

WV-0233 #4

UNION CARBIDE CORPORATION

Silicones & Urethane Intermediates

Sistersville Plant

MEMORANDUM TO: J. B. Mickey

FROM: C. A. McNeill

DATE: February 1, 1984.

SUBJECT: Safety and Health Requirements For Contractors

COPY TO: D. Gosselin

Please find attached the draft copy of the above subject procedure.

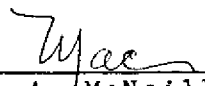
The enclosed total package consist of three (3) individual documents, each with a cover page indicating it's particular purpose and unique administration.

As this is a draft copy please feel free to comment if you so desire.

Hopefully Don, we can review/discuss with you the enclosed personally during your visit to Sistersville tentatively set for Feb. 9.

I would appreciate final comments by Feb. 10 in order that we may bring this task to closure.

Sincerely,


C. A. McNeill

CAM/1e

DOCUMENT 1

This document will be given to the contractor by the Contract Administrator separate from the actual contract. The Administrator will personally review the document contents with the contractor.

DRAFT

UNION CARBIDE CORPORATION
SISTERSVILLE, WV

PROCEDURE GUIDELINE
SAFETY AND HEALTH REQUIREMENTS FOR CONTRACTORS

Purpose

To specify requirements to be followed when contract work is performed for Union Carbide Corporation, in chemicals and plastics-type facilities, that will assure:

1. The protection of Union Carbide facilities.
2. The safety and health of Union Carbide and contractor employees from potential hazards associated with Union Carbide operations, chemicals, or other products.

Philosophy

It is the intent of Union Carbide to meet this objective through proper practices and contract provisions; the furnishing of required safety and health information; and requiring contractors to follow, where applicable, all relevant safety and health rules in force at the particular location.

Under no conditions shall Union Carbide undertake the responsibility for supervision of contractor's employees or facilities. The contractor is expected to fully communicate with and enforce contract, statutory or other legally required safety and health requirements on his employees.

Upon request and written agreement Union Carbide will provide safety and health related advice and service to a contractor who lacks expertise in any given situation in the form of procedures, training, and technical support. Union Carbide will monitor the contractor's compliance with the contractual agreement on a periodic basis.

Where a contractor believes that certain safety and health requirements are not applicable, a written permission to deviate therefrom should be received from the Union Carbide management representative involved prior to initiating any work affected thereby.

Specific Objective

To ensure that Union Carbide employees and facilities are protected from accidents arising from contracted maintenance, construction and other work at Union Carbide chemicals and plastics-type facilities and to inform contractors of potential hazards associated with Union Carbide operations and chemicals which may affect their operations at any site.

Procedure

All maintenance contract and construction contract work performed at Union Carbide chemicals and plastics-type locations shall follow these guidelines:

1. Major safety and health rules and procedures which could substantially affect the cost of a contract shall be included in the specifications in the invitation to bid, and reviewed with the bidder upon request.
2. These requirements shall be so specified in all standard contract articles and appendices.
3. Information, advice and consultation, such as procedure documents, training, and technical skills to be provided by Union Carbide shall be set forth in special exhibits to the contract appendix.
4. A full set of applicable safety and health rules and procedures shall be given the contractor when the contract is signed. (Attached)
5. A designated Union Carbide location representative shall be appointed when functions shall, in part, include those set forth in items 6 and 8 below.
6. The Union Carbide representative shall instruct contractor representatives on specific safety and health rules and procedures for that location and review detailed information on special safety and health concerns (chemical or other) and what precautions to take.
7. The contractor shall describe how safety and health information will be communicated to and enforced with his workers and subcontractors.
8. The Union Carbide representative shall monitor the contractor's compliance with the contract as deemed necessary.

UNION CARBIDE CORPORATION
SISTERSVILLE, WV

SUBJECT: Contractor Safety, Industrial Hygiene, Medical, and Security Rules and Procedures

PURPOSE: The objective of this procedure is to specify safety, industrial hygiene, medical, and security requirements to be followed by a contractor when working at the Sistersville Plant and to define auditing procedures for assuring contractor compliance.

PHILOSOPHY: All employees must recognize that working safely and in strict compliance with all applicable safety, health, and medical rules is a condition of employment. Contractor failure to cause compliance may result in suspension of all or any part of the job until the contractor proves to plant management that the failure has been corrected. The contractor is not entitled to any extension of time, compensation, or damage due to such a work stoppage.

Safety Requirements

1. The contractor is responsible for compliance by its employees to all government safety regulations.
2. The contractor shall inform and assure that his employees observe the Sistersville Plant Safety and Health Rules.
3. The contractor shall use the Sistersville Plant "Hazardous Work Permit" Procedure while performing hazardous work within a restricted area. Hazardous work is defined as using any tool or piece of equipment that can be an ignition source, such as: internal combustion engines, open flame, open-type electrical tools, hack saws, hammers, chisels, high pressure water cleaning, etc. All work on river banks require a Hazardous Work Permit. Entry into a confined space requires a Confined Space Entry Permit and a Hazardous Work Permit.
4. The contractor shall assure that his/her personnel driving vehicles inside the plant observe all driving regulations. Only vehicles required for work are permitted inside the plant. When an emergency occurs, all vehicles must be driven to the side of the road and engines turned off until the "All Clear" whistle is sounded.
5. Contractor shall use Owners "Lock-out/Tag-out Procedure". This applies when contract personnel work on or enter equipment that has been disassembled for contract personnel to work on in place. UCC personnel will prepare equipment for work and contract personnel will check and sign "Master Tag" before starting work. If work involves rotating or moving machinery,

(the contractor shall furnish his personnel with locks and keys for them to personally lock out the starting device. Contract personnel will keep the key, and at the end of the day will remove his/her lock, whether job was completed or not, and sign out on Master Tag before leaving job site.

6. The contractor shall provide the necessary safety equipment such as safety glasses with side-shields, monogoggles, hard hats, respirators, hearing protection, etc.
7. The contractor shall assure that its employees comply with the Sistersville Plant dress code. Specifically: Footwear shall consist of shoes or boots giving full cover protection from exposure. The following types of footwear are not permitted in the plant: platform shoes, spike heels, sandals, open-toed shoes, mocassins, or canvas sneakers. Shoe soles must be flexible, and heels are not to exceed two inches in height.

Wearing apparel shall consist of full body surface coverage of shoulders, trunk, body and legs. The following types of apparel are not permitted in the plant: tank-top shirts, bare back and/or shoulders, shorts, halter tops, and dangling jewelry. Clothing must be sensible for the work being performed.

8. Fire fighting equipment is to be used for fire fighting only. Keep all fire hydrants, valves, and hose houses free from obstructions. There will be no unauthorized use of hydrants or fire fighting equipment.
9. Contractor shall furnish approved fire extinguishers as required for protection of their equipment and for contract work.
10. All internal combustion engines must be shut down prior to refueling.
11. Special permission must be obtained to bring bulk storage containers of flammable liquids or gasses into the plant. Location must be approved by the Safety Department. All containers must be approved for the material being stored. Containers must have approved grounding cables.
12. Contractor is responsible for keeping their work area in a clean and safe condition. There will be no parking or storage of materials beneath the plant piperacks.
13. Contractor shall observe and obey all signs restricting entry into operating areas: the contractor must check in with the operations supervisor each day when reporting to work in his unit.

14. In the event of an emergency (fire, explosion, spillage, vapor cloud, or related hazard) happening in the immediate vicinity, the contractor's employees shall leave the area immediately and remain at a safe distance until the emergency is over. All spark-producing equipment must be shut off and operations shall be stopped until it is determined that the emergency is over. Area supervisor and/or Maintenance contract coordinators permission must be secured before resuming work. Unless specifically requested, contractor employees shall take NO PART in fire fighting or related emergencies.
15. Vapor Cloud Procedure can be implemented from an Autocall alarm box. Location will be indicated by the box number. If you are in the vicinity, shut off all ignition sources including vehicles and leave the area on foot. Do not re-enter the area until the "All Clear" whistle is sounded.
16. There is no smoking allowed in the plant except in clearly defined and marked areas.
17. No one under the influence of alcohol or a controlled substance is permitted in the plant. Drinking or possession of an intoxicating liquor or controlled substance in the plant is strictly prohibited.
18. Horseplay or practical jokes which may lead to injury or property damage are prohibited.
19. Because of possible acid exposure HEMP ropes shall not be used. Synthetic rope, especially Dacron is recommended.
20. Contractor shall rope off, and post areas with "OVERHEAD WORK SIGNS" where overhead work is being done. Contractor shall barricade, and post in a safe manner excavations. "CAUTION LIGHTING" of an approved type must be provided.
21. Use caution in all material handling. Always use proper lifting techniques.
22. Report all unsafe conditions. Each worker on the plant premises has a responsibility to promptly report hazards to his/her supervisor. The contractor supervisor must then report the hazard to the Sistersville area supervisor or the Contract Administrator.
23. Observe all warning tags, barricades, and signs. A warning sign or mechanical safeguard is an effort to protect all workers. Compliance with this rule is mandatory.

Industrial Hygiene

1. The contractor is responsible for compliance to government health regulations, including permissible exposure limits. The contractor must also comply with permissible exposure limits set internally by the Union Carbide Corporation.
2. There is a potential in the Sistersville Plant for exposure to chemicals or physical agents that pose a risk to the fetus. The contractor shall inform its female employees of this potential and give each female a card containing this information. (available at the Guard office)
3. Contract employees assigned to a job or within an area where use of a respirator may be necessary shall be clean shaven in those facial areas required to obtain a respirator-to-face seal.

An employee who can not obtain a proper respirator-to-face seal because of physical features such as a scar, pock marks, absence of dentures, wrinkling of skin, or an unusually narrow face, shall not be assigned to a task which may require use of a respirator.

4. The contractor is responsible for assuring that its employees receive the results of industrial hygiene monitoring and that the employee's right of access to this information is communicated and implemented.

Medical Requirements

1. Plant emergency squads and plant dispensary are available to handle contractor employee accident or illness emergencies. After administration of first aid, the contractor will be responsible for any further treatment that may be required. The dispensary is available on extensions 304 or 333.
2. Contractor shall make an investigation of all accidents involving his personnel and report all details to the Contract Coordinator. When the accident investigation is complete the contractor will provide the Contract Coordinator with a copy of the report. The contractor is also responsible for posting information regarding injuries as specified by OSHA.
3. Union Carbide has a significant interest in obtaining and evaluating all information that could suggest that any of its chemical products could pose a substantial health risk. Since contractor employees may encounter chemicals handled at this plant, we must be notified immediately by the contractor if any of its employees experience an adverse health effect due to exposure to these chemicals. Union Carbide shall assume responsibility for reporting such information to the government.

4. The Sistersville Plant will provide the contractor with advice on what medical services must be provided to its employees to qualify them to work within this plant. Specific topics include:

General physical examinations.

Medical surveillance for personnel potentially exposed to regulated substances in OSHA CFR 1910, Section 1000.

Adaudiometric testing for employees exposed to greater than 85 dBA.

Medical certification for personnel required to wear respiratory protection.

Medical fitness for those people who operate vehicles.

Recordkeeping of the above data and employee access to medical records.

Security Requirements

1. Personnel Passes

- a. Contract personnel will obtain temporary contractor passes from the Maintenance Contract Coordinator through the Security Guard. Identification information will be recorded and a pass will be issued to each person. If the contractor's employee has had a UCC contractor pass previously, the contractor may elect to contact the Maintenance Contract Coordinator and passes will be issued in advance for these employees,
- b. Under no circumstances will the contractor attempt to bring visitors into Plant without permission of the Maintenance Contract Administrator and the Plant Manager.

2. Gate Security - Ingress and egress of the contractor's personnel will be by contractor's pass and will be through the gate designated by the Maintenance Contract Administrator. Contractor employees entering plant in vehicles shall show their pass to the guard on duty, and shall proceed directly from the gate to the work area. No cameras, weapons, and/or intoxicating beverages are allowed in the plant. Contractor personnel driving vehicles into the plant are to be aware that their car is subject to search upon request of UCC guard when leaving the plant.

3. Contractor Vehicles For Plant Work - The number of vehicle passes will be limited for each contractor and the contractor shall request passes for only those vehicles required to service the job. These vehicles are to be parked in designated parking areas.
4. A material pass must be obtained from Union Carbide's contractor supervisor and presented to Guard before any contractor or his employees are permitted to remove tools, equipment, or materials from the plant.
5. Contractors employees shall be confined to their work area, except as required in the normal performance of their work.

Auditing Compliance

1. The Contract Administrator is the Area 3 Maintenance Supervisor. This person is the prime contact for auditing contractor compliance to the Sistersville Safety and Health Program. Toward this objective, the Contract Administrator is accountable to assure that:

Applicable safety, industrial hygiene, medical, and security rules are communicated to the contractor in writing.

The contractor is informed that compliance with site rules is a condition of employment within this plant and written agreement is obtained that the contractor understands and will abide by the said rules.

The contractor's compliance with applicable site rules is audited and plant and contractor management is informed of deficiencies plus corrective actions to be taken.

2. The Sistersville Plant reserves the right to conduct industrial hygiene monitoring of contract personnel to assure that the contractor is fulfilling its obligation to protect its employees. This action can be initiated by the Safety and Health Department or the Contract Coordinator. In either case, the Contract Coordinator will act as a liason between the Sistersville Plant and the contractor.

Industrial Hygiene monitoring results will be communicated back to the contractor by the Contract Coordinator.

DOCUMENT 2

This document is a reference for use by the Contract Administrator only. He will use it to be sure that he explains the hazards and monitoring priorities applicable to a specific contractor assignment. This document will be updated annually by the Safety and Health Department.

POTENTIAL EXPOSURES FOR WHICH CONTRACTORS
MAY BE MONITORED

In the conduct of daily operations, it is normal to have contractors' employees working at the Sistersville Plant. It is the policy of this plant that contractor employees comply with all safety, industrial hygiene, and medical rules observed at this site. Our objective is to assure that nobody is injured, that business is not interrupted, and that all parties comply with state and/or federal regulations. This policy applies to all contract services rendered within the boundaries or jurisdiction of the Sistersville Plant.

The contractor is responsible for compliance to government health regulations, including permissible exposure limits. The contractor must also comply with permissible exposure limits set internally by the Union Carbide Corporation.

The Sistersville Plant reserves the right to conduct industrial hygiene monitoring of contract personnel to assure that the contractor is fulfilling its obligation to protect its employees. This action can be initiated by the Safety and Health Department or the Contract Administrator. In either case, the Contract Administrator will act as a liaison between the Sistersville Plant and the contractor.

Industrial Hygiene monitoring results will be communicated back to the contractor by the Contract Administrator.

Silanes Department

Monomers Unit: HCl vapors in the Reactors & Rectification towers.
Methyl Chloride near the compressors & storage tanks.

Intermediates Unit: Acrylonitrile, HCl vapor throughout the unit.
Ammonia from the K-45 system.

Esters Unit: Methyl Cellosolve from K-62/63, Acetic Acid
from the K-45 system.
Trimethoxysilane from the K-65 system.
HCl throughout the unit.

Polymers I Department

108 Unit: HCl, methyl chloride, amine vapors, noise, methyl acrylate, ammonia, allyl chloride.
112 Unit: HCl, trimethoxysilane from the K-36 system, amine vapors, hydrogen sulfide, allyl chloride, allyl cyanide, ethyl acrylate, aniline.

Polymers II Department

Toluene in the kettle house.

Allyl chloride in the capper & K-56 areas.

For K-56, all chemicals in the 108 unit.

Noise in Emulsions (Bl. 46) and gum mill area.

EPC

Vapors from the neutralization tub

Noise or dust when working inside the kiln.

ES

Noise when working near operating equipment (Compressors).
or inside a boiler.

Plantwide

Noise when working around any noise generating process or
when using equipment that generates an excessive noise level
(>90 dBA).

Asbestos when involved in demolition of insulation or working
adjacent to demolition.

HCl from chlorosilanes as process lines are opened.

Other Potential Exposures

Distribution terminals where products or raw materials are
located or unloaded. Exposures to be monitored include:

Allyl Chloride
Acrylonitrile
HCl vapor from chlorosilanes
Methyl Cellosolve
Methyl Chloride
EDA
Allyl Methacrylate

DOCUMENT 3

This appendix is to be attached to the contract.
It will not be included in the Safety and Health
Requirements package given to the contractor by
the Contract Administrator.

SAMPLE SAFETY AND HEALTH LANGUAGE FOR
MAINTENANCE AND CONSTRUCTION CONTRACT AGREEMENTS

Instructions Safety and Health Appendix:

Add to the contract or order the following sentence: The Appendix attached hereto entitled "Safety and Health" is hereby made a part hereof.

APPENDIX

SAFETY AND HEALTH

Contractor shall take all necessary precautions to protect employees of contractor, employees of its subcontractor and employees and facilities of owner from hazards arising in the course of the performance of this contract or in connection with owner's operations or chemicals located at or adjacent to the construction site.

Contractor shall comply with, and shall cause its employees and all subcontractors to comply with (1) all Union Carbide safety and health regulations and requirements which are furnished to contractor by owner and (2) all applicable laws and governmental rules and regulations relating to safety and/or health. In the event that contractor fails to so comply or to cause such compliance, Union Carbide may suspend all or any part of the work on which contractor or his subcontractor is engaged, until contractor proves to owner's satisfaction that contractor has corrected said failure. Contractor shall not be entitled to any extension of time or compensation or damages by reason of, or in connection with, such work stoppage.

Contractor shall review all safety and health regulations and requirements which it is obligated to comply with hereunder and any applicable hazards which it is obligated to protect against hereunder, prior to the performance of the portion of the work which is applicable thereto. Contractor shall notify owner how said regulations, requirements and hazards will be communicated to, and enforced with, its employees and all subcontractors.

Contractor shall include in all of its subcontracts involved in the performance of the work at the construction site, the provisions of this Appendix, with subcontractor being obligated to contractor to the same extent as contractor is obligated to owner. However, such provisions in the subcontracts shall not relieve the contractor of its obligation to assure compliance with the provisions of this Appendix for all aspects of the work.

Union Carbide safety and health regulations and requirements include the following and may include others which are unique to a particular Union-Carbide location. Where contractor believes any safety or health regulation or requirement is not applicable, a

written permission to deviate therefrom must be received from owner's management representative at the location of the work, prior to initiating the work.

1. Location Work Permits - Work permits shall be obtained by the contractor, and signed by an authorized Union Carbide supervisor to confirm his acceptance of precautions specified for the following operations:
 - a. Use of ignition sources in restricted areas.
 - b. Entering of vessels or confined spaces.
 - c. Opening process equipment.
 - d. Performing electrical hot work.
 - e. Making excavations and trenches.
 - f. Moving radioactive sources.
 - g. Performing hot pipe tapping.
 - h. Operating heavy equipment around electrical power lines.
2. Master Card Procedure - The master card procedure for tagging and locking critical equipment isolation points shall be followed by the contractor prior to commencement of work on such equipment.
3. Location Safety and Health Rules - All location safety and health rules furnished by owner to contractor shall be adhered to by the contractor.
4. Personnel Protection Equipment - Personnel protective equipment shall be provided by the contractor unless otherwise agreed to in this contract, as follows:
 - a. Hard hats and industrial grade safety glasses shall be worn at all times.
 - b. Chemical splash goggles and hearing protection shall be worn in posted areas.
 - c. Safety shoes, respiratory protection, harnesses and lifelines, and other necessary protective equipment will be worn based on location regulations furnished by owner and contractor needs.
 - d. Respirators shall fit snugly against the face. Persons wearing beards shall be clean shaven where respirator makes a facial seal.

5. Emergencies - Contractors shall be trained in those emergency procedures which directly affect their own employees' personal safety and health. In the event of an emergency (fire, explosion, vapor cloud, spillage, or related hazards) arising in the immediate vicinity, contractor agrees that he shall cause its employees to leave the area immediately and remain at a safe distance until the emergency is over.
6. Safe Tools - Scaffolds, stages, rigging equipment, electrical tools, ladders, hoists, and other tools, machinery or equipment used in the work will meet specifications of ANSI and the Occupational Safety and Health Administration for such items employed in the construction industry.
7. Accidents - The contractor will be responsible for investigating all accidents involving his employees and reporting all details to owner's safety representative at the location of the work. When such accident investigation is complete, the contractor will provide such Union Carbide representative with a copy of the completed injury report. The contractor is also responsible for compliance with the Occupational Safety and Health Administration requirements for reporting or communicating injuries.
8. Safety and Health Program - Contractor shall maintain his own safety and health programs. However, it may be necessary at times for the Union Carbide representative to make recommendations to assure the protection of Union Carbide employees.
9. Contractor shall review with all of its employees assigned to the work, prior to their commencing any of the work, all safety and health regulations, requirements and programs applicable to the work, and contractor shall cause its subcontractors to make such a review with their employees.
10. Special Rules for Harmful Exposure - Contractor represents that he is familiar with the Occupational Health and Safety Administration regulations concerning harmful exposure to toxic substances, and is capable of providing, and will, unless and to the extent otherwise agreed to in writing by owner, provide respirators and/or other protective equipment, exposure monitoring, medical surveillance, employee training, recordkeeping and other services, to the extent required by said regulations in connection with the work.