

**MODIFICATION TO CLOSURE PLAN  
FOR HAZARDOUS WASTE DRUM STORAGE AREA,  
GALLADE CHEMICAL, INCORPORATED**  
1230 East Saint Gertrude Place, Santa Ana, California 92707

This Modification to the Closure Plan  
for Gallade Chemical, Incorporated  
is Prepared By:

The California Department of Toxic Substances Control  
1011 North Grandview Avenue  
Glendale, California 91201

DRAFT

Pursuant to California Code of Regulations, title 22, section 66270.41, the Department of Toxic Substances Control (DTSC) has determined that causes exist for modifying the Closure Plan that was approved by DTSC on May 22, 1996. DTSC hereby modifies the Closure Plan as follows:

I. Section 8 of the Closure Plan is modified to state:

#### **“8 CONCRETE DEMOLITION**

~~If VOCs or SVOCs are detected in the concrete samples at concentrations greater than the PQLs, the concrete will be demolished and removed from the site.~~ Based on the Hazardous Waste Drum Storage Area Closure Assessment Report” submitted by Gallade and dated September 30, 1996 (“HWDSA Closure Assessment Report”), VOCs o-xylene, m,p-xylene, and tetrachloroethene (PCE) were present in the concrete above the PQLs. Gallade has neither demolished the concrete nor removed it from the facility. Within sixty (60) calendar days of the effective date of this Closure Plan as herein modified, Gallade shall implement the demolition and removal activities in accordance with the requirements of this section. Concrete demolition will be conducted using a backhoe, which will be used to break and remove the concrete. The concrete demolition debris will be loaded into roll-off bins and manifested as a non-RCRA hazardous waste for Class I Landfilling at Kettleman Hills, located approximately 200 miles from the site. The estimated maximum amount of concrete to be sent off-site, if determined a hazardous waste, is 350 cubic feet.

The backhoe used for the concrete demolition activities will be decontaminated by steam-cleaning. Steam-cleaning effluent will be contained in 55-gallon drums and sampled to determine whether it can be treated in the on-site groundwater treatment system. Sampling, analysis, and treatment or disposal of the fluid will be performed using the same procedures and methods described above for the concrete rinsewater samples (Section 6.3).”

II. Section 9 of the Closure Plan is modified to state:

#### **“9 GROUNDWATER SAMPLING**

Sampling of groundwater is not planned for closure of the HWDSA. A facility-wide groundwater monitoring and remediation system is already in place and operational. Figure 4 shows the distribution of volatile organic compounds in groundwater in February, 1995. Table 1 provides a summary of groundwater analytical results from 1990 to ~~the present~~ 1995. DTSC has determined that releases(s) from the HWDSA have contributed to the previously reported groundwater contamination. Therefore, the Facility must close the HWDSA with waste-in-place and submit a post-closure care plan to DTSC for review and approval. Gallade shall include the on-going site-wide groundwater extraction and treatment conducted under the oversight of the Santa Ana Regional Water Quality Control Board (SARWQCB) as part of the post-closure care necessary for this unit. Gallade shall conduct groundwater monitoring for the HWDSA in accordance with the requirements of the Santa Ana Regional Water Quality Control Board (SARWQCB).”

III. Section 10 of the Closure Plan is modified to state:

#### **“10 CLOSURE PERFORMANCE STANDARDS**

~~The closure performance standard for the HWDSA will be a health based risk standard. If concentrations of constituents of concern detected in the soil, concrete, or the equipment rinsewater exceed the practical quantitation limits (PQLs), a site specific risk assessment will be performed. The PQLs will be specified by the respective SW-846 analytical methods at the laboratory used. The risk assessment will be performed consistent with state and federal guidance. As appropriate, the DTSC Office of Scientific Affairs will be was to have been consulted for protocols, procedures and assistance for planning the risk assessment. The HWDSA Closure Assessment Report, dated September 30, 1996 was prepared to document the results of the wipe, concrete, and soil sampling and analysis performed as part of the approved closure activities. On June 4, 1997, Gallade submitted a Health Risk Assessment Workplan to DTSC because contamination was encountered at concentrations exceeding the PQLs. This Workplan was reviewed and commented on by DTSC and revised by Gallade on several occasions, but it has not been approved by DTSC. Since DTSC has determined that the HWDSA contributed to groundwater contamination, a health based risk assessment would not suffice to meet the applicable closure performance standards. On January 7, 2005, DTSC informed the Facility that even with a health risk assessment, Gallade was not meeting a reasonable closure timeline with the on-going soil vapor extraction and ground water extraction and treatment. Upon DTSC’s request, Gallade submitted a draft post-closure care plan to DTSC on April 7, 2005.~~

DTSC has determined that three environmental media (soil, soil-pore gas, and ground water) were contaminated in addition to the concrete of the HWDSA itself. PCE was encountered in concentrations as high as 8,195 ug/kg in the soil at the HWDSA. The contaminated soil and soil-pore gas underlying the HWDSA are being cleaned by a soil vapor extraction (SVE) system installed under the SARWQCB’s oversight in January 20, 2003. However, the soil and soil-pore gas media have not been cleaned to a level that meets either the PQLs or a health-based risk level at this time. The soil and groundwater clean-up has spanned nearly 11 years from the date of approval of the Closure Plan. The closure plan approval requires that closure activity be completed within 180 days. Total volatile organic compounds at one well nearby the HWDSA exceeded 5,700 ug/l in 2005.

DTSC has determined that Gallade: (1) has failed to meet the closure performance standards within a reasonable time from the date of approval of the Closure Plan; (2) shall close the HWDSA with waste-in-place; and (3) shall provide a post-closure care plan for the HWDSA.”

IV. Section 11 of the Closure Plan is modified to state:

#### **“11 SOIL REMOVAL/CLEANUP PROCEDURES**

~~No soil removal or soil cleanup is proposed for closure of the HWDSA, because soil remediation is already planned for that immediate area, as part of a facility wide cleanup. Soil VOC removal~~

and cleanup began in January 2003. Gallade shall continue the cleanup for soil and groundwater as part of the required post-closure care.”

V. Section 12 of the Closure Plan is modified to state:

#### **“12 CLOSURE COST ESTIMATE**

The cost to close the Hazardous Waste Drum Storage Area of the Gallade facility represents a small portion of the total cost to conduct closure/post closure activities for the facility as a whole. The current estimated costs for these activities will not be significantly affected by closure of the HWDSA. The complete cost estimate is included in Appendix D. **Gallade shall submit to DTSC a cost estimate for post-closure care within ninety (90) calendar days of the effective date of this Closure Plan as herein modified.”**

VI. Section 13 of the Closure Plan is modified to state:

#### **“13 FINANCIAL RESPONSIBILITY**

~~As explained in Section 13, closure of the HWDSA should not require modification of the existing closure/post closure financial assurance mechanisms.~~ The documentation for financial assurance, including current closure estimates, compliance cost estimates, and Gallade's liability certificate of insurance for its hazardous waste activities, is presented in Appendix D. **Within ninety (90) calendar days of the effective date of this Closure Plan as herein modified, Gallade shall establish and maintain financial assurance mechanism(s) for post-closure care based upon the post-closure care cost estimate required in Section 12.”**

VII. Section 14 of the Closure Plan is modified to state:

#### **“14 IMPLEMENTATION SCHEDULE**

The sampling of the concrete will be initiated within 60 days of approval of the closure plan for the HWDSA. If contaminants are detected above PQLs, the area will be decontaminated and resampled within 60 days of the initial sampling event. It is anticipated that all activities proposed can be conducted within 180 days of approval of this closure plan.

During the course of closure implementation, Gallade will compile and maintain documents supporting the certification required by regulations. All supporting documentation will be maintained at the facility until it has been released from the closure financial assurance requirements. The following documents will be maintained at the facility and will be made available to the DTSC upon request:

- Approved Closure Plan
- A copy of the independent qualified professional engineer's field of observation reports

- Laboratory results of samples analyzed
- Quality assurance/quality control demonstrations
- Manifests showing disposition of waste inventory
- Miscellaneous documents, such as site photographs
- Closure Certification Report

Gallade has not completed all of the above-mentioned closure activities. In addition, since hazardous waste will be left in place, a land use covenant (LUC) will be signed by DTSC and the property owner and be recorded with the Office of the County Recorder for the hazardous waste drum storage area to prevent an unintended development of this portion of the Facility for other than industrial development and/or use. A LUC Implementation and Enforcement Plan by DTSC has been included in the approved Closure Plan as Appendix F to ensure that the provisions of the LUC are consistently followed.

VII. Section 15 of the Closure Plan is modified to state:

#### **“15 CLOSURE CERTIFICATION REPORT**

Upon completion of the proposed closure activities, a report documenting the activities will be prepared. The report will be submitted within **ninety (90) calendar** ~~60~~ days from ~~completion of closure implementation~~ **the effective date of this Closure Plan as herein modified** and will include, at a minimum, the following:

- Certification by the owner and operator of Gallade and by an independent qualified professional engineer, registered in the state of California using the following statements:

"I certify under penalty of law that this document and all Appendices were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible *for* gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties *for* submitting false information, including the possibility of fine and imprisonment for knowing violations."

- Supervisory personnel description
- Summary of closure activities

- Field engineer observation reports
- Sampling data and analyses
- Discussion of analytical results
- Manifests and shipping papers showing disposition of waste inventory
- Photographs of implementation activities

Gallade may reference the HWDSA Closure Assessment Report as an appendix and state that it is the basis for the Closure Certification Report. The Closure Certification Report must address the demolition and removal of the concrete in accordance with Section 8 of this Closure Plan as herein modified.”

Except as herein modified, the Closure Plan as approved by DTSC on May 22, 1996 shall remain in full force and effect. This Closure Plan as herein modified shall take effect upon the date it is signed by DTSC on the cover page of this document.

## **APPENDIX F**

### **LAND USE COVENANT IMPLEMENTATION AND ENFORCEMENT PLAN FOR GALLADE CHEMICAL INCORPORATED 1230 EAST ST. GERTRUDE PLACE SANTA ANA, CALIFORNIA 92707**

The Department of Toxic Substances Control (DTSC) and Gallade Chemical Incorporated, as owner and Covenantor, shall record a Covenant to Restrict Use of Property on (to be completed upon the recorded date), (hereinafter referred to as the "Land Use Covenant") to carry out the provisions of the approved Closure Plan and DTSC's proposed Closure Plan modifications for the property located at 1230 East St. Gertrude Place, Santa Ana, California (the "Property") in accordance with California Code of Regulations, title 22, section 67391.1. The Land Use Covenant shall be implemented and enforced in accordance with the Land Use Covenant Implementation and Enforcement Plan (LUC Plan).

1. Prior to any sale of the Property by Covenantor, Covenantor shall provide a copy of the Land Use Covenant to any buyer of the Property from Covenantor and otherwise comply with all requirements of the Land Use Covenant pertaining to conveyance of the Property. The Land Use Covenant, by its terms, runs with the land and is binding upon Covenantor and all successive owners and occupants of the Property.
2. The DTSC shall inspect the Property annually for compliance with the Land Use Covenant. Any violations of the Land Use Covenant shall be grounds for DTSC to take enforcement actions in accordance with applicable law.
3. Covenantor shall reimburse DTSC for the costs incurred in implementing this LUC Plan. The billing and payment of DTSC's costs incurred in implementing and enforcing the LUC Plan are subject to, and shall be in accord with an Agreement for Cost Recovery between DTSC and Gallade Chemical Incorporated. DTSC shall specify the items that will be inspected during the development of the LUC Plan. In addition, if Covenantor does not pay, the land use covenant itself contains a provision that the owner shall pay DTSC costs.
4. As provided in the Land Use Covenant, DTSC shall have reasonable right of entry and access to the Property for inspection, monitoring and other activity consistent with the purposes of enforcing the Land Use Covenant as deemed necessary in order to protect public health and the environment.
5. Covenantor shall submit to DTSC a Soil Management Plan and Health and Safety Plan for approval prior to execution of any activity on the Hazardous Waste Drum Storage Area of the Property that will disturb the soil at or below

ground surface (e.g., excavation, grading, removal, trenching, filling, earth movement, or mining).

6. Covenantor shall monitor use of the Hazardous Waste Drum Storage Area of the Property to ensure compliance with the land use restrictions specified in the Land Use Covenant (i.e., Prohibited Uses, Soil Management, and Prohibited Activities). Covenantor shall notify DTSC prior to any soil disturbance or construction activities that will be performed on the Hazardous Waste Drum Storage Area of the Property at or below ground surface (e.g. excavation, grading, removal, trenching, filling, earth movement, or mining). Reports documenting the soil disturbance activities, and implementation of the Soil Management Plan and Health and Safety Plan shall be submitted to DTSC for approval.

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