

STATE OF CALIFORNIA
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

STAFF SUMMARY REPORT (Adrienne Miller)
MEETING DATE: September 12, 2007

ITEM: 6A

SUBJECT: **General Chemical West, LLC, General Chemical Pittsburg Plant, Pittsburg, Contra Costa County** - Termination of NPDES Permit

CHRONOLOGY: July 2002—NPDES Permit Reissued

DISCUSSION: The attached Revised Tentative Order (Appendix A) would terminate General Chemical West, LLC's (General Chemical) NPDES Permit for the discharge of industrial process wastewater and industrial storm water. This is because groundwater and soil contamination from historic industrial activities occurs both onsite and in adjoining properties. This contamination has caused permit violations and requires that General Chemical's lagoon, currently used in the treatment of wastewater, be closed under the oversight of the Department of Toxic Substances Control.

Over the past four years, General Chemical has significantly reduced its process wastewater and is near completion of a sewer line to route its remaining flows to the sanitary sewer for treatment by the Delta Diablo Sanitation District. It has also begun construction of a new storm water system to route runoff directly to Suisun Bay, instead of through the lagoon. This will allow the storm water discharge to be covered under the statewide general permit for industrial storm water.

General Chemical commented (Appendix B) on the Tentative Order. We responded to these comments (Appendix C), revised the Tentative Order where appropriate, and believe that all issues have been resolved.

RECOMMENDATION: Adoption of the Revised Tentative Order

File Number: 2119.1001 (AM)

Appendices: A. Revised Tentative Order
B. Written Comments
C. Response to Comments

APPENDIX A

Revised Tentative Order

REVISED TENTATIVE ORDER NO. R2-2007-00XX

**TERMINATION OF NPDES PERMIT NO. CA0004979
AND WASTE DISCHARGE REQUIREMENTS FOR:**

**GENERAL CHEMICAL WEST, LLC
GENERAL CHEMICAL PITTSBURG PLANT
PITTSBURG, CONTRA COSTA COUNTY**

The California Regional Water Quality Control Board, San Francisco Bay Region (hereinafter the Water Board), finds that:

1. General Chemical Corporation owned and operated an electronic grade chemical manufacturing plant located at 501 Nichols Road, Pittsburg, Contra Costa County. The facility manufactured electronic grade chemicals (i.e. HCl, HF, HNO₃, H₂SO₄, CH₃COOH, NH₄OH, and H₃PO₄) and aluminum sulfate (alum).
2. On June 19, 2002, the Water Board adopted National Pollutant Discharge Elimination System (NPDES) Permit No. CA0004979 for General Chemical Corporation through Order No. R2-2002-0071. Order No. R2-2002-0071 permitted the discharge of an average long term flow rate of up to 0.31 million gallons per day (MGD) of treated industrial process wastewater, non-contact cooling water and on-site storm water from an unlined lagoon to Suisun Bay.
3. On September 22, 2003, General Chemical West LLC (Discharger) acquired ownership of the facility and its discharges. The Discharger is responsible for complying with NPDES Permit No. CA0004979 (Order No. R2-2002-0071).
4. Over the course of the permit term, effluent limitations were violated 38 times. Mandatory Minimum Penalty (MMP) Complaints Nos. R2-2003-0081 (4 violations), R2-2004-0053 (16 violations), and R2-2005-0060 (11 violations) addressed 31 of the violations. The Water Board will address the 7 remaining effluent violations under a separate enforcement order. The sediments in the unlined lagoon have been linked to some of these violations (e.g., mercury and arsenic). The Discharger stated in its Pollution Prevention and Minimization Annual Report, dated February 16, 2005, that known soil contaminants, both onsite and in the surrounding facilities, include arsenic, total chromium, lead, mercury and selenium. Thus, the Discharger stated that leaching of contaminants by groundwater from soils surrounding the lagoon is a likely vector for water contamination in lagoon effluent. As set forth above, Order No. R2-2002-0071 only authorized the discharge of process wastewater, non-contact cooling water, and on-site storm water from the unlined lagoon, not groundwater and its contaminants.
5. The Discharger's effluent has materially changed since it was permitted under Order No. R2-2002-0071, and the Discharger has and will likely continue to violate its permit. Due to the Discharger's reduced flow of industrial process wastewater to the

- unlined lagoon, lower water levels in the lagoon will likely allow more seepage of groundwater contaminated with arsenic, total chromium, lead, mercury and selenium from surrounding facilities, as stated in the Pollution Prevention and Minimization Annual Report, dated June 8, 2007. Additionally, the lower water level also has a greater potential to expose and resuspend contaminated sediments in the lagoon (described in Finding No. 4). The reduced flow has increased the residence time of the water in the lagoon, which causes pollutants to concentrate in lagoon water.
6. If Order No. R2-2002-0071 were to be updated and reissued to comply with applicable and more stringent standards for toxic pollutants, current discharge data (e.g., selenium) show that the existing treatment systems will not be able to comply with the more stringent limits.
 7. The Discharger stated in its Pollution Prevention and Minimization Annual Report, dated February 21, 2003, that it would implement measures to cease discharge. These measures include reducing cooling water use and routing the remaining process wastewater to Delta Diablo Sanitation District. The Discharger is 95% complete with the construction of a sewer line to route industrial process wastewater to Delta Diablo Sanitation District's sewage collection system. The Discharger stated in a letter, dated August 23, 2007, that it will terminate all discharge of process industrial wastewater to the lagoon by October 1, 2007. Additionally, the Discharger indicated that it will complete the construction of a storm water line to route storm water from process areas of the facility directly to Suisun Bay by December 1, 2007. Therefore the industrial storm water discharge will not be affected by the sediments in the unlined lagoon, and can thus be covered under the State Water Board's Industrial Activities Storm Water General Permit, Water Quality Order No. 97-03-DWQ. Storm water discharge using this new system will commence as soon as the system is tested and operational.
 8. To ensure compliance with the current NPDES permit, the Discharger has committed to the testing and implementation of additional lagoon water treatment measures prior to resumption of discharge, and Water Board notification prior to discharge of lagoon water to Suisun Bay. Also, to more fully characterize the changing nature of the discharge during this interim period while the lagoon is being readied for closure, the Discharger has committed to the monitoring of arsenic, copper, cyanide, lead, mercury, nickel, selenium, and fluoride for each discharge event, in which a discharge event cannot exceed a 24-hour period. This more intensive monitoring will provide data to determine compliance with both permit effluent limits and permit receiving water limits. These receiving water limits prohibit discharges that harm beneficial uses or that cause violations of applicable water quality standards. Finally, to avoid the possibility of dam failure at low lagoon water levels, the Discharger will limit the lower level of the lagoon to 30 inches as measured by the lagoon measurement gauge and provide a structural engineering assessment of the dam to the Water Board.

9. This Order terminates NPDES Permit CA0004979 effective April 30, 2008, except for enforcement purposes. Though the Water Board finds that earlier termination is warranted owing to the recent permit violations and material changes to the discharge, the Discharger has asked that this later date be allowed in order to allow the Discharger to ready the lagoon for closure next summer under the oversight of the Department of Toxic Substances Control. In part, this allows for the discharge of the coming wet season's rain that falls directly on the lagoon and its immediate vicinity. In consideration of the commitments made by the Discharger to improve and better characterize the quality of the discharge (see Finding No. 8), and the Discharger's need to ready the lagoon for closure, this Order specifies the April termination date.
10. The Water Board has notified the Discharger and interested agencies and persons of its intent to terminate waste discharge requirements, and has provided them with an opportunity for a public hearing and an opportunity to submit their written views and recommendations.
11. The Water Board, in a public meeting, heard and considered all comments pertaining to the termination of waste discharge requirements for the above discharge.

IT IS HEREBY ORDERED, pursuant to provisions of the Clean Water Act and Division 7 of the California Water Code, and the regulations, and plans and policies adopted thereunder, that Order No. R2-2002-0071 is terminated effective as of April 30, 2008, except for enforcement purposes for violations prior to this date.

I, Bruce H. Wolfe, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Region on September 12, 2007.

Bruce H. Wolfe
Executive Officer

APPENDIX B

Written Comments

August 17, 2007

Ms. Lila Tang
Chief, NPDES Division
California Regional Water Quality Control Board
San Francisco Bay Region
1515 Clay Street, Suite 1400
Oakland, California 94612

Re: Comments of General Chemical, West LLC to
Tentative Termination Order No. R2-2007-00XX
General Chemical Pittsburg Plant, Contra Costa County
NPDES Permit No. CA0004979

Dear Ms. Tang:

General Chemical West, LLC, (hereinafter “General Chemical” or “Respondent”) appreciates the time and effort that the Regional Water Quality Control Board (Water Board) has put in to review our request for an extension to our NPDES Permit No. CA0004979 (the “NPDES Permit”). We also appreciate the proposed extension to January 1, 2008, however, this extension is insufficient to allow us to complete closure of the unit covered by the NPDES Permit.

This letter contains comments by General Chemical, owner and operator of the General Chemical manufacturing plant located at 501 Nichols Road, Pittsburg, Contra Costa County, California in response to the receipt of Tentative Termination Order No. R2-2007-00XX (“Termination Order”) for our NPDES Permit. These comments were solicited by a “Notice of Application and Public Hearing for Discharge Permit” issued by the California Regional Water Quality Control Board (the “Water Board”) dated July 18, 2007 and have been timely submitted as specified in the Notice of Application. In general, the proposed termination of the NPDES Permit for our site is a matter of very serious concern to General Chemical. The site has embarked on a number of very extensive and expensive projects that revolve around and hinge upon the ability of the plant to continue to discharge water to Suisun Bay until the wastewater lagoon is physically closed. By these comments, General Chemical is demonstrating its need to have its NPDES Permit administratively extended until April 30, 2008.

The NPDES Permit Termination Date of January 1, 2008 is Too Early for General Chemical to Complete Critical Activities Necessary to Take Its Wastewater Lagoon Fully Out of Service

The Termination Order issued by the Water Board provides that General Chemical’s right to discharge pursuant to the NPDES Permit expires as of January 1, 2008. (See Termination Order, page 3). General Chemical requests an alternative

termination date for a number of reasons, the most important of which is that General Chemical has initiated a series of tasks at its site involving the NPDES Permit that will have significant beneficial environmental impacts. It is imperative that General Chemical retain the ability to discharge to Suisun Bay during implementation and through completion of these tasks.

Currently, and for many years previously, General Chemical has utilized a large unlined settling and equalization lagoon (the "Lagoon") to collect and treat process water, non-contact cooling water and stormwater prior to discharge through its permitted outfall to Suisun Bay under the NPDES Permit. The tasks described below and referenced in the Termination Order relate to General Chemical's determination to close its existing wastewater lagoon that resides in the northern portion of the facility adjacent to Suisun Bay.

(1) Elimination/rerouting of process wastewater from the Lagoon. General Chemical has nearly completed the task of eliminating most process wastewater due to the installation of cooling towers and the planned rerouting of all remaining process wastewater to the Delta Diablo Sanitary District;

(2) The rerouting of stormwater that previously entered the Lagoon. General Chemical has begun the process of constructing a new stormwater collection system that will convey stormwater from the site directly to Suisun Bay in accordance with an Industrial Activities Storm Water General Permit (Board Order No. 97-03-DWQ, NPDES No. CAS000001) Although a host of variables can impact the speed with which this activity can be accomplished, General Chemical expects that the storm water collection system will be installed by November 2007 and that testing/commissioning of this system will occur in the following months. During the testing/commissioning period, the Lagoon will serve as a contingency backup for storm water retention should there be a problem with the system.

(3) Closing of the Lagoon. After the testing period for the new storm water collection system has been successfully completed, the Lagoon will no longer be necessary. This testing period will be completed during the rain season, and as such the physical closure of the Lagoon will not be able to commence. The California rain season is defined as November – April. The Lagoon will collect rainwater falling within its footprint during this time period. General Chemical will need the ability to remove the rainwater that collected in the Lagoon and discharge it to Suisun Bay under the NPDES Permit.

After the collected rain water has been pumped out in accordance with the NPDES permit, General Chemical will commence cleanup of the Lagoon as a solid waste management unit (SWMU) in accordance with the requirements of the corrective action provisions of the Hazardous Waste Facility Permit (CAD 009142290) and under the approval of the Department of Toxic Substances Control (DTSC).

The Termination Order's expiration date of January 1, 2008 fails to take into consideration the time necessary to enable General Chemical to complete the tasks

described in the preceding paragraphs. Paragraph 8 of the Termination Order references that the January 1, 2008 date “accommodates adequate time for the Discharger to complete the above tasks [*referring to both the process and stormwater rerouting projects*] and troubleshoot problems associated with start-up of rerouting its industrial discharge....” This is not the case, however, as this does not account for the closure of the Lagoon which requires removal of the rain water that will collect during the 2007/2008 rain season. A termination date of April 30, 2008 is requested by General Chemical so that the rain water can be removed. This will then allow General Chemical to move forward with implementation of the RCRA corrective action cleanup.

General Chemical Will Be Able to Discharge to Suisun Bay in Compliance with its Administratively Extended Permit

In Paragraphs 4, 5 and 8 of the Termination Order, the Water Board presents a justification for its proposed termination of the NPDES Permit in January of 2008. In essence, the Water Board determined that the nature of the effluent has materially changed since the permit was originally issued and therefore one can expect to see additional permit violations if General Chemical is authorized to continue to discharge to Suisun Bay. General Chemical respectfully disagrees.

First, the nature of the discharge has not changed dramatically since the issuance of the permit. The Termination Order states that the current permit never authorized the discharge of groundwater. Although not explicitly stated in the NPDES Permit the Record has always been clear that the Lagoon is an unlined unit and thus in communication with adjacent groundwater. Moreover, the contaminants of concern (i.e., metals) have been part of the effluent characteristics at this site since the NPDES Permit was originally issued and both General Chemical and the Water Board have extensive experience with these contaminants. Thus, the continued discharge of water from the Lagoon for the extended period requested during 2008 should not be viewed as the discharge of different sources of water from what was discharged under the existing NPDES Permit.

Second, the key issue of concern should be the protection of the receiving stream as the tasks described above are completed. General Chemical believes that it can complete these tasks in compliance with the existing provisions of its NPDES Permit and is taking immediate steps to ensure such compliance. We recognize that the amounts and ratios of process water, stormwater and groundwater will be altered as we move through our tasks until we achieve closure of the Lagoon, and as a result, General Chemical will be taking special precautions to ensure that our effluent meets the stringent NPDES Permit requirements. For example, General Chemical has received approval from the Water Board for, and is currently in the process of, evaluating the impact of adding additional treatment chemicals to the Lagoon prior to discharge to manage recent increases in levels of arsenic in the Lagoon water. General Chemical will ensure that

appropriate steps are taken, with Water Board oversight, to comply with discharge requirements to protect Suisun Bay.

Administrative Economy

General Chemical believes that an administrative economy point is important to consider. Should the Water Board decline General Chemical's request to extend the NPDES Permit beyond the January 1, 2008 date to April 30, 2007 as requested in these comments, General Chemical will be left without a viable option for discharge of Lagoon water as closure of the unit progresses. The sheer volume of water expected to require management during the closure process makes batch removal of water from the Lagoon economically prohibitive, will necessarily alter the technical approach to closure of the Lagoon, and likely will dramatically delay the timing of closure. In the event that the termination date is not extended, General Chemical would be forced to seek a new discharge permit which will require extensive time and effort on behalf of the Water Board to review the required applications and information in order to issue such permit. Given the timing of the closure projected for the Lagoon, processing and issuance of a new permit is burdensome as a viable option for the discharge of water. We strongly believe that it is in the best interest of all stakeholders to move the Lagoon to completion of closure as soon as is reasonably practicable.

We appreciate the opportunity to present our comments to Tentative Order No. R2-2007-00XX and request that the Water Board take our comments into consideration in modifying the requirements of said Order in accordance with our requests.

Respectfully submitted,

Jim Craig
Director of Operations

APPENDIX C

Response to Comments

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION**

RESPONSE TO WRITTEN COMMENTS

ON THE TERMINATION OF WASTE DISCHARGE REQUIREMENTS FOR:
General Chemical West, LLC
General Chemical Pittsburg Plant
Pittsburg, Contra Costa County
NPDES Permit No. CA0004979

Note: The format of this staff response begins with a brief introduction of the party's comments, followed with staff's response. Interested persons should refer to the original letters to ascertain the full substance and context of each comment.

I. General Chemical West, LLC – August 17, 2007

General Chemical West, LLC Comment 1

General Chemical West, LLC (General Chemical) requests that the termination date of its NPDES permit be extended to April 30, 2008. It states that a termination date of January 1, 2008 is too early to complete the activities necessary to take its wastewater lagoon fully out of service. General Chemical indicates that it needs additional time to (a) construct and test a new storm water collection system, (b) manage the rainwater that will fall directly in the lagoon and in the immediate vicinity during the rain season, and (c) prepare the lagoon for closure next summer under the oversight of the Department of Toxic Substances Control.

Response 1

We have revised the termination date to April 30, 2008. This extension will allow General Chemical to discharge rain that will fall directly on the lagoon in the coming wet season in order to ready the lagoon for closure. In the draft order circulated for public comment, we had specified an earlier termination of January 1, 2008, because recent permit violations and material changes to the discharge could significantly impact the Bay.

To address our concerns and to ensure compliance with the current NPDES permit, General Chemical, in a letter dated August 23, 2007, has committed to the following: (1) terminate all discharge of process industrial wastewater to the lagoon by October 1, 2007, (2) complete a storm water line to route storm water from process areas of the facility directly to Suisun Bay by December 1, 2007, (3) monitor arsenic, copper, cyanide, lead, mercury, nickel, selenium, and fluoride for each discharge event, in which a discharge event cannot exceed a 24-hour period, to characterize the changing nature of the discharge during this interim period while the lagoon is being readied for closure, (4) test and implement further water treatment measures (i.e., addition of ferric sulfate) prior to resumption of discharge from the lagoon, (5) limit the lower level of the lagoon to 30 inches as measured by the lagoon measurement gauge to avoid the possibility of dam failure, and (6) provide a structural engineering assessment of the dam to the Water Board. We have revised Findings No. 7, 8, and 9 in the Revised Tentative Order to reflect these commitments.

In consideration of the commitments made by General Chemical to improve and better characterize the quality of its discharge, and its need to ready the lagoon for closure, the April 30, 2008, termination date is acceptable.