



KELLY AFB  
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ADMINISTRATIVE RECORD  
COVER SHEET

AR File Number 3227

# Kelly Restoration Advisory Board (RAB) Technical Review Subcommittee (TRS)

## Meeting Agenda\*

December 13, 2005, 6:30 p.m.

Environmental Health & Wellness Center

911 Castroville Road

(formerly Las Palmas Clinic)

- |             |  |  |
|-------------|--|--|
| 6:30 - 6:40 | <b>Introduction</b><br>A. Agenda Review<br>B. Packet Review  | Dr. David Smith  |
| 6:40 - 7:00 | <b>Administrative</b><br>A. BRAC Cleanup Team (BCT) Update<br>B. Documents to TRS/RAB<br>C. RFI Responses<br>D. Action Items Reports | Mr. Don Buelter<br><i>Please refer to your packets</i><br><i>Please refer to your packets</i><br><i>Please refer to your packets</i> |
| 7:00 - 7:10 | <b>AFRPA Update</b>  | Mr. Don Buelter  |
| 7:10 - 8:00 | <b>TAPP Pre-Briefing</b><br>2005 Semiannual Compliance Plan  | Mr. Patrick Lynch  |
| 8:00 - 8:30 | <b>Questions &amp; Answers</b>   |  |
| 8:30        | <b>Meeting Wrap-up</b>   |  |
|             | <b>Next RAB Meeting</b><br>Jan. 10, 6:30p.m., Kennedy High School cafeteria, 1922 South General McMullen*                            |  |
| 8:30        | <b>Adjournment</b>   |  |

*\*Meeting dates, locations and agenda item times are subject to change.*

**December 13, 2005**  
**Technical Review Subcommittee (TRS) Meeting**  
**of the Kelly Restoration Advisory Board (RAB)**  
**Environmental Health & Wellness Center**  
**911 Castroville Road**  
**San Antonio, Texas 78237**

**DRAFT Meeting Minutes**

**RAB Community Member Attendees:**

Mr. Robert Silvas, Community Cochair  
Mr. Galvan (alternate for Ms. Esmeralda Galvan)  
Mr. Rodrigo Garcia  
Ms. Coriene Hannapel  
Ms. Henrietta LaGrange  
Mr. Nazarite Perez  
Mr. Michael Sheneman

**RAB Government Member Attendees:**

Gary Miller, Environmental Protection Agency (EPA), Region VI  
Melanie Ritsema, San Antonio Metropolitan Health District (SAMHD)  
Mark Weegar, Texas Commission on Environmental Quality (TCEQ)

**Other Attendees:**

David Smith, Facilitator  
Don Buelter, Air Force Real Property Agency (AFRPA)  
Todd Colburn, AFRPA Contractor  
Kyle Cunningham, SAMHD (Alternate for Melanie Ritsema)  
Alan Ferrell, SAMHD  
Linda Kaufman, SAMHD  
Eduardo Martinez, AFRPA Contractor  
David Plylar, City of San Antonio, District 5 Office  
Abigail Power, TCEQ (Alternate for Mark Weegar)  
Ellie Mae Wehner, TCEQ

The meeting began at 6:32 p.m.

**I. Introduction – Dr. David Smith**

Dr. Smith began the meeting by welcoming RAB members and other attendees. Dr. Smith then reviewed the agenda items for the evening and the RAB meeting packets, which included:

- Documents to the TRS/RAB at December TRS
- Documents to the TRS/RAB at November TRS signed acknowledgement from both cochairs
- AFRPA response letter to Ms. Hannapel's request for information regarding missed meeting packets

- AFRPA response letter to Mr. Garcia's request for copies of the 2004 Final Semiannual Compliance Plan and Corrective Measures Studies for Zones 2, 3, 4 and 5
- AFRPA response letter to Mr. Silvas' comments on the Class 2 Modification to the Compliance Plan No. 50310 with attachments
- November Action Item Report with attachments
- Draft October 18, 2005 TRS Meeting Minutes
- Draft November 18, 2005 TRS Meeting Minutes
- Media clipping, Re: Groundwater Treatment Plant spill
- Media clipping, Re: Diazinon use at Kelly
- Draft Report: TAPP Review of the January 2005 Semiannual Compliance Plan Report for the former Kelly Air Force Base
- Presentation: TAPP Review of the January 2005 Semiannual Compliance Plan Report for the former Kelly Air Force Base
- Media clipping: Public notice of application for Water Quality TPDES Permit Amendment for Industrial Wastewater

## **II. Administrative**

A. Mr. Don Buelter provided a BCT Update regarding the CMS for Zone 1, new groundwater samples taken from wells located near all PRBs in late November, GKDA's interest in possible early transfer of property, and the RCRA Facility Investigation Report and the 2006 Semiannual Compliance Plan which will be submitted to TCEQ for review in January 2006.

B. Mr. Eduardo Martinez discussed recent documents to TRS/RAB. A list of documents which will be placed in the cochair library at the Environmental Health & Wellness Center (EWHC) following the meeting were included in meeting packets, along with a signed list of library documents placed in the cochair library following the November 2005 TRS meeting.

C. Mr. Eduardo Martinez discussed the three AFRPA responses to community member requests for information included in the meeting packets.

D. Action Item Reports from the 8 November 2005 TRS, and their attachments, were provided in RAB packets. Mr. Eduardo Martinez explained some of the responses included in the report. He announced the proposed publishing of a full-page ad containing the same information as the annual mailer that was distributed to the community. Ms. Hannapel would like AFRPA to identify a point-of-contact for each of the responses provided. She also asked that a background on each of the points-of-contact be provided.

## **III. AFRPA Update – Mr. Don Buelter**

Mr. Buelter announced the placement of a Notice of Application and Preliminary Decision for Water Quality TPDES Permit Amendment for Industrial Wastewater. Mr. Garcia would like to know if all the radioactive waste had been removed from the golf course.

#### **IV. TAPP Review of the January 2005 Semiannual Compliance Plan – Mr. Patrick Lynch**

Mr. Lynch gave a draft oral presentation on his review of the 2005 Semiannual Compliance Plan, conducted in accordance with TAPP. The draft report was included in the meeting packets.

#### **V. Question/Answer Session on TAPP Review of the January 2005 Semiannual Compliance Plan – Mr. Patrick Lynch**

Mr. Silvas requested AFRPA respond to Mr. Lynch's findings upon delivery of the final presentation and report. He also requested a copy of AFRPA's response to Mr. Neathery's TAPP review of the Zone 2 and 3 CMS be sent to Mr. Lynch for reference. Mr. Silvas requested information on who prepared the AFRPA response to Mr. Neathery.

#### **VI. Meeting Wrap-Up**

The next RAB meeting will take place at 6:30 p.m., 10 January 2006 in the cafeteria of Kennedy High School, 1922 South General McMullen.

#### **VII. Meeting Adjournment**

The meeting adjourned at 9:03 p.m.

#### **Attachments:**

- Meeting Agenda, 13 December 2005 TRS
- December 2005 documents placed in cochair library
- November 2005 documents placed in cochair library, signed
- AFRPA response to RAB requests for information (RFIs)
- November 2005 TRS action item report
- Meeting minutes, October 2005 and November 2005, unsigned
- Clearwater Revival Company, TAPP pre-briefing handouts, January 2005 Semiannual Compliance Plan Report

**Robert Silvas**  
Community Cochair

Date

**Adam Antwine**  
Installation Cochair


Date




## Documents to the TRS/RAB

The following document(s) will be included in the Co-chair Library at the Environmental Health and Wellness Center. The document(s) will remain in the Co-chair library to allow fellow RAB members the opportunity for review. The documents will not be replaced if removed.

1. TCEQ Letter to AFRPA on Closure of Two AST at Bldg 53, Four VAST at Bldgs 375, 1417, 1544 & 1679
2. TCEQ Letter to AFRPA on Site Inspections of AST Located at Various Buildings

  
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**Robert Silvas**  
RAB Co-chair

11/8/05  
Date

  
\_\_\_\_\_  
**Adam Antwine**  
Installation Co-chair

11/14/05  
Date



DEPARTMENT OF THE AIR FORCE  
AIR FORCE REAL PROPERTY AGENCY

NOV 16 2005

AFRPA/DC-Kelly  
143 Billy Mitchell Blvd Ste 1  
San Antonio TX 78226-1816

Dear Kelly Restoration Advisory Board Members

Mr. Rodrigo Garcia submitted a request 8 November 2005 to the Air Force Real Property Agency (AFRPA) for all cleanup plans related to Zones 1 through 5 to be copied and distributed to all RAB members.

Enclosed are two CDs containing cleanup information for Zones 1 through Zone 5:

1. 2004 Final Semiannual Compliance Plan
2. Corrective Measure Studies (CMS), Zones 2, 3, 4 and 5  
A Zone 1 CMS was not conducted by AFRPA because Zone 1 was realigned to Lackland Air Force Base (AFB).

Hard copies of these documents are available for public review at the Information Repository located at the San Antonio Central Library, 600 North Soledad, 2<sup>nd</sup> Floor, San Antonio, TX 78205. Hard copies are also available for RAB members to review at the Community Co-chair library located at the Environmental Health & Wellness Center, 911 Castroville Road, San Antonio, TX 78237.

If you have questions, please contact Public Affairs Officer Sonja Coderre at (210) 925-0956.

Sincerely

A handwritten signature in cursive script that reads "Adam G. Antwine".

ADAM G. ANTWINE  
Senior Representative

Attachments:

- CD 1 - 2004 Final Semiannual Compliance Plan Report
- CD 2 - Zones 2&3, Zone 4 and Zone 5 CMS





AFRPA/DC-Kelly  
143 Billy Mitchell Blvd Ste 1  
San Antonio TX 78226-1816

Ms. Coriene Hannapel  
702-14447

o,

Dear Ms. Hannapel

You recently requested a copy of materials handed out to the Restoration Advisory Board (RAB) members at meetings where you were not present. Based on meeting attendance records and sign-in sheets, you were not present at the 19 July 2005 RAB meeting.

Additionally, you arrived at the 13 September 2005 Technical Review Subcommittee (TRS) meeting a few minutes before the Kelly remediation site tour began. This tour was provided to give Kelly RAB community members an opportunity to become familiar with some of the environmental remediation sites and technologies used on and around the former Kelly AFB. The materials distributed to RAB members at both of these meetings are enclosed for your review.

AFRPA makes every effort to provide RAB members with copies of materials for each meeting through multiple distributions. Read ahead packets are mailed prior to each meeting to all RAB members and alternates. Additionally, meeting packets are mailed after each meeting to those RAB members and alternates who were not present. Thank you for providing AFRPA with your corrected mailing address to ensure you receive all future mailings.

If you have questions, please contact Public Affairs Officer Sonja Coderre at (210) 925-0956.

Sincerely

ADAM G. ANTWINE  
Senior Representative

Attachments:

- 18 July 2005 meeting materials
- 13 September 2005 meeting materials



DEPARTMENT OF THE AIR FORCE  
AIR FORCE REAL PROPERTY AGENCY

AFRPA/DC-Kelly  
143 Billy Mitchell Blvd Ste 1  
San Antonio TX 78226-1816

DEC 05 2005

Mr. Robert Silvas

Dear Mr. Silvas,

Thank you for your letter concerning the Air Force Real Property Agency's (AFRPA) request to the Texas Commission on Environmental Quality (TCEQ) for a Class 2 Modification to Compliance Plan No. 50310 dated 15 July 2005 in accordance with *Title 30 of the Texas Administrative Code (TAC) §305.69(c), Solid Waste Permit Modification at the Request of the Permittee* for the former Kelly Air Force Base (AFB). We are responding on behalf of both letters, one to Ms. Kathryn M. Halvorson, Director of the Air Force Real Property Agency, and the other to Ms. Maureen Koetz, Assistant Secretary of the Air Force - Installations, Environment, and Logistics.

AFRPA followed all required federal and state regulations for requesting a modification to a compliance plan. As required by *30 TAC 39.107* and *30 TAC 305.69(c)*, AFRPA sent a notice of modification request to all persons listed in *30 TAC 39.13* and published a public notice of the Class 2 modification in the *San Antonio Express-News* 16 July 2005. AFRPA also made a copy of the compliance plan modification request available for public review in the Information Repository for the former Kelly AFB, located at the San Antonio Central Library, 600 North Soledad, 2nd Floor, in the Government Documents section. Additionally, Kelly Restoration Advisory Board (RAB) members were provided a copy of the public notice, and a copy of the letter mailed to community members, and invited to attend the public meeting scheduled for 23 August 2005 at the July 2005 RAB meeting and the August 2005 Technical Review Subcommittee (TRS) meeting.

I would also like to address each of your concerns individually regarding the Class 2 modification:

- *What is a Class 2 Compliance Modification?*

A modification to a compliance plan is made in accordance with *30 TAC §305.69* and *30 TAC §305.69(k)*, which determines what classification the modification is assigned. In April 2005, the Union Pacific Railroad requested the Air Force remove one of the recovery wells in the Kelly Site S-4 groundwater recovery system from their property in preparation for the construction of more railroad tracks. In order to remove the well, the Air Force was required to submit an application to modify the compliance plan. In accordance with *30 TAC §305.69(k)*

*section C.1.a*, a Class 2 modification was requested. TCEQ's approval for closure of the 1100 area required a Class 2 modification request in accordance with 30 TAC §305.69(k) *section C.4*. Copies of 30 TAC §305.69 and 30 TAC §305.69(k) are included with this letter as Attachments 1 and 2.

*- What corrective measures have been taken to protect human health and the environment at Site S-4?*

Details of the Corrective Action System (CAS) installed at Site S-4 and approved by TCEQ 22 September 2004 can be found in the *Class 3 Modification to Compliance Plan CP-50310, former Kelly Air Force Base, Texas*, which is available at the former Kelly AFB Information Repository at the San Antonio Central Public Library, 600 North Soledad, Second Floor, in the Government Documents section. The approved Site S-4 CAS consists of five groundwater recovery trenches; five recovery wells; the impermeable barrier installed with the City of San Antonio culvert; and monitored natural attenuation.

*- What requirements of Compliance Plan 50310 have been fulfilled at Site S-4? What requirements of CP 50310 have not been fulfilled at Site S-4?*

The CAS was installed in accordance with requirements outlined in the Compliance Plan. The CAS will remain in operation until TCEQ determines the site has achieved levels which no longer require action.

*- Have all remedial alternatives, including monitored natural attenuation, at Site-4 been completed or evaluated?*

All systems in the approved CAS have been installed and are operating at Site S-4. Details on these systems can be found in the *Class 3 Modification to Compliance Plan CP-50310, Former Kelly Air Force Base, Texas*, available at the former Kelly AFB Information Repository at the San Antonio Central Public Library, 600 North Soledad, 2nd Floor, in the Government Documents section. AFRPA evaluated the groundwater data in the area of the trench where the recovery well was proposed for removal, and determined the trench was not capturing sufficient groundwater to continue operation of the trench and associated recovery well.

*- Does Kelly's request for a Class 2 Modification provide sufficient information to TCEQ concerning the likelihood of contamination migrating beyond the S-4 Site and into the neighborhood?*

The Class 2 modification specifically addresses the removal of one recovery well from the CAS. A Class 3 modification approved and issued 22 September 2004 by TCEQ provided information on the entire CAS system at Site S-4.

*- How many Point of Compliance and Background wells associated with the 1100 area are being removed? What was the cost of installing these wells? What is the cost of removing these wells? How many gallons of contaminated water were these wells extracting per day?*

Two Point of Compliance (POC) wells and two background wells are associated with the 1100 area. These wells are monitoring wells and not used to extract water. Each well costs approximately \$1,500 to install. Abandoning a well requires removing the casing and filling the hole with clay or cement and costs approximately \$750.

- *The 1100 area has achieved what Risk Reduction Standard?*

The 1100 area was closed in accordance with Risk Reduction Standard (RRS) 2 as outlined in 30 TAC §335.555.

- *The modification changes status of what sites in the Compliance Plan?*

The Class 2 modification changes the status of the following sites listed in section I.C. of the Compliance Plan:

1. The Lumber Burn Area (B-1), (SWMU 28, Air Force Site No. SS041) closed under 30 TAC §335 Subchapter S Risk Reduction Standard No. 1. Approval was issued by TCEQ 7 October 1999.
2. The Maintenance Storage Area (S-3), (SWMU 15, Air Force Site No. SS005) closed under 30 TAC §335 Subchapter S Risk Reduction Standard No. 2. Proof of deed certification was accepted by TCEQ on 7 July 2003.
3. The 1100 Area closed under 30 TAC 335 Subchapter S Risk Reduction Standard No.2. Approval was issued by TCEQ 22 February 2005.
4. The 1500 Area closed under 30 TAC §335 Subchapter S Risk Reduction Standard No. 1. Approval was issued by TCEQ 1 July 2003.
5. The underground storage tanks at the former Building 1501 closed under 30 TAC §335 Subchapter S Risk Reduction Standard No. 2. Proof of deed certification was accepted by TCEQ on 2 August 2002.
6. The Oil/Water Separator at Building 1501 (RFA SWMU 119) closed under 30 TAC §335 Subchapter S Risk Reduction Standard No. 2. Proof of deed certification was accepted by on 25 September 2003.

- *What was the cost of installing ground water recovery well ST006RW112 and the associated ground water collection trench in the S-4 Action System? What is the cost of removing this system?*

The cost of installing a groundwater recovery well and its associated trench is approximately \$50,000. This well recovers groundwater and sends it to a treatment plant for treatment. To abandon this kind of well, which includes removing the well and filling the hole with cement, is expected to cost approximately \$5,000.

- *Was the vertical and horizontal extent of contamination in the soil sufficiently characterized by Kelly Officials to eliminate the possibility that Site-4 is no longer a source area for groundwater contamination?*

The soils were sufficiently characterized at Site S-4 and were closed in accordance with RRS 2 as approved by the TCEQ 9 October 2001.

*- What methodology did Kelly use to determine the average background level (ABL) for inorganic material in the soil? Were any deficiencies found by TCEQ in the Methodology used by Kelly in determining the ABL?*

The background levels are based on upper tolerance limits (UTLs), which were approved by TCEQ 18 January 1999. The UTLs were used as the naturally occurring background level for each respective inorganic compound at the former Kelly AFB. The UTLs are equivalent to RRS 1 closure levels for inorganic compounds. The UTLs for selected inorganic compounds in the soil were evaluated in a study performed by the Mobile District Corps of Engineers. The results of this study are published in the *Final Report Addendum to Final Background Levels of Inorganics in Soils at Kelly AFB* (Mobile District Corps of Engineers, 1999). This document is available at the former Kelly AFB Information Repository at the San Antonio Central Public Library, 600 North Soledad, 2nd Floor, in the Government Documents section.

*- Has Kelly restored the groundwater in Site S-4 and adjacent sites to TCEQ Ground Water Protection Standards?*

At present, all corrective action systems are operating at Site S-4. Since implementation of the CAS, these systems have significantly decreased the concentration of contaminants. However, Groundwater Protection Standards have not yet been achieved for the entire plume area.

*- Did TCEQ's district office receive advance notification to afford TCEQ's regulators to observe and co-sample before Kelly started self implementing Risk Reduction Standards?*

In general, AFRPA discusses the overall plan for sampling a site with TCEQ. Additionally, AFRPA will present and discuss sampling results as they become available.

*- Will residents living in the affect area adjacent to Site-4 be able to drink or use the restored water? If no, why?*

The Air Force is responsible for cleaning the water to standards established by TCEQ and as required by the Compliance Plan. The San Antonio Water System and the Bexar Metropolitan Water District are responsible for providing water to the communities surrounding the former Kelly AFB.

*- Will Kelly be required by TCEQ to either clean-up contaminated media to back ground levels or be subject to additional TCEQ requirements in their permit and ground water compliance plan?*

As outlined in the permit and the groundwater compliance plan, the Air Force is required to achieve site closure in accordance with TCEQ Risk Reduction rules provided in 30 TAC Chapter 335.

I appreciate your concern and continued service to the former Kelly AFB.

Sincerely



ADAM G. ANTWINE  
Senior Representative

Attachments:

1. *30 Texas Administrative Code §305.69*
2. *30 Texas Administrative Code §305.69(k)*

&lt;&lt;Prev Rule

**Texas Administrative Code**

Next Rule&gt;&gt;

**TITLE 30**

## ENVIRONMENTAL QUALITY

**PART 1**

## TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

**CHAPTER 305**

## CONSOLIDATED PERMITS

**SUBCHAPTER D**AMENDMENTS, RENEWALS, TRANSFERS, CORRECTIONS,  
REVOCATION, AND SUSPENSION OF PERMITS**RULE §305.69****Solid Waste Permit Modification at the Request of the Permittee**

(a) This section applies only to modifications to industrial and hazardous solid waste permits. Modifications to municipal solid waste permits are covered in §305.70 of this title (relating to Municipal Solid Waste Class I Modifications).

(b) Class I modifications of solid waste permits.

(1) Except as provided in paragraph (2) of this subsection, the permittee may put into effect Class 1 modifications listed in Appendix I of this subchapter under the following conditions:

(A) the permittee must notify the executive director concerning the modification by certified mail or other means that establish proof of delivery within seven calendar days after the change is put into effect. This notification must specify the changes being made to permit conditions or supporting documents referenced by the permit and must explain why they are necessary. Along with the notification, the permittee must provide the applicable information in the form and manner specified in §1.5(d) of this title (relating to Records of the Agency), §§305.41-305.45 and 305.47 - 305.53 of this title (relating to Applicability; Application Required; Who Applies; Signatories to Applications; Contents of Application for Permit; Retention of Application Data; Additional Contents of Applications for Wastewater Discharge Permits; Additional Contents of Application for an Injection Well Permit; Additional Requirements for an Application for a Hazardous or Industrial Solid Waste Permit; Revision of Applications for Hazardous Waste Permits; Waste Containing Radioactive Materials; and Application Fee), Subchapter I of this chapter (relating to Hazardous Waste Incinerator Permits), and Subchapter J of this chapter (relating to Permits for Land Treatment Demonstrations Using Field Tests or Laboratory Analyses);

(B) the permittee must send notice of the modification request by first-class mail to all persons listed in §39.13 of this title (relating to Mailed Notice). This notification must be made within 90 calendar days after the change is put into effect. For the Class 1 modifications that require prior executive director approval, the notification must be made within 90 calendar days after the executive director approves the request; and

(C) any person may request the executive director to review, and the executive director may for cause reject, any Class 1 modification. The executive director must inform the permittee by certified mail that a Class 1 modification has been rejected, explaining the reasons for the rejection. If a Class 1 modification has been rejected, the permittee must comply with the original permit conditions.

(2) Class 1 permit modifications identified in Appendix I by a superscript 1 may be made only with the prior written approval of the executive director.

(3) For a Class 1 permit modification, the permittee may elect to follow the procedures in subsection (c) of this section for Class 2 modifications instead of the Class 1 procedures. The permittee must inform the executive director of this decision in the notification required in subsection (c) (1) of this section.

(c) Class 2 modifications of solid waste permits.

(1) For Class 2 modifications, which are listed in Appendix I of this subchapter, the permittee must submit a modification request to the executive director that:

(A) describes the exact change to be made to the permit conditions and supporting documents referenced by the permit;

(B) identifies the modification as a Class 2 modification;

(C) explains why the modification is needed; and

(D) provides the applicable information in the form and manner specified in §1.5(d) of this title (relating to Records of the Agency), §§305.41 - 305.45 and 305.47 - 305.53 of this title (relating to Applicability; Application Required; Who Applies; Signatories to Applications; Contents of Application for Permit; Retention of Application Data; Additional Contents of Applications for Wastewater Discharge Permits; Additional Contents of Application for an Injection Well Permit; Additional Requirements for an Application for a Hazardous or Industrial Solid Waste Permit; Revision of Applications for Hazardous Waste Permits; Waste Containing Radioactive Materials; and Application Fee), Subchapter I of this chapter (relating to Hazardous Waste Incinerator Permits), and Subchapter J of this chapter (relating to Permits for Land Treatment Demonstrations Using Field Tests or Laboratory Analyses);

(2) The permittee must send a notice of the modification request by first-class mail to all persons listed in §39.13 of this title (relating to Mailed Notice) and must cause this notice to be published in a major local newspaper of general circulation. This notice must be mailed and published within seven days before or after the date of submission of the modification request, and the permittee must provide to the executive director evidence of the mailing and publication. The notice must include:

(A) announcement of a 60-day comment period, in accordance with paragraph (5) of this subsection, and the name and address of an agency contact to whom comments must be sent;

(B) announcement of the date, time, and place for a public meeting to be held in accordance with paragraph (4) of this subsection;

(C) name and telephone number of the permittee's contact person;

(D) name and telephone number of an agency contact person;

(E) location where copies of the modification request and any supporting documents can be viewed and copied;

(F) the following statement: "The permittee's compliance history during the life of the permit being modified is available from the agency contact person."



(3) The permittee must place a copy of the permit modification request and supporting documents in a location accessible to the public in the vicinity of the permitted facility.

(4) The permittee must hold a public meeting no earlier than 15 days after the publication of the notice required in paragraph (2) of this subsection and no later than 15 days before the close of the 60-day comment period. The meeting must be held to the extent practicable in the vicinity of the permitted facility.

(5) The public shall be provided at least 60 days to comment on the modification request. The comment period will begin on the date the permittee publishes the notice in the local newspaper. Comments should be submitted to the agency contact identified in the public notice.

(6) No later than 90 days after receipt of the modification request, subparagraphs (A), (B), (C), (D), or (E) of this paragraph must be met, subject to §50.33 of this title (relating to Executive Director Action on Application), as follows:

(A) the executive director or the commission must approve the modification request, with or without changes, and modify the permit accordingly;

(B) the commission must deny the request;

(C) the commission or the executive director must determine that the modification request must follow the procedures in subsection (d) of this section for Class 3 modifications for either of the following reasons:

(i) there is significant public concern about the proposed modification; or

(ii) the complex nature of the change requires the more extensive procedures of a Class 3 modification; or

(D) the commission must approve the modification request, with or without changes, as a temporary authorization having a term of up to 180 days, in accordance with the following public notice requirements:

(i) notice of a hearing on the temporary authorization shall be given not later than the 20th day before the hearing on the authorization; and

(ii) this notice of hearing shall provide that an affected person may request an evidentiary hearing on issuance of the temporary authorization; or

(E) the executive director must notify the permittee that the executive director or the commission will decide on the request within the next 30 days.

(7) If the executive director notifies the permittee of a 30-day extension for a decision, then no later than 120 days after receipt of the modification request, subparagraphs (A), (B), (C), or (D) of this paragraph must be met, subject to §50.33 of this title (relating to Executive Director Action on Application), as follows:

(A) the executive director or the commission must approve the modification request, with or without changes, and modify the permit accordingly;

(B) the commission must deny the request;

(C) the commission or the executive director must determine that the modification request must follow the procedures in subsection (d) of this section for Class 3 modifications for either of the following reasons:

(i) there is significant public concern about the proposed modification;

(ii) the complex nature of the change requires the more extensive procedures of a Class 3 modification; or

(D) the commission must approve the modification request, with or without changes, as a temporary authorization having a term of up to 180 days, in accordance with the following public notice requirements:

(i) notice of a hearing on the temporary authorization shall be given not later than the 20th day before the hearing on the authorization; and

(ii) this notice of hearing shall provide that an affected person may request an evidentiary hearing on issuance of the temporary authorization.

(8) If the executive director or the commission fails to make one of the decisions specified in paragraph (7) of this subsection by the 120th day after receipt of the modification request, the permittee is automatically authorized to conduct the activities described in the modification request for up to 180 days, without formal agency action. The authorized activities must be conducted as described in the permit modification request and must be in compliance with all appropriate standards of Chapter 335, Subchapter E of this title (relating to Interim Standards for Owners and Operators of Hazardous Waste Storage, Processing, or Disposal Facilities). If the commission approves, with or without changes, or denies any modification request during the term of the temporary authorization issued pursuant to paragraph (6) or (7) of this subsection, such action cancels the temporary authorization. The commission is the sole authority for approving or denying the modification request during the term of the temporary authorization. If the executive director or the commission approves, with or without changes, or if the commission denies the modification request during the term of the automatic authorization provided for in this paragraph, such action cancels the automatic authorization.

(9) In the case of an automatic authorization under paragraph (8) of this subsection, or a temporary authorization under paragraph (6)(D) or (7)(D) of this subsection, if the executive director or the commission has not made a final approval or denial of the modification request by the date 50 days prior to the end of the temporary or automatic authorization, the permittee must within seven days of that time send a notification to all persons listed in §39.13 of this title (relating to Mailed Notice), and make a reasonable effort to notify other persons who submitted written comments on the modification request, that:

(A) the permittee has been authorized temporarily to conduct the activities described in the permit modification request; and

(B) unless the executive director or the commission acts to give final approval or denial of the request by the end of the authorization period, the permittee will receive authorization to conduct such activities for the life of the permit.

(10) If the owner/operator fails to notify the public by the date specified in paragraph (9) of this subsection, the effective date of the permanent authorization will be deferred until 50 days after the owner/operator notifies the public.

(11) Except as provided in paragraph (13) of this subsection, if the executive director or the commission does not finally approve or deny a modification request before the end of the automatic or temporary authorization period or reclassify the modification as Class 3 modification, the permittee is authorized to conduct the activities described in the permit modification request for the life of the permit unless amended or modified later under §305.62 of this title (relating to Amendment) or this section. The activities authorized under this paragraph must be conducted as described in the permit modification request and must be in compliance with all appropriate standards of Chapter 335, Subchapter E of this title (relating to Interim Standards for Owners and Operators of Hazardous Waste Storage, Processing, or Disposal Facilities).

(12) In the processing of each Class 2 modification request which is subsequently approved or denied by the executive director or the commission in accordance with paragraph (6) or (7) of this subsection, or each Class 2 modification request for which a temporary authorization is issued in accordance with subsection (f) of this section or a reclassification to a Class 3 modification is made in accordance with paragraph (6)(C) or (7)(C) of this subsection, the executive director must consider all written comments submitted to the agency during the public comment period and must respond in writing to all significant comments.

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**TITLE 30****ENVIRONMENTAL QUALITY****PART 1****TEXAS COMMISSION ON ENVIRONMENTAL QUALITY****CHAPTER 305****CONSOLIDATED PERMITS****SUBCHAPTER D****AMENDMENTS, RENEWALS, TRANSFERS, CORRECTIONS,  
REVOCATION, AND SUSPENSION OF PERMITS****RULE §305.69****Solid Waste Permit Modification at the Request of the  
Permittee**

(13) With the written consent of the permittee, the executive director may extend indefinitely or for a specified period the time periods for final approval or denial of a Class 2 modification request or for reclassifying a modification as Class 3.

(14) The commission or the executive director may change the terms of, and the commission may deny a Class 2 permit modification request under paragraphs (6) - (8) of this subsection for any of the following reasons:

(A) the modification request is incomplete;

(B) the requested modification does not comply with the appropriate requirements of Subchapter F, Chapter 335 of this title (relating to Permitting Standards for Owners and Operators of Hazardous Waste Storage, Processing or Disposal Facilities) or other applicable requirements; or

(C) the conditions of the modification fail to protect human health and the environment.

(15) The permittee may perform any construction associated with a Class 2 permit modification request beginning 60 days after the submission of the request unless the executive director establishes a later date for commencing construction and informs the permittee in writing before the 60th day.

(d) Class 3 modifications of solid waste permits.

(1) For Class 3 modifications listed in Appendix I of this subchapter, the permittee must submit a modification request to the executive director that:

(A) describes the exact change to be made to the permit conditions and supporting documents referenced by the permit;

(B) identifies that the modification is a Class 3 modification;

(C) explains why the modification is needed; and

(D) provides the applicable information in the form and manner specified in §1.5(d) of this title (relating to Records of the Agency), §§305.41-305.45 and 305.47-305.53 of this title (relating to Applicability; Application Required; Who Applies; Signatories to Applications; Contents of Application for Permit; Retention of Application Data; Additional Contents of Applications for Wastewater Discharge Permits; Additional Contents of Application for an Injection Well Permit; Additional Requirements for an Application for a Hazardous or Industrial Solid Waste Permit; Revision

of Applications for Hazardous Waste Permits; Waste Containing Radioactive Materials; and Application Fee), Subchapter I of this chapter (relating to Hazardous Waste Incinerator Permits), Subchapter J of this chapter (relating to Permits for Land Treatment Demonstrations Using Field Tests or Laboratory Analyses); and Subchapter Q of this chapter (relating to Permits for Boilers and Industrial Furnaces Burning Hazardous Waste).

(2) The permittee must send a notice of the modification request by first-class mail to all persons listed in §39.13 of this title (relating to Mailed Notice) and must cause this notice to be published in a major local newspaper of general circulation. This notice must be mailed and published within seven days before or after the date of submission of the modification request and evidence of the mailing and publication of the notice shall be provided to the executive director. The notice shall include the following:

- (A) all information required by §39.11 of this title (relating to Text of Mailed Notice);
  - (B) announcement of a 60-day comment period, and the name and address of an agency contact person to whom comments must be sent;
  - (C) announcement of the date, time, and place for a public meeting on the modification request, to be held in accordance with paragraph (4) of this subsection;
  - (D) name and telephone number of the permittee's contact person;
  - (E) name and telephone number of an agency contact person;
  - (F) identification of the location where copies of the modification request and any supporting documents can be viewed and copied; and
  - (G) the following statement: "The permittee's compliance history during the life of the permit being modified is available from the agency contact person."
- (3) The permittee must place a copy of the permit modification request and supporting documents in a location accessible to the public in the vicinity of the permitted facility.
- (4) The permittee must hold a public meeting no earlier than 15 days after the publication of the notice required in paragraph (2) of this subsection and no later than 15 days before the close of the 60-day comment period. The meeting must be held to the extent practicable in the vicinity of the permitted facility.
- (5) The public shall be provided at least 60 days to comment on the modification request. The comment period will begin on the date the permittee publishes the notice in the local newspaper. Comments should be submitted to the agency contact person identified in the public notice.
- (6) After the conclusion of the 60-day comment period, the permit modification request shall be granted or denied in accordance with the applicable requirements of Chapter 39 of this title (relating to Public Notice), Chapter 50 of this title (relating to Action on Applications), and Chapter 55 of this title (relating to Request for Contested Case Hearing; Public Comment). When a permit is modified, only the conditions subject to modification are reopened.
- (e) Other modifications.

(1) In the case of modifications not explicitly listed in Appendix I of this subchapter, the permittee may submit a Class 3 modification request to the agency, or the permittee may request a determination by the executive director that the modification should be reviewed and approved as a Class 1 or Class 2 modification. If the permittee requests that the modification be classified as a Class 1 or Class 2 modification, the permittee must provide the agency with the necessary information to support the requested classification.

(2) The executive director shall make the determination described in paragraph (1) of this subsection as promptly as practicable. In determining the appropriate class for a specific modification, the executive director shall consider the similarity of the modification to other modifications codified in Appendix I and the following criteria.

(A) Class 1 modifications apply to minor changes that keep the permit current with routine changes to the facility or its operation. These changes do not substantially alter the permit conditions or reduce the capacity of the facility to protect human health or the environment. In the case of Class 1 modifications, the executive director may require prior approval;

(B) Class 2 modifications apply to changes that are necessary to enable a permittee to respond, in a timely manner, to:

(i) common variations in the types and quantities of the wastes managed under the facility permit;

(ii) technological advancements; and

(iii) changes necessary to comply with new regulations, where these changes can be implemented without substantially changing design specifications or management practices in the permit; and

(C) Class 3 modifications reflect a substantial alteration of the facility or its operations.

(f) Temporary authorizations.

(1) Upon request of the permittee, the commission may grant the permittee a temporary authorization having a term of up to 180 days, in accordance with this subsection, and in accordance with the following public notice requirements:

(A) notice of a hearing on the temporary authorization shall be given not later than the 20th day before the hearing on the authorization; and

(B) this notice of hearing shall provide that an affected person may request an evidentiary hearing on issuance of the temporary authorization.

(2) The permittee may request a temporary authorization for:

(A) any Class 2 modification meeting the criteria in paragraph (5)(B) of this subsection; and

(B) any Class 3 modification that meets the criteria in paragraph (5)(B)(i) or (ii) of this subsection, or that meets any of the criteria in paragraph (5)(B)(iii) - (v) of this subsection and provides improved management or treatment of a hazardous waste already listed in the facility permit.

(3) The temporary authorization request must include:

- (A) a specific description of the activities to be conducted under the temporary authorization;
  - (B) an explanation of why the temporary authorization is necessary and reasonably unavoidable; and
  - (C) sufficient information to ensure compliance with the applicable standards of Chapter 335, Subchapter F of this title (relating to Permitting Standards for Owners and Operators of Hazardous Waste Storage, Processing or Disposal Facilities) and 40 Code of Federal Regulations (CFR) Part 264.
- (4) The permittee must send a notice about the temporary authorization request by first-class mail to all persons listed in §39.13 of this title (relating to Mailed Notice). This notification must be made within seven days of submission of the authorization request.
- (5) The commission shall approve or deny the temporary authorization as quickly as practicable. To issue a temporary authorization, the commission must find:
- (A) the authorized activities are in compliance with the applicable standards of Chapter 335, Subchapter F of this title (relating to Permitting Standards for Owners and Operators of Hazardous Waste Storage, Processing or Disposal Facilities) and 40 CFR Part 264; and
  - (B) the temporary authorization is necessary to achieve one of the following objectives before action is likely to be taken on a modification request:
    - (i) to facilitate timely implementation of closure or corrective action activities;
    - (ii) to allow treatment or storage in tanks, containers, or containment buildings, of restricted wastes in accordance with Chapter 335, Subchapter O of this title (relating to Land Disposal Restrictions), 40 CFR Part 268, or RCRA §3004;
    - (iii) to prevent disruption of ongoing waste management activities;
    - (iv) to enable the permittee to respond to sudden changes in the types or quantities of the wastes managed under the facility permit; or
    - (v) to facilitate other changes to protect human health and the environment.
- (6) A temporary authorization may be reissued for one additional term of up to 180 days provided that the permittee has requested a Class 2 or 3 permit modification for the activity covered in the temporary authorization, and:
- (A) the reissued temporary authorization constitutes the commission's decision on a Class 2 permit modification in accordance with subsection (c)(6)(D) or (7)(D) of this section; or
  - (B) the commission determines that the reissued temporary authorization involving a Class 3 permit modification request is warranted to allow the authorized activities to continue while the modification procedures of subsection (d) of this section are conducted.
- (g) Public notice and appeals of permit modification decisions.
- (1) The commission shall notify all persons listed in §39.13 of this title (relating to Mailed Notice)

within ten working days of any decision under this section to grant or deny a Class 2 or 3 permit modification request. The commission shall also notify such persons within ten working days after an automatic authorization for a Class 2 modification goes into effect under subsection (c)(8) or (11) of this section.

(2) The executive director's or the commission's decision to grant or deny a Class 3 permit modification request under this section may be appealed under the appropriate procedures set forth in the commission's rules and in the Administrative Procedure Act, the Government Code, Chapter 2002.

(h) Newly regulated wastes and units.

(1) The permittee is authorized to continue to manage wastes listed or identified as hazardous under 40 CFR, Part 261, or to continue to manage hazardous waste in units newly regulated as hazardous waste management units if:

(A) the unit was in existence as a hazardous waste facility unit with respect to the newly listed or characteristic waste or newly regulated waste management unit on the effective date of the final rule listing or identifying the waste or regulating the unit;

(B) the permittee submits a Class 1 modification request on or before the date on which the waste or unit becomes subject to the new requirements;

(C) the permittee is in substantial compliance with the applicable standards of Chapter 335, Subchapter E of this title (relating to Interim Standards for Owners and Operators of Hazardous Waste Storage, Processing, or Disposal Facilities), Chapter 335, Subchapter H, Divisions 1 through 4 (relating to Standards for the Management of Specific Wastes and Specific Types of Facilities), and 40 CFR Part 265 and Part 266;

(D) the permittee also submits a complete Class 2 or 3 modification request within 180 days after the effective date of the final rule listing or identifying the waste or subjecting the unit to RCRA Subtitle C management standards; and

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TITLE 30

ENVIRONMENTAL QUALITY

PART 1

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

CHAPTER 305

CONSOLIDATED PERMITS

SUBCHAPTER DAMENDMENTS, RENEWALS, TRANSFERS, CORRECTIONS,  
REVOCATION, AND SUSPENSION OF PERMITS

RULE §305.69

**Solid Waste Permit Modification at the Request of the  
Permittee**

(E) in the case of land disposal units, the permittee certifies that each such unit is in compliance with all applicable 40 CFR, Part 265 groundwater monitoring requirements and with Chapter 37 of this title (relating to Financial Assurance) on the date 12 months after the effective date of the final rule identifying or listing the waste as hazardous, or regulating the unit as a hazardous waste management unit. If the owner or operator fails to certify compliance with these requirements, the owner or operator shall lose authority to operate under this section.

(2) New wastes or units added to a facility's permit under this subsection do not constitute expansions for the purpose of the 25% capacity expansion limit for Class 2 modifications.

(i) Combustion facility changes to meet Title 40 Code of Federal Regulations (CFR) Part 63 Maximum Achievable Control Technology (MACT) standards. The following procedures apply to hazardous waste combustion facility permit modifications requested under L.9. of Appendix I of this subchapter.

(1) Facility owners or operators must comply with the Notification of Intent to Comply (NIC) requirements of 40 CFR §63.1210(b) and (c), as amended through July 10, 2000 (65 FR 42292), before a permit modification can be requested under this section.

(2) If the executive director does not approve or deny the request within 90 days of receiving it, the request shall be deemed approved. The executive director may, at his or her discretion, extend this 90-day deadline one time for up to 30 days by notifying the facility owner or operator.

(j) Military hazardous waste munitions storage, processing, and disposal. The permittee is authorized to continue to accept waste military munitions notwithstanding any permit conditions barring the permittee from accepting off-site wastes, if:

(1) the facility is in existence as a hazardous waste facility, and the facility is already permitted to handle waste military munitions, on the date when waste military munitions become subject to hazardous waste regulatory requirements;

(2) on or before the date when waste military munitions become subject to hazardous waste regulatory requirements, the permittee submits a Class 1 modification request to remove or revise the permit provision restricting the receipt of off-site waste munitions; and

(3) the permittee submits a Class 2 modification request within 180 days of the date when the waste military munitions become subject to hazardous waste regulatory requirements.

(k) Appendix I. The following appendix will be used for the purposes of this subchapter which relates

to industrial and hazardous solid waste permit modification at the request of the permittee.

Attached Graphic

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**Source Note:** The provisions of this §305.69 adopted to be effective October 29, 1990, 15 TexReg 6015; amended to be effective July 29, 1992, 17 TexReg 5090; amended to be effective June 7, 1993, 18 TexReg 3290; amended to be effective November 23, 1993, 18 TexReg 8215; amended to be effective February 22, 1994, 19 TexReg 941; amended to be effective November 7, 1994, 19 TexReg 8543; amended to be effective April 17, 1995, 20 TexReg 2392; amended to be effective February 26, 1996, 21 TexReg 1137; amended to be effective August 8, 1999, 24TexReg5879; amended to be effective March 21, 2000, 25 TexReg 2368; amended to be effective April 12, 2001, 26 TexReg 2739; amended to be effective November 15, 2001, 26 TexReg 9123

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Figure: 30 TAC §305.69(k)

Modifications	Class
A. General Permit Provisions	
1. Administrative and informational changes.....	1
2. Correction of typographical errors.....	1
3. Equipment replacement or upgrading with functionally equivalent components (e.g., pipes, valves, pumps, conveyors, controls).....	1
4. Changes in the frequency of or procedures for monitoring, reporting, sampling, or maintenance activities by the permittee:	
a. To provide for more frequent monitoring, reporting, sampling, or maintenance.....	1
b. Other changes.....	2
5. Schedule of compliance	
a. Changes in interim compliance dates, with prior approval of the executive director.....	1
b. Extension of final compliance date.....	3
6. Changes in expiration date or permit to allow earlier permit expiration, with prior approval of the executive director.....	1
7. Changes in ownership or operational control of a facility, provided the procedures of §305.64(g) of this title (relating to Transfer of Permits) are followed.....	1
8. Six months or less extension of the construction period time limit applicable to commercial hazardous waste management units in accordance with §305.149(b)(2) or (4) of this title (relating to Time Limitation for Construction of Commercial Hazardous Waste Management Units).....	2
9. Greater than six-month extension of the commercial hazardous waste management unit construction period time limit in accordance with §305.149(b)(3) or (4) of this title.....	3
10. Any extension in accordance with §305.149(b)(3) of this title of a construction period time limit for commercial hazardous waste management units which has been previously authorized under §305.149(b)(2) of this title.....	3
11. Changes to remove permit conditions that are no longer applicable (i.e., because the standards upon which they are based are no longer applicable to the facility).....	1

B. General Facility Standards

- 1. Changes to waste sampling or analysis methods:
  - a. To conform with agency guidance or regulations ..... 1
  - b. To incorporate changes associated with F039 (multi-source leachate) sampling or analysis methods ..... 1
  - c. To incorporate changes associated with underlying hazardous constituents in ignitable or corrosive wastes ..... 1
  - d. Other changes ..... 2
- 2. Changes to analytical quality assurance/control plan:
  - a. To conform with agency guidance or regulations ..... 1
  - b. Other changes ..... 2
- 3. Changes in procedures for maintaining the operating record ..... 1
- 4. Changes in frequency or content of inspection schedules ..... 2
- 5. Changes in the training plan:
  - a. That affect the type or decrease the amount of training given to employees ..... 2
  - b. Other changes ..... 1
- 6. Contingency plan:
  - a. Changes in emergency procedures (i.e., spill or release response procedures) ..... 2
  - b. Replacement with functionally equivalent equipment, upgrade, or relocate emergency equipment listed ..... 1
  - c. Removal of equipment from emergency equipment list ..... 2
  - d. Changes in name, address, or phone number of coordinators or other persons or agencies identified in the plan ..... 1
- 7. Construction quality assurance (CQA) plan:
  - a. Changes that the CQA officer certifies in the operating record will provide equivalent or better certainty that the unity components meet the design specifications ..... 1
  - b. Other Changes ..... 2

Note: When a permit modification (such as introduction of a new unit) requires a change in facility plans or other general facility standards, that change shall be reviewed under the same procedures as the permit modification.

C. Groundwater Protection

1. Changes to wells:
  - a. Changes in the number, location, depth, or design of upgradient or downgradient wells of permitted groundwater monitoring system..... 2
  - b. Replacement of an existing well that has been damaged or rendered inoperable, without change to location, design, or depth of the well ..... 1
2. Changes in groundwater sampling or analysis procedures or monitoring schedule, with prior approval of the executive director ..... 1<sup>1</sup>
3. Changes in statistical procedure for determining whether a statistically significant change in groundwater quality between upgradient and downgradient wells has occurred, with prior approval of the executive director ..... 1<sup>1</sup>
4. Changes in point of compliance ..... 2
5. Changes in indicator parameters, hazardous constituents, or concentration limits (including alternate concentration limits (ACLs)):
  - a. As specified in the groundwater protection standard ..... 3
  - b. As specified in the detection monitoring program ..... 2
6. Changes to a detection monitoring program as required by §335.164(10) of this title (relating to Detection Monitoring Program), unless otherwise specified in this appendix ..... 2
7. Compliance monitoring program:
  - a. Addition of compliance monitoring program pursuant to §335.164(7)(D) of this title, and §335.165 of this title (relating to Compliance Monitoring Program) ..... 3
  - b. Changes to a compliance monitoring program as required by §335.165(11) of this title, unless otherwise specified in this appendix ..... 2

8. Corrective action program:

- a. Addition of a corrective action program pursuant to §335.165(9)(B) of this title and §335.166 of this title (relating to Corrective Action Program)..... 3
- b. Changes to a corrective action program as required by §335.166(8) of this title, unless otherwise specified in this appendix..... 2

D. Closure:

1. Changes to the closure plan:

- a. Changes in estimate of maximum extent of operations or maximum inventory of waste on-site at any time during the active life of the facility, with prior approval of the executive director..... 1<sup>1</sup>
- b. Changes in the closure schedule for any unit, changes in the final closure schedule for the facility, or extension of the closure period, with prior approval of the executive director..... 1<sup>1</sup>
- c. Changes in the expected year of final closure, where other permit conditions are not changed, with prior approval of the executive director..... 1<sup>1</sup>
- d. Changes in procedures for decontamination of facility equipment or structures, with prior approval of the executive director..... 1<sup>1</sup>
- e. Changes in approved closure plan resulting from unexpected events occurring during partial or final closure, unless otherwise specified in this appendix..... 2
- f. Extension of the closure period to allow a landfill, surface impoundment or land treatment unit to receive nonhazardous wastes after final receipt of hazardous wastes under 40 Code of Federal Regulations (CFR), 264.113(d) and (e)..... 2

2. Creation of a new landfill unit as part of closure..... 3

3. Addition of the following new units to be used temporarily for closure activities:

- a. Surface impoundments..... 3
- b. Incinerators..... 3
- c. Waste piles that do not comply with 40 CFR 264.250(c)..... 3
- d. Waste piles that comply with 40 CFR 264.250(c)..... 2
- e. Tanks or containers (other than specified below)..... 2
- f. Tanks used for neutralization, dewatering, phase separation, or

- component separation, with prior approval of the executive director .....1
- g. Staging Pile .....2

E. Post-Closure

- 1. Changes in name, address, or phone number of contact in post-closure plan.....1
- 2. Extension of post-closure care period .....2
- 3. Reduction in the post-closure care period .....3
- 4. Changes to the expected year of final closure, where other permit conditions are not changed .....1
- 5. Changes in post-closure plan necessitated by events occurring during the active life of the facility, including partial and final closure .....2

F. Containers

- 1. Modification or addition of container units:
  - a. Resulting in greater than 25% increase in the facility's container storage capacity, except as provided in F(1)(c) and F(4)(a) of this appendix .....3
  - b. Resulting in up to 25% increase in the facility's container storage capacity, except as provided in F(1)(c) and F(4)(a) of this appendix .....2
  - c. Or treatment processes necessary to treat wastes that are restricted from land disposal to meet some or all of the applicable treatment standards or to treat wastes to satisfy (in whole or in part) the standard of "use of practically available technology that yields the greatest environmental benefit" contained in 40 CFR 268.8(a)(2)(ii), with prior approval of the executive director. This modification may also involve addition of new waste codes or narrative descriptions of wastes. It is not applicable to dioxin-containing wastes (F020, 021, 022, 023, 026, 027, and 028).....1
- 2. Modification of container units, as follows:
  - a. Modification of a container unit without increasing the capacity of the unit .....2
  - b. Addition of a roof to a container unit without alteration of the containment system.....1
- 3. Storage of different wastes in containers, except as provided in F(4) of this appendix:
  - a. That require additional or different management practices from those authorized in the permit.....3
  - b. That do not require additional or different management practices from those authorized in the permit .....2

Note: See §305.69(g) of this title (relating to Solid Waste Permit Modification at the Request of the Permittee) for modification procedures to be used for the management of newly listed or

identified wastes.

- 4. Storage or treatment of different wastes in containers:
  - a. That require addition of units or change in treatment process or management standards, provided that the wastes are restricted from land disposal and are to be treated to meet some or all of the applicable treatment standards, or that are to be treated to satisfy (in whole or in part) the standard of "use of practically available technology that yields the greatest environmental benefit" contained in 40 CFR 268.8(a)(2)(ii), with prior approval of the executive director. This modification is not applicable to dioxin-containing wastes (F020, 021, 022, 023, 026, 027, and 028).....1'
  - b. That do not require the addition of units or a change in the treatment process or management standards, and provided that the units have previously received wastes of the same type (e.g., incinerator scrubber water). This modification is not applicable to dioxin-containing wastes (F020, 021, 022, 023, 026, 027, and 028).....1
- 5. Other changes in container management practices (e.g., aisle space, types of containers, segregation).....2

G. Tanks

- 1. Modification or addition of tank units or treatment processes, as follows:
  - a. Modification or addition of tank units resulting in greater than 25% increase in the facility's tank capacity, except as provided in G(1)(c), G(1)(d), and G(1)(e) of this appendix .....3
  - b. Modification or addition of tank units resulting in up to 25% increase in the facility's tank capacity, except as provided in G(1)(d) and G(1)(e) of this appendix .....2
  - c. Addition of a new tank (no capacity limitation) that will operate for more than 90 days using any of the following physical or chemical treatment technologies: neutralization, dewatering, phase separation, or component separation .....2
  - d. After prior approval of the executive director, addition of a new tank (no capacity limitation) that will operate for up to 90 days using any of the following physical or chemical treatment technologies: neutralization, dewatering, phase separation, or component separation .....1'
  - e. Modification or addition of tank units or treatment processes necessary to treat wastes that are restricted from land disposal to meet some or all of the applicable treatment standards or to treat wastes to satisfy (in whole or in part) the standard of "use of practically available technology that yields the greatest environmental benefit" contained in 40 CFR 268.8(a)(2)(ii), with



- prior approval of the executive director. This modification may also involve addition of new waste codes. It is not applicable to dioxin-containing wastes (F020, 021, 022, 023, 026, 027, and 028).....1'
2. Modification of a tank unit or secondary containment system without increasing the capacity of the unit .....2
  3. Replacement of a tank with a tank that meets the same design standards and has a capacity within +/-10% of the replaced tank provided:.....1
    - a. The capacity difference is no more than 1,500 gallons;
    - b. The facility's permitted tank capacity is not increased; and
    - c. The replacement tank meets the same conditions in the permit.
  4. Modification of a tank management practice.....2
  5. Management of different wastes in tanks:
    - a. That require additional or different management practices, tank design, different fire protection specifications, or significantly different tank treatment process from that authorized in the permit, except as provided in G(5)(c) of this appendix.....3
    - b. That do not require additional or different management practices, tank design, different fire protection specifications, or significantly different tank treatment process from that authorized in the permit, except as provided in G(5)(d) of this appendix.....2
    - c. That require addition of units or change in treatment processes or management standards, provided that the wastes are restricted from land disposal and are to be treated to meet some or all of the applicable treatment standards or that are to be treated to satisfy (in whole or in part) the standard of "use of practically available technology that yields the greatest environmental benefit" contained in 40 CFR 268.8(a)(1)(ii), with prior approval of the executive director. The modification is not applicable to dioxin-containing wastes (F020, 021, 022, 023, 026, 027, and 028).....1'
    - d. That do not require the addition of units or a change in the treatment process or management standards, and provided that the units have previously received wastes of the same type (e.g., incinerator scrubber water). This modification is not applicable to dioxin-containing wastes (F020, 021, 022, 023, 026, 027, and 028).....1

Note: See §305.69(g) of this title for modification procedures to be used for the management of newly listed or identified wastes.

H. Surface Impoundments

1. Modification or addition of surface impoundment units that result in increasing the facility's surface impoundment storage or treatment capacity .....3

- 2. Replacement of a surface impoundment unit.....3
- 3. Modification of a surface impoundment unit without increasing the facility's surface impoundment storage or treatment capacity and without modifying the unit's liner, leak detection system, or leachate collection system.....2
- 4. Modification of a surface impoundment management practice.....2
- 5. Treatment, storage, or disposal of different wastes in surface impoundments:
  - a. That require additional or different management practices or different design of the liner or leak detection system than authorized in the permit.....3
  - b. That do not require additional or different management practices or different design of the liner or leak detection system than authorized in the permit.....2
  - c. That are wastes restricted from land disposal that meet the applicable treatment standards or that are treated to satisfy the standard of "use of practically available technology that yields the greatest environmental benefit" contained in 40 CFR 268.8(a)(2)(ii), and provided that the unit meets the minimum technological requirements stated in 40 CFR 268.5(h)(2). This modification is not applicable to dioxin-containing wastes (F020, 021, 022, 023, 026, 027, and 028).....1
  - d. That are residues from wastewater treatment or incineration, provided that disposal occurs in a unit that meets the minimum technological requirements stated in 40 CFR 268.5(h)(2), and provided further that the surface impoundment has previously received wastes of the same type (for example, incinerator scrubber water). This modification is not applicable to dioxin-containing wastes (F020, 021, 022, 023, 026, 027, and 028).....1
- 6. Modifications of unconstructed units to comply with §§264.221(c), 264.222, 264.223, and 264.226(d) of this title .....1
- 7. Changes in response action plan:
  - a. Increase in action leakage rate .....3
  - b. Change in a specific response reducing its frequency or effectiveness .....3
  - c. Other Changes .....2

Note: See §305.69(g) of this title for modification procedures to be used for the management of newly listed or identified wastes.

I. Enclosed Waste Piles. For all waste piles except those complying with 40 CFR 264.250(c), modifications are treated the same as for a landfill.

The following modifications are applicable only to waste piles complying with 40 CFR

264.250(c).

- 1. Modification or addition of waste pile units:
  - a. Resulting in greater than 25% increase in the facility's waste pile storage or treatment capacity .....3
  - b. Resulting in up to 25% increase in the facility's waste pile storage or treatment capacity .....2
- 2. Modification of waste pile unit without increasing the capacity of the unit.....2
- 3. Replacement of a waste pile unit with another waste pile unit of the same design and capacity and meeting all waste pile conditions in the permit .....1
- 4. Modification of a waste pile management practice .....2
- 5. Storage or treatment of different wastes in waste piles:
  - a. That require additional or different management practices or different design of the unit .....3
  - b. That do not require additional or different management practices or different design of the unit .....2

Note: See §305.69(g) of this title for modification procedures to be used for the management of newly listed or identified wastes.

- 6. Conversion of an enclosed waste pile to a containment building unit .....2

J. Landfills and Unenclosed Waste Piles

- 1. Modification or addition of landfill units that result in increasing the facility's disposal capacity .....3
- 2. Replacement of a landfill.....3
- 3. Addition or modification of a liner, leachate collection system, leachate detection system, run-off control, or final cover system .....3
- 4. Modification of a landfill unit without changing a liner, leachate collection system, leachate detection system, run-off control, or final cover system.....2
- 5. Modification of a landfill management practice .....2
- 6. Landfill different wastes:
  - a. That require additional or different management practices, different design of the liner, leachate collection system, or leachate detection system .....3
  - b. That do not require additional or different management practices, different design of the liner, leachate collection system, or leachate

- detection system.....2
- c. That are wastes restricted from land disposal that meet the applicable treatment standards or that are treated to satisfy the standard of "use of practically available technology that yields the greatest environmental benefit" contained in 40 CFR 268.8(a)(2)(ii), and provided that the landfill unit meets the minimum technological requirements stated in 40 CFR 268.5(h)(2). This modification is not applicable to dioxin-containing wastes (F020, 021, 022, 023, 026, 027, and 028).....1
- d. That are residues from wastewater treatment or incineration, provided that disposal occurs in a landfill unit that meets the minimum technological requirements stated in 40 CFR 268.5(h)(2), and provided further that the landfill has previously received wastes of the same type (for example, incinerator ash). This modification is not applicable to dioxin-containing wastes (F020, 021, 022, 023, 026, 027, and 028).....1

Note: See §305.69(g) of this title for modification procedures to be used for the management of newly listed or identified wastes.

- 7. Modifications of unconstructed units to comply with §§264.251(c), 264.252, 264.253, 264.254(c), 264.301(c), 264.302, 264.303(c), and 264.304 of this title .....1
- 8. Changes in response action plan:
  - a. Increase in action leakage rate .....3
  - b. Change in a specific response reducing its frequency or effectiveness .....3
  - c. Other changes .....2

K. Land Treatment

- 1. Lateral expansion of or other modification of a land treatment unit to increase areal extent.....3
- 2. Modification of run-on control system.....2
- 3. Modify run-off control system.....3
- 4. Other modifications of land treatment unit component specifications or standards required in the permit.....2
- 5. Management of different wastes in land treatment units:
  - a. That require a change in permit operating conditions or unit design specifications.....3
  - b. That do not require a change in permit operating conditions or unit design specifications.....2

Note: See §305.69(g) of this title for modification procedures to be used for the management of newly listed or identified wastes.

- 6. Modification of a land treatment management practice to:
  - a. Increase rate or change method of waste application.....3
  - b. Decrease rate of waste application.....1
- 7. Modification of a land treatment unit management practice to change measures of pH or moisture content, or to enhance microbial or chemical reactions.....2
- 8. Modification of a land treatment unit management practice to grow food chain crops, or add to or replace existing permitted crops with different food chain crops, or to modify operating plans for distribution of animal feeds resulting from such crops.....3
- 9. Modification of operating practice due to detection of releases from the land treatment unit pursuant to 40 CFR 264.278(g)(2).....3
- 10. Changes in the unsaturated zone monitoring system, resulting in a change to the location, depth, or number of sampling points, or that replace unsaturated zone monitoring devices or components thereof with devices or components that have specifications different from permit requirements.....3
- 11. Changes in the unsaturated zone monitoring system that do not result in a change to the location, depth, or number of sampling points, or that replace unsaturated zone monitoring devices or components thereof with devices or components having specifications not different from permit requirements.....2

Texas Natural Resource Conservation Commission

12. Changes in background values for hazardous constituents in soil and soil-pore liquid.....2

13. Changes in sampling, analysis, or statistical procedure.....2

14. Changes in land treatment demonstration program prior to or during the demonstration.....2

15. Changes in any condition specified in the permit for a land treatment unit to reflect results of the land treatment demonstration, provided performance standards are met, and the executive director's prior approval has been received.....1'

16. Changes to allow a second land treatment demonstration to be conducted when the results of the first demonstration have not shown the conditions under which the wastes can be treated completely, provided the conditions for the second demonstration are substantially the same as the conditions for the first demonstration and have received the prior approval of the executive director.....1'

17. Changes to allow a second land treatment demonstration to be conducted when the results of the first demonstration have not shown the conditions under which the waste can be treated completely, where the conditions for the second demonstration are not substantially the same as the conditions for the first demonstration.....3

18. Changes in vegetative cover requirements for closure.....2

L. Incinerators, Boilers and Industrial Furnaces

1. Changes to increase by more than 25% any of the following limits authorized in the permit: A thermal feed rate limit; a feedstream feed rate limit; a chlorine feed rate limit, a metal feed rate limit, or an ash feed rate limit. The executive director will require a new trial burn to substantiate compliance with the regulatory performance standards unless this demonstration can be made through other means.....3

2. Changes to increase by up to 25% any of the following limits authorized in the permit: A thermal feed rate limit; a feedstream feedrate limit; chlorine/chloride feed rate limit, a metal feed rate limit, or an ash feed rate limit. The executive director will require a new trial burn to substantiate compliance with the regulatory performance standards unless this demonstration can be made through other means.....2

3. Modification of an incinerator, boiler, or industrial furnace unit by changing the internal size of geometry of the primary or secondary combustion units, by adding a primary or secondary combustion unit, by substantially changing the design of any component used to remove HCl/Cl<sub>2</sub>, metals or particulate from the combustion gases, or by changing other features of the incinerator,

- boiler, or industrial furnace that could affect its capability to meet the regulatory performance standards. The executive director will require a new trial burn to substantiate compliance with the regulatory performance standards unless this demonstration can be made through other means.....3
4. Modification of an incinerator, boiler, or industrial furnace unit in a manner that would not likely affect the capability of the unit to meet the regulatory performance standards but which would change the operating conditions or monitoring requirements specified in the permit. The executive director may require a new trial burn to demonstrate compliance with the regulatory performance standards.....2
  5. Operating requirements:
    - a. Modification of the limits specified in the permit for minimum or maximum combustion gas temperature, minimum combustion gas residence time, oxygen concentration in the secondary combustion chamber, flue gas carbon monoxide and hydrocarbon concentration, maximum temperature at the inlet to the particulate matter emission control system, or operating parameters for the air pollution control system. The executive director will require a new trial burn to substantiate compliance with the regulatory performance standards unless this demonstration can be made through other means .....3
    - b. Modification of any stack gas emission limits specified in the permit, or modification of any conditions in the permit concerning emergency shutdown or automatic waste feed cutoff procedures or controls .....3
    - c. Modification of any other operating condition or any inspection or recordkeeping requirement specified in the permit.....2
  6. Burning different wastes:
    - a. If the waste contains a principal organic hazardous constituent (POHC) that is more difficult to burn than authorized by the permit or if burning of the waste requires compliance with different regulatory performance standards than specified in the permit. The executive director will require a new trial burn to substantiate compliance with the regulatory performance standards unless this demonstration can be made through other means .....3
    - b. If the waste does not contain a POHC that is more difficult to burn than authorized by the permit and if burning of the waste does not require compliance with different regulatory performance standards than specified in the permit .....2

Note: See §305.69(g) of this title for modification procedures to be used for the management of newly regulated wastes and units.

7. Shakedown and trial burn:

- a. Modification of the trial burn plan or any of the permit conditions applicable during the shakedown period for determining operational readiness after construction, the trial burn period, or the period immediately following the trial burn .....2
- b. Authorization of up to an additional 720 hours of waste burning during the shakedown period for determining operational readiness after construction, with the prior approval of the executive director .....1'
- c. Changes in the operating requirements set in the permit for conducting a trial burn, provided the change is minor and has received the prior approval of the executive director .....1'
- d. Changes in the ranges of the operating requirements set in the permit to reflect the results of the trial burn, provided the change is minor and has received the prior approval of the executive director .....1'
- 8. Substitution of an alternate type of nonhazardous waste fuel that is not specified in the permit .....1
- 9. Technology changes needed to meet standards under Title 40 CFR Part 63 (Subpart EEE - National Emission Standards for Hazardous Air Pollutants from Hazardous Waste Combustors), provided the procedures of §305.69(i) of this title are followed .....1'
- M. Corrective Action
  - 1. Approval of a corrective action management unit pursuant to 40 Code of Federal Regulations §264.552 .....3
  - 2. Approval of a temporary unit or time extension for a temporary unit pursuant to 40 Code of Federal Regulations §264.553 .....2
  - 3. Approval of a staging pile or staging pile operating term extension pursuant to 40 Code of Federal Regulations §264.554 .....2
- N. Containment Buildings
  - 1. Modification or addition of containment building units:
    - a. Resulting in greater than 25% increase in the facility's containment building storage or treatment capacity .....3
    - b. Resulting in up to 25% increase in the facility's containment building storage or treatment capacity .....2
  - 2. Modification of a containment building unit or secondary containment system without increasing the capacity of the unit .....2
  - 3. Replacement of a containment building with a containment building that meets the same design standards provided:
    - a. The unit capacity is not increased .....1
    - b. The replacement containment building meets the same conditions in the permit .....1
  - 4. Modification of a containment building management practice .....2
  - 5. Storage or treatment of different wastes in containment buildings:
    - a. That require additional or different management practices .....3
    - b. That do not require additional or different management practices .....2





DEPARTMENT OF THE AIR FORCE  
AIR FORCE REAL PROPERTY AGENCY

AFRPA/DC-Kelly  
143 Billy Mitchell Blvd Ste 1  
San Antonio TX 78226-1816

DEC 09 2005

Dear Kelly Restoration Advisory Board Members

The following is an action items report for the 8 November 2005 Kelly Restoration Advisory Board (RAB) Technical Review Subcommittee (TRS) meeting.

Ms. Hannapel gave a public comment regarding AFRPA mailings sent to the community, and referenced the recent Kelly annual mailer sent prior to the October 2005 RAB meeting.

Due to an error in the printing/ mailing process, the actual number of direct mail pieces distributed prior to the October 2005 RAB meeting was 9,709, not the 12,000 reported to RAB members during the meeting. The purpose of the 2005 direct mailing was twofold – to provide information to local community members regarding opportunities for RAB membership, and to update the status of the environmental cleanup program at the former Kelly Air Force Base (AFB).

During the October 2005 RAB meeting, RAB community members indicated they did not believe direct mail was an effective communication method and suggested the Air Force place such information in La Prensa and The Southside Reporter. AFRPA is currently in the process of developing full-page advertisements for each of these publications which have a combined circulation of 179,900. This publication will allow the Air Force to assess these two communication methods – direct mail vs. newspaper announcement – to better meet the needs of the community. We look forward to providing the RAB with the information we obtain during the January 10, 2006 RAB meeting.

Ms. Hannapel provided AFRPA with a list of the following (7) action items:

1. *Could you provide a copy of the recent mailing to RAB members?*

The 2005 Kelly annual mailer was provided to RAB members in the read ahead packet and meeting packets for the 13 September 2005 TRS. An additional copy of this mailer is attached.

2. *Were these 12,000 people informed of the recent leak of contaminated water that went into Six Mile Creek? If not, why not?*

A public release was not issued by the Air Force after the recent spill at the East Kelly Groundwater Treatment Plant (GWTP), Zone 4. As discussed during the 18 October 2005 RAB meeting, the plant is located above the groundwater plume it is treating. Any spills at

the plant that result in contaminated groundwater seeping back into the groundwater zone will be processed through the treatment system.

With reference to water leaking into Six Mile Creek, the public was not notified because, as discussed during Mr. Bill Hall's presentation during the 8 November 2005 TRS meeting, groundwater influent concentrations for the groundwater that spilled met the allowable discharge requirements of the TCEQ permit.

3. *Regarding the Zone 5 GWTP Fact Sheet which is on the AFRPA website:*

- *Please provide documentation for the statement that chlorinated solvents break down into "carbon dioxide, water, and the mineral chloride."*

This fact sheet was developed to provide information regarding the off-base Permeable Reactive Barrier (PRB) installed along the northeastern border of the base in 2002 to treat a TCE plume. The Air Force goes to great lengths to ensure fact sheets are produced using layman's terminology, in order for the general population to understand the environmental cleanup program and technologies being implemented. As a result, highly technical information is simplified. A more accurate way to describe how a PRB works would be that during the process within the iron zone with TCE or PCE and granular iron, the compounds degrade to ethene, ethane and chloride, which is an abiotic, or non-biological process. In the downgradient aquifer, the ethene and ethane is consumed by microbes, which is a biological process, and thus carbon dioxide and chloride would be the end products.

A fact sheet titled *VOC Degradation Chemistry in the Presence of Granular Iron* is attached to provide more detailed insight into the process. This fact sheet is a product of EnviroMetal Technologies, Inc., the company which patented PRB technology.

- *Please provide documentation that lactate, a substance used in enhanced bioremediation, is a "substance like vegetable oil."*

Detailed technical information about In-situ bioremediation is outlined in *Zone 5 Corrective Measures Implementation Groundwater In-Situ Bioremediation, May 2002*, produced by Earth Tech, Inc., the contractor who installed the bioremediation systems in Zone 5.

The actual product injected into the ground at Zone 5 through enhanced bioremediation is Hydrogen Release Compound (HRC), a registered trademark product of Regensis. Once injected into the subsurface, HRC resides within the soil matrix fueling reductive dechlorination for up to 18 months through the slow release of lactic acid. Lactic acid is comprised of lactate and hydrogen.

An overview of HRC found at [www.regensis.com/products/hrc/](http://www.regensis.com/products/hrc/) is attached for your review. The wording used to describe HRC and lactic acid varies throughout the environmental industry, but Regensis describes the product as "a viscous, honey-like material rated at 20,000 centipoise".

- *Please provide evidence for the statement that "Kelly is not the source of the PCE plume."*

The fact sheet regarding the PRB installed to treat a PCE plume off-base in the area of 34<sup>th</sup> Street stated, "Although evidence indicates that Kelly is not the source of the PCE plume, the Air Force will treat the plume because it contributes to plumes near East Kelly that the Air Force will cleanup."

Mitretek Systems, Innovative Technology in the Public Interest, is a nonprofit, public interest corporation. Mitretek created a report in January 2000 titled *Physical and Chemical Characteristics of the Shallow Groundwater Zone and Sources Of Groundwater Contamination in the Vicinity of Kelly Air Force Base, Texas*. This report concluded that Kelly AFB does not appear to be the source of the PCE in the off-base plume. This report is contained in the Administrative Record, Kelly AR File Number 1930.

4. *Regarding the Zone 4 Fact Sheet which is on the AFRPA website:*

- *Please explain what is meant by "impermeable clay and rock" that separates the groundwater from the Edwards Aquifer. How can rock and clay be impermeable to water and substances that are dissolved in it?*

The definition of "impermeable", as indicated on the EPA Website ([www.epa.gov/OCEPAt/terms/iterms](http://www.epa.gov/OCEPAt/terms/iterms)) is as follows:

**Impermeable:** Not easily penetrated. The property of a material or soil that does not allow, or allows only with great difficulty, the movement or passage of water.

For a given soil, permeability is inversely proportional to soil density. The more tightly a material's particles are packed, the tendency for the material to allow water to flow through it is reduced. The scientific community uses the terms "impermeable" or "impervious" to describe materials where the coefficient of permeability is  $1 \times 10^{-7}$  cm/sec. An example of this would be a clay-type soil. As referenced in the *Class 3 Modification to Compliance Plan CP-50310 for the Former Kelly Air Force Base* (April 2002), soils in the Navarro clay in the Kelly area exhibit permeability of  $1 \times 10^{-8}$  cm/sec, or an order of magnitude lower permeability.

- *Please comment on the Air Force documents mentioned by George Rice at the last RAB meeting indicating that contaminated groundwater has, in fact, already leaked into the Edwards Aquifer.*

The most appropriate channel for determining what documents Mr. George Rice was referring to would be Mr. George Rice himself.

5. *In your mailings to the community, has the AF ever acknowledged the role of Mr. Armando Quintanilla in proving that the contamination had gone beyond the AF base and into the community? If not, why not?*

Through each step of the evaluation and environmental cleanup processes, the Air Force has acknowledged relevant data and made every effort to include community members in the decision making process through active community relations activities and the Restoration Advisory Board. The Air Force works closely with the TCEQ and EPA to ensure, not only

the protection of human health and the environment, but also appropriate systems and technologies are applied to complete the remediation both on and off base.

6. *It appears from the fact sheets and community bulletins on your website that there are no dangers to the affected community. This may be why no one from the community is attending the RAB meetings. In your mailings to the affected population, have you included documents similar to the ATSDR and EPA statements on PCE and TCE and their role as probable carcinogens? If not, why not?*

The Air Force has, in fact, created fact sheets explaining the dangers of PCE and other contaminants. For example, the fact sheet entitled *Perchloroethylene (PCE) Fact Sheet* conveys information regarding cancer, possible damage to the liver, kidneys, and the central nervous system, in addition to information available from EPA and ATSDR. This document is available in the Administrative Record, Kelly AR File Number 1945.

7. *Have there been mailings to the community that breakdown products such as vinyl chloride are now in the groundwater at sites such as E-3? If not, why not?*

A fact sheet was created in September 1999 titled *Vinyl Chloride Fact Sheet*. This fact sheet explains how vinyl chloride got in the groundwater, health implications, etc. Fact sheets are distributed to the community at RAB meetings which are open to the general public. Prior to each RAB meeting, the Air Force publishes meeting notices in publications such as the *Southside Reporter*, *La Prensa*, and *San Antonio Express-News*.

Additionally, fact sheets are available to the general public in the Administrative Record, Kelly AR File Number 1813.

Additional action items noted at the meeting are addressed below.

8. *Mr. Quintanilla requested a maintenance checklist used at the Zone 4 GWTP. Ms. Hannapel also requested the same checklist.*

A copy of the maintenance checklists, both monthly and weekly, used at the Zone 4 GWTP are attached.

9. *Ms. LaGrange asked for salaries & maintenance costs allocated for the GWTP budget.*

The \$3,028,094 budget for the 2005 Kelly Basewide GWTP Operations and Maintenance Program includes \$2,323,567 for labor, \$85,711 for other direct costs, and \$618,816 for materials and subcontractors.

10. *Mr. Quintanilla requested TAPP funds be allowed to train RAB members to communicate with the Air Force, and to train the Parliamentarian. Mr. Quintanilla asked to be provided a copy of the section on TAPP that one member can not receive training using TAPP funds. Mr. Quintanilla asked that these TAPP funding requests be made an agenda item for the January 2006 RAB meeting.*

Department of Defense funding for the Kelly Restoration Advisory Board comes from two distinct authorities contained within 10 U.S.C.A. § 2705. The first, 10 U.S.C.A. §

2705(b)(2)(d) concerns funding administrative expenses for restoration advisory boards. The second, 10 U.S.C.A. § 2705(e) concerns funding technical assistance, or TAPP, needed by a RAB.

As discussed in the proposed preamble, 32 CFR Part 202, Section IV, C. 1. b., training for RAB members is considered an eligible administrative cost if it mutually benefits all members of a RAB and is relevant to the environmental restoration activities occurring at the installation. However, a type of training that would not qualify as a RAB administrative support includes specialized training for an individual member. Types of training not eligible for funding as a RAB administrative expense may, however, qualify and be eligible for funding as technical assistance.

As set forth in the final rule, 32 CFR Part 203, Section 203.10(b)(5), training for RAB members is considered an eligible TAPP activity only where technical trainers on specific restoration issues are determined appropriate in circumstances where RAB/TRC members need supplemental information on installation restoration projects.

The references cited above are included in the RAB Reference Guide provided to all Kelly RAB community members and their alternates in 2005.

*11. Ms. La Grange requested that someone review the packets prior to the meeting.*

A reproduction error in meeting packet materials for the November 8, 2005 TRS meeting resulted in the even-numbered slides not being included in meeting participant handouts for the Class 3 Modification presentation given by Ms. Norma Landez. This error did not impact the visual presentation but was an inconvenience to board members which we regret. As discussed when the error was discovered, this briefing was a repeat of information provided to all RAB members and their alternates during and following the October 18, 2005 RAB meeting. Additionally, a complete copy of the presentation slides was distributed to all members the next day.

*12. Mr. Quintanilla requested that EPA give a presentation at the January 2006 RAB meeting explaining why Kelly is not a Superfund site.*

This information has been provided to the Kelly RAB at previous meetings, and will not be added to the January 2006 RAB agenda. Enclosed is a letter from Mr. Gary Miller, Senior Project Manager, Federal Facilities Section, U.S. Environmental Protection Agency, Region 6, which responds to this request.

Attachments:

- 2005 Annual Kelly Mailer
- ETI Fact Sheet – VOC Degradation Chemistry in the Presence of Granular Iron
- HRC Overview by Regensis
- GWTP Maintenance checklists
- EPA Superfund policy documents



## Community Feedback Form

We value your feedback regarding the Air Force's environmental cleanup at the former Kelly Air Force Base. Please take a moment to answer the questions below and return this form to the address provided on the opposite side.

During the past 12 months, have you...	Yes	No	Don't Know
Received by mail any information about the cleanup?			
Heard anything about the cleanup in the news?			
Talked to a friend or neighbor about the cleanup?			
Spoken or interacted with an Air Force representative?			

### How familiar or unfamiliar are you with the environmental cleanup at Kelly?

Very Familiar  Somewhat Familiar  Somewhat Unfamiliar  Very Unfamiliar

### Please tell us how much you agree or disagree with the following statements:

	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree	Don't Know
The Air Force is being very open in its communications.						
The Air Force is very responsive to community concerns.						
The Air Force is providing useful information to me.						
I can easily understand information from the Air Force.						
The environmental cleanup is being done safely.						
The environmental cleanup is being done as quickly as possible.						
In general, the environmental cleanup is going well.						

### During the next 12 months, how likely is it that you will do the following?

	Very Likely	Likely	Somewhat Likely	Not Very Likely	Not Sure
Read information about the cleanup.					
Talk to my neighbor(s) about the cleanup.					
Attend community meetings about the cleanup.					
Call the Air Force with questions about the cleanup.					
Write a letter to a news editor about the cleanup.					
Play an active role in representing my community's interests regarding the cleanup.					

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# Air Force Real Property Agency

## The Former Kelly Air Force Base

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### Kelly: Then and Now

For more than 80 years, the former Kelly Air Force Base provided military aviation, training, supply and maintenance services for the Air Force. Placed on the Base Closure and Realignment list in 1995, Kelly was partially realigned to Lackland AFB and the remainder closed July 13, 2001.

Since then, the Air Force Real Property Agency has been conducting the environmental restoration and property transfer programs at Kelly. AFRPA works with the U.S. Environmental Protection Agency and Texas Commission on Environmental Quality to ensure contamination is cleaned up in order to transfer the property to the Greater Kelly Development Authority – the local redevelopment authority. Today Kelly operates as KellyUSA, a multi-use airport and rail-served business park.

### The Environmental Program at Kelly

During Kelly's active years, the base was used primarily as a manufacturing and maintenance depot. While the Air Force employed the latest precautions to safely handle the many chemicals in use at the former base, long-term impacts were not known until after years of operating. As a result of approved waste-disposal practices during base operations, leaks and spills of jet fuel and chlorinated solvents used to degrease metal aircraft parts contaminated the soil and shallow groundwater on base and around Kelly.

In 1988, along Quintana Road, the Air Force first detected the contamination in the shallow groundwater. Since then, the Air Force has evaluated and implemented a variety of innovative cleanup techniques to remove and/or treat the contamination of the soil and shallow groundwater.

Systems designed to contain the plume were first installed to prevent additional migration of contaminants off the base. The Air Force, in order to remove contaminants, employed innovative technologies such as using micro-organisms to break down chemicals; and pumping contaminated water from the shallow zone to the groundwater treatment plant where it is centrally treated and then discharged into Leon and Six Mile creeks – the natural discharge areas for the shallow groundwater zone. The Air Force is currently installing the final groundwater remediation system, a permeable reactive barrier, near Malone Avenue. This PRB, like the six others installed throughout the Kelly area, is made of iron filings which react with the chemicals in the shallow groundwater, causing them to breakdown into less-harmful by-products.

The Air Force will continue to operate these cleanup systems until the shallow groundwater meets TCEQ's regulatory standards. TCEQ and EPA provide regulatory oversight of the Air Force



Iron filing injection method for the permeable reactive barrier on Commercial Street

throughout this process to ensure remedial actions are effective and continue until regulatory standards are met.

Drinking water for the Kelly community, as well as the city of San Antonio, comes from the Edwards Aquifer not the shallow groundwater zone. The shallow groundwater zone lies approximately 30 feet underground and the Edwards is approximately 1,500 feet below the shallow groundwater zone. The two aquifers are separated by approximately one-quarter-mile of impermeable clay, ensuring drinking water is safe from any Kelly contamination.

**Addressing Health Concerns**  
Despite numerous studies unable to link past or present Kelly activities to the health concerns of the community, the Air Force entered into a cooperative agreement with the San Antonio Metropolitan Health District in 2002. The agreement provides \$5,000,000 in funding over a ten year period. Funding provided allows the Public Center for Environmental Health to develop and conduct health-related research studies.



The flag is lowered and folded for the last time at Kelly Air Force Base on July 13, 2001



To date, PCEH has conducted several studies to monitor air for possible contamination during environmental cleanup activities. PCEH also responded to community requests for a study to test homegrown produce for contaminants. Kelly area fruits and nuts were determined safe to eat. PCEH also conducted air monitoring and found no contamination during Air Force construction and installation of four PRBs within the community that work to clean the shallow groundwater.

Additionally, the Air Force and SAMHD identified and decommissioned private shallow groundwater wells in the Kelly Area. Although most residents used these private wells for agricultural purposes, 85 wells were plugged in order to ensure protection of human health and the environment throughout the community. The Air Force and SAMHD worked extensively to ensure community members



*A scientist examines homegrown tomatoes in the community during the Fruit and Nut Study.*

### Join the Kelly Restoration Advisory Board!

Formed in 1994 the Kelly RAB facilitates public participation in the former Kelly AFB environmental cleanup program. The Kelly RAB consists of one representative from the Air Force, the U.S. Environmental Protection Agency, the Texas Commission on Environmental Quality, the Greater Kelly Development Authority and the San Antonio Metropolitan Health District, as well as 16 community members. Generally, each year 8 community member terms expire, allowing opportunity for members to seek reelection or new members to join the board. Kelly RAB community members are elected to serve two-year terms.



*Community members tour the Groundwater Treatment Facility.*

understand the drinking water provided by the San Antonio Water System comes from the Edwards Aquifer.

The Environmental Health and Wellness Center, with funding provided by the Agency for Toxic Substances and Disease Registry, provides free health exams and information to community members. To date, nearly 2,000 free health screenings have been provided.

### Reaching out to the Community

To ensure community members receive the most complete and timely information regarding the environmental and property transfer programs, the Air Force employs a number of outreach initiatives at the former Kelly AFB. Central to these is the Kelly Restoration Advisory Board. Created in 1994 to seek and promote community

involvement in the Kelly cleanup program, the RAB meets quarterly to discuss progress, provide input, review plans and suggest projects. RAB advice is factored into the environmental cleanup program. The Air Force also provides an annual informational mailing to the surrounding community, partners with various community groups, gives tours and attends neighborhood association meetings.

### Working Today for a Better Tomorrow

A key part of San Antonio's future, KellyUSA generates \$2.5 billion annually through a combined workforce of 12,000 jobs. With a total of 1,887 acres of former Kelly AFB land in reuse at KellyUSA and 96 percent of available industrial space currently under management of the Greater Kelly Development Authority, the development of KellyUSA is allowing new growth in southwest San Antonio.

Through open and ongoing involvement with the community and federal and state regulators, the implementation of innovative environmental cleanup technologies, property transfer and redevelopment and an unwavering commitment to protecting human health and the environment, the closure and redevelopment of the former Kelly AFB is a success story.



*Restoration Advisory Board members discuss topics prior to a meeting.*

### beginning in January and ending December of the following year. RAB community members serve voluntarily without compensation and are expected to review documents, make constructive comments and attend meetings.

Kelly RAB members have contributed to the Air Force's environmental cleanup program since 1994 by:

- Increasing community understanding
- Reviewing plans and documents
- Providing advice

Acting as a resource for the community

Community members interested in joining the Kelly RAB should contact the Air Force Real Property Agency to obtain more information and a member application.

Place  
Postage  
Here

AFRPA/DC-Kelly  
143 Billy Mitchell Blvd., Suite 1  
San Antonio, TX 78226-1816

(Fold on dotted line)

Please complete the survey on back and return to the address provided.

## Kelly Restoration Advisory Board Meetings

Join us the second Tuesday of January, April, July and October at 6:30p.m.!

Kennedy High School  
1922 South General McMullen  
San Antonio, TX 78226

### Contact Information

Air Force Real Property Agency  
143 Billy Mitchell Blvd., Suite 1  
San Antonio, TX 78226-1816  
Local (210) 925-0956  
Toll Free (866)725-7617

### Information Repository

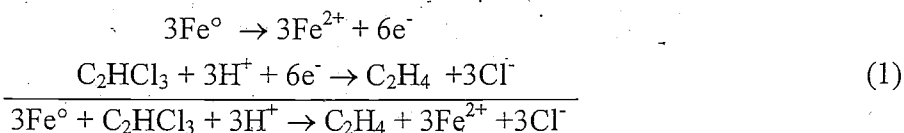
San Antonio Central Public Library  
600 North Soledad  
San Antonio, TX 78205  
Local (210) 207-2500  
www.sanantonio.gov/library



## VOC Degradation Chemistry in the Presence of Granular Iron

In the presence of granular iron, volatile organic compounds (VOC) degrade to nontoxic end products. This abiotic process involves corrosion (oxidation) of zero-valent iron (granular iron) and reduction of dissolved chlorinated hydrocarbons. The process induces highly reducing conditions that cause substitution of chlorine atoms by hydrogen in the structure of chlorinated hydrocarbons.

Chlorinated organics compounds, such as TCE are in an oxidized state because of the presence of chlorine. Iron, a strong reducing agent, reacts with the chlorinated organic compounds through electron transfers, in which ethane and chlorine are the primary products:



The products of the dechlorination reaction that occur when in contact with granular iron are chloride (Cl<sup>-</sup>), iron (Fe<sup>2+</sup>), non-chlorinated (or less chlorinated) hydrocarbons and hydrogen. When measurable, the chloride mass balances close to 100% are typically obtained in column experiments with granular iron and contaminated groundwaters. In the case of chlorinated hydrocarbons such as tetrachloroethene (PCE) and trichloroethene (TCE), dechlorination is complete with ethene and ethane as the final carbon-containing compounds (Sivavec and Horney, 1995; Orth and Gillham, 1996; Fennelly and Roberts, 1998). Ethene/ethane mass balance of 80% and higher have been reported from closed-system tests with chlorinated ethenes and ethanes (Sivavec and Horney, 1995; Fennelly and Roberts, 1998; Roberts et al., 1996).

Figure 1 shows two competing pathways for dechlorination of chlorinated ethenes in iron systems;  $\beta$ -elimination and hydrogenolysis (Eykholt, 1998 and Arnold and Roberts, 2000). The  $\beta$ -elimination pathway dominates the reaction and produces chloroacetylene intermediates, which are unstable and rapidly reduced to ethene (Roberts et al., 1996 and Sivavec et al., 1997).



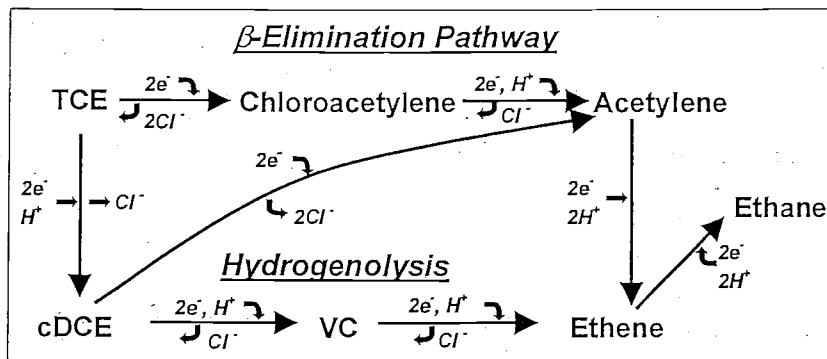


Figure 1. Iron degradation process for TCE. (Based on Arnold and Roberts, 2000)

The hydrogenolysis pathway is a slower reaction during which lesser-chlorinated intermediates are produced and subsequently degraded. For example, during degradation of TCE, the intermediate products, cDCE and VC, are produced in the hydrogenolysis pathway (<10% of the initial TCE amount) and are also degraded.

## References

Arnold, W.A. and Roberts, L.A., 2000. Pathways and Kinetics of Chlorinated Ethylene and Chlorinated Acetylene Reaction with Fe(0) Particles. *Environ. Sci. Technol.* Vol. 34, pp. 1794-1805.

Eykholt, G.R., 1998. Analytical solution for networks of irreversible first-order reactions. *The Journal of the International Association on Water Quality*, Vol. 33, No. 3, pp. 814-826.

Fennelly, J.P. and Roberts, A.L., 1998. Reaction of 1,1,1-trichloroethane with zero-valent metals and bimetallic reductants. *Environ. Sci. & Technol.*, Vol. 32, No. 13, pp. 1980-1988.

Gillham, R.W. and O'Hannesin, S.F., 1994. Enhanced Degradation of Halogenated Aliphatics by Zero-Valent Iron. *Ground Water*, Vol. 32, No. 6, pp. 958-967.

Orth, S.W., and Gillham, R.W., 1996. Dechlorination of trichloroethene in aqueous solution using Fe(0). *Environ. Sci. & Technol.*, Vol. 30, No. 1, pp. 66-71.

Roberts, A.L., Totten, L.A., Arnold, W.A., Burris, D.R., and Campbell, T.J. 1996. Reductive elimination of chlorinated ethylenes by zero-valent metals. *Environ. Sci. & Technol.*, Vol. 30, No. 8, pp. 2654-2659.

Sivavec, T.M., and Horney, D.P., 1995. Reductive dechlorination of chlorinated ethenes by iron metal. 209th National Meeting, American Chemical Society, Anaheim, CA. Preprint Extended Abstracts, Division of Environmental Chemistry, Vol. 35, No. 1, pp. 695-698.

Sivavec, T.M., Mackenzie, P.D., Horney, D.P. and Baghel, S.S., 1997. Redox-active media for permeable reactive barriers. Presented at the 1997 International Containment Conference and Exhibition, St. Petersburg, FL. February 9-12, pp. 753-759.

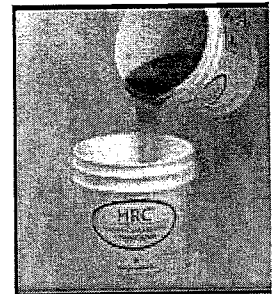


Advanced Technologies for Groundwater Resources

PRODUCTS | SOLUTIONS | RESOURCES | ABOUT US | WORLDWIDE



## OVERVIEW



### Product

HRC is a polylactate ester that is specifically designed to slowly release lactic acid when contacted with water.

### Purpose

To time release lactic acid when hydrated which is then metabolized by subsurface microbes that indirectly produce hydrogen. Hydrogen is a key ingredient in an anaerobic contaminant degrading process known as reductive dechlorination. Reductive dechlorination is the mechanism by which chlorinated compounds are biodegraded.

### Functionality

HRC is typically applied using direct-injection techniques. This process enables HRC to be pressure injected into the zone of contamination and forced out into the aquifer. Once in the subsurface, HRC will reside within the soil matrix fueling reductive dechlorination for up to 18 months through the slow release of lactic acid.

### Product Specifications

- A viscous, honey-like material rated at 20,000 centipoise
- Composition: Tripolylactate and Glycerol
- Non-hazardous, food grade product
- Packaged and delivered in 30 lb. PVC buckets

### Field Applications

- Straight HRC application in excavations
- Direct-injection (most common) for source area and permeable reactive barrier applications

### Benefits of Use

- Slow-release of lactic acid to support anaerobic microbial activity and produce hydrogen in 8 to 10 Nm range which is optimal for reductive dechlorination
- Long-term source of lactic acid/hydrogen to the subsurface (up to 18 months)
- Clean, low-cost, non-disruptive application
- Not limited by presence of surface structures
- No Operations and Maintenance
- Faster and often lower cost than drawn out natural attenuation
- Complimentary product application design and site analysis from RegenesiS

### Application Considerations

- Longevity
- Distribution in the aquifer
- Viscosity/Pumping (Heating)

(C)2004 RegenesiS, All Rights Reserved

### MONTHLY INSPECTION OF ZONE 4 SYSTEM

Equipment	Task Description	Remarks	Initial
T-01, T-02 Equalization Tanks	a. Visually check all nozzles for leaks and signs of corrosion. b. Visually check the base of the tank for corrosion, cracks and potential leaks.		
T-03 H2O2 Peroxide Tank	a. Visually check all nozzles for leaks and signs of corrosion. b. Visually check the base of the tank for corrosion, cracks and potential leaks. c. Visually check for ultraviolet degradation of the tank walls.		
P-01, P02 Influent Feed Pump	a. Check bearing temperature with a thermometer, not by hand. If bearings are running hot (over 180), it may be the result of too much lubricant. If change of lube does not work then disassemble and inspect the bearings.		
P-03, P04 Effluent Feed Pump	a. Check bearing temperature with a thermometer, not by hand. If bearings are running hot (over 180), it may be the result of too much lubricant. If change of lube does not work then disassemble and inspect the bearings.		
Sump Pump P-05	a. Visually check all nozzles for leaks and signs of corrosion. b. Visually check the sump for cracks, potential leaks and debris c. Check sump pump inlet (clean impeller if required) d. Clean sump strainer		
UV-02 UV OX System	a. Complete monthly Maint. Log (see Chapter 4 section 4.1 and Chapter 5 "Maintenance Checklist-Monthly" in the Manufacturer's O&M Manual) b. Inspect Quartz sleeves. (Clean if necessary) c. Inspect UV lamps for any bulging and/or clouding. Corrective maintenance consists of replacing deformed lamps and acid washing clouded lamps. d. Check Rayox Reactor for sludge accumulation. Flushing the reactor may be necessary.		
AC-01 Air Compressor	a. Check percent "on" time. "On" time for each pump should be less than 70%. Verify alternation sequence compressors. b. Inspect oil for contamination and change if necessary. c. Check air distribution for leaks. d. Operate safety valves. e. Check and replace air filter.		
Inline air supply oiler	a. Visually check for leaks and signs of corrosion. b. Visually check oil level fill if required. c. Drain water if present.		
Safety	a. Test safety interlocks	Wet strip T-02 high level Low air pressure Emergency stop	
Power Reading			

Inspection Conducted by: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

WEEKLY INSPECTION OF ZONE 4 SYSTEM

Equipment	Task Description	Remarks	Initial
UV-OX System	a. Check Lamps (no. of starts / run time )	Reactor 401 Reactor 402 Reactor 403	
Sump pump P-5	a. Test operation b. Note operating pressure from top of strainer		
Peroxide tank T-03	a. Note peroxide level.		
AC-01 Air Compressor	a. Check Air filter. b. Check inline filter and drain water.		
Safety	a. Test safety interlocks	T-01 high level Sump Pit high-high level	

Inspection Conducted by: \_\_\_\_\_ Date: \_\_\_\_\_

Signature: \_\_\_\_\_



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 6  
1445 ROSS AVENUE, SUITE 1200  
DALLAS, TX 75202-2733

NOV 15 2005

Norma Landez  
Air Force Real Property Agency  
AFRPA/DC-Kelly  
143 Billy Mitchell Blvd. Suite 1  
San Antonio, Texas 78226-1816

Dear Mrs. Landez:

During the November 8, 2005 Technical Review Subcommittee (TRS) meeting questions arose concerning the National Priorities Listing (NPL) for Kelly Air Force Base. Mr. Quintanilla requested the Environmental Protection Agency (EPA) explain the reason Kelly AFB was not listed on the NPL. I have enclosed copies of responses to similar requests in the past.

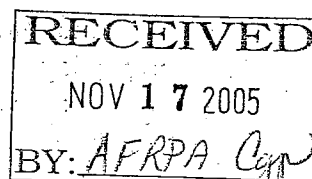
In general EPA has deferred taking action under Superfund since RCRA corrective action authorities under an existing permit are currently addressing the site. Enclosed with the responses is a fact sheet that further explains the policy for deferring Federal Facilities to the Resource Conservation and Recovery Act program.

Please provide copies of this response to the Restoration Advisory Board members prior to the next TRS meeting. If you have any questions please contact me at 214-665-8306.

Sincerely,

Gary W. Miller, P.E.  
Senior Project Manager  
Federal Facilities Section  
EPA, Region 6

cc: Mr. Mark Weegar, Texas Commission of Environmental Quality (w/o enclosures)  
Mr. Robert Silvas, Community Co-Chair, Kelly AFB RAB  
Ms. Abbi Power, TCEQ Region 13, San Antonio





## UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 6

1445 ROSS AVENUE, SUITE 1200  
DALLAS, TX 75202-2733SWR # 31750CAS #/DOC # 11985  
PROJ. MGR. Mulezar

February 7, 2001

Honorable Raul Prada  
City of San Antonio Council District 4  
P.O. Box 839966  
Antonio, TX 78283-3966**RECEIVED****FEB 12 2001****REMEDATION DIVISION  
Corrective Action Section**

Dear Mr. Prada:

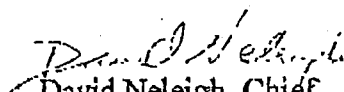
This letter provides follow-up to your question to Ms. Laura Stankosky of the U.S. Environmental Protection Agency (EPA) at the City of San Antonio City Council meeting held January 25, 2001. You asked if Kelly Air Force Base (AFB) would be cleaned up under Superfund. I am pleased to provide the following information which was supplied by the EPA Superfund Division in response to this question from previous citizen and congressional inquiries.

It is the EPA's policy to address Federal facilities such as Kelly AFB under the Resource Conservation and Recovery Act (RCRA) rather than the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), more commonly known as Superfund, if certain criteria are met. These criteria are: 1) the CERCLA site is currently being addressed by RCRA Subtitle C corrective action authorities under an existing enforceable order or permit containing corrective action measures; 2) the response under RCRA is progressing adequately; and 3) the state and community support deferral of National Priorities List (NPL) listing. The EPA uses these criteria to aid in determining whether or not to place a Federal facility on the NPL. These criteria are outlined more fully in the enclosure included with this letter. Additionally, amended Section 120(d) of CERCLA gives the EPA the discretion to withhold NPL designation of a Federal facility cleanup action if the site is already subject to a Federal or State cleanup plan.

The Texas Natural Resource Conservation Commission (TNRCC) is actively pursuing corrective action at Kelly AFB under the authority of RCRA. The TNRCC will address cleanup of the groundwater and solid waste management units through its RCRA permit program. The EPA has, therefore, deferred taking any further Superfund action at Kelly AFB. The EPA's decision not to propose this site to the NPL at this time, regardless of its Hazard Ranking Score, is consistent with CERCLA and allows EPA to address other Superfund sites where no other mechanism is available. The EPA believes the TNRCC's RCRA action will adequately address the concerns to which Superfund would respond similarly and will be protective of public health and the environment.

I have enclosed a fact sheet to provide additional information on the RCRA corrective action measures, CERCLA processes, and Base Closure decision. Should you have any questions or wish to discuss this further please do not hesitate to contact me at (214) 665-6785 or have your staff contact Ms. Laura Stankosky at (214) 665-7525.

Sincerely,

  
David Neleigh, Chief  
New Mexico - Federal  
Facilities Section

enclosure

cc: Honorable Howard W. Peak, Mayor of San Antonio  
William Ryan, Kelly Air Force Base  
Mark Weegar, TNRCC  
Abigail Power, TNRCC Region 13  
Dr. Gene Lene, Kelly AFB RAB Community Co-chair



## KELLY AIR FORCE BASE, SAN ANTONIO, TEXAS

Kelly Air Force Base has been the subject of numerous investigations under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) and the Resource Conservation and Recovery Act (RCRA). These investigations have included the evaluation of multiple potential sources of contamination and risk assessments. On June 12, 1998, the Texas Natural Resource Conservation Commission (TNRCC) issued KAFB a permit to perform closure and post closure care including RCRA corrective action measures. This permit and corrective action plan were the result of extensive site investigations conducted by KAFB in conjunction with the TNRCC and the U.S. Environmental Protection Agency (EPA).

### Base Closure Decision

Kelly Air Force Base was targeted for closure in 1995 by the Defense Base Closure and Alignment Commission. Section 102(h) (3) of CERCLA requires that EPA agree that "all remedial action necessary to protect human health and the environment" has been taken and that any required remedy is in place and operating successfully as a condition of transfer of Federal property by deed at closing bases. Region 6 EPA is actively participating in the investigation process of those properties targeted for transfer and reuse, such as KAFB, and in the decision making process of final remedy selections. The Region is a member of the Base Realignment and Cleanup Team and is active in the public participation process as a member of the community stakeholder's Restoration Advisory Board (RAB) and Technical Review Subcommittee.

### Administrative Modification to State Hazardous Waste Permit

A May 2000 letter from the United States Air Force to the owners/residents surrounding Kelly Air Force base notified the owners/residents of an administrative modification to the hazardous waste permit the TNRCC issued to KAFB. The administrative modification transfers ownership and operational control of the hazardous waste permit from the San Antonio Air Logistic Center (a.k.a. "active duty Air Force") to the Air Force Base Conversion Agency (a.k.a. "closing Air Force agency") through a Class 1 Permit Modification. The remediation efforts and the closure requirements of the four RCRA-regulated units on Kelly Air Force Base (E-3, SD-1, SA-2, and S-8) are not affected.

### Ground Water Plume

Both EPA and the TNRCC are aware of the fact that ground water contamination extends beyond the boundaries of KAFB. Both agencies are providing technical assistance to the Air Force in its investigation and evaluation of appropriate remedial alternatives to address all impacted media on and off of the base, including offsite ground water contamination. Determining the appropriate mix of remediation methods at a site can be a complex process;

consequently, all viable remedial approaches or technologies to address the contamination must be evaluated, including monitored natural attenuation. In order to select alternatives, it must be demonstrated that the selected remedy will be protective of human health and the environment. To date, neither EPA nor TNRCC has approved a remedy for any portion of the offsite ground water contamination.

### Prioritizing Corrective Action Measures Under RCRA

Kelly Air Force Base is a complex facility with numerous sites requiring remediation as a condition of base closure. The U.S. Air Force is addressing all sites concurrently and has committed fiscal resources to the successful closure of these sites. These units will be "closed" as soon as restoration activities have been completed. The time needed to complete restoration depends on the complexity of the unit.

### Deferring Federal Facilities to the Superfund Program

There are three criteria listed in EPA's Interim Final Revisions to Policy For Listing Federal Facilities on the NPL (November 1997). EPA uses the criteria to aid in determining whether or not to place a Federal facility on the NPL.

- The CERCLA site is currently being addressed by RCRA Subtitle C corrective action authorities under an existing enforceable order or permit containing corrective action measures.  
*On June 12, 1998, the TNRCC issued KAFB a permit to perform closure and post closure care including RCRA corrective action. The compliance plan encompasses both on-site units as well as any off-site contamination that has resulted from these units. It also provides a schedule for compliance.*
- The response under RCRA is progressing adequately.  
*The EPA is working closely with the TNRCC and the U.S. Air Force to ensure that restoration activities at KAFB are progressing according to the compliance plan and to ensure that all remedial actions are protective of human health and the environment. Currently, the Air Force is conducting a "Base Wide Risk Assessment" that will encompass the risk to nearby population from both on-site and off-site contamination.*
- The state and community support deferral of NPL listing.  
*Since 1996, it has been EPA's policy to obtain concurrence from the Governor of The State or his designee prior to proposing a site to the NPL. The TNRCC is the designated RCRA authority and has issued a permit and compliance plan to KAFB and the restoration is adequately progressing under their authority. Since the restoration is progressing adequately under the States authority, it is unlikely that the State would support NPL inclusion of KAFB. In addition, the Interim Final Revisions specify that it is the responsibility of the Federal facility and the*

*State to inform the community of the deferral and recommends that the Federal facility establish a Restoration Advisory Board (RAB) to facilitate community concerns. The RAB at Kelly was established in November 1994 and is a key component for public participation under the current base closure process. EPA officials regularly attend these meetings and are available to answer questions regarding the ongoing restoration activities at KAFB. The implementation of the RAB complies with the public information requirements of the Interim Final Revisions.*

### **Conclusion**

EPA is confident that these criteria have been met at KAFB and that the basis for the Agency's decision to defer taking Superfund action at this facility is appropriate. In addition, EPA believes the State's RCRA actions will adequately address the concerns to which Superfund would respond and will be protective of public health and the environment.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 6  
1445 ROSS AVENUE, SUITE 1200  
DALLAS, TX 75202-2733

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TNRCC IHW PERMITS

SEP 27 2000

OCT 2 2000

WASTE PERMITS DIVISION

DOC NO. 3444-1  
TEAM \_\_\_\_\_  
 Combust Tr 1  2  3  4  
COORDINATOR Decker  
DUE DATE \_\_\_\_\_

RECEIVED

OCT 09 2000

REMEDATION DIVISION  
Corrective Action Section

SWR # 31750

CAS # 10669  
PROJ. MGR W. J. ...

Mr. Armando C. Quintanilla  
70 Bristol Green  
San Antonio, Texas 78209-1899

Dear Mr. Quintanilla:

Thank you for your February 14, 2000, letter to Vice President Al Gore concerning Kelly Air Force Base located in San Antonio, Texas. In your letter you express concern over the status of cleanup activities at Kelly Air Force Base (KAFB), request that the U.S. Environmental Protection Agency (EPA) consider KAFB as a candidate for the Superfund National Priority List (NPL), and ask EPA Region 6 to advise the residents near Kelly of the Hazard Ranking Score (HRS) for Kelly AFB. In addition you raised specific questions concerning the preliminary findings of the Agency for Toxic Substances and Disease Registry (ATSDR) Public Health Assessment. Because this matter is within my regional jurisdiction, your letter was referred to me for a reply.

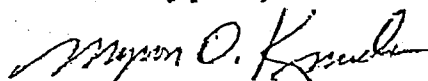
As stated in the August 20, 1999, Petitioned Public Health Assessment for Kelly AFB, Public Comment version, the ATSDR does note that elevated cancers, for leukemia, liver, kidney and cervical cancer, were found in at least one of the initial zip code areas evaluated (78237, 78211, and 78228). The ATSDR states that it is unknown what contributions, if any, past air emissions may have made towards these elevated cancers. Similarly, the ATSDR notes that one zip code evaluated near Kelly AFB had elevations in the number of low birth weight babies and children born with a specific birth defect. However, ATSDR goes on to say that these outcomes have not previously been associated with contaminants at the levels currently measured at Kelly AFB. Further evaluations of specific health outcomes, such as cancer, birth defects and low birth weights in zip codes around Kelly AFB, continue to be evaluated. Because the community continues to have concerns about their health, the San Antonio Metropolitan Health District will be offering a series of clinics to communities in the targeted areas with free health screening. For more information on this upcoming activity, please contact the San Antonio Metropolitan Health District.

I have enclosed a fact sheet discussing base closure, corrective action measures under the Resource Conservation and Recovery Act (RCRA), and EPA's decision to defer this site under Superfund. As we have stated in previous responses to you, EPA has deferred taking action

under Superfund, and we have no plans to finalize an HRS to propose KAFB to the NPL at this time. If, in the future, we determine that proposing Kelly is warranted, we will finalize a Hazard Ranking Score in order to complete the NPL proposal process.

I am confident the State's RCRA actions will adequately address the concerns to which Superfund would respond and that the actions will be protective of public health and the environment. If I may be of further assistance, please let me know.

Sincerely yours,



Myron O. Knudson, P.E.  
Director  
Superfund Division

Enclosure

cc: Texas Natural Resource  
Conservation Commission

## KELLY AIR FORCE BASE, SAN ANTONIO, TEXAS

Kelly Air Force Base has been the subject of numerous investigations under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) and the Resource Conservation and Recovery Act (RCRA). These investigations have included the evaluation of multiple potential sources of contamination and risk assessments. On June 12, 1998, the Texas Natural Resource Conservation Commission (TNRCC) issued KAFB a permit to perform closure and post closure care including RCRA corrective action measures. This permit and corrective action plan were the result of extensive site investigations conducted by KAFB in conjunction with the TNRCC and the U.S. Environmental Protection Agency (EPA).

### Base Closure Decision

Kelly Air Force Base was targeted for closure in 1995 by the Defense Base Closure and Realignment Commission. Section 102(h) (3) of CERCLA requires that EPA agree that "all remedial action necessary to protect human health and the environment" has been taken and that any required remedy is in place and operating successfully as a condition of transfer of Federal property by deed at closing bases. Region 6 EPA is actively participating in the investigation process of those properties targeted for transfer and reuse, such as KAFB, and in the decision making process of final remedy selections. The Region is a member of the Base Realignment and Cleanup Team and is active in the public participation process as a member of the community stakeholder's Restoration Advisory Board (RAB) and Technical Review Subcommittee.

### Administrative Modification to State Hazardous Waste Permit

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### Ground Water Plume

Both EPA and the TNRCC are aware of the fact that ground water contamination extends beyond the boundaries of KAFB. Both agencies are providing technical assistance to the Air Force in its investigation and evaluation of appropriate remedial alternatives to address all impacted media on and off of the base, including offsite ground water contamination. Determining the appropriate mix of remediation methods at a site can be a complex process;

consequently, all viable remedial approaches or technologies to address the contamination must be evaluated, including monitored natural attenuation. In order to select alternatives, it must be demonstrated that the selected remedy will be protective of human health and the environment. To date, neither EPA nor TNRCC has approved a remedy for any portion of the offsite ground water contamination.

### Prioritizing Corrective Action Measures Under RCRA

Kelly Air Force Base is a complex facility with numerous sites requiring remediation as a condition of base closure. The U.S. Air Force is addressing all sites concurrently and has committed fiscal resources to the successful closure of these sites. These units will be "closed" as soon as restoration activities have been completed. The time needed to complete restoration depends on the complexity of the unit.

### Deferring Federal Facilities to the RCRA Program

There are three criteria listed in EPA's Interim Final Revisions to Policy For Listing Federal Facilities on the NPL (November 1997). EPA uses the criteria to aid in determining when a Federal facility may not be placed on the NPL because the cleanup is being conducted pursuant to RCRA subtitle C corrective action authorities ("RCRA/NPL deferral for Federal facility sites").

- The CERCLA site is currently being addressed by RCRA Subtitle C corrective action authorities under an existing enforceable order or permit containing corrective action measures.  
*On June 12, 1998, the TNRCC issued KAFB a permit to perform closure and post closure care including RCRA corrective action. The compliance plan encompasses both on-site units as well as any off-site contamination that has resulted from these units. It also provides a schedule for compliance.*
- The response under RCRA is progressing adequately.  
*The EPA is working closely with the TNRCC and the U.S. Air Force to ensure that restoration activities at KAFB are progressing according to the compliance plan and to ensure that all remedial actions are protective of human health and the environment. Currently, the Air Force is conducting a "Base Wide Risk Assessment" that will encompass the risk to nearby population from both on-site and off-site contamination.*
- The state and community support deferral of NPL listing.  
*Since 1996, it has been EPA's policy to obtain concurrence from the Governor of the State or his designee prior to proposing a site to the NPL. The TNRCC is the designated RCRA authority and has issued a permit and compliance plan to KAFB and the restoration is adequately progressing under their authority. Since the restoration is progressing adequately under the States authority, it is unlikely*

that the State would support NPL inclusion of KAFB. In addition, the Interim Final Revisions specify that it is the responsibility of the Federal facility and the State to inform the community of the deferral and recommends that the Federal facility establish a Restoration Advisory Board (RAB) to facilitate community concerns. The RAB at Kelly was established in November 1994 and is a key component for public participation under the current base closure process. EPA officials regularly attend these meetings and are available to answer questions regarding the ongoing restoration activities at KAFB. The implementation of the RAB complies with the public information requirements of the Interim Final Revisions.

### Conclusion

EPA is confident that these criteria have been met at KAFB and that the basis for the Agency's decision to defer taking Superfund action at this facility is appropriate. In addition, EPA believes the State's RCRA actions will adequately address the concerns to which Superfund would respond and will be protective of public health and the environment.





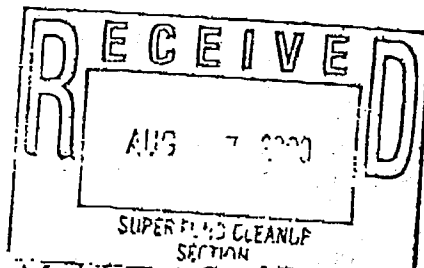
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 6  
1445 ROSS AVENUE, SUITE 1200  
DALLAS, TX 75202-2783

SWR # 31750  
10168  
CAS # 10044  
PROJ. MGR W. J. ...

AUG 03 2000

COPY

Mr. Aracando C. Quintanilla  
70 Bristol Green  
San Antonio, TX 78209-1899



Dear Mr. Quintanilla:

Thank you for your June 3, 2000, letter to Administrator Carol Browner concerning Kelly Air Force Base located in San Antonio, Texas. In your letter you expressed concern about the current progress of Resource Conservation and Recovery Act (RCRA) corrective action activities at Kelly Air Force Base (KAFB) and raised specific questions concerning ongoing RCRA corrective action measures. You also asked for clarification of the U.S. Environmental Protection Agency's (EPA) decision to defer Superfund action at KAFB, and you ask EPA to list the site on the Superfund National Priorities List. Because these matters fall within my regional jurisdiction, your letter was referred to me for a reply.

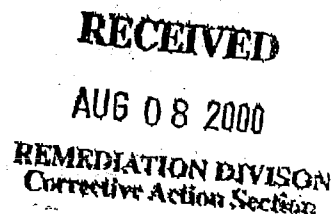
I have enclosed a fact sheet discussing base closure, corrective action measures under RCRA, and EPA's decision to defer this site under Superfund. I am confident the State's RCRA actions will adequately address the concerns to which Superfund would respond and that they will be protective of public health and the environment.

I hope this information is helpful to you. If I may be of further assistance, please let me know.

Sincerely yours,

/s/ Lynda Carroll

Gregg A. Cooke  
Regional Administrator



Enclosure

cc: Texas Natural Resource  
Conservation Commission

## KELLY AIR FORCE BASE, SAN ANTONIO, TEXAS

Kelly Air Force Base has been the subject of numerous investigations under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) and the Resource Conservation and Recovery Act (RCRA). These investigations have included the evaluation of multiple potential sources of contamination and risk assessments. On June 12, 1998, the Texas Natural Resource Conservation Commission (TNRCC) issued KAFB a permit to perform closure and post closure care including RCRA corrective action measures. This permit and corrective action plan were the result of extensive site investigations conducted by KAFB in conjunction with the TNRCC and the U.S. Environmental Protection Agency (EPA).

### Base Closure Decision

Kelly Air Force Base was targeted for closure in 1995 by the Defense Base Closure and Realignment Commission. Section 102(h) (3) of CERCLA requires that EPA agree that "all remedial action necessary to protect human health and the environment" has been taken and that any required remedy is in place and operating successfully as a condition of transfer of Federal property by deed at closing bases. Region 6 EPA is actively participating in the investigation process of those properties targeted for transfer and reuse, such as KAFB, and in the decision making process of final remedy selections. The Region is a member of the Base Realignment and Cleanup Team and is active in the public participation process as a member of the community stakeholder's Restoration Advisory Board (RAB) and Technical Review Subcommittee.

### Administrative Modification to State Hazardous Waste Permit

A May 2000 letter from the United States Air Force to the owners/residents surrounding Kelly Air Force base notified the owners/residents of an administrative modification to the hazardous waste permit the TNRCC issued to KAFB. The administrative modification transfers ownership and operational control of the hazardous waste permit from the San Antonio Air Logistic Center (a.k.a. "active duty Air Force") to the Air Force Base Conversion Agency (a.k.a. "closing Air Force agency") through a Class I Permit Modification. The remediation efforts and the closure requirements of the four RCRA-regulated units on Kelly Air Force Base (E-3, SD-1, SA-2, and S-8) are not affected.

### Ground Water Plume

Both EPA and the TNRCC are aware of the fact that ground water contamination extends beyond the boundaries of KAFB. Both agencies are providing technical assistance to the Air Force in its investigation and evaluation of appropriate remedial alternatives to address all impacted media on and off of the base, including offsite ground water contamination. Determining the appropriate mix of

remediation methods at a site can be a complex process; consequently, all viable remedial approaches or technologies to address the contamination must be evaluated, including monitored natural attenuation. In order to select alternatives, it must be demonstrated that the selected remedy will be protective of human health and the environment. To date, neither EPA nor TNRCC has approved a remedy for any portion of the offsite ground water contamination.

### Prioritizing Corrective Action Measures Under RCRA

Kelly Air Force Base is a complex facility with numerous sites requiring remediation as a condition of base closure. The U.S. Air Force is addressing all sites concurrently and has committed fiscal resources to the successful closure of these sites. These units will be "closed" as soon as restoration activities have been completed. The time needed to complete restoration depends on the complexity of the unit.

### Deferring Federal Facilities to the RCRA Program

There are three criteria listed in EPA's Interim Final Revisions to Policy For Listing Federal Facilities on the NPL, (November 1997). EPA uses the criteria to aid in determining when a Federal facility may not be placed on the NPL, because the cleanup is being conducted pursuant to RCRA subtitle C corrective action authorities ("RCRA/NPL deferral for Federal facility sites").

The CERCLA site is currently being addressed by RCRA Subtitle C corrective action authorities under an existing enforceable order or permit containing corrective action measures.

*On June 12, 1998, the TNRCC issued KAFB a permit to perform closure and post closure care including RCRA corrective action. The compliance plan encompasses both on-site units as well as any off-site contamination that has resulted from these units. It also provides a schedule for compliance.*

The response under RCRA is progressing adequately.

*The EPA is working closely with the TNRCC and the U.S. Air Force to ensure that restoration activities at KAFB are progressing according to the compliance plan and to ensure that all remedial actions are protective of human health and the environment. Currently, the Air Force is conducting a "Base Wide Risk Assessment" that will encompass the risk to nearby population from both on-site and off-site contamination.*

The state and community support deferral of NPL listing.

*Since 1996, it has been EPA's policy to obtain concurrence from the Governor of the State or his designee prior to proposing a site to the NPL. The TNRCC is the designated RCRA authority and has issued a permit and compliance plan to*

*The TNRCC is the designated RCRA authority and has issued a permit and compliance plan to KAFB and the restoration is adequately progressing under their authority. Since the restoration is progressing adequately under the States authority, it is unlikely that the State would support NPL inclusion of KAFB. In addition, the Interim Final Revisions specify that it is the responsibility of the Federal facility and the State to inform the community of the deferral and recommends that the Federal facility establish a Restoration Advisory Board (RAB) to facilitate community concerns. The RAB at Kelly was established in November 1994 and is a key component for public participation under the current base closure process. EPA officials regularly attend these meetings and are available to answer questions regarding the ongoing restoration activities at KAFB. The implementation of the RAB complies with the public information requirements of the Interim Final Revisions.*

### **Conclusion**

EPA is confident that these criteria have been met at KAFB and that the basis for the Agency's decision to defer taking Superfund action at this facility is appropriate. In addition, EPA believes the State's RCRA actions will adequately address the concerns to which Superfund would respond and will be protective of public health and the environment.



## UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 6  
1445 ROSS AVENUE, SUITE 1200  
DALLAS, TX 75202-2733

MAY 24 2000

Mr. Armando C. Quintanilla  
70 Bristol Green  
San Antonio, TX 78209-1899

Re: Freedom of Information Act Request (6)RIN-0568-00

Dear Mr. Quintanilla:

Thank you for your Freedom of Information Act request dated March 13, 2000, for information on the Kelly Air Force Base Facility (TX2571724333), located in San Antonio, Texas, specifically:

- \* Documents scoring the above-mentioned site as a National Priority List (NPL) facility;
- \* Level of contamination;
- \* The affected receptors (population and ecosystem);
- \* The pathways through which the contamination might reach the receptors;
- \* Scores exceeding 28.5 using the Hazard Ranking System (HRS);
- \* Documents excluding the facility as an NPL site or because Congress has given the Governor of Texas the power to keep the site off the NPL List;
- \* Documents listing those hot spots or plumes that raise the score to 28.5 or above score; and
- \* Documents listing the entire facility from fence line to fence line to 28.5 score or above.

2

In compliance with your request, we are enclosing copies of the following available documents:

- \* Memorandum from Timothy Fields, Jr., Acting Assistant Administrator Office of Solid Waste and Emergency Response, to Regional Administrators Regions I-X dated July 25, 1997, subject: Coordinating with the States on National Priorities List Decisions-Issue Resolution Process;
- \* The United States Environmental Protection Agency 40 CFR part 300 [FRL-5925-3]: The National Priorities List for Uncontrolled Hazardous Waste Sites, Listing and Deletion Policy for Federal Facilities;
- \* The United States Environmental Protection Agency 40 CFR part 300: Amendment to National Oil and Hazardous Substances Contingency Plan, National Priorities List [SW-FRL-2973-2] 51 FR 21054 dated June 10, 1986;
- \* Memorandum from Elliott P. Laws, Assistant Administrator, Office of Solid Waste and Emergency Response to Regional Administrators, Region I-VII, IX, X, Acting Regional Administrator, Region VIII, subject: Coordinating with the States on National Priorities List Decisions, dated November 14, 1995;
- \* Site Assessment Report dated August 16, 1985; and
- \* Preliminary Assessment Report dated August 4, 1980.

We are unable to provide you with certain documents, or portions of documents, which have been determined to be exempt from mandatory disclosure in accordance with 5 U.S.C § 552(b)(5) & (7). The following documents are being withheld:

- \* Memorandum from Thomas Lensing, Jr., FIT Biologist, to Dave Wineman, Region VI RPO, thru K. H. Malone, Jr., FITOM, dated December 7, 1987, subject: Final Hazard Ranking System (HRS) package for Kelly AFB, San Antonio, Texas, TDD #F06-8709-14 (TX257172433) (2 pages); and
- \* Hazard Ranking System Package, Kelly Air Force Base, San Antonio, TX (Bexar County), dated December 7, 1987, (105 pages).

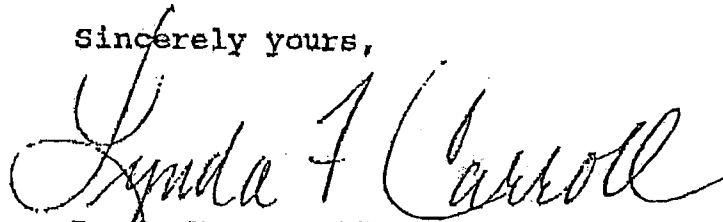
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You may appeal this initial denial by addressing, within 30 days of your receipt of this letter, your written appeal to the Freedom of Information Officer, (1105), United States Environmental Protection Agency, Ariel Rios Building, 1200 Pennsylvania Avenue, N. W., Washington, D.C. 20460. Your appeal should include the RIN number listed above, the date of this determination, and my name, title and address.

It is EPA's policy to address Federal facilities such as Kelly Air Force Base under the Resource Conservation and Recovery Act (RCRA) rather than Superfund. Amended Section 120(d) of CERCLA give EPA the discretion to withhold National Priority List (NPL) designation of a Federal facility cleanup action if the site is already subject to a Federal or State cleanup plan. The Texas Natural Resource Conservation Commission (TNRCC) is actively pursuing corrective action at Kelly Air Force Base under the authority of RCRA. The TNRCC will address corrective action of the ground water and solid waste management units through its RCRA permit program. We have, therefore, deferred taking any further Superfund action, a decision which is consistent with CERCLA. The Region's decision not to propose this site to the NPL now or in the future, regardless of its Hazard Ranking Score, is consistent with CERCLA and allows EPA to address other Superfund sites where no other mechanism is available. The EPA believes the State's RCRA action will adequately address the concerns to which Superfund would respond and will be protective of public health and the environment.

If you should have any questions or need additional information, please contact Susan Webster, Site Assessment Team Leader, Superfund Division at (214) 665-6784.

Sincerely yours,



Lynda F. Carroll  
Assistant Regional Administrator  
for Management

Enclosures

October 18, 2005  
Kelly Restoration Advisory Board (RAB) Meeting  
Kennedy High School, Cafeteria  
1922 S. General McMullen  
San Antonio, Texas 78226

**Draft Meeting Minutes**

**RAB Community Member Attendees:**

Mr. Robert Silvas, Community Co-Chair  
Ms. Esmeralda Galvan  
Ms. Coriene Hannapel  
Ms. Henrietta LaGrange  
Mr. Nazarite Perez  
Mr. Armando Quintanilla  
Mr. George Rice  
Mr. Michael Sheneman  
Ms. Carol Vaquera

**RAB Government Member Attendees:**

Mr. Adam Antwine, Installation Co-Chair  
Ms. Kyle Cunningham, San Antonio Metropolitan Health District (SAMHD)  
Mr. Mark Lyssy, Environmental Protection Agency (EPA) Region VI  
Mr. Gary Martin, Greater Kelly Development Authority (GKDA)  
Mr. Mark Weegar, Texas Commission on Environmental Quality (TCEQ)

**Other Attendees:**

Dr. David Smith, Facilitator  
Ms. Sonja Coderre, Air Force Real Property Agency (AFRPA)  
Mr. Todd Colburn, AFRPA Contractor  
Ms. Larisa Dawkins, AFRPA  
Mr. Ben Galvan, Community Member  
Mr. Troy Gonzalez, AFRPA Contractor  
Ms. Laura Guerrero-Redman, AFRPA Contractor  
Ms. Tanya Huerta, Community Member  
Ms. Linda Kaufman, Public Center for Environmental Health (PCEH)  
Ms. Norma Landez, AFRPA  
Mr. Sam Murrah, Community Member  
Ms. Abigail Power, TCEQ (Alternate for Mr. Mark Weegar)  
Ms. Heather Ramon-Ayala, AFRPA Contractor  
Mr. William Ryan, AFRPA  
Mr. Eduardo Salinas, AFRPA Contractor

The meeting began at 6:36 p.m.



## **I. Introduction – Dr. David Smith**

Dr. Smith began the meeting by welcoming RAB members and other attendees. The meeting started with the Pledge of Allegiance, followed by a moment of silence. Dr. Smith then reviewed the agenda items for the evening and the RAB meeting packets which included:

- Signed Minutes, December 2004 – September 2005
- ALS Executive Summary and Bilingual Fact Sheet
- “TCEQ Letter (13 Sep 05) - Leon Creek Fish Kill”
- June, July, August BCT Minutes
- Presentation – Overview of RAB
- Presentation – Election Process
- Candidate Forms
- Recent Responses to Requests for Information (RFIs) and Freedom of Information Act (FOIA) Requests
- Recent TCEQ Correspondence Filed at the Information Repository
- News Clips
- Presentation - Class 3 Modification to Compliance Plan 50310

Dr. Smith informed RAB members who were interested in participating in the appointment process needed to notify the RAB Community Co-Chair.

## **II. Community Comment Period – Dr. David Smith**

No community comments were made.

## **III. AFRPA Update**

A. Mr. Antwine provided an AFRPA Update. Mr. Antwine discussed the ALS study conducted by the Air Force Institute for Operational Health (AFIOH), and copies provided by AFIOH were distributed to RAB members. Mr. Antwine also stated a major milestone had been reached with the completion of the final off-base permeable reactive barrier and followed that discussion with a fiscal year 2005/2006 update.

B. Ms. Landez provided a Class 3 Modification briefing.

Ms. Landez reviewed slides for the Class 3 Modification briefing which were included in RAB packets.

Mr. Quintanilla asked to be provided with the costs involved in the Class 3 Modification to the Compliance Plan for Zones 4 and 5.

Mr. Silvas asked for the public comment deadline for the Class 3 Modification public meeting.

C. Ms. Landez provided a BCT Update.

Ms. Landez informed the RAB the BCT meeting had just occurred several hours prior to the RAB meeting, 18 October 2005.

D. Ms. Landez provided the Spill Report.

Ms. Landez provided an overview regarding a spill which occurred at the Zone 4 Groundwater Treatment Plant. No other spills were reported.

#### **IV. Overview of the RAB Presentation – Ms. Sonja Coderre**

Ms. Coderre provided a RAB member presentation. The slides for this presentation were included in the RAB meeting packets. Items covered in this presentation included RAB mission and purpose, RAB composition and RAB member roles.

#### **V. Explanation of the Voting Process – Ms. Laura Guerrero-Redman**

Ms. Guerrero-Redman provided an explanation of the RAB voting process. The slides for this presentation were included in the RAB meeting packets. Items covered in this presentation included RAB composition, terms of office, candidate introductions and open positions on the Kelly RAB.

A break occurred at 8:20 p.m. The meeting reconvened at 8:30 p.m.

#### **VI. Local Candidate Elections – Ms. Laura Guerrero-Redman and David Smith**

Mr. Perez gave a presentation seeking re-appointment for two additional consecutive years.

Mr. Sheneman gave a presentation seeking re-appointment for two additional consecutive years.

Local Community Candidates:

Mr. Perez was reappointed with nine votes.

Mr. Sheneman was reappointed with eight votes.

#### **VII. All Other Candidate Elections – Ms. Laura Guerrero-Redman and Dr. David Smith**

Ms. Galvan gave a presentation seeking re-appointment for two additional consecutive years.

Other Community Candidates:

Ms. Galvan was reappointed with nine votes.

Dr. Smith reminded the reappointed RAB members their new terms would begin 1 January 2006. He also informed the RAB there were now six open seats on the RAB.



November 8, 2005  
Technical Review Subcommittee (TRS) Meeting  
of the Kelly Restoration Advisory Board (RAB)  
Environmental Health & Wellness Center  
911 Castroville Road  
San Antonio, Texas 78237

**DRAFT Meeting Minutes**

**RAB Community Member Attendees:**

Mr. Robert Silvas, Community Co-Chair  
Ms. Nancy Garcia (Alternate for Mr. Ruben Martinez)  
Mr. Rodrigo Garcia  
Ms. Coriene Hannapel  
Ms. Henrietta LaGrange  
Mr. Nazarite Perez  
Mr. Armando Quintanilla  
Mr. Michael Sheneman

**RAB Government Member Attendees:**

Ms. Kyle Cunningham, San Antonio Metropolitan Health District (SAMHD) (Alternate for Ms. Melanie Ritsema)  
Mr. Gary Miller, Environmental Protection Agency (EPA) Region VI  
Mr. Mark Weegar, Texas Commission on Environmental Quality (TCEQ)

**Other Attendees:**

Dr. David Smith, Facilitator  
Ms. Sonja Coderre, Air Force Real Property Agency (AFRPA)  
Mr. Todd Colburn, AFRPA Contractor  
Mr. Chris Cunanan, Community Member  
Ms. Norma de los Santos, Community Member  
Mr. Alan Ferrell, SAMHD  
Ms. Bianca Guerrero, Community Member  
Mr. Bill Hall, AFRPA  
Ms. Norma Landez, AFRPA  
Mr. Greg Lyssy, EPA Region VI (Alternate for Mr. Gary Miller)  
Mr. Eduardo Martinez, AFRPA Contractor  
Ms. Abigail Power, TCEQ (Alternate for Mr. Mark Weegar)  
Ms. Heather Ramon-Ayala, AFRPA Contractor  
Ms. Carol Yzaguirre, Community Member

The meeting began at 6:36 p.m.

## I. Introduction – Dr. David Smith

Dr. Smith began the meeting by welcoming RAB members and other attendees. Dr. Smith then reviewed the agenda items for the evening and the RAB meeting packets, which included:

- Draft 18 October 2005 Meeting Minutes
- Final 18 October 2005 BCT Minutes
- Documents to the TRS/RAB
- (2) TCEQ Letters to Mr. Antwine, Re: Class 2 Compliance Plan Modification
- September Action Item Report
- October Action Item Report
- Presentation I – 5 October 2005 East Kelly GWTP Spill
- Presentation II – Class 3 Modification to Compliance Plan 50310
- Media clipping, Re: Leon Creek Fish Kill

Ms. Hannapel gave a public comment regarding AFRPA mailings to the community, and provided AFRPA with a list of the following action items:

- Could you provide a copy of the recent mailing to RAB members?
- Were these 12,000 people informed of the recent leak of contaminated water that went into Six Mile Creek? If not, why not?
- Regarding the Zone 5 GWTP Fact Sheet which is on the AFRPA website:
  - Please provide documentation for the statement that chlorinated solvents break down into “carbon dioxide, water, and the mineral chloride.”
  - Please provide documentation that lactate, a substance used in enhanced bioremediation, is a “substance like vegetable oil.”
  - Please provide evidence for the statement that “Kelly is not the source of the PCE plume.”
- Regarding the Zone 4 Fact Sheet which is on the AFRPA website:
  - Please explain what is meant by “impermeable clay and rock” that separates the groundwater from the Edwards Aquifer. How can rock and clay be impermeable to water and substances that are dissolved in it?
  - Please comment on the Air Force documents mentioned by George Rice at the last RAB meeting indicating that contaminated groundwater has, in fact, already leaked into the Edwards Aquifer.
- In your mailings to the community, has the AF ever acknowledged the role of Mr. Armando Quintanilla in proving that the contamination had gone beyond the AF base and into the community? If not, why not?
- It appears from the fact sheets and community bulletins on your website that there are no dangers to the affected community. This may be why no one from the community is attending the RAB meetings. In your mailings to the affected population, have you included documents similar to the ATSDR and EPA statements on PCE and TCE and their role as probable carcinogens? If not, why not?
- Have there been mailings to the community that breakdown products such as vinyl chloride are now in the groundwater at sites such as E-3? If not, why not?

Mr. Silvas asked if other RAB members would like to make a comment.

Mr. Rodrigo Garcia gave public comment regarding poor government work and requesting resignations from everyone at AFRPA.

## **II. Administrative**

A. Ms. Landez provided a BCT Update. Ms. Landez informed everyone no BCT meeting took place the day of this meeting, but that minutes from the 18 Oct 2005 BCT meeting were included in RAB packets.

B. Ms. Landez discussed recent documents to TRS/RAB. Documents which will be placed in the Co-Chair Library at the Environmental Health & Wellness Center following the meeting are as follows: 1) TCEQ Letter to AFRPA on Closure of Two AST at Bldg 53, Four VAST at Bldgs 375, 1417, 1544 & 1679. 2) TCEQ Letter to AFRPA on Site Inspections of AST Located at various buildings.

C. Action Item Reports from the 13 September 2005 TRS and 18 October 2005 RAB, and their attachments, were provided in RAB packets.

## **III. Spill Summary Report, East Kelly GWTP, Zone 4 – Bill Hall**

Mr. Bill Hall provided a presentation regarding the spill at the East Kelly Groundwater Treatment Plant, Zone 4, that occurred 5 October 2005. Copies of the presentation were included in RAB packets.

Mr. Quintanilla requested a maintenance checklist used at Zone 4 GWTP. Ms. Hannapel also requested the same checklist.

Ms. LaGrange asked for salaries & maintenance costs allocated for the GWTP budget.

Mr. Quintanilla requested that TAPP funds be allocated to train RAB members to communicate with the Air Force and to train the Parliamentarian. Mr. Quintanilla asked that these TAPP funding requests be made an agenda item for the January 2006 RAB meeting.

## **IV. Class 3 Modification Update – Ms. Norma Landez**

Ms. Norma Landez provided a presentation on the Class 3 Modification to Compliance Plan 50310. Ms. Landez stated that a mailer would be sent to RAB members informing them of the public meeting date for the Class 3 Modification.

Ms. La Grange requested that someone conduct a quality review of the packets prior to the meeting.

Mr. Quintanilla requested that EPA give a presentation at the January 2006 RAB meeting explaining why Kelly is not a Superfund site.

**V. TAPP Update – Ms. Sonja Coderre**

Ms. Coderre gave an update to the RAB regarding the award issued to Clearwater Revival to review the 2005 Semiannual Compliance Plan. Ms. Coderre mentioned that Mr. Silvas was speaking to Ms. Wilma Subra to provide a free presentation to the RAB at the 10 January 2006 RAB meeting.

Mr. Weegar suggested that if Ms. Subra was going to provide a free review of the 2005 Semiannual Compliance Plan, that the RAB should have Clearwater review another document. Mr. Silvas stated the RAB would receive both presentations to obtain a better summary.

Mr. Quintanilla asked to be provided a copy of the section on TAPP that one member can not receive training using TAPP funds.

**VI. Meeting Wrap-Up**

The next TRS will take place at 6:30pm, 13 December 2005 at the Environmental Health & Wellness Center, 911 Castroville Road.

The next RAB will take place at 6:30pm, 10 January 2006 in the cafeteria of Kennedy High School, 1922 South General McMullen.

**VII. Meeting Adjournment**

Ms. Hannapel moved for adjournment. Mr. Quintanilla seconded the motion.

The meeting adjourned at 8:52 p.m..

---

**Robert Silvas**  
Community Co-Chair

Date

---

**Adam Antwine**  
Installation Co-Chair

Date

# **CURRENT**

11/17/2005

## **News**

### **Speed reads**

#### **A big spill at Kelly**

More than 45,000 gallons of chlorinated solvents were spilled at the former Kelly Air Force Base last month, contaminating areas outside and inside the groundwater treatment plant.

According to an Air Force document presented at a Kelly Air Force Base Restoration meeting, at 11 p.m. on October 5, an ultraviolet oxidation recovery machine, which is used to treat contaminated groundwater, shut down because of low water flow. However, because of a computer error, groundwater from recovery wells continued to arrive at the Zone 4 treatment plant, overflowing a holding tank.

By 7:30 the next morning, when a contractor noticed the spill, more than 36,000 gallons of groundwater contaminated with PCE, TCE, and DCE had been released outside the building; about 9,000 gallons were inside the building. Short-term exposure to the chemicals can cause drowsiness, skin irritation, and headaches; persons exposed to high levels can faint. Long-term exposure can cause liver and kidney damage and cancer.

Air Force officials immediately shut down the system and began removing water in the building, disposing it at a nearby plant on base. The Texas Commission on Environmental Quality was also notified.

– **Lisa Sorg**

#### **Brechtel going mobile**

Former City Manager Terry Brechtel has landed on her feet after her unceremonious resignation last year: She has been named executive director of the Alamo Regional Mobility Authority.

While the City Manager post had its share of controversy, Brechtel's new job is not stress-free. She is charged with negotiating and financing the contentious toll system for Bexar County roads.

To address an identified \$8 billion shortfall in highway funding for Bexar County, the local Metropolitan Planning Organization has included toll lanes as part of the county's 25-year transportation plan. Toll road opponents argue the roads have already been paid for by tax dollars and drivers shouldn't have to ante up again to drive on them.

– **Nicole Chavez**

©San Antonio Current 2005



**Technical Review Report  
January 2005 Kelly USA  
Semiannual Compliance Plan Report**

**Prepared by:  
Patrick G. Lynch  
Clearwater Revival Company<sup>1</sup>**

Clearwater Revival Company (CRC) was asked to provide a layperson's explanation of the 2004 groundwater assessment contained in the January 2005 Semiannual Compliance Plan Report. CRC's was directed to:

- 1) Focus our review on the off-base impacts from Zones 2, 3, 4, and 5.
- 2) Identify gaps in locations of monitoring wells
- 3) Identify any trends in contamination

The Semiannual Compliance Report includes the results of groundwater samples collected from 473 wells and the interpretation of groundwater flow direction from measured groundwater elevations.

Contaminants of interest to the groundwater investigation at Kelly USA include:

Contaminant	Contaminant Source
Tetrachloroethylene (PCE)	Degreasing solvent
Trichloroethylene (TCE)	Degreasing solvent, breakdown product of PCE
1,2-Dichloroethylene (DCE)	Breakdown product of TCE
Vinyl Chloride	Breakdown product of DCE
Benzene	Component of Gasoline
Chlorobenzene	Paint remover
Arsenic	AF contends dissolved from soil due to high levels of groundwater pollution.
Chromium	Metal plating. AF contends stainless steel well screens are source.
Nickel	Component of jet fuel. AF contends stainless steel well screens are source.
Manganese	AF contends dissolved from soil due to high levels of groundwater pollution.

<sup>1</sup> Author contact information: Patrick G. Lynch, Clearwater Revival Company, 305 Spruce Street, Alameda, CA 94501. email: clearwater@toxicspot.com

CRC's review reached the following general conclusions:

- 1) Concentrations of solvents are decreasing in close vicinity to groundwater recovery wells.
- 2) Concentrations of solvents in off-base areas not affected by treatment systems remain stable.
- 3) Many recently installed slurry walls and permeable-barrier reactors do not have adequate monitoring wells to evaluate their effectiveness.
- 4) Secondary contamination issues are impacting cleanup.

## SECONDARY CONTAMINATION ISSUE

A number of the contaminants of concern have not been spilled or released at Kelly USA. DCE and vinyl chloride, for instance, are formed by the break down of PCE and TCE, two solvents widely used by the Air Force for aircraft maintenance. The chemical and biological processes that break-down PCE and TCE have also caused changes to the groundwater chemistry. These changes in groundwater chemistry have resulted in manganese dissolving from soils into groundwater at concentrations that exceed water quality standards. Complications with removing manganese delayed the operation of a Zone 5 groundwater treatment system.

The drinking water standards for both iron and manganese were not developed for health protection reasons but to protect bathroom fixtures and laundry from staining. When dissolved iron and manganese are exposed to oxygen in the air they are quickly oxidized. The oxidized iron and manganese form insoluble solids (that stain fixtures and laundry).

The break-down of PCE and TCE has depleted dissolved oxygen in groundwater. The lack of dissolved oxygen changes the valence of iron and manganese in soil, to a form that is soluble. This reaction is similar to the reactions that occur in permeable-barrier reactors that use zero-valent iron. The impact of high dissolved iron and manganese levels on the effectiveness of the permeable-barrier reactors needs to be evaluated.

The presence of arsenic above drinking water protection standards has been explained as a result of high concentrations of dissolved manganese. While this theory is not without merit, high levels of arsenic and high levels of dissolved manganese are not consistently found in the same sample locations. The drinking water protection standard for arsenic will change from 50 µg/L to 10 µg/L on January 23, 2006.



## ZONE 2 EVALUATION

### 1. Off-base Impact

Zone 2 is located at the southern end of Kelly Air Force Base south of Military Highway. The site has been used for a number of waste management activities including waste water treatment plants, chemical evaporation pits, liquid waste incinerator, sludge drying beds, hazardous waste storage and ordnance disposal. Fire control training exercises may also have been conducted.

The primary off-base impact in Zone 2 is contaminated groundwater entering Leon Creek. Leon Creek surface water samples show the presence of PCE and TCE and the breakdown products DCE and vinyl chloride. PCE has consistently exceeded water quality criteria at sample location KY030SP003 where groundwater is seeping into the creek. A permeable-barrier reactor and slurry wall have been installed in the plume path 100 feet from Leon Creek to address this contamination that originates in Zone 3.

PCBs and N-nitrosodi-n-propylamine, a chemical associated with military ordnance disposal, are found in fish tissue taken from Leon Creek. PCBs and N-nitrosodi-n-propylamine were not detected in any groundwater samples.


Another water quality concern for Leon Creek is sufficient dissolved oxygen to support fish life. Surface water samples from Leon Creek have reported dissolved oxygen levels below the water quality standard of 5 mg/L dissolved oxygen. Groundwater with high levels of dissolved manganese and iron entering Leon Creek may be responsible for part of this oxygen deficit. In addition, some of the reported dissolved oxygen concentrations in the Leon Creek Assessment do not appear realistic, as they exceed reported solubility limits for oxygen.

### 2. Contamination Trends

#### Site E-3/SD-1

The contamination associated with the former chemical evaporation pit appears to be contained to an area 600 feet from Leon Creek. The RCRA Report graphs concentration trends for arsenic, chromium, nickel, chlorobenzene, PCE, and TCE in three wells from 199 to 2004. Chlorobenzene has been consistently measured at about 100 times the water quality standard.

While the concentrations of PCE and TCE observed in 2000 samples have decreased to near or below their drinking water standards, during the two most recent sampling events the concentrations of 1,2-DCE and vinyl chloride have increased.

  
SITE E-1

Site E-1 is also a former chemical evaporation pit. A groundwater recovery trench originally installed at the site was not installed to the depth of the Navarro clay and contamination was passing under the collection system. Vinyl chloride is found in two off-base wells downgradient of the collection system. Nickel and chromium were both reported at over 100 times the drinking water standard in off-base wells in 2001, but were reported below water quality standards in 2003 and 2004. Construction of the new groundwater extraction trench has damaged or restricted access to many monitoring wells, and these wells were not sampled for both the 2003 and 2004 Compliance Plan Report.

## Site OT-1

Site OT-1, the former liquid incinerator, shows a small plume of PCE in 2004 that was not present during the 2003 sampling. This small plume may actually be part of the larger PCE plume migrating from Zone 3 into Zone 2.

## Northbank

A permeable-barrier reactor and slurry wall have been added to an existing groundwater extraction system at the site. PCE and vinyl chloride in groundwater down-gradient of the reactor exceed water quality standards.

At the Northbank site groundwater was extracted at an average flow rate of 27 gallons-per-minute from July to December 2004. At this rate, within the 10 µg/L contour for PCE, approximately 1.2 pounds of PCE is recovered by the system per year.

### 3. Monitoring Recommendations

Existing monitoring wells in the Northbank area are available for monitoring the permeable-barrier reactor. New wells are needed to monitor groundwater levels on each side of the associated slurry wall. The difference in groundwater levels on each side of the slurry wall is a measure of slurry wall's effectiveness.

The report's recommendation to restore the monitoring network at Site E-1 should be followed through with.



## ZONE 3 EVALUATION

### 1. Off-Base Impacts

East of Zone 3, three contaminant plumes travel off-base from Kelly USA first beneath the rail yard and then residential neighborhoods. A fourth plume in Zone 3 originates in the Building 360/Building 361 area travels to the south towards Leon Creek entering Zone 2 and to the east where it may combine with the three off-base plumes.

#### Site MP

The Site MP groundwater plume travels 3 miles from the base boundary. A slurry wall surrounds the source area to contain contaminated groundwater. Groundwater elevations within the slurry wall are not significantly below groundwater elevations measured outside the wall. Groundwater extraction from inside the slurry wall would improve containment.

#### Site S-4

The plume of PCE and TCE has decreased in size as predicted by computer models. The amount of PCE, TCE, DCE and vinyl chloride has been reduced to the size of three city blocks. This contamination is within the groundwater drain installed by the City of San Antonio. Nickel is found above groundwater protection standards in a plume that extends from Site S-4 beyond the groundwater drain a distance of about a half-mile to the southeast of the base.


#### Site S-8

A plume of arsenic contaminated groundwater extends from Site S-8 to the east and off-base. The arsenic plume is not coincident with solvent contamination. With the exception of arsenic and manganese, contaminants are not found in off-base groundwater downgradient of Site S-8.

### 2. Contaminant Trends

Much of the change in the Site MP plume has been in the vicinity of Kelly USA where active groundwater extraction systems are in place. There has been little change to the off-base extent of PCE or TCE in historic plume comparisons from 1998 and 2004. During the same period the size of DCE and vinyl chloride plumes been reduced in off-base areas

Site S-4 has shown a decrease in the size of the PCE, TCE, DCE and vinyl chloride plumes off-base from 1998 to 2004. The plume reductions are consistent with computer modeling



predictions. The plume of nickel contaminated groundwater has not shown significant changes.

For Site S-8, the RCRA Report graphs concentration trends for arsenic, benzene, chlorobenzene, and vinyl chloride in five wells from 1999 to 2004. Concentrations for all contaminants except vinyl chloride remained relatively constant.

### 3. Monitoring Recommendations

The depth to the Navarro Clay varies widely in the off-base area impacted by Site S-4. Sampling more of the existing off-base wells would provide greater confidence in the extent of contamination.

## **ZONE 4 (East Kelly) EVALUATION**

### 1. Off-base Impacts

The off-base PCE and TCE plume originating from East Kelly extends three miles to the east to approximately the San Antonio River. There has been little change in the extent of the plume size from 1998 to 2004. A groundwater extraction trench was installed along the eastern and southern boundaries of East Kelly in 2000.

A solution of zero-valent iron has been injected into several off-base monitoring wells along Commercial Street.

### 2. Contamination Trends

Extraction and treatment systems at East Kelly and upgradient Site MP in Zone 3 have only been successful in reducing the concentrations of PCE and TCE within East Kelly. Only a few well-defined hot spots of contamination are left on base in Zone 4.

### 3. Monitoring Recommendations

Additional wells are needed to monitoring the effectiveness of injection of zero-valent iron along Commercial Street.



## ZONE 5 EVALUATION

### 1. Off-Base Impacts

The highest groundwater elevations measured at Kelly USA are along the northern base boundary. Along the northern base boundary groundwater flows off-base to the north and west. A groundwater treatment system was installed at Site S-1 in 2004. High manganese levels in treated groundwater prohibited discharge for several months.

A permeable-barrier reactor is installed along the base boundary parallel to Imperial Street to address off-base impacts of TCE and a permeable-barrier reactor has been installed off-base along 34th Street to address PCE and TCE. The groundwater contamination extends from the north of the base in a western direction for a distance of three miles.

Nickel and chromium contamination are found in off-base groundwater in locations coincident with the off-base PCE plume.

### 2. Contamination Trends

With the exception of TCE, most contaminants had higher concentrations in off-base groundwater during recent sampling. Historical plume comparisons (1998, 2000, 2002 and 2004) for PCE and TCE sample event shows little change to the overall plume areas. Between 2002 and 2004 concentrations declined below the water quality standard in some areas of the three mile PCE plume. Further monitoring is needed to determine if this is a significant trend.

With the exception of the 34th Street area much of the off-base groundwater impacted from TCE in 2002 is reported as below the water quality standard in 2004.

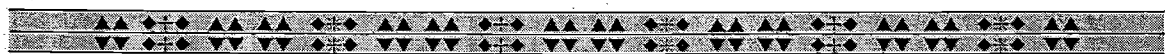
### 3. Additional Monitoring Wells

Currently inadequate wells are available to monitor the 34th Street permeable-barrier reactor. Additional off-base wells are also needed to better determine the groundwater flow directions in the area west (upgradient) of the 34th Street permeable-barrier reactor.

## GENERAL COMMENTS

### 1. Permeable-Barrier Reactors and Slurry Walls

Sufficient wells should be provided to monitor groundwater elevations near slurry walls and permeable-barrier reactors. In addition, monitoring wells are needed up- and down-gradient of reactors to monitor the reactors effectiveness as well as impacts to groundwater chemistry.



This recommendation was made in a groundwater modeling report included in the Compliance Plan Report. The Compliance Plan Report indicates that 23 wells were installed to monitor the permeable barrier reactors at Buildings 360 and 361.

## 2. Groundwater gradient and plume maps

The accuracy of groundwater gradient and plume maps could be improved by reducing the time period in which measurements and samples are collected and reducing the distance between monitoring points. Groundwater elevations, which can effect sample results, increased by several feet during the months in which groundwater samples were collected because of rainfall. Greater care could be used in preparing gradient and plume maps. On one plume map (Figure M.2, Sheet 3 of 3) the contamination is depicted as being to the east of the wells where samples were collected.

## 3. Review limited by inconsistencies

CRC encountered numerous data discrepancies in completing our review. Appendix H reportedly contained a list of well samples used in the statistical analysis for each site. The number of samples in Appendix H often disagreed with the number of samples in Section 7 Tables where the statistical analysis results were reported. Section 5 included figures of wells used to monitor each Zone that are apparently outdated. Wells shown on these figures show little agreement with Table H and Section 7. CRC's review also indicated that some data points were not included on plume maps found in Appendix M and some analytical results were not included in the laboratory report provided in Appendix D.

## 4. Identifying Trends in Groundwater Contamination

Three sources of information were available to identify trends in groundwater contamination. The Compliance Plan Report contained a figure comparing historical PCE, TCE, DCE, and vinyl chloride plumes from 1998, 2000, 2002, and 2004. The report also contained tables summarizing the minimum and maximum concentrations detected in 2000 to 2004, and graphs showing concentration trends for a limited number of groundwater wells at three locations.

The graphs were the best information for identifying trends but were provided for a limited number of wells. In one instance, however, a graph and the table summary show contradictory information. The plume maps were of limited use because of the scale of the figures. The table summaries may have been prepared each year using sample results from different wells so the trends identified using these tables may not accurately represent trends in contamination.





## Roddy Stinson: Reader's Kelly-toxin concern: Was diazinon used to kill pests?

Web Posted: 12/01/2005 12:00 AM CST

San Antonio Express-News

On the Sleuthing Trail ...

**CASE:** "Roddy, I just read a Reuters report, 'Job exposure to pesticide may raise cancer risk,' which summarizes information in the American Journal of Epidemiology about the dangers of being exposed to diazinon.

"Several years ago, when you were looking into environmental contamination and health issues at Kelly AFB, you wrote a column about the pesticides used at the base, but I don't remember if diazinon was mentioned.

"This is something you might want to investigate."

**INVESTIGATION:** For readers who aren't familiar with the pesticide in question ...

*"Diazinon is the common name of an organophosphate used to control pest insects in soil, on ornamental plants and on fruit and vegetable crops. It is also used to control household pests such as flies, fleas and cockroaches. ... Exposure may occur by contact with contaminated soils or contaminated runoff water or groundwater." (Agency for Toxic Substances and Disease Registry)*

Beginning in 1993, researchers at the National Cancer Institute in Rockville, Md., enrolled 23,106 males from farm families in a study of the health effects of exposure to pesticides.

Subsequently, the researchers found evidence of "a possible association" between lung cancer and leukemia and longtime exposure to diazinon.

This evidence was presented in a recent issue of the American Journal of Epidemiology.

In the same article, the researchers cautioned:

"Because these results were based on small numbers, additional analyses are necessary as more cases accrue to clarify whether diazinon is associated with cancer risk in humans."

Easy conclusion:

Anyone exposed to diazinon for a considerable amount of time — whether on or off a military base — should (1) follow the ongoing study with interest and (2) bone up on the symptoms of lung cancer and leukemia.

As for a Kelly angle to this epidemiological story ...

A search of the Express-News archives found only one Stinson column related to pesticides and local military bases.

In the spring of 2001 — acting on a tip from a caller — I learned and subsequently reported that the Air Force had conducted an environmental analysis of soil excavated from Tejada Estates East, a Lackland AFB neighborhood where old, multifamily housing had been demolished to make room for new single-family homes.

The analysis found two "constituents of concern" — chlordane and heptachlor — which the Air Force used as pesticides until 1988, when the Environmental Protection Agency banned them.

Chlordane can cause damage to the nervous system, the digestive system and the liver.

Heptachlor is toxic to humans and animals and can damage the nervous system.

The toxic soil was trucked to an EPA-approved landfill.

That ended my investigation.

But a question I posed at the time has never been officially or unofficially answered:

"If the soil at one military housing site was contaminated by chlordane and heptachlor, what about other similar housing sites?"

Back to Kelly, cancer and diazinon ...

While diazinon may have been used at Kelly, a search of several Express-News databases found no mention of it.

A 2002 study of the mortality of Kelly AFB workers found that civilians who worked at the base between 1981 and 2000 suffered "no increase in mortality." Presumably that includes deaths associated with lung cancer and leukemia.

In 2004, federal researchers reported finding higher than expected levels of lung cancer and leukemia in some ZIP codes around Kelly, but they concluded that the illnesses were not linked to Kelly pollutants.

If that info leaves you with something less than an eased mind and a settled stomach, I understand.

Join the club.

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*To contact Roddy Stinson,*

*call (210) 250-3155 or e-mail [rstinson@express-news.net](mailto:rstinson@express-news.net). His column appears on Sundays, Tuesdays and Thursdays.*

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Online at: <http://www.mysanantonio.com/news/metro/stories/MYSA120105.03A.rstinson.12c57091.html>

**KELLY USA**  
**2004 GROUNDWATER ASSESSMENT**  
**TAPP REVIEW**

**Patrick G. Lynch**  
**Clearwater Revival Company**

## Technical Review

- Provide an overall assessment
- Focus on off-base impacts
- Identify locations that need monitoring wells
- Identify any trends in contamination

## General Comments

### **Groundwater Balance for Kelly USA**

Rainfall and Navarro Clay

### **Groundwater Extraction and Treatment**

Improvement seen near pumping wells

### **Permeable-Barrier Reactors**

Need adequate monitoring/new wells

### **Contamination distance from Kelly USA**

Major plumes have traveled 3 miles

## Groundwater Contaminants

- PCE

Tetrachloroethylene

- TCE

Trichloroethylene

- DCE

1,2-dichloroethylene

- Vinyl Chloride

- Benzene

- Chlorobenzene

- Arsenic

- Manganese

- Chromium

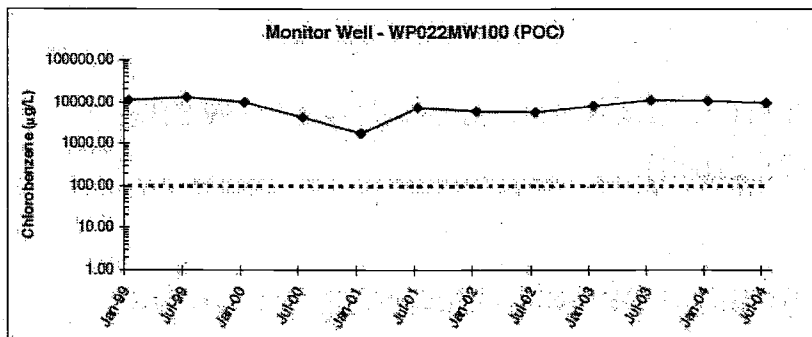
- Nickel

## Finding Trends in Data

- Improvements near Recovery Wells permanent?
- Annual data sets used varying wells
- Incomplete and inconsistent data
- Scale of historical plume map comparison

# Contaminant Concentration Trends

**FIGURE 5.4**  
 Historical Trend Analysis of Chlorobenzene at Site E-3  
 Former Kelly AFB, Texas



**TABLE 5.5**  
 Historical Minimum and Maximum Concentrations for WMA E-3/SD-1  
 Former Kelly AFB, Texas



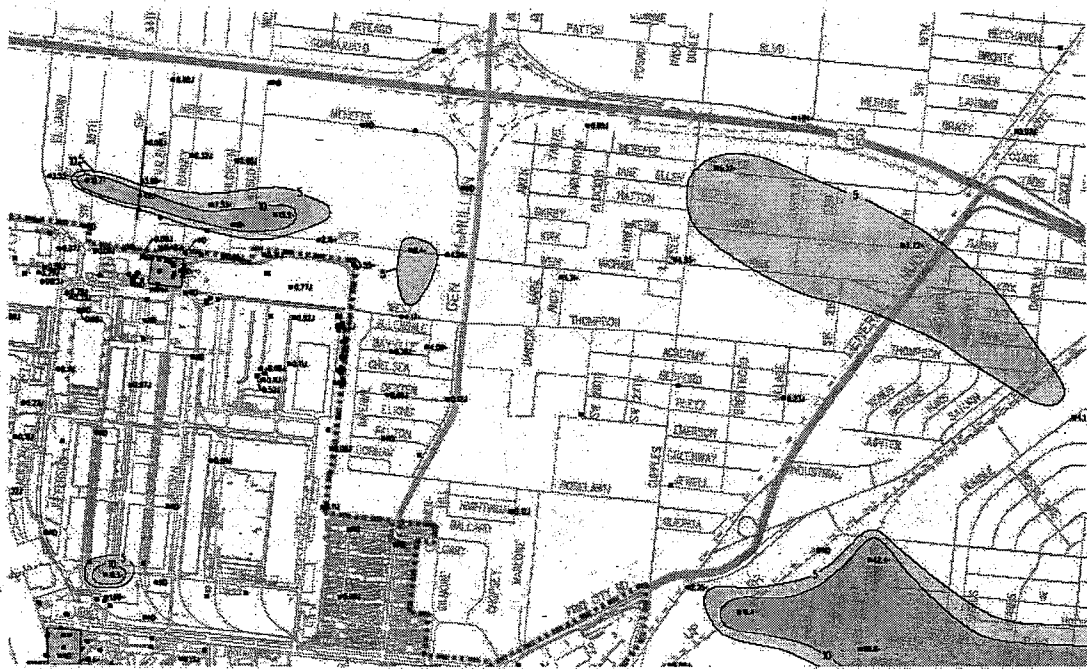
Well Type	Parameter	GWPG	2000		2001		2002		2003		2004	
			MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX
POC	PCE	5	1U	1U	1U	1U	-	0.12J	1U	20U	1U	20U
POC	TCE	5	1U	1.2	1U	0.48J	-	0.11J	0.1J	8.05J	1U	20U
POC	DCE	70	1.54=	5.5=	1U	16=	-	0.53J	0.28J	231=	0.46J	219=
POC	VC	2	1U	1.2	1U	22=	-	1U	0.65J	23=	0.84J	257=
POC	CB	100	1U	4,300=	1U	7300=	-	1U	58.4=	11,100=	16.0=	9,510=
POC	Bz	5	1U	200=	1U	160=	-	1U	2.73=	947=	0.46J	1,840=
POC	A#	50	1.91U	70=	2.1U	111=	-	1U	6.5J	65.7=	2.05J	43=
POC	Cy	100	3.34J	9.0U	2U	4.2J	-	4.7J	1U	3.1U	0.95U	1.63J
POC	Mn	-	530=	930=	191=	370=	-	813J	669=	1000=	350=	530=
POC	Ni	100	22=	85=	29=	47=	-	51=	34.8=	41.4=	10.1J	24=



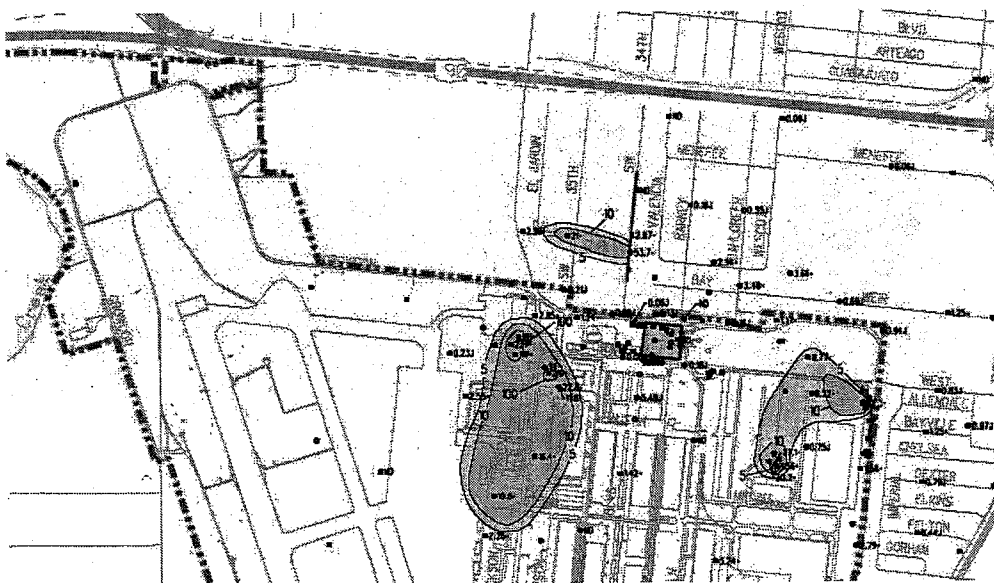
# Groundwater Flow Zone 5



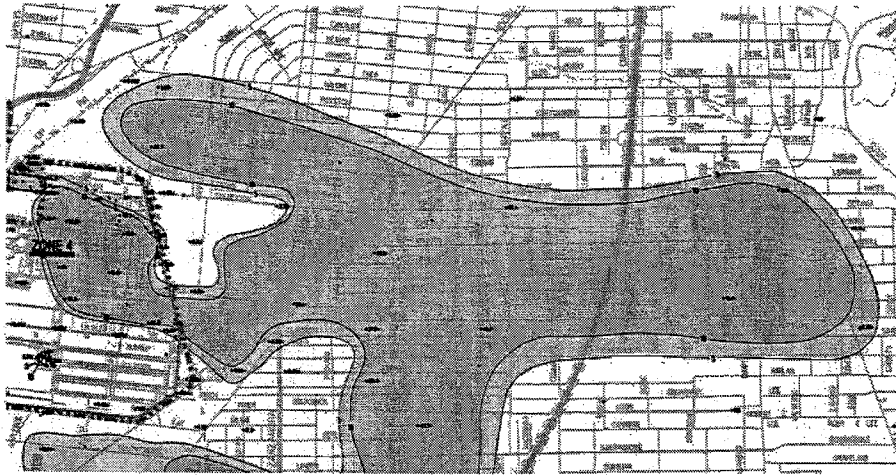
# Zone 5 PCE Plume



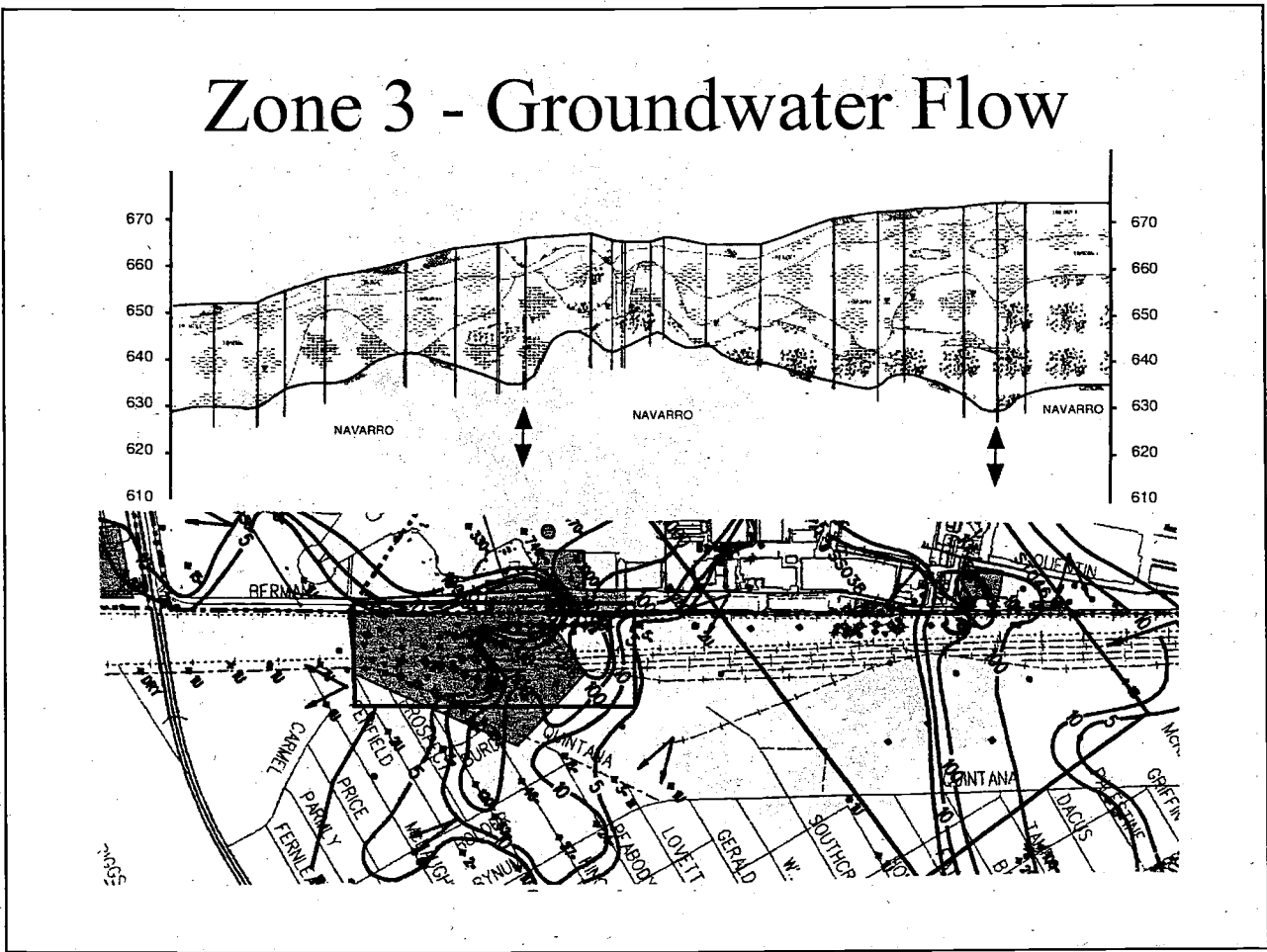
# Zone 5 TCE Plume



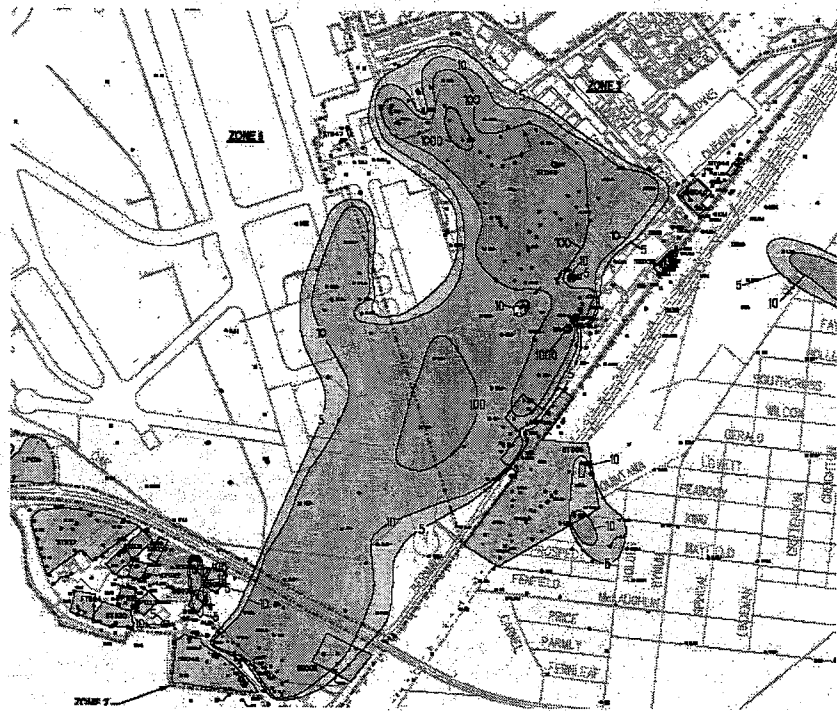
## Zone 4 TCE Plume



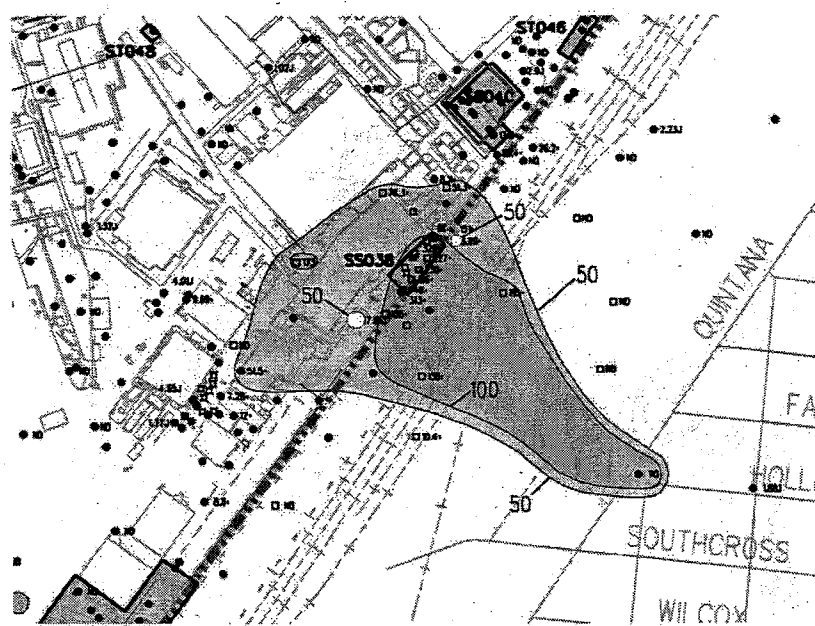
# Zone 3 - Groundwater Flow



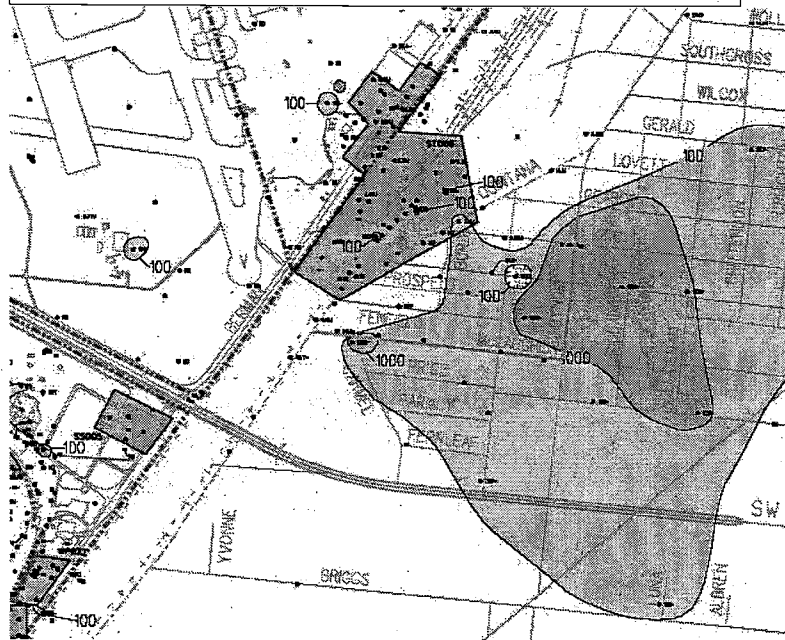
# Zone 3 PCE Plume



# Zone 3 Arsenic Plume

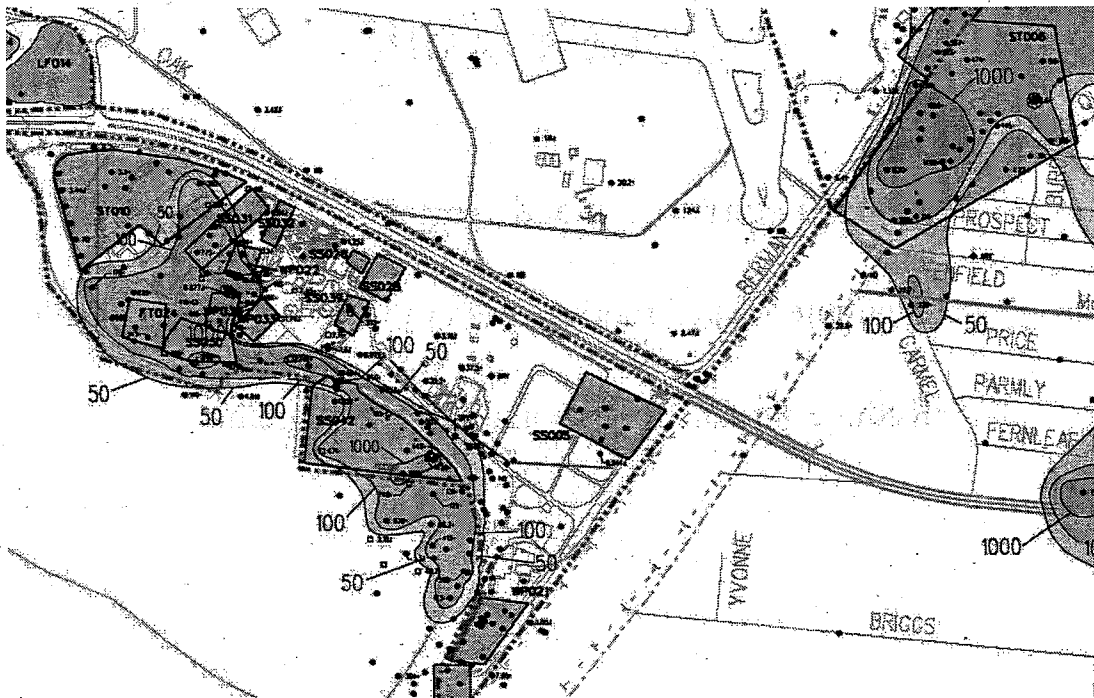


# Zone 3 - Nickel Plume





## Zone 2 - Manganese Plume



## Conclusions

- Monitor slurry walls and permeable-barrier reactors
- Evaluate Data Trends using complete/consistent data
- Reduce impacts of secondary contaminants

6E Friday, December 9, 2005.

**NOTICE OF APPLICATION AND PRELIMINARY DECISION FOR WATER QUALITY TPDES PERMIT AMENDMENT FOR INDUSTRIAL WASTEWATER**

PERMIT NO. WQ0003955000

**APPLICATION AND PRELIMINARY DECISION.** United States Department of the Air Force, c/o Air Force Real Property Agency, 143 Billy Mitchell Boulevard, Suite 1, San Antonio, Texas 78226, which is continuing groundwater remediation activities resulting from base closure of the former Kelly Air Force Base, has applied to the Texas Commission on Environmental Quality (TCEQ) for a major amendment to TPDES Permit No. WQ0003955000 to authorize the removal of effluent limitations or reduce the monitoring frequencies for various parameter effluent limitations at Outfalls 001, 002, 003, and 004; authorize the discharge of rinseate from groundwater treatment units via Outfalls 001, 002, 003, and 004; clarify Outfall 004 location description; increase the effluent reuse irrigation area from 155 acres to 195 acres; and authorize the use of treated effluent from the groundwater treatment plants associated with Outfalls 001, 002, 003, and 004 for irrigation and reuse. The current permit authorizes the discharge of treated groundwater at a daily average flow not to exceed 1,000,000 gallons per day via Outfalls 001, 002, and 003; the discharge of treated groundwater at a daily average flow not to exceed 150,000 gallons per day via Outfall 004; and the irrigation of 155 acres of the former Lackland Air Force Base Golf Course (formally part of Kelly Air Force Base) with treated groundwater at a hydraulic application rate not to exceed 4.0 acre-feet per acre per year. This application was submitted to the TCEQ on January 11, 2005.

The facility is located adjacent to Lackland Air Force Base, south of U.S. Highway 90, and east of the intersection of Leon Creek and Military Drive, in the southwest portion of the City of San Antonio, Bexar County, Texas. The effluent is discharged via Outfall 001 to Lower Leon Creek in Segment No. 1906 of the San Antonio River Basin; via Outfalls 002 and 004 to separate storm drainage systems (unnamed tributaries of Lower Leon Creek); thence to Lower Leon Creek in Segment No. 1906 of the San Antonio River Basin; and via Outfall 003 to Sixmile Creek; thence to the Upper San Antonio River in Segment No. 1911 of the San Antonio Basin. The unclassified receiving waters have no significant aquatic life use for the unnamed tributaries of Lower Leon Creek and Sixmile Creek. The designated uses for Segment No. 1906 are high aquatic life use, contact recreation, and public water supply. The designated uses for Segment No. 1911 are high aquatic life use and contact recreation. A Tier I anti-degradation review has been performed for Outfalls 001, 002, 003, and 004 and determined that existing water quality uses will not be impaired and numerical and narrative criteria to protect existing uses will be maintained. A Tier II Review for Outfall 003 is not required since no exceptional, high or intermediate aquatic life use water bodies have been identified in the discharge route. A Tier II review for Outfalls 001, 002, and 004 has preliminarily determined that no significant degradation of water quality is expected in Leon Creek, which has been identified as having high aquatic life uses and existing life uses will be maintained and protected. Therefore, no significant degradation of water quality is expected in water bodies with exceptional, high or intermediate aquatic life uses downstream, and existing uses will be maintained and protected. The preliminary determination can be reexamined and may be modified if new information is received.

The TCEQ executive director has completed the technical review of the application and prepared a draft permit. The draft permit, if approved, would establish the conditions under which the facility must operate. The executive director has made a preliminary decision that this permit, if issued, meets all statutory and regulatory requirements. The permit application, executive director's preliminary decision (as contained in the technical summary and/or fact sheet), and draft permit are available for viewing and copying at the San Antonio Central Library, 600 Soledad Street, San Antonio, Texas.

**PUBLIC COMMENT/PUBLIC MEETING.** You may submit public comments or request a public meeting about this application. The purpose of a public meeting is to provide the opportunity to submit written or oral comment or to ask questions about the application. Generally, the TCEQ will hold a public meeting if the executive director determines that there is a significant degree of public interest in the application or if requested by a local legislator. A public meeting is not a contested case hearing.

Written public comments or request for public meeting should be submitted to the Office of the Chief Clerk, MC 105, TCEQ, P.O. Box 13087, Austin, TX 78711-3087, within 30 days of the date of newspaper publication of this notice.

**OPPORTUNITY FOR A CONTESTED CASE HEARING.** After the deadline for public comments, the executive director will consider the comments and prepare a response to all relevant and material, or significant public comments. The response to comments, along with the executive director's decision on the application, will be mailed to everyone who submitted public comments or who requested to be on the mailing list for this application. If comments are received, the mailing will also provide instructions for requesting a contested case hearing or reconsideration of the executive director's decision. A contested case hearing is a legal proceeding similar to a civil trial in a state district court.

A contested case hearing will only be granted based on disputed issues of fact that are relevant and material to the Commission's decision on the application. Further, the Commission will only grant a hearing on issues that were raised during the public comment period and not withdrawn. Issues that are not raised in public comments may not be considered during a hearing.

**EXECUTIVE DIRECTOR ACTION.** The executive director may issue final approval of the application unless a

timely contested case hearing request or a timely request for reconsideration is filed. If a timely hearing request or request for reconsideration is filed, the executive director will not issue final approval of the permit and will forward the application and requests to the TCEQ Commissioners for their consideration at a scheduled Commission meeting.

**MAILING LIST.** In addition to submitting public comments, you may ask to be placed on a mailing list to receive future public notices mailed by the Office of the Chief Clerk. You may request to be added to: (1) the mailing list for this specific application; (2) the permanent mailing list for a specific applicant name and permit number; and/or (3) the permanent mailing list for a specific county. Clearly specify which mailing list(s) to which you wish to be added and send your request to the TCEQ Office of the Chief Clerk at the address above. Unless you otherwise specify, you will be included only on the mailing list for this specific application.

**INFORMATION.** If you need more information about this permit application or the permitting process, please call the TCEQ Office of Public Assistance, Toll Free, at 1-800-687-4040. Si desea información en Español, puede llamar al 1-800-687-4040. General information about the TCEQ can be found at our web site at [www.tceq.state.tx.us](http://www.tceq.state.tx.us).

Further information may also be obtained from the United States Department of the Air Force at the address stated above or by calling Ms. Larisa Dawkins, AFRPA/DC-Kelly, at (210) 925-3026.

Issued November 10, 2005

**FINAL PAGE**

**ADMINISTRATIVE RECORD**

**FINAL PAGE**