

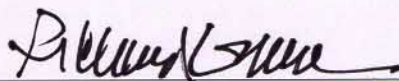


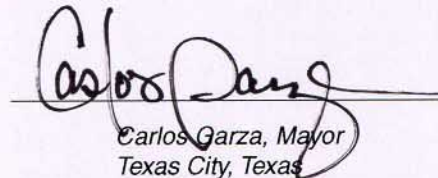
*On this 1st day of July of the year 2003
the U.S. Environmental Protection Agency, Texas Commission on Environmental Quality
and the City of Texas City, Texas*

Determine that

Operable Unit 2 Of The Tex Tin Superfund Site Is Ready For Industrial Use


Kathleen Hartnett White, Commissioner
Texas Commission on
Environmental Quality


Richard E. Greene
Regional Administrator
USEPA, Region 6


Carlos Garza, Mayor
Texas City, Texas

This Ready for Reuse Determination (RfR) is for Operable Unit (OU) 2 (Area H) of the Tex Tin Superfund site. This RfR provides information that EPA has made a technical determination that OU 2, located in Texas City, Galveston County, Texas, is ready for industrial use and will remain protective of human health and the environment, subject to any limitations identified below.

Shallow groundwater may not be used for purposes other than monitoring and remediation and site activities shall not interfere with the long-term groundwater monitoring program. Excavation into the vegetative and clay covering is prohibited without written approval by the State of a plan that demonstrates that the public health and the environment will be protected during and after such activities. EPA and the State shall be provided access to the site for operation, maintenance, and inspection activities. EPA and the State shall be notified if a transfer in ownership occurs. The components of the remedy requiring ongoing operation and maintenance are: semi-annual inspection of the soil/vegetative cover and long-term monitoring of the groundwater. BP Amoco Chemical Company is responsible for continued operation and maintenance of OU 2.

This RfR is a technical document and does not have any legally binding effect and is not intended to create, expand, or limit any legal rights, obligations, responsibilities, expectations, or benefits of any party. EPA retains any and all rights and authorities it has, including, but not limited to legal, equitable, or administrative rights. EPA specifically retains any and all rights and authorities it has to conduct, direct, oversee, and/or require environmental response actions in connection with the site, including instances when new or additional information comes to light that conditions at the site are no longer protective of human health or the environment for the uses identified in the RfR, whether such information is known as of this date, or is discovered in the future. The parcels addressed in the RfR are subject to local land use regulations. The RfR is subject to the terms in the report, Ready for Reuse Determination, Operable Unit 2 of the Tex Tin Corporation Superfund Site, July 2003.

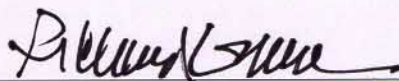


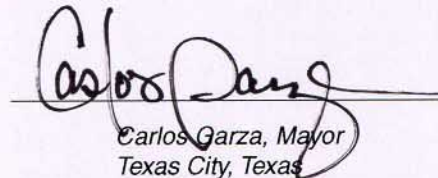
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**Ready for Reuse Determination
Operable Unit 2 of the Tex Tin Corporation Superfund Site
July 2003**

Executive Summary

Property Description

Operable Unit (OU) 2 (Area H) of the Tex Tin Corporation Superfund site (EPA ID# TXD062113329), the subject of this Determination, is located in Texas City, Galveston County, Texas in the southeast quadrant of the intersection of State Highway 146 and Farm-to-Market Road 519. OU 2, currently owned by BP Amoco Chemical Company, encompasses 27 acres. Appendix B of this document contains a survey of the property that contains OU 2.

Purpose

This Ready for Reuse Determination (RfR) provides information that the U.S. Environmental Protection Agency (EPA) has made a technical determination that OU 2 of the Tex Tin Superfund site is ready for reuse and will remain protective of human health and the environment. BP Amoco Chemical Company, the current property owner, is responsible for ensuring the protectiveness of the site, including performing the required operation and maintenance. This reuse determination is subject to the limitations identified below:

- Site use is restricted to industrial ¹.
- Shallow groundwater may not be used for purposes other than monitoring and remediation.
- Site activities shall not interfere with the long-term groundwater monitoring program.
- Excavation into the vegetative and clay covering is prohibited without written approval by the State of a plan that demonstrates that the public health and the environment will be protected during and after such activities.
- Conduct semi-annual inspections of the soil cover to ensure its effectiveness and integrity.
- EPA and the State shall be provided access to the site for operation, maintenance, and inspection activities.
- EPA and the State shall be notified if transfer in ownership occurs.
- Any uses identified as acceptable in this document remain subject to applicable local, State and federal regulations, including, but not limited to, zoning ordinances and building codes.

Site Summary

During the Potentially Responsible Party (PRP)-lead investigation of OU 2 in 1996, the PRP, BP Amoco Chemical Company, performed an assessment of the human and environmental risks associated with using OU 2 for industrial purposes. The conceptual exposure assessment model

¹ Non-industrial use shall not be permitted (e.g., a day care center for the children of employees shall not be permitted as an accessory to an industrial land use).

for this OU found that the only risks identified were human and environmental exposure to arsenic and lead through potential exposure to surface soils or shallow groundwater. The response action taken at OU 2 by BP Amoco has eliminated the exposure pathways and abated the unacceptable level of risk to industrial workers. This action included creating a permanent clean cover over the entire OU 2 property; constructing a slurry cutoff wall along the BP Amoco- Tex Tin property boundary; conducting a long-term groundwater monitoring program; inspecting the soil cover semi-annually; and filing deed restrictions to prevent use of groundwater for purposes other than monitoring and remediation, restrict site use for industrial purposes only, and notify potential users of the remaining site contaminants. In its Record of Decision, issued on September 27, 2001, based on results of previous studies and response action taken on OU 2 as set forth in the Administrative Record, EPA selected no further action. EPA published a Direct Final Notice of Deletion from the NPL for OU 2 on August 15, 2002, and the NPL deletion became effective October 15, 2002. EPA conducted a five-year review of OU 2 on April 3, 2003. The findings of the five-year review show that there are no deficiencies that would affect the protectiveness of the remedy. EPA has now determined that the site is protective for industrial purposes, subject to the limitations and requirements listed above.

Relevant Documents

Relevant documents used to support this determination may be found at the following locations:

- EPA Region 6, 1445 Ross Ave, Dallas, TX 75202; and
- Moore Memorial Library, 1701 Ninth Avenue North, Texas City, TX 77590.

The Record of Decision for OU 2 of the Tex Tin Superfund site can also be found on the EPA Region 6 Web site (url: http://www.epa.gov/earth1r6/6sf/pdffiles/rod_ou2.pdf).

Appendix A of this Determination contains the Direct Final Notice of Deletion of Operable Unit (OU) No. 2 of the Tex Tin Corporation Superfund Site from the National Priorities List.

Points of Contact

Questions regarding the response action taken at OU 2 of the Tex Tin site and this Determination may be directed to the following:

- Carlos Sanchez, EPA Region 6, Mail Code: 6SF-A, 1445 Ross Ave, Suite 1200, Dallas, TX 75202; Telephone number: 214-665-8507; Email address: sanchez.carlos@epa.gov.
- Alvie Nichols, Texas Commission on Environmental Quality, Mail Code 143, PO Box 13087, Austin, TX, 78711-3087; Telephone number: 512/239-2439.
- Christopher Olson, Group Environmental Management Company, a BP affiliated company, 801 Warrenville Road, Suite 8018D, Lisle, IL, 60532, Telephone number: 630-434-6416; Email address: olsoncj@bp.com.

General questions regarding Ready for Reuse Determinations may be sent to: John Harris, EPA Office of Emergency and Remedial Response, Mail Code: 5204G, 1200 Pennsylvania Ave, NW,

Washington, DC 20460; Telephone number: 703-603-9075; Email address:
harris.john@epa.gov.

Effective Date

EPA, the Texas Commission on Environmental Quality and the City of Texas City, Texas hereby declare on this 1st day of July of the year 2003 that the site known as OU 2 of the Tex Tin Superfund site, located in Texas City, Galveston County, Texas, and presently owned by the BP Amoco Chemical Company, is ready for industrial use subject to the terms and conditions described herein.

Disclaimer

This Ready for Reuse Determination is a technical document and does not have any legally binding effect. It is not intended to create, expand, or limit any legal rights, obligations, responsibilities, expectations, or benefits of any party. EPA retains any and all rights and authorities it has, including but not limited to legal, equitable, or administrative rights. EPA specifically retains any and all rights and authorities it has to conduct, direct, oversee, and/or require environmental response actions in connection with the Site, including instances when new or additional information comes to light that conditions at the site are no longer protective of human health or the environment for the uses identified in the Ready for Reuse determination, whether such information is known as of this date, or is discovered in the future.

Richard E. Greene, Regional Administrator
Region 6, U.S. Environmental Protection Agency

Kathleen Hartnett White, Commissioner
Texas Commission on Environmental Quality

Carlos Garza, Mayor
Texas City, Texas

Determination Information

Site and Property Location

The Tex Tin Corporation Superfund site is located in Texas City, Galveston County, Texas in the southeast quadrant of the intersection of State Highway 146 and Farm-to-Market Road 519. The area north and east of the former smelter is dominated by large petrochemical facilities. There is a densely populated residential neighborhood approximately 2,000 feet west-northwest of the site in the city of La Marque, Texas and more than 10,000 people reside within a 1 mile radius. A municipal golf course, an industrial waste disposal facility, and marsh areas are located less than 0.5 mile to the south and southwest of the former facility.

Appendix B of this document contains a survey of the property that contains OU 2. Appendix C contains a site vicinity map.

Site Summary

The Tex Tin smelter was constructed by a corporation under contract to the United States government as an emergency tin supply plant for World War II, and operated under a government contract from 1941 to 1956 as the Tin Processing Corporation. The site consists of four operable units. Primary and secondary tin and copper smelting operations were conducted in the area currently referred to as OU 1, which encompasses approximately 140 acres and includes ponds outside the fenced area. OU 2, which is the subject of this determination, is a 27-acre area that contained unlined pits created for storage of waste acid solution from smelter operations. OU 3 is the La Marque residential area located approximately 2,000 feet west-northwest of the former smelter facility. OU 4 includes the Swan Lake ecosystem located between the hurricane levee and the shell barrier islands separating Swan Lake from Galveston Bay and portions of Swan Lake, its associated salt marsh habitats, and the Wah Chang ditch east of Loop 197. A schematic of the Tex Tin site is presented in Appendix C.

The Tin Processing Corporation sold the facility to a private company in 1957 and it was operated by a succession of companies until it closed in 1991. In 1969, Amoco Chemical Company purchased approximately 27 acres of land (OU 2) from Wah Chang Corporation, who owned the smelter at that time. Amoco Chemical Company (now BP Amoco Chemical Company) owns this property today. The BP Amoco property formerly contained several unlined pits created for storage of waste acid solution from smelter operations. In April of 1996, Amoco Chemical Company requested that it be allowed to clean up its property under the Texas Voluntary Cleanup Program. The Texas Natural Resources Conservation Commission (TNRCC), now the Texas Commission on Environmental Quality (TCEQ), in consultation with EPA, agreed to this request. EPA provided technical assistance to TNRCC in overseeing the Amoco response actions.

EPA first proposed the Tex Tin site for inclusion on the National Priorities List (NPL) of Superfund sites in 1988. The U.S. Court of Appeals for the D.C. Circuit ordered the site removed from the NPL in 1993. On June 17, 1996, EPA again proposed to add the Tex Tin Corporation

site to the NPL (61 FR 30575). The Tex Tin NPL listing became final on September 18, 1998 (63 FR 49855).

From September 1997 through June 1998, BP Amoco performed a remedial investigation and human health risk assessment of the Tex Tin site, and completed a response action at OU 2 under the Texas Voluntary Cleanup Program. The response action conducted by BP Amoco Chemical Company included placing a soil/vegetative cover over the entire operable unit; constructing a slurry cutoff wall along the boundary between OU 1 (Tex Tin) and OU 2 (BP Amoco Chemical Company); initiating a long-term groundwater monitoring program; and filing deed restrictions to prevent exposure and use of shallow groundwater, limit use of the site for industrial purposes only, and notify potential users of remaining site contaminants.

On September 27, 2001, EPA Region 6 signed a No Further Action Record of Decision (ROD) for OU 2. EPA based its decision on the results of the remedial investigation human health risk assessment and the successful completion of the response actions by BP Amoco at OU 2. EPA determined that the BP Amoco response actions addressed the human health risk associated with the high concentrations of arsenic and lead, and eliminated the need to conduct further remedial action. The State of Texas concurred with the ROD. EPA published a direct final notice of deletion for OU 2 in the Federal Register on August 15, 2002. The deletion became effective on October 15, 2002.

EPA Region 6 conducted a five-year review of OU 2 on April 3, 2003. The findings of the five-year review show that there are no deficiencies that would affect the protectiveness of the remedy. The five-year review report should be completed by September 2003.

EPA's Basis for the Ready for Reuse Determination

The current land use for OU 2 is industrial. The properties surrounding OU 2 are also industrial properties. The ROD anticipates that future land use for OU 2 will remain industrial. The conceptual exposure assessment model², conducted by BP Amoco Chemical Company in accordance with the Texas Risk Reduction Standard, identified unacceptable levels of risk to industrial workers, trespassers, visitors, offsite residents, or construction workers caused by potential exposure to arsenic or lead at OU 2. EPA has determined the response action implemented by BP Amoco Chemical Company at OU 2 abated these risks and is protective for industrial workers at the site.

This Determination is based upon the findings of the EPA that have been documented in part in the "Direct Final Notice of Deletion of Operable Unit (OU) No. 2 of the Tex Tin Corporation Superfund Site from the National Priorities List" (see Appendix A), as well as the conceptual exposure assessment model prepared for the site. Any uses identified as acceptable in this document remain subject to applicable local, State and federal regulations, including, but not limited to, zoning ordinances and building codes.

² "Conceptual Exposure Assessment Model, BP C-Plant Site Voluntary Cleanup Program, BP Corporation, Texas City, Texas." Submitted as final to the Texas Natural Resources Conservation Commission on October, 1996. Prepared by KMA Environmental Services, LLC, Texas City, Texas.

Ongoing Limitations and Responsibilities

The response action at Tex Tin OU 2 was conducted by BP Amoco Chemical Company under the authority of the Texas Voluntary Cleanup Program and met the requirements of the National Contingency Plan (NCP). The implemented remedy for OU 2 included a combination of engineering controls and institutional controls, along with a long-term operation and maintenance plan. The following is a summary of the elements of the response action:

- Engineering Controls:** The engineering controls included a soil/vegetative cover to prevent exposure to surface soil contaminants above health-based action levels and a slurry wall to prevent further movement of the contaminated shallow groundwater. Excavation into the soil/vegetative covering is prohibited without written approval by the State of a plan that demonstrates that the public health and environment will be protected during and after such activities.
- Institutional Controls:** Institutional controls include the placement of restrictive covenants on the property to (a) prevent the use of the groundwater for purposes other than monitoring and remediation, (b) restrict use of the site to industrial land uses, and (c) notify potential users of the contaminants remaining on the site. BP Amoco Chemical Company implemented these controls in May 1999. In December 2002, upon the request of TCEQ, BP Amoco Chemical Company placed an additional restriction on the site that requires sampling for tin contamination in the surface soil if any portion of the soil/vegetative cover is removed. The results of the sampling are to be sent to TCEQ. Copies of these restrictions may be found in Appendix B.
- Operation and Maintenance:** EPA and the State will be provided access to the site for operation, maintenance, and inspection activities. Operation and maintenance requirements for the site include a long-term groundwater monitoring program and semi-annual inspection of the soil cover to be conducted by BP Amoco Chemical Company, and a review of site conditions by the TCEQ (successor agency to TNRCC) on a semi-annual basis. EPA will review the site every five years to ensure that the remedy continues to provide adequate protection of human health and the environment. EPA conducted the first five-year review of the property in April 2003. The findings of the five-year review show that there are no deficiencies that would affect the protectiveness of the remedy.

Caveats

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Reuse of OU 2 of the Text Tin Corporation Superfund site is subject to local land use regulations.

Appendix A:

**Direct Final Notice of Deletion of Operable Unit (OU) No. 2 of the Tex Tin Corporation
Superfund Site from the National Priorities List**

July 1, 2003

Appendix B:

Texas Commission on Environmental Quality Conditional Certificate of Completion

July 1, 2003

Appendix C
Site Maps

