



# Notification of Final Permit Decision for Dow Chemical Company

U. S. ENVIRONMENTAL PROTECTION AGENCY • REGION 9 • SAN FRANCISCO, CA • JULY 2, 1999

## Introduction

The United States Environmental Protection Agency (EPA) is issuing the final federal portion of a Hazardous Waste Facility Permit to The Dow Chemical Company in Torrance, CA.

The EPA and the California Department of Toxic Substances Control issued Dow a joint permit in 1996. A joint permit was issued because the State of California has not yet received final authorization to administer the new hazardous waste program requirements of the BIF Rule (40 CFR 266, Subpart H, and 270.66) or the air emissions standards (40 CFR 264 Subparts AA, BB, and CC), which are part of Dow's permit.

The federal portion of the RCRA permit was appealed July 26, 1996 (RCRA Appeal No. 96-7). The appeal was withdrawn on May 1, 1997 in favor of EPA reissuing the federal portion of the permit with certain revisions to make the permit even more stringent (see below for details). The changes to the permit will become effective August 2, 1999 unless the decision is appealed under 40 CFR 124.19. The remainder of the federal permit (non-changed portion) is effective immediately. ■

## Facility Description

Dow Chemical Company is located at 305 Crenshaw Boulevard in Torrance, California. The facility covers approximately 52 acres. Although the adjacent property uses are industrial, residential areas are located south and northeast of the facility. Dow began manufacturing operations in 1953. The facility manufactures polystyrene used in such items as toys, automobile interiors, insulation, and Styrofoam.

Two identical on-site boilers have been operating at the

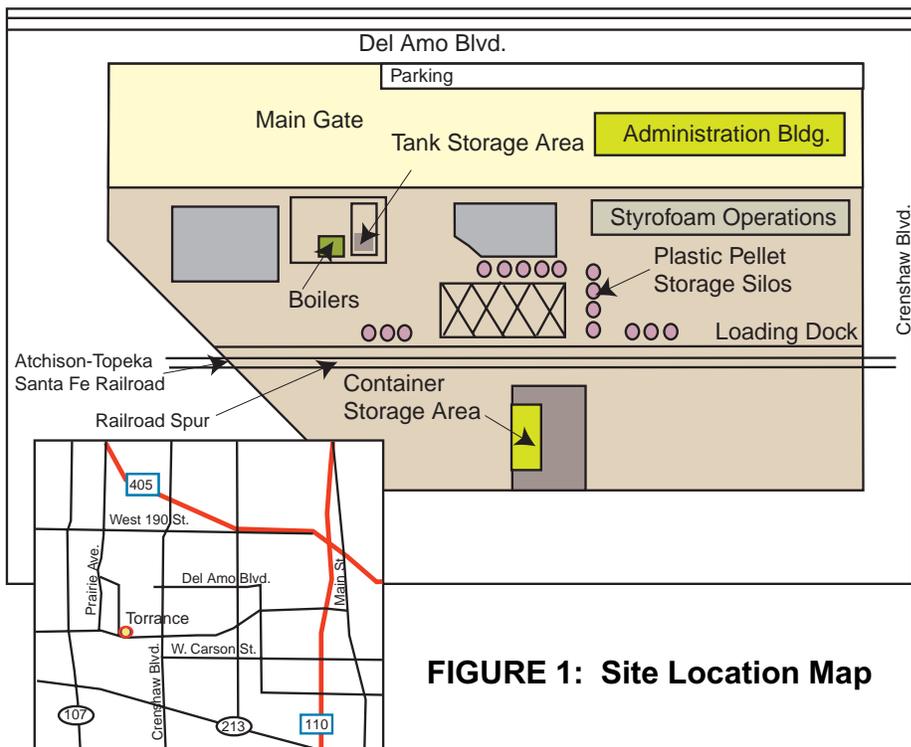


FIGURE 1: Site Location Map

facility since 1979. Each boiler is designed to accept three types of feed streams:

- ◆ 100% natural gas,
- ◆ A combination of natural gas and liquid hazardous waste (hydrocarbons recovered from the manufacturing processes), or
- ◆ 100% low NO<sub>x</sub> fuel oil used during periods of natural gas curtailment.

Dow does not currently burn hazardous waste in their boilers. If Dow decides to resume burning hazardous waste in the boilers, the waste feed will consist of hydrocarbons recovered from the polystyrene resin manufacturing process. The function of the boilers is to generate and transfer thermal energy to a heat transfer fluid. The resulting heated fluid stream supplies heat to the polystyrene resin manufacturing process. In other words, by burning hydrocarbon waste in its boilers, Dow would be offsetting its reliance on natural gas and fuel oil.

## Appeal and Settlement

The federal portion of the RCRA permit was appealed July 26, 1996 (RCRA Appeal No. 96-7). The appeal was withdrawn on May 1, 1997 as EPA agreed to re-issue the federal portion of the permit with the changes listed below.

### ◆ Analysis of hazardous waste feed to boiler [Section VI.B.3.]

The federal portion of the permit requires that for two consecutive years from the date that Dow starts to burn hazardous waste in either of the two boilers (they currently do not burn hazardous waste), Dow must analyze the hazardous waste feed for metals and chlorine every three months (quarterly). After two years, Dow may request and obtain agency approval to conduct less frequent sampling and analysis.

**Appealed Permit Condition:** The appealed condition allowed Dow to request and obtain agency approval to conduct less frequent (though not less than annual) sampling and analysis.

**New Permit Condition:** The new condition allows Dow to request and obtain agency approval to conduct less than quarterly sampling and analysis, but at a frequency not less than once every four months for the duration of the project. The new permit condition requires Dow to conduct more frequent sampling and analysis of the hazardous waste feed to the boilers after two years than

the original appealed permit condition required. This condition more effectively ensures that any emissions problems are identified and corrected quickly.

### ◆ Mass feed rates of toxic metals and chlorine to boilers [Section VI.C.5.]

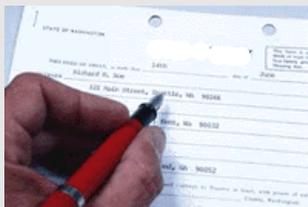
**Appealed Permit Condition:** The total mass feed rates of toxic metals and chlorine to boilers U-304 and U-305 shall not exceed the following: [40 CFR 270.32(b)(2)]

Metal/Chlorine	Total Mass Feed Rate
Arsenic	0.00068 grams/min
Antimony	0.0906 grams/min
Chromium	0.00004 grams/min
Beryllium	0.00163 grams/min
Cadmium	0.00017 grams/min
Chlorine	0.76 grams/min
Mercury	0.0173 grams/min
Silver	0.0256 grams/min
Thallium	0.0888 grams/min
Barium	0.0017 grams/min
Lead	0.182 grams/min

*(Note: The chromium limit refers to total chromium, i.e. hexavalent and trivalent forms)*

## Appeals

EPA final permit decisions can be appealed within thirty days under procedures in 40 CFR §124.19. Only the changed permit conditions may be appealed. Any appeals should be addressed to:



Environmental Protection Agency  
Office of the Administrator  
Environmental Appeals Board (A-101)  
401 M Street S.W., Room 1145 (West Tower)  
Washington, DC 20460

**New Permit Condition:** The total mass feed rates of toxic metals and chlorine to boilers U-304 and U-305 shall not exceed the following: [40CFR 270.32(b)(2)]

Metal/Chlorine	Total Mass Feed Rate
Arsenic	0.00068 grams/min
<b>Antimony</b>	<b>0.01010 grams/min</b>
Chromium	0.00004 grams/min
Beryllium	0.00163 grams/min
Cadmium	0.00017 grams/min
Chlorine	0.76 grams/min
<b>Mercury</b>	<b>0.00106 grams/min</b>
Silver	0.0256 grams/min
<b>Thallium</b>	<b>0.01145 grams/min</b>
Barium	0.0017 grams/min
<b>Lead</b>	<b>0.00579 grams/min</b>

(Note: The chromium limit refers to total chromium, i.e. hexavalent and trivalent forms)

The new permit condition reduces the allowed feed rates of four toxic metals to the boilers (antimony, mercury, thallium, and lead) to further ensure that operations are protective of human health and the environment.

◆ **Trial burn phase [Section VII.B.2.]**

Dow is required to update, revise, and resubmit their Trial Burn Plan six months prior to conducting the trial burn or a performance test. The revised Trial Burn Plan must include all applicable EPA-approved test methods and procedures in effect at the time of the resubmittal.

**Appealed Permit Condition:** EPA may require additional testing and/or different test methods than were used in the original trial burn, based upon changes in policy, guidance, or regulations.

**New Permit Condition:** The Trial Burn Plan shall include dioxin testing, using the best available technology, so long as dioxin testing is consistent with any current policy or practice of the EPA or the California Department of Toxic Substances Control within the State of California.

## Information Repositories

Major documents pertaining to this permit decision, such as the Notice of Appeal and Settlement Discussions, are available for public review at:

**Torrance Civic Center Public Library**

3301 Torrance Boulevard  
Torrance, CA 92714  
(310) 618-5959

**U.S. EPA, Region 9**

75 Hawthorne Street  
San Francisco, CA 94105  
Contact: Vern Christianson  
(415) 744-2422



The complete Administrative Record is available for viewing at the following location:

**California Department of Toxic Substances Control**

1011 Grandview Avenue  
Glendale, CA 91201  
Contact: Jacqueline Sherman  
(818) 551-2886

You can also request copies of individual documents by calling Vern Christianson at (415)744-2422; Catherine McCracken in EPA Region 9's Office of Community Relations, San Francisco, at (415) 744-2182; or Jennifer Downey at (415) 744-2062.

This new permit condition more effectively holds Dow responsible for dioxin testing to ensure that the boilers are not contributing dioxin to the environment. ■

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United States Environmental Protection Agency, Region 9  
75 Hawthorne Street (SFD-3)  
San Francisco, CA 94105-3901  
Attn: Catherine McCracken

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