will determine if special requirements such as hand digging or limiting the depth of the excavation steps are required. All special requirements will be documented on the excavation permit.
- 7.4.4 Excavations near electrical or hydrocarbon-containing lines must be performed by hand.
- 7.4.4.1 A bucket watch is required for all excavation which uses equipment having a bucket (backhoe or similar equipment). The bucket watch has the responsibility to closely observe each stroke of the bucket and to determine if it strikes anything other than dirt or rock. If it does, the bucket watch must immediately stop the excavation until the item that has been struck can be identified and it is confirmed that the excavation can safely proceed.
- 7.4.5 No one is allowed to be in the excavated hole while excavation machinery is being operated.
- 7.4.6 Excavated material will not be stored closer than two feet from the edge of the excavation.

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7.0 Special Permitting Required - Continued

- 7.4.7 No explosives or blasting agents are allowed in the plant for any purpose, including excavation.
- 7.4.8 A safe means of access and egress must be provided in the excavation.
- 7.4.9 All excavations that are more than four feet deep must be adequately shored, sloped to a minimum of 45 degrees, stair-stepped, or otherwise protected against collapse. Entry into these excavations will require a Confined Space Entry Permit.
- 7.4.10 All excavations must have adequate barricades for the protection of personnel, vehicles, or equipment working or passing near the excavation site.
- 7.4.11 Heavy equipment should be kept away from the edge of the excavation. If heavy equipment will be operated near the edge of an excavation site, the sides of the excavation must be adequately braced to prevent collapse.
- 7.4.12 Storm and runoff water must be diverted away from an excavation deeper than four feet.
- 7.4.13 All excavation sites must be inspected daily for compliance with this procedure and adherence to permit requirements. The Georgia Gulf Chemicals & Vinyls, LLC representative responsible for the job has the responsibility for ensuring that this inspection is done.
- 7.4.14 No tunnels or flared bottom holes will be dug without the approval of the Plant Manager or his/her delegate. In general, these will not be approved if there is another practical way that the objectives of the job can be met.
- 7.4.15 If tunneling excavation is to be done under an existing roadway or railroad track, the roadway or track must be closed to traffic during the excavation. This does not include the boring of small holes.
- 7.4.16 The underground line identification and evaluation steps must normally be performed only once per job. If an excavation job extends for more than one day, a new Excavation Permit will be required to continue. The Safety Department signature will not be necessary. The signature of the Georgia Gulf Chemicals & Vinyls, LLC representative responsible for the job will be required on all extensions, as verifications that the daily inspection has been done and is satisfactory.

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7.4.17 Excavations or drilling of 20 feet or deeper require the approval of the Environmental Manager; this is required for groundwater protection purposes.

7.5 Confined Space Entry

Refer to the Confined Space Entry Program for more information.

8.0 Training

8.1 All employees and contractors are trained in the requirements of the safe work permit program initially during contractor / new employee orientation.

8.2 Additional / refresher training will be provided:

8.2.1 When the program changes.

8.2.1 Every three years (at a minimum).

8.2.1 As needed, based on identified deficiencies.

9.0 Recordkeeping**9.1 Training**

9.1.1 Training records will be maintained for a minimum of five years.

9.1.2 Records shall include:

9.1.2.1 Date.

9.1.2.2 Contents or Summary of the Training Session.

9.1.2.3 Trainer Name.

9.1.2.4 Trainee Name(s)/Job Title(s).

9.1.2.5 Any other information deemed appropriate.

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10.0 Additional Information

- 10.1 Confined Space Entry Procedure (ASHP 7)
- 10.2 Hot Tap Procedure (ASHP 38)
- 10.3 Personal Protective Equipment (ASHP35)
- 10.4 Energy Isolation Procedure (ASHP 13)

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Georgia Gulf

Corporation and Affiliates

SAFETY CONTROL PERMIT

Aberdeen, Mississippi Plant

Effective Date:	Time:	A.M. P.M.	Expires: A.M. P.M.
Location:	Equipment # or Name:	Permit issued to:	
Purpose / Description of Work:			
Permit Type: ☐ Safe Work ☐ Excavation ☐ Basic Confined Space Entry ☐ OSHA Permit Required Confined Space Entry ☐ Hot Work:			
SAFE WORK <u>Equipment Preparation:</u> Equipment: ☐ Checked ☐ Flushed ☐ Depressurized ☐ Neutralized ☐ Other: _____ Valves: ☐ Closed ☐ Locked ☐ Tagged ☐ Handle Removed ☐ Blinds Installed ☐ Lines disconnected Equipment Lockout / Tagout and tested by: ☐ Operations ☐ Maintenance ☐ Contractor ☐ Other(s) ☐ Ventilation provided, grounded, and operating to pull air out of the space ☐ Steam tracing shut off Chemical Hazard(s): ☐ VCM ☐ Lead ☐ Cadmium ☐ Asbestos ☐ Natural Gas ☐ Caustic ☐ Other(s): _____ Atmospheric Test: ____ O2 ____ LEL ____ PPM Other: _____		HOT WORK ☐ Fire Watch assigned, understands duties, signed below and on back ☐ Sewers / Drains / Floor openings covered or water flooded ☐ Fire extinguisher (20 lbs. / 5 lbs. for vehicles) checked and in place. ☐ Combustible materials within 35 ft. removed or protected. ☐ Fire blanket or plywood to contain sparks ☐ Fire blanket covering valves and flanges ☐ Arc welders grounded as close as possible to the work site ☐ Welding leads visually inspected prior to use ☐ Water hose running	
<u>Safety Precautions</u> ☐ Work Area Barricaded ☐ GFI or low voltage lighting ☐ Scaffolding required ☐ Scaffolding inspected ☐ Method of egress provided ☐ Ladder tied off ☐ Alarm (air horn) provided ☐ Blue flags in place		BASIC CONFINED SPACE ENTRY ☐ Identity of the space to be entered: _____ ☐ Hole watch assigned, understands duties, signed below and on back. ☐ Acceptable entry conditions: <u>20.9</u> % O2 <u>< 10</u> % LEL ____ PPM	

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☐ Surrounding conditions inspected and such that work can be performed safely ☐ Other: _____ Required Safety Equipment ☐ Hearing Protection ☐ Faceshield ☐ Goggles ☐ Work Gloves ☐ Chemical Resistant Coat ☐ Chemical Resistant Pants ☐ Chemical Resistant Boots ☐ Chemical Resistant Gloves ☐ Welding Gloves, Cutting goggles / helmet ☐ Air line respirator ☐ Cartridge respirator ☐ Scott Air Pak ☐ Dust mask ☐ Safety harness with lanyard ☐ Other(s): _____ 	☐ Entry checksheet conditions met OSHA PERMIT REQUIRED CONFINED SPACE ENTRY ☐ Plant rescue team notified of entry ☐ Retrieval equipment in place ☐ Periodic monitoring every _____ minutes (see reverse) ☐ Method of communications between entrants and Hole Watch: _____ EXCAVATION ☐ Sides sloped to 45 degrees ☐ Shore sides ☐ Max. depth of excavation: _____ ☐ Underground lines: ____ yes ____ no; if yes, what service: _____ ☐ Excavated soil 2 ft. from edges ☐ Probed for underground cables / lines ☐ Other: _____ ☐ > 20 ft. – Environmental Notified & Approved.
EMERGENCY: PHONE 2200 OR CONTACT THE VINYL CONTROL ROOM	
Job Status: ☐ Complete ☐ Incomplete	
Comments: 	
Permit Extended: From: _____ To: _____ By: _____	
Approvals: Authorized Permit Writer: _____ Safety Department: _____ Hole Watch / Fire Watch: _____ Mechanics / Contractors: _____ C/V Representative: _____ Unit Manager: _____ ERT Standby: _____	

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FIRE WATCH CHECKLIST

- ☐ I understand my duties to ensure continuous quenching of welding or grinding sparks with the water hose provided and to see that sparks are confined.
- ☐ I know the location of the nearest fire extinguisher and have been instructed in its use.
- ☐ I know how to report an emergency and know the location, vessel number, or name of the equipment.
- ☐ I know the location of the nearest safety shower / eyewash, and have tested it to ensure it works.
- ☐ I have reviewed to conditions on the opposite side of this permit.
- ☐ I will halt any operation that might allow flammable materials to enter the welding area.
- ☐ I will halt the hot work if I determine that conditions are changing in a way that may be unsafe for hot work to continue.
- ☐ I will ensure the work area is continuously monitored for the duration of the job and for 30 minutes after completion of the hot work to guard against smoldering fires.

Location: _____

Equipment: _____

**FIRE WATCH MUST CHECK OFF ALL ITEMS AND
SIGN OPPOSITE SIDE OF PERMIT**_____
FIRE WATCH SIGNATURE**HOLE WATCH CHECK LIST**

- ☐ I must not enter the confined space for any reason. I am to call the control room in the event of an emergency.
- ☐ I must not leave the vessel entrance when someone is inside the vessel except to summon emergency help.
- ☐ The operation of the breathing air system (supply, lines, and mask) was explained to me.
- ☐ I understand the operation of the blower or other source of fresh air ventilation.
- ☐ I know the location of the nearest safety shower / eyewash and have tested it to ensure it works.
- ☐ I know how to report an emergency.

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- ☐ I know the location of the equipment or job site so that I can report it when the emergency phone is answered.
- ☐ I will halt work and require evacuation of the confined space if I determine that conditions are changing in a way that may be unsafe for continuing the confined space work.

Location: _____

Equipment: _____

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**HOLE WATCH MUST CHECK EACH ITEM AND
SIGN OPPOSITE SIDE OF PERMIT**

HOLE WATCH SIGNATURE**ATMOSPHERE MONITORING RESULTS:**

TIME	RESULT			INITIALS
	_____ O2	_____ %LEL	_____ PPM	
	_____ O2	_____ %LEL	_____ PPM	
	_____ O2	_____ %LEL	_____ PPM	
	_____ O2	_____ %LEL	_____ PPM	

PERMISSIBLE EXPOSURE LIMITS (PEL's)

VCM = 1PPM / 8hrs TWA; 5 PPM STEL (15 mins); Liquid contact is prohibited.

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