

### KELLY AFB TEXAS

### ADMINISTRATIVE RECORD COVER SHEET

AR File Number 3226.2





DEC 0 9 20015

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

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-biologicial 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 Regenesis. 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 <a href="www.regenesis.com/products/hrc/">www.regenesis.com/products/hrc/</a> is attached for your review. The wording used to describe HRC and lactic acid varies throughout the environmental industry, but Regenesis 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/OCEPAterms/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 etitled *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 their 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 Regenesis
- -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 Bases. 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?			

dow familiar or unfamiliar are you with the environmental cleanup at Kelly?	mental clea	inup at	Kelly?			
/ery Familiar  Somewhat Familiar	Somev	Somewhat Unfamiliar	niliar 🔲		Very Unfamiliar	niliar 🔲
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
he Air Force is being very open in its communications.						
he Air Force is very responsive to community concerns.						
he Air Force is providing useful information to me.						
can easily understand information from the Air Force.						
he environmental cleanup is being done safely.						
he environmental cleanup is being done as quickly as possible.						
n associal the environmental cleaning is aging well						

During the next 12 months, how likely is it that you will do	Verv	à	Somewhat   Not Verv	Not Verv	
the following?	Likely	Likely	Likely	Likely	Not
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 (210) 925-0956 • Toll Free 1-866-725-7617 • www.afrpa.hq.af.mil

### Kelly: Then and Now

the local redevelopment authority. Today Kelly operates as KellyUSA, a multi-use Since then, the Air Force Real Property Commission on Environmental Quality environmental restoration and property and the remainder closed July 13, 2001 in order to transfer the property to the Force, Placed on the Base Closure and to ensure contamination is cleaned up Greater Kelly Development Authority and maintenance services for the Air partially realigned to Luckland AFB airport and rail-served business park. Realignment list in 1995. Kelly was transfer programs at Kelly, AFRPA works with the U.S. Environmental For more than 80 years, the former military aviation, training, supply Agency has been conducting the Kelly Air Force Base provided Protection Agency and Texas

# The Environmental Program at Kelly

Sure

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.

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



Ison fifing injection method for the permeabl reactive borrier on Commercial Street

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

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 Eby approximately one-quarter—mile of impermeable clay, ensuring dninking water is safe from any Kelly Econtamination.

## Addressing Health Concerns

Despite numerous studies unable to be link past or present Kelly activities to be the health concerns of the community, the Air Force entered into a cooperative agreement with the San Antonio be 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 be conduct health-related research studies.



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

requests for a study to test homegrown CEH also responded to community during environmental cleanup activities. to monitor air for possible comamination CEH also conducted air monitoring and and nuts were determined safe to eat. produce for contaminants. Kelly area fruits To date, PCEH has conducted several studies

Construction and installation of four PRBs

found no contamination during Air Force

Within the community that work to clean the shallow groundwater. #dditionally, the Air Force and SAMHD 时ivate wells for agricultural purposes, % wells were plagged in order to cusure 對ea. Although most residents used these identified and decommissioned private Shallow groundwater wells in the Kelly extensively to ensure community members environmental throughout the community protection of human health and the The Air Force and SAMHD worked



scientist examines homegrown minatoes in the community during the Fruit and Nat Study

Community members time the Groundwater Treatment

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

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

# Reaching out to the Community

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

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

> > Postage Here

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

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



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

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Kelly Restoration Advisory Board Meetings

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

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

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

### Contact Information

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

# Information Repository

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

## Join the Kelly Restoration Advisory Board! beginning in January and

ending December of the

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

> compensation and are serve voluntarily without community members following year. RAB

Kelly RAB community members are elected to serve two-year terms.

> attend meetings. constructive comments and documents, make Kelly RAB members

> > Resturation Advisory Board members discuss topics prior

Increasing community

environmental cleanup program since have contributed to the Air Force's

Providing advice Reviewing plans and documents

> obtain more information and a member the Air Force Real Property Agency to joining the Kelly RAB should contain Community members interested in Acting as a resource for the





### Air Force Real Property Agency 37

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 lessharmful 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 peraceble 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-quartermile 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.

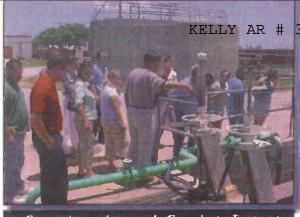


to monitor air for possible contamination during environmental cleanup activities. PCEH also responded to community requests for a study to test homegrown produce for contaminants. Kelly area fruits and nuts were determined safe to eat. PCEH also conducted air monitoring and found no contamination during 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, 75 wells were plugged in order to ensure protection of human health and the environmental throughout the community. The Air Force and SAMHD worked extensively to ensure community members



A scientist examines homegrawn tomatoes in the community during the Fruit and Nat Study



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

program, the RAB meets quarterly 220 scass 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.

### 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, cach year 8 community member terms expire, allowing opportunity for members to seek reclection or new members to join the board.

Kelly RAB community membels are elected to serve two-year terms.

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 Forces environmental eleanup program since 1994 by:

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



Restoration Advisory Bourd members discuss topics prior to a meeting

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.

KELLY AR # 3226.2 Page

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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

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### Information Repository

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

We value your feedback regarding the Air Force's environmental cleanup at the former Kelly Air Force Base. 37 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.	Ye	es	. N	0	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?						4
How familiar or unfamiliar are you with the environ	nmental cle	eanup at	Kelly?	SIM		P San
Very Familiar Somewhat Familiar	Som	ewhat Unfai	miliar		Very Unfair	niliar 🔲
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 Lik <b>e</b> ly	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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### **Technical Note 2.00**

2005

### **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:

$$3Fe^{\circ} \rightarrow 3Fe^{2+} + 6e^{-}$$

$$C_{2}HCl_{3} + 3H^{+} + 6e^{-} \rightarrow C_{2}H_{4} + 3Cl^{-}$$

$$3Fe^{\circ} + C_{2}HCl_{3} + 3H^{+} \rightarrow C_{2}H_{4} + 3Fe^{2+} + 3Cl^{-}$$
(1)

The products of the dechlorination reaction that occur when in contact with granular iron are chloride (Cl), 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).

745 Bridge Street West, Suite 7 Waterloo, Ontario Canada N2V 2G6

Tel: 519.746.2204 Fax: 519.746.2209 Web page: www.eti.ca

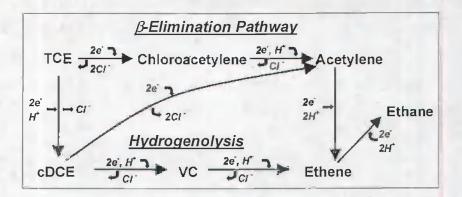


Figure 1. Iron degradation process for TCE. (Based on Arnold and Roberts, 2000)

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

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### **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 hydroger 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)

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# MONTHLY INSPECTION OF ZONE 4 SYSTEM

			0
			Power Reading
		Emergency stop	
		Low air pressure	
		T-02 high level	
		Test safety interlocks Wet strip	Safety a.
		Drain water if present	C
		Visually check oil level fill if required.	<b>D</b> .
		Visually check for leaks and signs of corrosion.	Inline air supply oiler   a.
		Check and replace air filter.	e.
		Operate safety valves.	
		Check air distribution for leaks.	-c.
		Inspect oil for contamination and change if necessary.	ō.
		sequence compressors.	Air Compressor
		Check percent "on" time. "On" time for each pump should be less than 70%. Verify alternation	AC-01 a.
		Check Rayox Reactor for sludge accumulation. Flushing the reactor may be necessary.	c.
		Inspect UV lamps for any surface for any bulging and/or clouding. Corrective maintenance consists of replacing deformed lamps and acid washing clouded lamps.	·
			<u>.</u>
		Complete monthly Maint. Log (see Chapter 4 section 4.1 and Chapter 5 "Maintenance Checklist- Monthly" in the Manufacturer's O&M Manual.)	UV-02 UV OX System
		Clean sump strainer	<u>d.</u>
		Check sump pump inlet (clean impeller if required)	c
		Visually check the sump for cracks, potential leaks and debris	1 b.
		Visually check all nozzles for leaks and signs of corrosions.	Sump a.
		the bearings.	Ernaeur reea ramp
· · · · · · · · · · · · · · · · · · ·		Check bearing temperature with a thermometer, not by hand. If bearings are running hot (over 180), it	P-03, P04 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-01, P02 Influent Feed Pump
		Visually check for ultraviolet degradation of the tank walls.	C.
		Visually check all nozzles for leaks and signs of corrosion.  Visually check the base of the tank for corrosion, cracks and potential leaks.	T-03 a. H202 Peroxide Tank b.
		Visually check the base of the tank for corrosion, cracks and potential leaks.	Equalization ranks b.
		Visually check all nozzles for leaks and signs of corrosion.	
Initial	Remarks	Task Description	Equipment

Signature:	Inspection Conducted by:
	Date:

WEEKLY INSPECT OF ZONE 4 SYSTEM

### KELLY AR # 3226.2 Page 18 of 37

Salety	Satety	0.5.	Air Compressor	AC-01	T-03	Peroxide tank	P-5	Sump pump		System	NO-AM	Equipment	
	<u> </u>		SSOT							·.		ent	
		a. Test safety interlocks	b. Check inline filter and drain water.	a. Check Air filter.		a. Note peroxide level.	b. Note operating pressure from top of strainer	a. Test operation			a. Check Lamps (no. of starts / run time)	Task Description	
	Sump Pit high-high level	T-01 high level							Reactor 403	Reactor 402	Reactor 401	<u>on</u>	
		The state of the s				1000		The state of the s				Remarks	
					ž							Initial	

Inspection Conducted by: _	Date:	
Sionature.		



### UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

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

NOV 1 5 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

NOV 1 7 2005 BY: AFRPA Cyp



### UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

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

SWR#\_31750

CAS #/DOC# 11985 PROJ. MGR Muleegas

February 7, 2001

Honotable Raul Prada City of San Autonio Council District 4 P.O. Box 839966 Autonio, TX 78283-3966

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FEB 1 2 2001

REMEDIATION DIVISON
Corrective Action Section

Dear Mr. Prada:

This letter provides follow-up to your question to Ms. Laura Stankosky of the U.S. Movironmental 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 HPA'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 criferia 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 IPA 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 Woogar, 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 pennit and corrective action plan were the result of extensive site investigations conducted by KAPB 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 Term and is active in the public participation process as a member of the consumity 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 hase 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 FPA 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.

### Diferring Federal Vacilities 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 CIRCLA 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.
- Its 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 FPA'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 angoing restoration activities at KAFB. The implementation of the RAB complies with the public information requirements of the Interim Final Revisions.

### Coaclasion

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, IPA 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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SWR# 3/750

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

REMEDIATION DIVISON
Corrective Action Section

PROJ. MGR Weegn

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 cleaning activities at Kelly Air Force Base (KAFB), request that the U.S. Environmental Protection Agency (RPA) 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 (IRS) for Kelly Al/B. 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

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 carvical cancer, were found in at least one of the initial zip code areas evaluated (78237, 18211, and 78228). The ATSDR states that it is unknown what contributions, if any, past air consistions 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 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 Kessource Conservation and Recovery Act (RCRA), and EPA's decision to defer this site under fingerfund. 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 cavironment. If I may be of further assistance, please let me know.

Sincerely yours,

Myron O. Knudson, P.E.

Director

Superfund Division

Enclosure

ce: 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).

### Rass 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 remodial action necessary to protect human health and the environment" has been taken and that any required remody 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.

### · Adadinistrative 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 fluine

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, noither 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.

### Deforcing Federal Facilities to the RCRA Program

There are three criteria listed in EPA's Interim Final Revisions to Policy For Listing Federal Pacifities 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 CHRCLA 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.

### Coxclusion

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

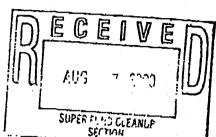
AUG 0 3 2000

SWR# 3/750 10/68 L CAS# 10044



Mr. Armando C. Quintanilla 70 Dristol 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 mised 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 HPA'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,

181 Lynda Carroll

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Gregg A. Cooke Regional Administrator AUG 0 8 2000 REMEDIATION DIVISON Corrective Action Section

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cer Texas Natural Resource
Conservation Commission

### KELLY AIR FORCE BASE, SAN ANTONIO, TEXAS

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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.

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### Granid Water Plane

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.

### Printilizing Corrective Action Measures Under RCRA

Kelly Air Force Base is a complex facility with numerous sites requiring remediation as a constituent of base closure. The U.S. Air Force is addressing all sites concurrently and has committed listed 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 Pederal Pacilities to the RCRA Program

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

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

On June 12, 1998, the TNRCC issued KAIB 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 designce 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 KAIB 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 NII. 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

IPA 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

Nr. Armando C. Quintanilla 70 Eristol Green San Antonio, TX 78209-1899

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

Doar Mr. Quintanilla:

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

- \* Documents scoring the above-mentioned site as a National Priority List (NPL) facility;
- Level of contamination;
- The affected receptors (population and ecosystem);
- The nathways through which the contamination might reach the receptors;
- Scores exceeding 28.5 using the Hazard Ranking System (IRE);
- 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.

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 exampt, 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).

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 FPA's policy to address Federal facilities such as Kally Air Force Base under the Resource Conservation and Recovery Act (RCRA) rather than Superfund. Amended Section 120(d) of CERCIA give EPA the discretion to withhold National Priority List (NPI) designation of a Federal facility cleanup action if the pite 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 RCHA permit program. We have, therefore, deferred taking any further Superfund action, a decision which is consistent with The Region's decision not to propose this site to the NFL now or in the future, regardless of its Hazard Ranking Score, in consistent with CERCLA and allows EPA to address other Superfund sites where no other mechanism is available. 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

Emajosures

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ADMINISTRATIVE RECORD

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