



**Shell Oil Company**  
Interoffice Memorandum

FEBRUARY 6, 1984

PLAINTIFF'S EXHIBIT

SH-901

|                                     |                         |
|-------------------------------------|-------------------------|
| H/AMT SATELLITE                     |                         |
| 2/7/84                              | W.H. Thompson           |
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CC: R.R. Erickson  
H. L. Lee

FROM: MANAGER, HEALTH & SAFETY, MANUFACTURING & TECHNICAL, WE. Hale  
HEAD OFFICE R.L. Schliep

TO: MANUFACTURING LOCATION MANAGERS

|           |            |
|-----------|------------|
| ANACORTES | NORCO      |
| DEER PARK | ODESSA     |
| EL PASO   | TAFT       |
| GEISMAR   | WILMINGTON |
| MARIETTA  | WOODBURY   |
| MARTINEZ  | WOOD RIVER |
| MOBILE    |            |

SUBJECT: HS&E GUIDELINES FOR APPLICATION AND REMOVAL OF  
LEAD/CHROMATE-BASED COATINGS

The attached HS&E guidelines for Application and Removal of Lead/Chromate-Based Coatings has been approved by Manufacturing senior management and is being distributed to you for implementation. For reference, an HS&E guideline is:

"An indication or outline of appropriate internal actions to be taken throughout Shell relative to a particular subject. Those responsible for specific actions are expected to exercise judgment in use of the guidelines. However, selection of options within the guidelines and extent to which the guidelines are followed must be with the intent of achieving comparable results to those anticipated by the guidelines. HS&E Guidelines must be: 1) approved by the Vice President HS&E and the vice presidents or general managers of impacted organizations; 2) implemented, managed and reviewed in such a manner as to achieve effective operation."

LAM 016464

While guidelines provide flexibility for implementation, there is expectation of equivalent performance. Since results are subject to confirmation by the "Compliance Assurance Review" mechanism, we suggest that a copy be placed in your location's copies of the Compliance Assurance Review Manuals along with distribution to those responsible for implementation. (A copy of the Compliance Assurance Review Manual distribution list is attached for reference.)

Health & Safety, Manufacturing & Technical were represented on the task force which developed these guidelines. We plan to issue equivalent information as an addendum to our Health and Safety Procedure Guidelines (number 508 - "Safe Work Practices - Maintenance - Painting").



J. S. Szymanowski

KCC:PJW

Attachments

cc: H. L. Kusnetz  
R. H. Brown

**LAM 016465**

## GUIDELINES FOR APPLICATION/REMOVAL OF LEAD/CHROMATE-BASED COATINGS

The Task Force, after studying the information and data developed during the course of the project, has put together a set of guidelines for application and removal of lead/chromate-based coatings. It is the Task Force's intent that these guidelines will offer clear direction in maintaining regulatory compliance where use of lead/chromate-based coatings is deemed necessary. The Task Force recognizes that at present, in some applications (especially in offshore installations), there are not satisfactory substitutes for lead/chromate-based coatings. Each Shell location should review existing rules/procedures to ensure that these guidelines are incorporated.

1. Utilize lead/chromate-free coatings within the company unless significant surface protection is sacrificed by the use of such coatings. If a particular application requires use of lead and/or chromate-containing coatings, notification of the activity should be made to the appropriate health/safety group for action as required.
2. During application/removal of lead/chromate-based coatings, NIOSH approved respiratory protection equipment should be worn by all employees involved. For abrasive-blasting, this must be a properly fitted and maintained air-supplied hood with an uncontaminated air source. For application (spray-painting), a half-face cartridge respirator for organic vapors/dust, mist and fumes is required. In addition, chemical goggles are required for eye protection. Skin contact should be minimized, and employees should remove any gross amounts of coating from the skin immediately.
3. During application/removal of lead/chromate-based coatings, initial monitoring has indicated that lead/chromate exposure limits may be exceeded up to 50 feet downwind of the job site. The potential exposure zone should be clearly marked. All non-essential personnel should remain out of the area (other than passing through) while work is in progress. If this is not feasible, appropriate NIOSH approved respiratory protection (see #2) should be provided to personnel working within the area during application/removal (see also #4).
4. If Shell employees must work in the potential exposure zone during application/removal of lead/chromate-containing coatings, industrial hygiene monitoring may be appropriate, in addition to the respiratory protection. Measured exposure levels exceeding the OSHA PEL for lead or the ACGIH TLV for water - insoluble hexavalent chromium should be reported to Corporate Medical Department.

LAM 016466

5. Shell is responsible for informing contractors of any potential hazards (of which it is reasonably aware) associated with lead/chromate-based coatings. Contractors are expected to utilize procedures which provide appropriate protection for their employees when involved with application/removal of these coatings.

Any requirements of the OSHA Lead Standard that apply to the application/removal of lead-based coatings are the responsibility of the contractor. Upon request, Shell will supply guidance to the contractor in meeting these requirements.

6. Residues from abrasive-blasting of lead/chromate-based coatings should be tested for lead and/or chromium content (by the EPA leachate test or applicable state agency test) to determine waste classification (if residue is to be removed from job site). This is not required in offshore work.

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## Distribution List

## Operations

Vice President

## Health and Safety - Operations - Manager

## Environmental Conservation - Manager

Products Distribution - Operations Support - Manager.

Products Distribution - Operations Support - Contract

## Terminals - Manager

Health and Safety - Products Distribution - Manager

**Chemical Logistics Transportation Safety & Regulations - Manager**

Domestic Raw Material Supply Terminal Operations - Manager

**Marine - Marine Services - Manager**

## Manufacturing Locations

## Deer Park Manufacturing Complex

Superintendent, Health and Safety

**Manager, Safety - North**

**Manager, Safety - South**

**Manager, Employee Relations**

**Manager, Industrial Relations**

## Martinez Manufacturing Complex

Manager, Health and Safety

**Manager, Employee Relations**

## Norco Manufacturing Complex

Superintendent, Health, Safety and Environment

Manager, Health and Safety

**Manager, Employee Relations**

## Wilmington Manufacturing Complex

**Manager, Safety and Industrial Hygiene**

**Manager, Employee Relations**

## Wood River Manufacturing Complex

Manager, Safety and Industrial Hygiene

**Manager, Industrial Relations**

Manager, Personnel

## Anacortes Refinery

Manager, Safety

**Manager, Employee Relations**

## Odessa Refinery

Safety Representative

**Manager, Services**

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El Paso Plant

Safety Representative  
Manager, Services

Geismar Plant

Manager, Health, Safety and Environment  
Manager, Employee Relations

Marietta Plant

Manager, Health, Safety and Environment  
Manager, Employee Relations

Metairie Plant

Safety Representative  
Manager, Employee Relations

Mobile Plant

Manager, Safety, Health and Environment  
Manager, Employee Relations

Taft Plant

Safety Representative  
Manager, Services

Woodbury Plant

Manager, Health, Safety and Environment  
Manager, Employee Relations

Oil Products Distribution

## Area - Managers

|      |         |
|------|---------|
| East | South   |
| West | Midwest |

Sewaren Plant - Manager

Willbridge Plant - Manager

Exploration and Production

Safety and Environmental Conservation - Manager (40)

Health, Safety and Environment

Vice President

General Manager

Environmental Affairs - Manager

Water Programs &amp; Special Studies - Manager

Plans &amp; Support - Manager

Product Safety and Compliance - Manager

Corporate Medical - Medical Services - Manager

Safety and Industrial Hygiene - Manager (6)

Information Services

LAM 016469

DPMC-13209

REQUIREMENTS FOR SILICA SANDBLASTING A322 TANK REPAIR

724.1  
Maint. 11  
723  
Free Silica

Pre-Job Orientation to explain procedures and expectations.

Requirements:

Air supplied hood (NIOSH approved)

Required - Blaster, and all other personnel in tank during blasting.

Air purifying respirator required:

- Pot man and ancillary personnel
- others inside roped off area

Non-disposable respirators to be cleaned daily as per OSHA regulation.

Requirements of OSHA Respirator Regulation 1910.134 apply.

Tank area to be roped off at firewall with rope and signs which specify hazard and respirator requirement.

Air compressor to be located upwind of any dust emissions. Requirements of a breathing air compressor apply:

- Exhaust stack to be separated from intake (8 ft.)
- Particulate filter to be maintained in-line between compressor and mask.

LAM 016470

DPMC-13210

CHECK

- Facial hair
- Respirator use
- Rope + signs
- Training records
- Cleaning of equipment
- Hearing protection
- Entry by Shell or non-Shell without protection
- Medical exams
- Sample downwind
- Silica work at other companies within last 12 months

GLB01/19  
1-12-84

**LAM 016471**

DPMC-13211