



KELLY AFB  
TEXAS

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ADMINISTRATIVE RECORD  
COVER SHEET

AR File Number 3231

**Kelly Restoration Advisory Board (RAB)  
Meeting Agenda\***  
Tuesday, April 19, 2005 - 6:30 p.m.  
Kennedy High School Cafeteria  
1922 S. General McMullen

**Meeting Goals**

The RAB will

- Advise and comment on former Kelly AFB environmental matters/documents
- Receive updates on restoration and environmental remediation projects

6:30 – 7:00	Roll call begins at 6:30 p.m.	Dr. David Smith
	<ul style="list-style-type: none"> <li>– Meeting will convene</li> <li>– Pledge of Allegiance</li> <li>– Moment of silence</li> <li>– Hails and farewells</li> <li>– Discuss goals for this meeting</li> <li>– Community Comment Period</li> <li>– RAB administrative votes and other items</li> <li>– Plan KellyUSA tour for new members</li> <li>– Review supplemental packages</li> <li>– Approve January meeting summary</li> </ul>	
7:00 – 7:15	Kelly Current Events Update	Ms. Sonja Coderre
	<ul style="list-style-type: none"> <li>– Spill report</li> <li>– Kelly Health Information Officer update</li> <li>– Documents to TRS/RAB</li> <li>– Requests for information</li> <li>– Outreach activities</li> <li>– Media coverage/ news clips/public notices</li> </ul>	
7:15 – 8:00	Final TAPP Review of the ATSDR Past Air Emissions Study	Dr. Kathryn Squibb
8:00 – 8:15	Question and Answer session on the final TAPP Review	
8:15 – 8:20	TAPP Review Approval	Dr. David Smith
8:20 – 8:35	TAPP Process	Ms. Sonja Coderre
8:35 – 8:55	AFRPA Projects Update	Mr. Don Buelter
8:55 – 9:05	Question and Answer session on AFRPA Projects Update	
9:05 – 9:20	Meeting Wrap-Up	Dr. David Smith
	<ul style="list-style-type: none"> <li>– Next TRS meeting proposed for Tuesday, May 10, 2005, at the Environmental Health and Wellness Center at 6:30 p.m.*</li> <li>– Next RAB meeting proposed for Tuesday, July 19, 2005, at a location to be determined at 6:30 p.m.*</li> </ul>	

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

**April 19, 2005**  
**Kelly Restoration Advisory Board (RAB) Meeting**  
**Kennedy High School**  
**1922 S. General McMullen**  
**San Antonio, Texas 78226**

*MC* **Draft Meeting Minutes**

**RAB Community Member Attendees:**

Mr. Robert Silvas, Community Co-chair  
Mr. Rodrigo Garcia, Jr.  
Ms. Coriene Hannapel  
Ms. Henrietta LaGrange  
Dr. Ruben Martinez  
Mr. Pete Muzquiz  
Mr. Nazirite Perez  
Mr. Armando Quintanilla  
Mr. Micheal Sheneman

**RAB Government Member Attendees:**

Mr. Adam Antwine, Installation Co-chair  
Ms. Kyle Cunningham, Alternate for Melanie Ritsema  
Mr. Gary Martin, Greater Kelly Development Authority (GKDA)  
Mr. Gary Miller, EPA Region VI  
Ms. Melanie Ritsema, San Antonio Metropolitan Health District  
Mr. Mark Weegar, Texas Commission on Environmental Quality

**Other Attendees:**

Mr. Don Buelter, Air Force Real Property Agency (AFRPA)  
Ms. Sonja Coderre, AFRPA  
Ms. Leigh-Ann Fabianke, AFRPA Contractor  
Mr. Ben Galvan, Community Member  
Ms. Delia T. Gonzalez, Community Member  
Ms. Blanca Hernandez, Environmental Health and Wellness Center (EHWC)  
Ms. Linda Kaufman, EHWC  
Ms. Cheri Kirkpatrick, AFRPA Contractor  
Ms. Norma Landez, AFRPA  
Ms. Cynthia Lopez, Community Member  
Mr. Kevin Noland, Community Member  
Mr. David Plylar, Representative for Councilwoman Patti Radle  
Ms. Patti Radle, San Antonio City Councilwoman  
Ms. Georgina Richman, Community Member  
Dr. David Smith, Facilitator  
Ms. Lisa Sorg, Community Member  
Mr. Ben Sotello, Community Member  
Dr. Katheryn Squibb, TAPP Contractor

Mr. Tim Sueltenfuss, AFRPA Contractor  
Mr. Brandon Taylor, Community Member  
Ms. Mandra Villarreal, Community Member  
Ms. Shayla White, Community Member  
Mr. Glenn Wilkinson, Community Member

The meeting began at 6:36 p.m.

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

Dr. David Smith began the meeting by welcoming RAB members and other attendees.

#### **II. Hails and Farewells – Mr. Adam Antwine**

Mr. Antwine welcomed the new RAB members and the new community co-chair.

#### **III. Community Comment Period**

Mr. Glenn Wilkinson and Ms. Coriene Hannapel made comments during this period.

Mr. Robert Silvas said he gave documents to the Air Force to distribute and was disappointed this was not done. Mr. Silvas moved to adjourn the meeting because papers were not distributed as requested. Ms. Henrietta LaGrange seconded the motion. Discussion occurred. A Motion was made to table the first motion. A vote was taken and the motion to table the first motion passed.

#### **IV. Administrative – Mr. Silvas**

Mr. Silvas moved for the RAB to receive a full cost report on Kelly cleanup from the Air Force. Mr. Silvas moved that the new RAB members request and review detailed information on current, past, and future projects. Mr. Silvas moved to deal with RAB members' demands on the Semiannual Compliance Plan Report. Demands included RAB member review of the report, 40-50 page summaries provided on CD ROM, staff review and revise requirements for preparation of the report, and staff distribute copies of the executive summary to local media and Kelly community groups. Mr. Silvas moved to instruct staff to prepare a report for current RAB members on current projects, health issues, and past and current air emissions and how these issues came about due to the Air Force at Kelly AFB. Each motion was seconded and passed by the RAB.

Mr. Silvas moved to have the transcription of a tape from the Committee on Natural Resources paid for by the Air Force. Motion seconded and passed. Mr. Antwine said the recommendation would be taken under advisement Mr. Antwine indicated the transcript would be placed in the co-chair library.

The RAB moved to have Air Force respond to requests for information within 24 hours. Motion seconded. Discussion. Motion amended to say that within 48 hours community members will receive acknowledgement that a request has been received, how the request will be reviewed and the timeline when a full report will be complete. Also, the request forms will be modified. Motion seconded and passed.

**V. RAB Tour Update – Ms. Sonja Coderre**

Ms. Coderre said the tour planned for Saturday April 21, 2005 had to be cancelled. She asked the RAB for input on when they would like to reschedule. RAB members will let community co-chair know of their preferences.

**VI. Review of RAB Packets and Approval of January Meeting Summary – Dr. Smith**

Mr. Quintanilla moved to not approve summary because it's not meeting minutes. Motion seconded. Motion clarified to have the summary rewritten. Motion seconded and passed.

**VII. Community Comment Period**

Unidentified community member made comments during this period.

RAB moved to skip the administrative agenda items and proceed directly with the TAPP presentation by Dr. Squibb because of time constraints. Motion seconded and passed.

**VIII. TAPP Presentation – Dr. Katheryn Squibb**

Dr. Squibb presented the Final TAPP Review of the ATSDR Past Air Emissions Study.

RAB moved to approve the TAPP report and pay Dr. Squibb. Motion seconded and passed.

RAB moved to begin the interview process for a new RAB meeting facilitator who is certified. Motion seconded. Discussion. Motion was not voted on. RAB moved to advise the Air Force that the RAB look for a facilitator who has a certification. Motion seconded. Discussion. Substitute motion proposed that the RAB recommend that the current facilitator be replaced with a certified facilitator. Motion seconded. Discussion. Voted. Tie vote. Motion failed.

**IX. AFRPA Projects Update – Mr. Don Buelter**

RAB decided to postpone Mr. Don Buelter's presentation because of time constraints.

**X. Meeting Adjournment**


Motion to adjourn the meeting. Motion seconded and passed.

The meeting adjourned at 9:35 p.m.

*These minutes have been composed in accordance with Robert's Rules of Order as per the request of the RAB members.*

  
\_\_\_\_\_  
Robert Silvas  
Community Co-chair

10/11/05  
Date

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

10/11/05  
Date

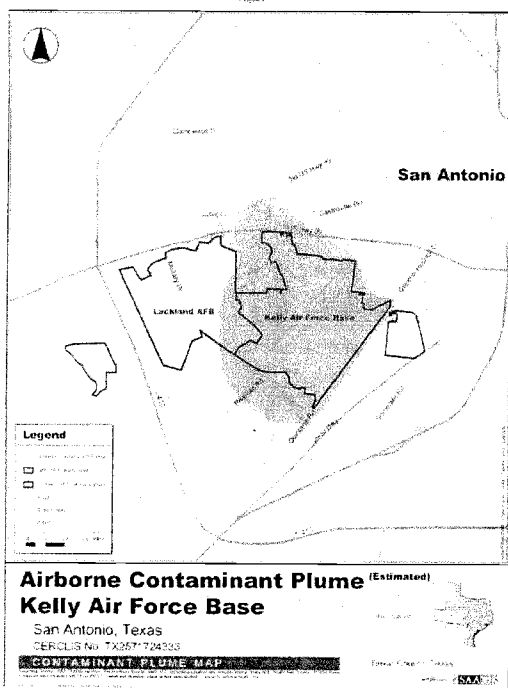
# Technical Review Report

## ATSDR Health Consultation Phase II

### Past Air Emissions Kelly AFB

Katherine S. Squibb, PhD  
Program in Toxicology  
University of Maryland, Baltimore

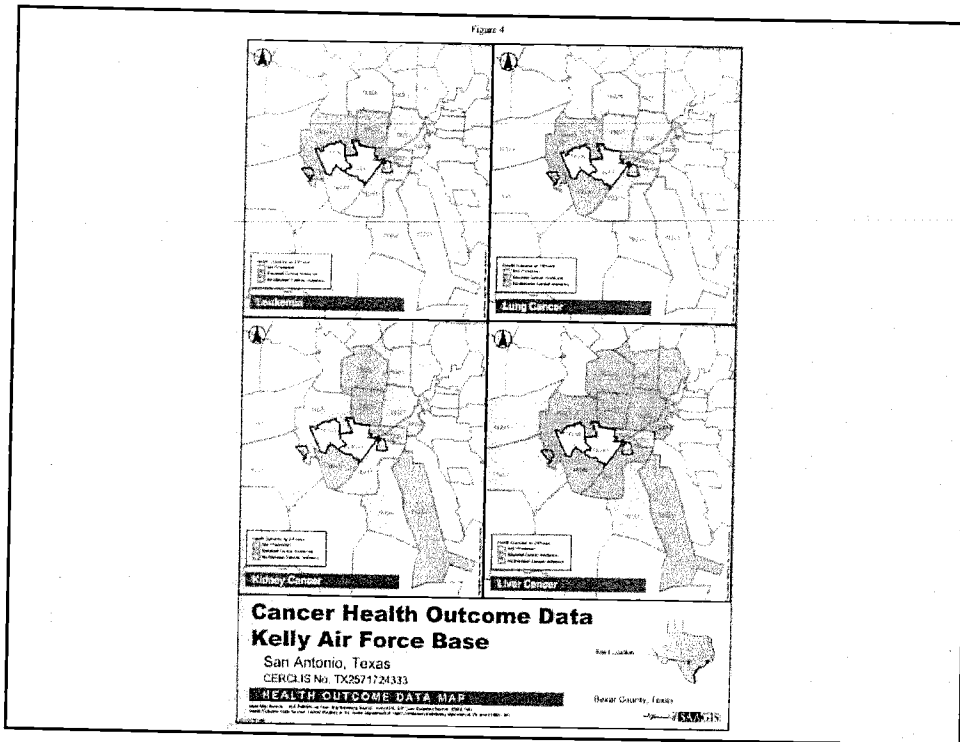
April 19, 2005



**Current air emissions  
1995 and after:**

**No apparent health  
hazard**

**ATSDR  
Public Health Assessment  
Phase 1  
1999**



## Purpose of Health Consultation

- # Evaluate potential exposure to past air emissions from Kelly AFB (prior to 1995)
- # Evaluation of potential increased risk of cancer from past air emissions

$$\text{Risk} = \text{Hazard} \times \text{Exposure}$$

## **ATSDR's Approach**

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- # Gathered relevant data on air emissions from:
  - Stationary sources
  - Aircraft emissions
- # Reconstructed potential past inhalation exposures off base by air dispersion modeling.
- # Toxicity data for individual chemicals

## **Past Emissions Data (Before 1995)**

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- # Stationary sources
  - Hexavalent Cr emitted from 5 plating shops
  - Painting
  - Degreasing
  - Incineration of cyanide wastes (not evaluated)
- # Aircraft Emissions:
  - JP-4 jet fuel used prior to 1994
  - Emissions during takeoff, landing and taxiing
  - benzene, 1,3-butadiene, formaldehyde



## Aircraft Emissions

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- # Aircraft emissions modeling – Worse case scenario. Annual averages.
  - Used 360,000 takeoff and landings
  - Used least efficient engine (TF33-3)
  - Plane with greatest number of engines (B52H)
- # Misting: No records of fuel jettisoning and no quantitative records on misting. Not evaluated.

## ISCST3 Model

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- # Air dispersion of emitted chemicals modeled using EPAs Industrial Source Complex Short Term Version 3 model
- # Determines annual average concentrations
- # Uncertainty from model – 0.5 to 2.0 times reported value
- # Largest uncertainty was the emissions data used in the model.
  - Available data not comprehensive

## Stationary Source Emissions Data

- # Stationary sources (industrial)
  - Tetrachlorethylene (PCE), methylene chloride, methyl ethyl ketone, benzene, ethyl benzene, formaldehyde, toluene, xylene, styrene, naphthalene, acrolein, acetaldehyd, trichloroethylene, trichloroethane, dichloroethane.
- # Data supplied were sufficient for analysis and making conclusions except for hexavalent Cr prior to 1980 and cyanide incineration.

## Results from Stationary Sources

- # 8 of 15 chemicals from stationary sources compared to chronic non-cancer comparison values. No exceedences.
- # 4 of 15 chemicals calculated cancer risk
  - Methylene chloride:  $5 \times 10^{-5}$
  - PCE:  $7 \times 10^{-5}$
  - Benzene:  $5 \times 10^{-9}$
  - Formaldehyde:  $1 \times 10^{-8}$
- # Hexavalent Cr not evaluated

**Results from Aircraft Emissions  
Maximum Concentrations Off Base**

	<u>Prior to 1973</u>	<u>1973-1994</u>
# 1,3 Butadiene	4.4 to 10 ug/m <sup>3</sup>	1.5 to 7 ug/m <sup>3</sup>
# Benzene	10 to 20 ug/m <sup>3</sup>	1.5 to 7 ug/m <sup>3</sup>
# Formaldehyde	58 ug/m <sup>3</sup>	19 ug/m <sup>3</sup>
# Acetaldehyde	5 ug/m <sup>3</sup>	2 ug/m <sup>3</sup>
# Napthalenes	16 ug/m <sup>3</sup>	5 ug/m <sup>3</sup>
# Acrolein	4.2 ug/m <sup>3</sup>	1.4 ug/m <sup>3</sup>

**Combined Results from  
Stationary and Aircraft Emissions**

- # Estimated Cancer Risk (before 1973) (Table B-8)
  - 1,3 Butadiene: F16 vs B52
    - $8 \times 10^{-6}$  to  $3 \times 10^{-5}$  (human)
    - $4 \times 10^{-4}$  to  $2 \times 10^{-3}$  (animal)
  - Benzene: F16 – B52
    - $2 \times 10^{-5}$  to  $5 \times 10^{-5}$
  - Formaldehyde : B52
    - $2 \times 10^{-4}$
  - Acetaldehyde: B52
    - $3 \times 10^{-6}$

## Concern

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- # Why was cancer risk from methylene chloride and PCE from stationary sources not included in Table B-8?

## Summary of ATSDR's Conclusions

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- # **No apparent health hazard (Cancer risk  $< 10^{-5}$ )**
  - Individual chemicals from stationary sources
  - Individual chemicals from aircraft emissions
- # **Indeterminate health hazard**
  - Hexavalent Cr before 1980 (lack of data)
  - Interactive effects of chemicals in stationary and aircraft emissions (uncertainty)
- # **No assessment of incineration of cyanide waste and fuel emissions from misting (no data)**
  - Indeterminant health hazard

## **Conservative Estimates vs Uncertainty**

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### **Conservative Estimates**

- Aircraft with most engines
- Least efficient engine
- Engine with highest emissions
- Year with largest number of take offs and landings

### **Uncertainties**

- Available information was often scarce or lacking
  - Lack of data for Cr(IV) prior to 1980
- Cancer slope factor for 1,3 butadiene (animal versus human)

## **Uncertainties Due to Limitations of Study as Noted by ATSDR**

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- # Speciation of chemicals in aircraft emissions from JP-4 may not be representative.
- # No consideration of metals in aircraft emissions or PM<sub>10</sub> exposure.
  - Arsenic and Cadmium were above screening levels in estimation of current air emissions

## Recommendations

- Aircraft emissions represent an **indeterminant health hazard** rather than no apparent health hazard due to lack of comprehensive data and consideration of additional chemicals

## Cumulative Risk From Multiple Chemicals

- Additive Cancer Risk:  $3.5 \times 10^{-4}$  to  $2.3 \times 10^{-3}$
- Low to Moderate increased risk
- ATSDR concludes Indeterminant health hazard
  - Based on insufficient information known about interactive effects of mixtures of these chemicals
- Could have synergism due to lung damage and increased absorption between:
  - Benzene, 1,3 butadiene and formaldehyde
  - Other chemical components in JP-4 fuel and aircraft exhaust
  - 16 chemicals from stationary sources

## Recommendations

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- # Aircraft emissions as modeled represent a **low to moderate health hazard** based on additive risk from multiple chemicals
  
- # Potential synergistic effects likely to increase risk further

## ATSDR Recommendations

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- # Further investigation of emissions of hexavalent Cr prior to 1980
  - Include hexavalent Cr health outcomes in Kelly AFB Civilian Worker Study
- # Further investigation of potential interactions from chemical mixtures
  - Investigate elevated leukemia outcomes
- # Consider biologically plausible health outcomes from potential on-base exposure in Kelly AFB Civilian Worker Study

## Recommendations

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- # Support ATSDR's recommendation for:
  - Further investigation of leukemia outcomes
  - Need more definitive guidance on what "biologically plausible" outcomes should be considered in Kelly AFB Civilian Worker Mortality Study

## Concerns

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- # Risk assessments based on annual average concentrations due to lack of more discrete data
  - Cannot compare to OSHA standards for 8 hr days for 5 days per week
  - OSHA standards established for healthy workers, not young children, pregnant mothers, the elderly



## Concerns

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- # Non-carcinogenic health effects not addressed in the conclusions
  - Acrolein, formaldehyde, naphthalene, methyl-naphthalenes above non-cancer comparison values (Table B-8)
    - Irritating and exacerbating respiratory effects
  - 1,3 Butadiene does have an RfC not listed in Table B-8.
    - Based on ovarian atrophy
    - Estimated concentrations ranged from 1.5 to 10 times higher than RfC=2 ug/m<sup>3</sup>

## Recommendation

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- # Follow-up on non-cancer effects of:
  - Formaldehyde and acrolein
    - Exacerbation of asthma and COPD
  - 1,3 Butadiene
    - Infertility from ovarian atrophy

## Recommendations

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- # Follow-up on elevated incidence of birth defects observed (especially heart defects)
  - Consideration of cumulative effects of exposure (indoor and outdoor) to solvents
  - Zipcode 78237 Ratios of observed/expected
    - Significant increases for three categories of congenital anomalies of heart 2.82, 3.70 and 4.45

## Summary

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- # ATSDR report is comprehensive and acknowledges uncertainties due to lack of comprehensive data
- # Summary findings do not acknowledge potential health risks identified
- # Good recommendations for follow-up on biologically plausible health outcomes, including leukemia

## Summary

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- # Need to recognize potential non-cancer health effects
  - > Need to follow-up on birth defects
  - > Need to follow up on potential for acute effects not observed due to annual averaging
- # Need to determine potential for synergistic effects for all chemicals emitted from stationary sources and in aircraft emissions
- # Need to model dispersion of metals

Kelly Special Restoration Advisory Board (RAB)  
SUMMARY

January 18, 2005  
Kennedy High School Cafeteria  
1922 S. General McMullen  
San Antonio, TX 78226

**1. Attendees:**

Ms. Rita Boland	Mr. Sam Murrah
Mr. Don Buelter	Mr. Pete Muzquiz
Ms. Sonja Coderre	Mr. Jeff Neathery
Ms. Kyle Cunningham	Mr. Nazarite Perez
Mr. Mike Denuccio	Mr. Paul Person
Ms. Mary Dunagan	Mr. David Plylar
Ms. Leigh-Ann Fabianke	Ms. Abbi Power
Ms. Esmeralda Galvan	Mr. Armando Quintanilla
Mr. Rodrigo Garcia, Jr.	Ms. Melanie Ritsema
Mr. Dan Gonzales	Mr. Michael Sheneman
Ms. Coriene Hannapel	Mr. Robert Silvas
Ms. Blanca V. Hernandez	Mr. Kelley Siwecki
Ms. LeAnn Herren	Dr. David Smith
Ms. Linda Kaufman	Mr. Brendan Smith
Ms. Cheri Kirkpatrick	Ms. Tonya Spurlin
Ms. Henrietta LaGrange	Mr. Tim Sueltenfuss
Ms. Norma Landez	Ms. Robyn Thompson
Mr. Gary Martin	Ms. Carol Vaquera
Mr. Ruben Martinez	Mr. Mark Weegar
Mr. Gary Miller	Mr. Glenn Wilkinson

- 2. Introduction.** Dr. David Smith, RAB Facilitator, opened the meeting at 6:40 p.m. The pledge of allegiance was said and a moment of silence was observed. Dr. Smith announced that one goal of the meeting was to advise and comment on former Kelly AFB environmental matters and documents and to receive updates on restoration and environmental remediation projects. Another goal of this meeting was to appoint new members to the RAB in order to create a group that reflects the diversified interests of the community. Dr. Smith then asked for a motion to approve the October and November RAB meeting transcripts and summaries. The summaries and transcripts were approved. Mr. Armando Quintanilla wanted the record to reflect that he did not approve the summaries and believes them to be an inadequate representation of the meetings.
- 3. Community Comment Period.** Community members in the audience had three minutes to comment.

4. **Explanation of the Appointment Process.** Mr. Tim Sueltenfuss presented a briefing on how the appointment process for the RAB elections would proceed. He also asked for confirmation from the RAB members that they agreed on the process and were open to following the appointment procedure. There was a motion on the floor that Mr. Quintanilla, who was acting as Mr. George Rice's alternate, would not be able to vote in the elections. The motion was voted on and passed, and Mr. Quintanilla was asked not to participate in the appointment process.
5. **Candidate oral presentations.** All candidates participating in the election had two minutes to introduce themselves to the current RAB members. Candidates spoke in the following order: Mr. Rodrigo Garcia Jr., Ms. Henrietta LaGrange, Mr. Paul Person, Mr. Dan Gonzales, Ms. Coriene Hannapel, Mr. Ruben Martinez, Mr. Sam Murrah, Mr. Quintanilla, Mr. Robert Silvas and Mr. Glenn Wilkinson.
6. **Voting by ballot for new Board members.**
  - A. **Candidates from the local community.** Ballots were passed out to the current RAB members who were participating in the appointment process.
  - B. **All other candidates.** Ballots were passed out to the current RAB members who were participating in the appointment process.
7. **Voting results and election of new members.** The votes were tallied and the new RAB members were announced and invited to take their seats at the table with the rest of the RAB members. Mr. Garcia and Ms. LaGrange were elected to the RAB as local candidates. The following candidates were elected to the remaining spots on the RAB: Mr. Gonzales, Ms. Hannapel, Mr. Martinez, Mr. Quintanilla and Mr. Silvas.
8. **Community Co-chair nominations.** Mr. Silvas and Mr. Gonzales were both nominated for the Community Co-chair position.
9. **Voting, results and election of new Community Co-chair.** A "show of hands" vote was taken by RAB members to choose the Community Co-chair. As a result, Mr. Silvas was elected to become the new Community Co-chair by a majority of the RAB members.
10. **Ten minute break.**
11. **A. Final Technical Assistance for Public Participation (TAPP) Review of the Zone 2/3 Corrective Measures Study.** Mr. Jeff Neathery, from Neathery Environmental Services, presented a briefing on the *TAPP Review of the Zone 2/3 CMS*, including an overview of the report, comments on the report and recommendations to improve the report.
  - B. **Air Force Response to the Draft TAPP Review.** Mr. Don Buelter responded to the comments and recommendations from Mr. Neathery's *Draft TAPP Review of the Zone 2/3 CMS*.

**C. Question & Answer Session on the TAPP Review.** Mr. Neathery, Mr. Buelter and Ms. Norma Landez responded to questions from the audience and RAB members in attendance concerning the TAPP Review and related subjects.

12. **RAB Planning Period.** RAB members were given a calendar of proposed agenda items for upcoming TRS and RAB meetings. The Board was given a handout and asked to select a date for the February workshop.
13. **Kelly Current Events Update.** Ms. Sonja Coderre explained each section of the RAB meeting packet.
14. **Community Comment Period.** Community members in the audience had three minutes to comment.
15. **Meeting Wrap-Up.** Dr. Smith stated that there were no action items to review from the previous RAB meeting. There were no specific action items from this RAB meeting. Dr. Smith then asked for a motion of adjournment and the RAB so motioned.
16. **Next Meeting.** The next TRS meeting is set for Tuesday, February 8, 2005, at 6:30 p.m., at the Environmental Health and Wellness Center. The RAB Workshop is set for Saturday, February 19, 2005 from 8:00 a.m. to 3:00 p.m. at the Greater Kelly Development Authority. The next RAB meeting is set for Tuesday, April 20, 2005, at 6:30 p.m., at Brentwood Middle School.
17. **Adjourn.** 9:29 p.m.



APR 11 2005

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

Mr. Rodrigo Garcia, Jr.

Dear Mr. Garcia

I received your list of items submitted at the 8 February 2005 Technical Review Subcommittee meeting that you would like to have addressed by the Kelly BRAC Cleanup Team. I have responded to each of your requests individually below.

- *Fish Kill Issue and Status*

This issue was originally reported at the December 2004 TRS meeting and subsequently updated at the February and March 2005 TRS meetings during the BCT spill report. A summary of this update is included in the meeting minutes for your reference.

- *Leon Creek on Kelly Property – Condition of the Creek*
- *Any Status Reports on PRB's (or Problems)*
- *Status of Groundwater Cleanup*

You may recall that this information was provided during the briefing of the *January 2005 Semi Annual Compliance Plan Report* at the 8 March 2005 TRS meeting. A detailed summary of these topics is also provided in the meeting minutes for your reference. Status reports for PRBs in Zones 2 and 3 will be provided in May and reports for Zones 4 and 5 will be provided in June at the respective TRS meetings.

- *Dead Radiation Carcasses and Buried Items at the Old Golf Course*

The sites located on the former golf course were realigned to Lackland AFB. The sites have been subsequently closed. Questions related to Lackland AFB and its environmental restoration program should be addressed to the Lackland Public Affairs Office at (210) 671-3439.

- *Due Diligence Reports and Incidents*

Please direct inquiries regarding this matter and other issues pertinent to KellyUSA to the Greater Kelly Development Authority at (210) 362-7800.

- *Spill Reports on Chemicals*

Spill reports are a reoccurring item included in the agenda for and briefed at each RAB/TRS meeting by AFRPA and GKDA, as necessary.

- *Any Air Emission Violations*

The ATSDR recently authored a report regarding past air emissions at the former Kelly AFB. We recommend that you contact ATSDR at (404) 498-1754 for inquiries related to the report. Questions regarding air emissions and applicable Federal laws should be directed to the environmental Protection Agency at (214) 665-6615.

For additional information, please contact our Public Affairs Officer, Ms. Sonja Coderre, at (210) 925-0956.

Sincerely



ADAM G. ANTWINE  
Senior Representative





APR 08 2005

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

Ms. Henrietta LaGrange


Dear Ms. LaGrange

This letter is in response to your request for information regarding the experience, education, and other information on federal and contractor employees of the Air Force Real Property Agency at the former Kelly Air Force Base. The information you requested regarding AFRPA civilian personnel must be processed through the Freedom of Information Act (FOIA). You do not need to take any additional action; I am forwarding the request for you to our FOIA officer.

Some of the individuals you mentioned are not Department of Defense civilian employees. As a result, this office is not at liberty to release their personnel information. I recommend that you contact their corresponding agencies directly regarding your request.

- Mr. Tim Sueltenfuss – Booz Allen Hamilton, San Antonio, TX
- Mr. Gary Miller – United States Environmental Protection Agency, Dallas, TX
- Mr. Mark Weegar – Texas Commission on Environmental Quality, Austin, TX
- Mr. Jeff Neathery – Neathery Environmental Services, San Antonio, TX
- Dr. David Smith – Smith/Associates, Broken Arrow, OK

Sincerely

  
ADAM G. ANTWINE  
Senior Representative



APR 11 2005

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

Mr. Glenn Wilkinson

Dear Mr. Wilkinson

We received your request for information regarding transformers at the former Kelly Air Force Base. Non operable transformers were either retrofitted with newer components or removed from service and disposed off-site. Transformers removed from service were placed in the Civil Engineering yard at East Kelly to await disposal. Storage and disposal of the transformers were done in accordance with regulations by the Defense Reutilization and Marketing Office.

If you have any questions or comments regarding this letter or the environmental restoration process here at Kelly, please contact our Public Affairs Officer, Ms. Sonja Coderre, or me at (210) 925-0956.

Sincerely

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

ADAM G. ANTWINE  
Senior Representative



APR 08 2005

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

Mr. Rodrigo Garcia, Jr.

Dear Mr. Garcia

Thank you for your correspondence dated February 15, 2005, concerning, in addition to your comments for Dr. Katherine Squibb's review, several issues and questions regarding administrative support of the Kelly Restoration Advisory Board (RAB).

I appreciated the opportunity to review your comments to Dr. Squibb regarding her recent Technical Assistance for Public Participation (TAPP) presentation. I have forwarded this information to our contracting officer, and he has provided it to Dr. Squibb. Thank you again for taking your time to make such detailed comments.

In your letter, you asked several questions, which I would like to address.

*Question #1: Has staff mailed out copies of 32CFR 202 to all community RAB members?*

Ms. Coderre's Public Affairs team mailed the proposed RAB rule to the Kelly RAB members February 14, 2005. I understand Ms. Coderre also covered the proposed rule in depth at the Kelly RAB Workshop Saturday, February 19, 2005, at the Greater Kelly Development Authority.

*Question #2: Should all RAB members be sent copies of this submittal or just the community members of the RAB so they can see how serious our concerns and problems are in dealing with past air emissions problems and the need for many more studies to deal with this and the many, many, many health issues and studies we will have to do in the future?*

To better accommodate RAB members' requests to have their questions and the response they receive from AFRPA shared with other members of the RAB, we have established a binder at the Environmental Health and Wellness Center RAB Reading Room for each of the RAB community members. Each binder will include requests for information that the RAB

community member has submitted to AFRPA along with the response provided by AFRPA to the RAB community member. Your submittal along with our response will be provided in your applicable binder in the EHWC RAB Reading Room. In addition, Dr. Squibb's final report regarding the ATSDR Past Air Emission Study will be provided to the RAB at the April 19, 2005 RAB meeting.

In your letter you state that you hoped I had dealt with the issues of attitude, work, support for the RAB members, and other issues you had discussed with MR. William Ryan. I remain committed to ensuring the work of the AFRPA is completed at the former Kelly AFB in a transparent and open way. I understand the issues of environmental restoration are often emotional and disagreements may arise along the way. The staff of the Kelly Regional Operating Location (ROL) strives to work with community members in an open and respectful manner.

Lastly, I understand Ms. Coderre provided you some information regarding past air emissions at the former Kelly AFB. The specific documents you requested (i.e., past violations) must be processed through the Freedom of Information Act (FOIA). You do not need to take any additional action; I have forwarded the request for you to our FOIA officer.

Again, I thank you for your input and dedication to the environmental restoration efforts at the former Kelly AFB.

Sincerely



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Senior Representative

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## Kelly Air Force Base Restoration Advisory Board (RAB)

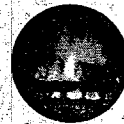
The Air Force invites you to attend the next RAB meeting. A variety of issues concerning the cleanup at the former Kelly Air Force Base will be discussed.

Tuesday,  
April 19, 2005  
6:30 - 9:00pm

Kennedy High School  
1922 S. General McMullen Dr.  
San Antonio, TX 78226

Call the Kelly Public Information Line at (210) 925-0956 for more information.

If a sign language interpreter is needed, call (210) 925-0956 at least two days in advance.



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## Kelly study points to need for another study

Web Posted: 03/22/2005 12:00 AM CST

**Anton Caputo**  
Express-News Staff Writer

New studies by state health officials show higher-than-expected rates of liver cancer and certain birth defects in neighborhoods around the old Kelly AFB.

The reports bolster findings in previous federal studies, along with the arguments of those who link the health problems to contamination from the defunct military base.

But state health experts explicitly said no such link has been found.

"A cancer cluster investigation is just documenting where there is a greater-than-expected number of cases," said Brenda Mokry, epidemiologist with the Texas Cancer Registry.

"We did find that there is nothing linking these specific cases and deaths to any environmental causes. These are two independent events, and we have not done the study that we would need to."

That study soon could be on the way, said Dr. Fernando Guerra, director of the Metropolitan Health District.

"Our next steps will involve planning for more formal and comprehensive descriptive and case control studies that can address causal associations with liver cancer in the area," he said.

Before Kelly closed in 2001, a preliminary study by the federal Agency for Toxic Substances and Disease Registry found elevated levels of leukemia, low birth weights, some birth defects and cancers of the liver, kidney and lungs in neighborhoods surrounding Kelly.

The latest studies find fewer statistically significant health concerns. And future studies would seek to factor out issues like occupational exposure, lifestyle choices and the presence of infectious hepatitis that could account for elevated cancer rates.

Guerra and state health experts do not plan to further pursue the three birth defects found in elevated levels within a mile of the base — Down syndrome, lung underdevelopment and a congenital heart defect.

That's because those defects, although found at higher rates near the base than in the rest of Bexar County, represent such a small number that further study "probably will not be fruitful," state senior epidemiologist Peter Langlois said.

"When you have too few cases, it really limits your ability to interpret the data," he said. "What we will do at the State Department of Health Services is continue to monitor the occurrences of birth defects."

State researchers found five cases of the heart defect, eight of underdeveloped lungs and 21 of Down syndrome within a mile of the base. Those cases translate to roughly twice the rate of the heart defect and Down syndrome found in the rest of Bexar County, and three times the rate of the lung defect.

The studies also focused on low birth weight among newborns and the incidences of leukemia for residents around Kelly, but found no evidence of elevated rates in either case.

Pollution — chlorinated solvents that likely were spilled, leaked or dumped during aircraft maintenance activities

at the base — first was found in the shallow aquifer under Kelly in 1985.

The contaminants have formed a 5-mile-long plume that spreads under roughly 20,000 homes and businesses in neighborhoods south and east of the base. But state epidemiologists said it is "unlikely that residents of the area had any access to this shallow contaminated aquifer, since fewer than 5 percent of the households over the plume used well water as their source."

Those findings fail to impress neighborhood resident Yolanda Johnson, who has been investigating illnesses in her neighborhood since 1983 and doesn't understand how the pollution from the base couldn't have contributed.

Johnson, one of several neighborhood activists, started her work roughly a decade after her grade-school-age son and daughter started suffering from a mysterious bone condition that bowed their arms and legs. Doctors were unable to diagnose the condition, and the children had to sleep in half casts and bandages for three years.

"Isn't that something?" she said.

"We have lived here since 1963. My husband had bought this house here as my Valentine's gift. If I knew what was happening here I would never have moved here, even if they would have given me the land."

To resident Robert Alvarado, the new state studies are just more evidence that the federal government needs to take the base's contamination more seriously.

Alvarado, 63, lost his sight six years ago and recently was diagnosed with kidney failure.

"And there are lots of miscarriages and lots of cancer in this neighborhood," he said. "This is real. Nobody wants to pay attention to our problem, but this is real."

Guerra said his department is sensitive to the plight of the residents and will continue to pursue "rigorous environmental contamination assessments" to determine if the base's pollution is harming those who live, or have lived, in nearby communities.

"This does give us cause for concern and help us recognize that we do need to do more," he said.

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*acaputo@express-news.net*

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Online at: <http://www.mysanantonio.com/news/metro/stories/MYSA032205.01A.kelly.15fa8d1c5.html>

# ANTONIO CURRENT

03/17/2005

**News:**

**The fugitives**

BY LISA SORG

The TCEQ hunts for polluters of a southeast Bexar County site

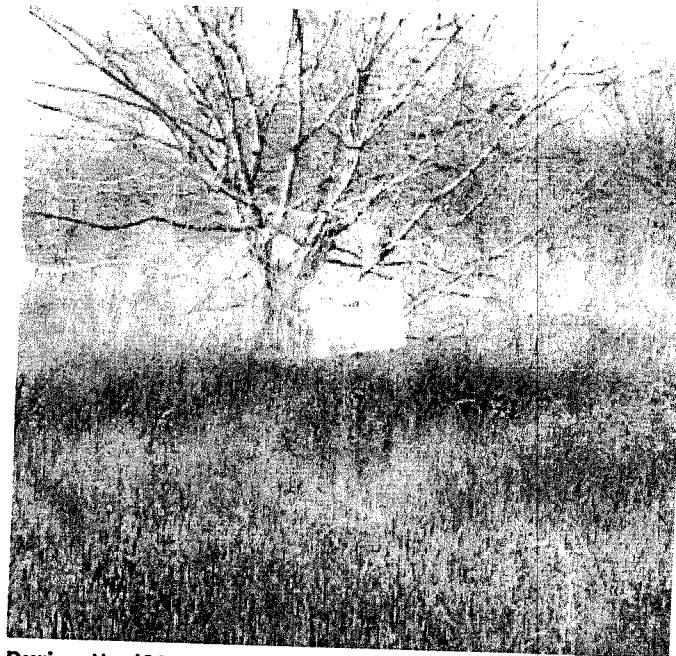
**P**eople move to the country to get away from it all: noise, lights, traffic. Polluters move there for similar reasons: In rural seclusion, beyond the reach of zoning, they hope no one will notice when they dump, bury, or burn their waste.

This is what happened for eight years on Higdon Lane, a dead-end road in southeastern Bexar County, where a patchwork of light industry, mobile homes, and sprawling ranches is stitched on the rural landscape.

At 4927 Higdon, a scrubby lot is surrounded by a high, padlocked, chain-link fence. A small sign stuck in the ground reads "restricted," and an old barn crumbles behind the weeds of this state Superfund site, once the home of JC Pennco, a waste-oil recycling company. Unfortunately, from 1984 to 1992, JC Pennco, owned by John Courtney Pennington, recycled much of the oil and other waste by dumping it on the ground.

The Texas Commission on Environmental Quality has collected \$1.1 million from 120 "responsible parties," including outside companies that hired the firm to dispose of their waste oil and other hazardous chemicals, including arsenic, benzene, and vinyl chloride. But 21 San Antonio companies have eluded the state, which continues to hunt them down.

"At this point, we're in the black," says Carol Boucher, project manager for the JC Pennco site. "But we will spend a lot more."



**During the '80s, drums covered the five-acre JC Pennco site at 4927 Higdon Road. Although contamination has decreased, the land carries a deed restriction limiting uses on the site to industrial. (Photo by Lisa Sorg)**

In the mid-'90s, the Environmental Protection Agency hauled off 4,000 drums, 120 cubic yards of soil and debris, 31,500 gallons of waste, and 23 tanks to eliminate potential sources of contamination. The TCEQ estimates it will spend an additional \$325,000 to continue monitoring the groundwater, known as "plume management," to ensure the pollution stays confined to the site or even shrinks. Since then, the state has used "natural attenuation," or simply put, time and Mother Nature, to decrease the extent of the contamination.

State Superfund sites are among the most polluted in Texas, but they are not hazardous enough to warrant placement on the National Priorities List, known as Federal Superfund. Contaminated areas land on the State Superfund registry when the polluters are either unknown or can't pay for the cleanup, usually because they've declared bankruptcy as a defensive tactic. Through settlements, the TCEQ squeezes what money it can from polluters to recover its cleanup costs.

JC Pennco had a sordid history before Pennington moved to Higdon Lane in 1984. (Pennington still lives in San Antonio, but could not be reached for comment.) Three years earlier, at its I-10 and Ackerman location, JC Pennco was cited for buying 264 drums of hazardous waste for 76 cents a drum - from Clifford Tinde, who had purchased it from

**Detective work**

The Texas Commission on



Kelly Air Force Base. But the cozy relationship between Kelly AFB and JC Pennco continued to Higdon Lane. According to TCEQ records, in 1985 a neighbor, Eduardo Mendoza, complained to the state that he had seen 20 drums labeled "hazardous waste" and "Kelly Air Force Base" on the company's property. The state later determined JC Pennco had received 15,000 drums from Kelly in 1984.

the following businesses that the state has identified as among the responsible parties for contamination at the former JC Pennco site:

The TCEQ (then the Texas Water Commission) cited Pennco and Kelly AFB for illegally selling, transporting, and disposing of waste without proper permits; in a letter to the state, the Air Force responded by asserting its right of "sovereign immunity" to any future rulings or settlements. The Air Force also hired a contractor to investigate who knew about the shipments; the contractor concluded that no one knew anything.

Aircraft Services, Inc.  
Alamo Transmissions  
American Desk Manufacturing Co.  
American Hi-Lift Corporation  
Associated Motors  
Bobby's Auto Parts  
Broadway Radiator and Auto Repair  
C&C Import Service  
C&J Automotive  
East Kelly Automotive  
Ernie's Automotive  
Faith Hill Automotive  
Fitzgerald's Auto Service  
Fox Alignment & Brake Service  
Guarantee Auto & Truck Parts  
Northeast Wrecker Service  
Redland Transportation  
Rigsby Paint and Body  
San Antonio Transportation Agency  
Taxsor Meats  
Theo's Brake & Tire.

Meanwhile, JC Pennco was discharging waste oil from other businesses as well, many of whom later stated they didn't know it had been handled illegally. Another neighbor, Richard Turknett, complained that two cattle had died after drinking contaminated water; a veterinarian concluded they had ingested oil runoff.

In early 1986, Pennington told a TCEQ inspector that he was out of the waste-oil business because of "regulations" and "poor market value." However, when the inspector returned in July, Pennington was not only still accepting waste oil, but also was operating a composting and mulching service. The inspector found overturned drums of waste oil, evidence that paint chips had been burned, and piles of firewood covered with drums.

For more info, call Project Manager Carol Boucher at the TCEQ at (800) 633-9363, Ext. 2501.

Mysteriously, a 1987 interoffice memo written by inspector Jim Martin (he's no longer with the agency) noted a "substantial overall improvement over previous inspections." For reasons that remain unknown, says the TCEQ, the state stopped its enforcement actions against JC Pennco.

Garry Turknett, who still lives next door to the site, says at the height of the dumping, the atmosphere on Higdon Lane was "intense." "We tried to get him [Pennington] to do something," recalls Turknett, who with several Higdon Lane residents, successfully sued JC Pennco over the pollution. "We got a few thousand dollars, but not enough to make up for our property devaluation." Turknett says the TCEQ has told him "low levels" of contamination remain on his property, but none high enough to pose a health threat.

In 1991, the state continued to receive citizen complaints, and the TCEQ reinstated its inspections, which revealed that company employees were mixing waste with oils, rinsing drums, and pouring the residue on the ground and on piles of wood mulch. JC Pennco continued to accept Air Force Waste; inspectors found 7,000 drums containing insecticide, herbicide, acids, paint, and military waste. Drums from various sources were later sold as barbecue pits and animal feeders. In addition, monitoring from a nearby residential well revealed it was contaminated with chemicals from the JC Pennco site.

In 1992, Pennington declared bankruptcy, listing among his assets a .22-caliber pistol, 16 llamas, seven goats, and 14 sheep. The state declared it a Superfund site later that year, and erected a fence and berm around the property in 1994. In 1994, the EPA provided bottled water to many Higdon Lane residents and paid for connecting their homes to city water.

Since then, the TCEQ has settled with many local companies, including Hollywood Park Public Works (\$426), KLN Steel (\$3,021), and Columbia Industries (\$10,000). Boucher says the TCEQ asked the Air Force to ante up, but that it refused. Four of the companies on the recent list of malingerers are in the 2004 phone book, but it couldn't be confirmed at press time if they are the responsible companies, or merely share the same name.

Garry Turknett says he's been satisfied with the state's efforts, but adds he won't tolerate pollution in his neighborhood. "I'll chain myself to a gate if I have to. It won't happen again." •

By Lisa Sorg



## Toxin talk heard far away

Web Posted: 03/13/2005 12:00 AM CST

**Anton Caputo**  
Express-News Staff Writer

Ismael Guadalupe was struck by the purple crosses protruding from the front yard of the little house in North Kelly Gardens.

He knew they represented people who grew up in the house, only to be hampered by severe illnesses — illnesses neighborhood residents believe were caused by contamination from nearby Kelly AFB.

But to Guadalupe, who traveled many miles to see the crosses, they represented something broader.

"It's the language of struggling and suffering," said the native of Puerto Rico. "That's why it's real easy for us to understand the problem here."

After this weekend, similar crosses will likely pop up on Guadalupe's home island of Vieques, which was used as a Navy bombing range from 1947 until 2003. Guadalupe thinks the symbols are an effective way to illustrate the "consequences of toxics."

That's exactly the type of lesson community activists from around the country, including Puerto Rico, converged on San Antonio to learn.

Guadalupe is among a group that spent two days in San Antonio on Friday and Saturday, discussing how communities can fight pollution from nearby military bases.

"We are here looking for solutions," said Kenneth Bradshaw, who made the trip from Memphis, Tenn. "It's a back-and-forth thing. In Memphis, we had a total breakdown. Now we're here looking for a positive approach."

Local community leaders, led by the Southwest Workers Union, are using the meeting as a launching point to develop their own plan to revitalize the neighborhoods around the defunct Kelly AFB.

They hope to have a formal plan by the end of the year. Among their goals: Persuade the Defense Department to abandon its plan to contain the underground toxic plume spreading from the base in favor of a plan that removes the pollution. Another goal is conducting a comprehensive health survey for the neighborhoods around the base.

Several federal studies have found no evidence that neighborhood health problems are directly linked to the pollution, but a study by the Agency for Toxic Substances and Disease Registry released last year did not rule out the possibility.

Genaro Lopez-Rendon, director of the Southwest Workers Union, said the group included several health experts who discussed how to develop a legitimate health survey to help quantify possible links.

"What we really need to do is break down the seclusion of each home so people know they are not alone in this," he said. "That way we can make a connection between the military toxins and the health problems in the area."

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[acaputo@express-news.com](mailto:acaputo@express-news.com)



## Purple crosses mark health worries

Web Posted: 02/26/2005 12:00 AM CST

**Nicole Foy**  
**Express-News Medical Writer**

Standing in her back yard overlooking the area once known as Kelly AFB, Virginia Castillo inhaled deeply.

"Can you smell it?" asked Castillo, shoving her hands in the pockets of her plaid housedress. "It's always here. It gets on your clothes if you stay outside for too long."

Castillo says a faint chemical smell has lingered around her one-story house in North Kelly Gardens for the 30 years she's lived there. Because of it, she doesn't hang clean clothes out to dry and she doesn't like her grandchildren to play outside too often.

Most of all, she wonders whether pollution from the former base or from the vast plume of contaminated groundwater that sits under her house are to blame for her health problems, which have included muscular problems and a benign glandular tumor.

So when a neighborhood activist asked if she'd display a purple wooden cross in her front yard to symbolize concerns over a possible link between her health problems and the former base's pollution, Castillo readily agreed.

"It think it's a good thing and that we should be vocal about all this," she said. "It's not something that's going away. There are still a lot of people who are worried."

The campaign launched Friday aims to place the crosses outside homes near the former base to honor those who suffer or have suffered from cancer or other illnesses possibly linked to contamination. Activists, who are also passing out information about the effort and asking residents questions about their health, will continue going door to door today and Sunday.

The crosses should serve as a visual reminder of the "environmental disregard" the Air Force has had for the neighborhoods, said Genaro López-Rendón, a director of Southwest Workers Union. The group is in a coalition that includes the Committee for Environmental Justice Action seeking answers about health effects of pollution around the former base.

There are ongoing attempts to clean up the contaminated groundwater plume under Kelly neighborhoods, and the Air Force has invested millions of dollars in the so far successful effort, the Air Force Real Property Agency said Friday. And several federal studies found no evidence neighborhood health problems are directly linked to the pollution, the agency said in a statement.

A study by the Agency for Toxic Substances and Disease Registry (ATSDR) released last year of past air emissions at the former base, however, did not rule out the possibility that neighbors may have suffered health problems from chemicals and fuels used at the base.

Many residents and activists said Friday they didn't trust federal studies showing no links between health issues and the contamination. ATSDR based most of its findings in its several studies on local death records, but a door-to-door health survey, which the coalition expects to begin soon, is necessary to get a true picture of the issue, said López-Rendón.

"ATSDR is flawed by design — it has a structure that's set up to side with the polluter."

ATSDR found higher expected levels of kidney cancer, liver cancer, lung cancer and leukemia in some ZIP codes around the former base, which closed in 2001, but concluded those illnesses could not be linked to Kelly pollutants.

For more information on the coalition's campaign or to participate, call the CEJA at (210) 922-2420 or Southwest Workers Union at (210) 299-2666.

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*nfoy@express-news.net*

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Online at: [http://www.mysanantonio.com/news/metro/stories/MYSA022605.1B.purple\\_crosses.e4491d1f.html](http://www.mysanantonio.com/news/metro/stories/MYSA022605.1B.purple_crosses.e4491d1f.html)

2412/105 SAN ANTONIO EXPRESS-NEWS

# Judge refuses to toss federal contract suit

Fraud case involves no-bid cleanup work done at Kelly AFB.

By ERIK ECKHOLM  
NEW YORK TIMES

In a lawsuit being watched closely by companies and lawyers involved in the multibillion-dollar federal contracting business, the government has charged one of its largest contractors with padding cost estimates during negotiations, allowing the company to reap profits of 30 percent or more on jobs when it was legally entitled to only 10 percent.

The fraud suit against the company, Science Applications International Corp., based in San Diego, involves a series of environmental testing and cleanup jobs it performed at Kelly Air Force Base in the late 1990s. The contracts, awarded

without competitive bidding, paid the company a negotiated price of \$24 million.

The company says it strictly obeyed the law in negotiating its contracts. But on Friday, in a setback for the company, known as SAIC, a San Antonio federal judge rejected a motion to dismiss the case.

The suit is of wider interest, legal experts say, because it addresses a practice used to varying degrees by many government contractors: overestimating projected costs when agreeing on the price up front, economizing as work is performed, and pocketing the difference.

The suit focuses attention on an obscure but important corner of government contracting, where the fine print on agreements or the particulars of negotiations can have large effects on a contract's bottom line. These issues are most relevant

See SUIT/3D

# Suit alleges padding of federal contract

CONTINUED FROM 1D

to the large number of government contracts that are not competitively bid.

"A lot of companies feel they can outsmart the government," said Andrew Grosso, a lawyer in Washington who has handled contracting lawsuits and who used to be a federal prosecutor.

A government victory in the Texas litigation not only would expose Scientific Applications International to large penalties but also "would send a warning to the entire industry," Grosso said.

The company denies any wrongdoing, saying it used, and still uses, a technique called "quantitative risk management" to project the possibility of cost overruns due to unforeseen circumstances.

The government says the company increased its estimated costs during negotiation to offset those risks and did not disclose those calculations to the government.

"SAIC's policy is to fully comply with the law and to disclose all information and data, whenever required to be disclosed," said Ronald Zollars, a company spokesman, in an e-mailed statement.

"SAIC disagrees that it provided any misleading cost or profit information to the government," Zollars said.

On Dec. 20, the Air Force, noting that it alone had hundreds of continuing contracts with the company worth \$513 million, warned its contracting officers to demand full disclosure

of pricing assumptions in future negotiations and to disallow costs associated with hypothetical risk.

On Friday, Judge William Wayne Justice of U.S. District Court in San Antonio denied the company's motion to dismiss the suit, although the case may not go to trial until next year, lawyers say.

The company has pressed the Air Force to retract its warning, which the company says "unfairly impugns SAIC's ethics."

The charges against the company were first brought in 2002 by a former project manager for the company in San Antonio, Michael Woodlee.

Woodlee filed a whistleblower suit under the False Claims Act, saying the company knowingly inflated its cost estimates, resulting in profits of as much as 60 percent on some of the jobs it carried out under a multiyear "master contract" with the Air Force.

Woodlee also says managers were encouraged to list higher-paid employee categories on job descriptions, then use lower-paid employees to do the work.

Based on information provided by Woodlee, and its own investigation of the company, the Justice Department joined in the lawsuit in September.

Under the False Claims Act, the government can pursue triple damages for money falsely received, and the whistleblower may receive a substantial reward, said Patrick Burns of Taxpayers Against Fraud, a group based in Washington.

# U.S. Newswire

Government Services Insider: Air Force Dogs SAIC for Alleged Profit Padding, and Company Denies It

To: National Desk and Business Editor

Contact: Michael Lent of Government Services Insider, 202-237-0765 or mlent@gsinsider.com

WASHINGTON, Feb. 1 /U.S. Newswire/ -- Emerging from almost three years of secrecy, a lawsuit accusing SAIC of false claims and other fraud has led the Air Force to issue an "alert" concerning the company. The unusual written notice calls on Air Force contracting officials worldwide to demand in writing price proposal backup data that reveal the details of how SAIC allegedly compensates for the business risks of performing fixed-price tasks.

The Air Force alert arose from a Justice Department civil lawsuit against SAIC that had originated as a False Claim Act suit brought in January 2002 by a former SAIC employee. The allegations concern the costing and pricing of fixed-price delivery orders worth \$24 million that were negotiated between 1995 and 2000 under a contract for environmental remediation work at Kelly Air Force Base.

Court documents show that SAIC is vigorously contesting the False Claims Act lawsuit. It has moved to dismiss the case, but that motion hasn't been ruled on yet. SAIC declined direct comment on the lawsuit due to the ongoing litigation.

However, the company released to the Insider a copy of a strongly worded letter to the Air Force delivered two days after the alert was issued on Dec. 20, 2004. The letter asserted that the Justice position in the lawsuit was "factual incorrect and legally unfounded." It goes on to say that "the Alert effectively 'convicts' SAIC without the benefit of a hearing and...implies that SAIC is a dishonest and corrupt company that must be avoided at all costs." The letter defends the firm's reputation and urges that the alert be withdrawn or amended. Neither action has been taken. The Air Force declined comment due to the ongoing litigation.

In the lawsuit, the government alleges that SAIC used "Quantitative Risk Analysis" and "variance hours" to inflate labor estimates to compensate for such risks as "internal inefficiencies, inoperable equipment, or anticipated schedule delays." The company then allegedly included these cost elements in the proposed price, according to the government's case.

The Air Force alert also cites unspecified Department of Justice "evidence" that SAIC, using the "variance hours" approach, allegedly achieved profit margins of 20 percent to 40 percent, compared with profit margins of about 9.5 percent that the firm proposed to the Air Force.

Further, the Air Force alert asserts that the company has told Justice "that it intends to continue using Quantitative Risk Analysis and variance hours" without disclosing them. In lawsuit pleadings predating the alert, SAIC explained in exhaustive detail its position that neither the Truth in Negotiations Act (TINA) nor regulations required such disclosure in the proposals at issue that the government now demands.

An SAIC spokesman told the Insider that the company's risk management approach in fixed-price work is "common industry practice." He also said SAIC policy is to comply fully with the law and other requirements regarding disclosure. He stopped short of characterizing other firms' practices on disclosure of supporting information in price proposals.

In the False Claims Act case, former SAIC employee and project manager Michael D. Woodlee detailed how the company allegedly prepared its cost and price proposals. Concerned about the firm's practices, Woodlee complained twice to the firm's ethics committee, but no action was taken, according to the lawsuit.

In addition to claiming that SAIC made "false or fraudulent claims for payment or approval," the Justice lawsuit contains five additional counts: violation of TINA, "misrepresentations" of costs that led the government to agree to higher prices, "breach of contract," "unjust enrichment," and causing the government to mistakenly disburse funds SAIC. Trial is scheduled for Jan. 17, 2006, in federal district court in San Antonio.

The alert says SAIC has "approximately \$513 million" worth of Air Force contracts. The company's Web site notes SAIC is one of the "top ten" Air Force contractors. However, fresh DoD data released last Friday ranks SAIC as 18 Air Force prime contract awards, winning \$397 million in federal fiscal year 2004.

In its fiscal year closing Jan. 31, 2004, employee-owned SAIC reported \$6.7 billion in revenue. For the fiscal year ending yesterday, based on reports of at least 15 percent growth, revenues are estimated at \$7.5 billion to \$8.0 bil

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About the Government Services Insider: A specialized monthly publication for executives and managers in the fed government- focused professional and technical services industry. The Insider focuses on best practices of service suppliers and other stimulants to business management and development thinking. The readership includes firms serve the industry in law and accounting, mergers and acquisitions, public and government relations, and recruitm

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**Technical Review**

of the

***Health Consultation Past Air Emissions  
for  
Kelly Air Force Base, San Antonio, Bexar County, Texas  
CERCLIS NO. TX2571724333***

Prepared by

**Division of Health Assessment and Consultation  
Exposure Investigations and Consultations Branch  
Agency for Toxic Substances and Disease Registry (ATSDR)**

**Public Comment Release  
October 12, 2004**

**Katherine S. Squibb, PhD  
Program in Toxicology  
University of Maryland, Baltimore  
10 South Pine Street, MSTF 7-34F  
Baltimore, MD 21201**

**in accordance with  
Technical Assistance for Public Participation (TAPP)**

**March 29, 2005  
Final Report**



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## Background

In 1999, the first of a series of reports by ATSDR was issued addressing the question of whether chemicals being released into the environment by activities at Kelly Air Force Base were causing adverse health effects in citizens living in communities adjacent to the base. The Phase I report entitled *Public Health Assessment, Phase I, Kelly Air Force Base, San Antonio, Bexar County, Texas (1)* determined that modeled current air emissions of solvent compounds did extend past the base boundary but concentrations were low. Based on calculated cancer risks associated with predicted exposure doses, it was concluded that ongoing exposures presented "no apparent health hazard" to the local community. Concentrations of solvents on base, however, were high enough to cause exposures estimated to exceed a potential cancer risk of  $3 \times 10^{-4}$ . ATSDR concluded that exposure of non-occupational on-base employees posed an "indeterminate health hazard" and it was recommended that a more refined modeling study be conducted to better characterize the air concentrations of chemicals on base.

Concern regarding health risks associated with exposure to past air emissions from Kelly AFB when the base was more active was also expressed. Investigations in this area lead to the conclusion that exposure to emissions in the past presented an "indeterminate health hazard," due to the fact that data on past emissions were not available at the time the Phase I study was conducted. Health outcome data analysis in zipcodes surrounding Kelly AFB also supported the need to investigate exposure to chemicals from past air emissions (1,2). Due to the lag time involved in cancer development, recent elevated rates of cancers, such as liver, kidney and leukemia, observed in zipcodes in the direction of prevailing winds off Kelly would be related to exposures that occurred at least 3-5 years previously for leukemia and 10 to 20 years previously for kidney and liver cancers.

A health consultation addressing past air emissions was conducted by ATSDR as Phase II of their review of Kelly Air Force Base. The report entitled *Health Consultation Past Air Emissions, Kelly Air Force Base, San Antonio, Bexar County, Texas* was released for public comment on October 12, 2004 and is the subject of this technical review. This review will present 1) a summary of the findings of the Phase II study, 2) a critical assessment of the conclusions presented in the report and 3) recommendations for additional studies needed to more completely characterize exposures and health risks in communities bordering Kelly AFB. This review was conducted by reviewing the methods and the data sets used by ATSDR to complete their assessment. The appropriateness and limitations of the methodology, the completeness of the data sets, and the strength of the conclusions are discussed. Recommendations for future actions reflect questions that arise from the conclusions of the study, which suggest a need for additional information to better understand current health problems in the area.

*Approach used by ATSDR for Health Risk Assessments:* To assess health risks associated with exposure to environmental chemicals, ATSDR first determines whether there is a

"completed exposure pathway". An "exposure pathway analysis" involves determining whether there are ways in which people come into direct contact with environmental samples (such as groundwater, surface water, soil, food, and air) that contain the chemical or chemicals of interest. Each possible pathway by which people could be exposed (drinking contaminated water, breathing contaminated air, having skin contact with contaminated water or soil, or eating contaminated soil or food) is examined. If people are being exposed to chemicals by some exposure route, then ATSDR makes calculations to determine whether the exposure doses are high enough to cause health problems. These calculations are based on comparison values, which are chemical specific concentration values developed from scientific studies designed to determine which doses of a chemical(s) cause either cancers or organ dysfunctions, such as renal disease, neurological problems, or cardio/respiratory ailments. From this type of assessment, ATSDR can conclude: 1) if people are or have been exposed to a chemical and 2) if they have been exposed, whether the exposure dose has been high enough to cause health problems in some individuals. The categories ATSDR uses to describe their findings are defined in the glossary of the report: 1) The "no public health hazard" designation means that ATSDR did not find from the data that they examined that people were ever exposed to a chemical or chemicals even though these chemicals were present in their environment. Thus, there would be no health effect in a population from the chemicals because no exposure occurred. A second designation used by ATSDR is "no apparent public health hazard," which means that people have been exposed to the chemical(s), but at concentrations low enough that scientific evidence suggests there would not be any health effects resulting from this exposure. A public health hazard exists when exposure concentrations are high enough to cause diseases.

The accuracy of all of these designations is obviously dependent upon the quality and completeness of the data used to make these assessments. Since ATSDR does not collect new data when they conduct their assessments, they are dependent on the data that are available to them. Sometimes (many times) all of the data needed to make a good assessment are not available because they have been lost, or appropriate studies have not been conducted. Under these circumstances, ATSDR uses the designation "indeterminate health hazard." This means that more data need to be collected before an accurate assessment can be made. It is important to understand these designations when reading this ATSDR report, because they provide a measure of the level of assurance underlying ATSDR's conclusions and clearly indicate the areas that need further study.

The second approach used by ATSDR to assess possible health effects from a hazardous chemical site is to look at local disease prevalence to determine whether the location and incidence of specific diseases is consistent with the hypothesis that chemicals from a site are causing the diseases. If a disease cluster suggests that it might be due to a chemical exposure, then further work can be done to document whether such an exposure is occurring or has occurred in the past. Because of the latency period associated with the onset of many cancers, the identification of past exposures is important. The quality of this type of assessment by ATSDR is very dependent upon the disease incidence data available to them. Federal, state and

county cancer and birth defect registries can provide some good information for these assessments, however health data for a neighborhood, or potential exposure group within a neighborhood, are often lacking and need to be collected. Again, ATSDR does not collect new data as a part of its health assessment studies. They identify when evidence suggests that it is important that additional health data for an area should be collected. Although a new health outcome assessment was not conducted as part of this Phase II report, one of the reasons for conducting this study was the elevated rates of cancer and birth defects observed in the Phase I study (1). With this understanding in mind, the conclusions of ATSDR in this Phase II report can be better understood with respect to their meaning and usefulness.

## **Purpose**

The purpose of this phase of ATSDR's Health Consultation for Kelly Air Force Base was to evaluate potential exposure of citizens living near Kelly Air Force Base to past air emissions from the base. To accomplish this purpose, ATSDR requested data from Kelly that could be used to reconstruct past emissions (prior to 1995) from stationary sources and aircraft emissions. The primary stationary sources were 1) plating shops that used hexavalent chromium (Cr VI), a known carcinogenic form of the chromium metal ion, 2) painting and degreasing operations that are sources of volatile organic compounds, and 3) incineration of cyanide wastes. ATSDR believed that the data received from these sources were reasonably complete, except for the incineration of cyanide wastes. There were no data available for this operation and thus it could not be evaluated regarding its contribution to air emissions. Aircraft emissions were determined from information of chemicals present in JP-4 fuel, which was used in aircraft prior to 1994. Since 1994, JP-8 has replaced JP-4 leading to lower emissions of volatile organic compounds, such as benzene. Aircraft activity was determined from base records of the number of takeoffs and landings and estimates of time spent taxiing. An attempt was also made to understand the "misting" of jet fuels that had been reported in the 1970s and earlier; insufficient information was obtained, however, to draw conclusions.

With the data available to them, ATSDR investigators used the EPA Industrial Source Complex Short Term Version 3 model to reconstruct potential past airborne concentrations of chemicals released from stationary sources and from aircraft emissions. These predicted concentrations were then used to calculate exposure doses, which were compared to chronic non-cancer comparison values, and used to calculate cancer risks based on chemical specific cancer slope factors. From this, assessments were made as to whether past air emissions presented a health hazard to off base individuals.

## **General Critique**

ATSDR is to be commended for doing a detailed job of gathering as much information

and available data as possible for the dose reconstruction modeling that serves as the basis for this assessment. The parameters used for the model appear to be consistent with a "worse case" scenario, which should serve as an upper limit of expected exposure concentrations given the data used. This worse case scenario is based primarily on the choice of the B52 for modeling aircraft emissions. This aircraft has the most engines of any plane flown at Kelly AFB, and used the most inefficient engine, the TF33-3. ATSDR also used the maximum number of take off and landings ever recorded at Kelly (360,000 per year). The uncertainty associated with the modeling ranged from 0.5 to 2.0 times the predicted value, and results were supported by studies conducted at the U.S. Army Center for Health Promotion and Preventive Medicine (CHPPM) using the Federal Aviation Administration's EDMS air dispersion model (3).

Thus, modeling conducted as part of this study was technically well done, and it appears to have predicted annual average concentrations quite precisely. There are limitations to this study, however. First, by averaging all emissions for the year evenly throughout the year, there was no determination of peak concentrations on certain days. ATSDR acknowledge this, and commented that more refined data were not available to estimate peak values. ATSDR also acknowledges that the greatest source of uncertainty in these modeled concentrations was in the emissions data used in the model. Available data were not comprehensive. For example, data for hexavalent Cr was not available prior to 1980. No calculations were made for risk associated with hexavalent Cr exposure, making this potential health risk an "indeterminate health risk." This is unfortunate, due to the large volumes of hexavalent Cr used in the five plating shops on Kelly AFB, and the known carcinogenicity of this metal. ATSDR also lists other limitations in their data, which increase the uncertainty of their conclusions regarding health risks. The speciation of chemicals in aircraft emissions from JP-4 fuel used in this modeling effort may not be representative. There was also no attempt to model exposure concentrations of metals other than Cr off-base. In the Phase I study, calculations of current emissions included two carcinogenic metals, arsenic and cadmium. The concentrations of these and other metals with known carcinogenic and non-carcinogenic effects in JP-4 fuel should be determined and risk of exposure to these assessed. Thus, even though conservative assumptions were made when applying the model, the lack of critical data for all emitted chemicals significantly decreases the certainty of these results.

Within the text of the document, ATSDR provides excellent descriptions of reasons why follow-up is needed for specific findings in this study, and how specific subpopulations of people may be more susceptible to health effects of chemical exposures than others. However, in the summary of their findings, they take a very conservative approach and conclude that there are no apparent health hazards. They also make statements that are misleading, such as: a chemical has not been associated with cancer "at these [exposure] levels" (for instance, see page 28, page 29). The extrapolation of risk from high dose to low dose is, of course, one of the key challenges faced in risk assessments. It is extremely difficult to conduct a robust epidemiological study that measures health effects from low-level exposures. The presence of confounding factors, coupled with the large number of participants necessary to obtain the

necessary statistical power for such a study, renders these studies cost- and technologically-prohibitive. The inclusion of this statement within the given context implies that robust studies have been run and were negative or inconclusive, which is rarely the case.

The comparison of residential exposures with occupational exposure values (Table B-8) has critical limitations. First, occupational exposure values are based upon an established professional relationship between the facility and the worker, which includes training in exposure and handling of the chemicals. This does not exist in the community. Second, the occupational exposure values are predicated on a limited exposure period that occurs on site. Finally, as noted in the text, healthy individuals are overrepresented in the workforce. The community, consisting of a wide range of people of different ages and differing health status, is likely to be exposed to spikes in chemical exposure, superimposed on an elevated background resulting from multiple chemical sources.

With these caveats in mind, the conclusions and recommendations presented by ATSDR are evaluated below.

### **Specific Comments Related to ATSDR's Conclusions and Recommendations**

1. **Individual contaminants from stationary and aircraft emissions are unlikely to have resulted in adverse health effects and present no apparent health hazard.**

#### **Comments:**

- Due to the fact that the data available for this study were not comprehensive (e.g. lack of information on metals, lack of speciation of JP-4 fuel, lack of small particulate matter PM<sub>10</sub> and PM<sub>2.5</sub> in jet exhaust), an assessment of health hazard should not be made. It would be more appropriate to conclude that individual contaminants present an indeterminate health hazard.
- An indeterminate health hazard conclusion is also warranted based on the fact that apparent chronic non-cancer health hazards have not been acknowledged. Dispersion modeling of acrolein, formaldehyde, naphthalene and methyl naphthalenes did predict concentrations in air off base at concentrations that exceeded chronic non-cancer criteria. The hazard quotient (Concentration in exposure media)/Reference Concentration) for acrolein is 210 for exposures prior to 1975, which represents a substantial exposure compared to one that is deemed "safe." In addition, the chronic non-cancer comparison value for 1,3-butadiene is listed as "not-available" in Table B-8. According to IRIS, the non-cancer RfC for 1,3-butadiene is  $2 \times 10^{-3}$  mg/m<sup>3</sup>. Why was this not included? Data gaps such as this one raise questions as to how comparison values were selected.

- The identification of the comparison criteria used in this analysis (Table B-1) is inadequate. Specifically, the report should include an explanation as to the source of comparison criteria, why that source was selected (in the event that multiple sources are available), and why the particular risk level was selected. For example, the cancer risk level for ATSDR CREG values has not been specified.
- It is unclear why the chemicals of concern for stationary emissions (e.g., methylene chloride, PCE) were not included in the summary table for both stationary and aircraft emissions (Table B-8). It would also be helpful and informative to identify specific cancers associated with these chemicals of concern.
- On page 36, the report specifies that six chemicals from Table B-5 were selected for modeling based on emission rates and toxicity. Additional information regarding the selection process is needed. Were screening criteria applied? If so, which criteria were used and why?
- Based on the comparisons presented in Figures B-6 and B-7, it seems as if the levels of benzene and 1,3-butadiene are unacceptably close to "levels in a smoke-filled bar". From a qualitative risk assessment standpoint, who would want to live in a community that has chemicals equivalent to levels found in a "smoke-filled bar"? And are we truly to believe that living in a community that has levels of contaminants similar to a "smoke-filled bar" does not pose a health risk?
- The stationary modeling assumption that averages annual emissions over a year could underestimate the incidence of acute higher-concentration exposures.

**2. Data from past hexavalent chromium air emissions (before 1980) were insufficient to assess public health implications and represent an indeterminate health hazard.**

**Comments:**

- This is a very appropriate conclusion. It isn't clear, however, why the data that were available after 1980 weren't used to assess risk to off-base populations during this time period.
- The recommendation by ATSDR to further investigate potential past air emissions of hexavalent chromium from Kelly AFB and to include plausible health outcomes in the proposed Kelly AFB Civilian Worker Mortality Study is excellent. More detail on which health outcomes ATSDR would recommend would be helpful. In addition to a large body of epidemiological literature on hexavalent Cr exposure and lung cancer, Cr is also known to cause contact dermatitis in sensitive individuals. Acute, high exposures to

Cr can also damage the kidney.

**3. The uncertainty in potential interactions from off-base exposure to chemical mixtures from stationary and aircraft emissions represents an indeterminate health hazard.**

**Comments:**

- In most risk assessments, a default value of additivity is assumed if specific information is not known about the interactions of the chemicals present in mixtures. Since leukemia is the cancer of concern for benzene, 1,3 butadiene and formaldehyde, it would be appropriate to at least make a calculation of the combined effects of exposure to these three chemicals (based on data presented in Table B-8). Such a calculation gives a cancer risk range of  $3.5 \times 10^{-4}$  to  $2.3 \times 10^{-3}$ . This range indicates a low to moderate health hazard. This should be included in the text of the document to emphasize the importance of considering the cumulative effects of multiple chemicals.
- As recommended by ATSDR, investigation of elevated leukemia outcomes should continue, and leukemia should be a health outcome included in the Kelly AFB Civilian Worker Mortality Study.

**4. Air dispersion modeling sensitivity analysis suggests that selection of input parameters could result in higher estimates of on-base contaminant concentrations. Based on this, it was recommended that biologically plausible health outcomes from potential on-base exposures should be considered in the proposed Kelly AFB Civilian Worker Mortality Study.**

**Comments:**

- It would be helpful if ATSDR would provide a list of the health outcomes they would consider biologically plausible from the type of on-base exposures predicted from the dispersion modeling. Leukemia, liver and kidney cancers have been associated with solvent exposures. Chronic non-cancer effects should also be examined; in particular, central and peripheral nervous system effects.
- In addition to the Civilian Worker Mortality study being planned, health outcomes of on-base exposures should also be assessed by a health history and health surveillance program of civilian workers. In addition to carcinogenic and neurological effects, reproductive history and incidence of birth defects should be examined in male and female workers. Solvent exposures have been linked to congenital cardiac anomalies (3,4) similar to those reported by ATSDR in the Phase I study (1) and their Health Consultation (2).



**5. Data are not available for the evaluation of misting or the incineration of cyanide wastes.**

**Comments:**

- Although not specifically stated by ATSDR, health effects from these two potential sources of chemical exposure should be classified as indeterminate health hazards. As presented in this document, ATSDR talked with many different people about the cause of the fuel misting described by residents in the late 1960s and early 1970s, but were unable to determine a clear source that could be quantified. Thus, health effects related to fuel misting and incineration of cyanide wastes will continue as uncertainties in this investigation.

**Additional Comments:**

**For a complete assessment of relationships between exposure to a chemical and a health outcome, it's important to consider cumulative exposures from different sources.**

- An additional source of air emissions not addressed by this report is soil gas vapor derived from groundwater contaminated with volatile organic compounds similar to those emitted by the stationary sources in this current study and fuel constituent chemicals. As reported in the Phase I ATSDR health assessment (1), a 1990 health and risk assessment study conducted by NUS Corporation (5) found that although exposure to volatile organic compounds (VOCs) and JP-4 fuel components (such as benzene, toluene, and xylene) was occurring in homes in the Quintana Road neighborhood, the exposure levels were below those considered to be a health concern by EPA. A similar study was conducted in the East Kelly area (6). Cumulative exposures from all sources should be taken into account, however, for the determination of potential health hazards associated with inhalation exposures.

**Summary**

This health consultation represents a comprehensive analysis of the extent to which past air emissions from Kelly Air Force Base can be estimated by air dispersion modeling. Data available on emissions from two types of stationary sources (painting and degreasing) appeared to be reasonably complete; thus results of the health risk assessment based on chemicals derived from these sources can be interpreted with some confidence. Available data from other sources were not as comprehensive, however. No data were available from two potential sources of past air emissions of concern: incineration of cyanide wastes and fuel misting. This limits the

reliability of conclusions presented in this report regarding the health hazards of past air emissions. Confidence in the conclusions is also decreased due to uncertainties associated with the speciation of chemicals in aircraft emissions derived from JP-4 fuel, the lack of available information on hexavalent Cr emissions, and failure to consider the health effects of other metals present in aircraft emissions.

As recommended by ATSDR, the potential for synergistic effects of the mixtures of chemicals present in past air emissions suggests that health outcomes expected for these chemicals should be addressed in the proposed Kelly AFB Civilian Worker Mortality Study. Health surveillance for the same health outcomes should also be conducted in civilian workers.

The primary emphasis in this report on carcinogenic health outcomes is understandable based on the higher rates of leukemia, liver and kidney cancers observed in zipcodes adjacent to Kelly AFB, however more attention should be given to chronic non-carcinogenic effects. Allergic responses to hexavalent Cr in sensitive populations should be included in current health surveillance programs, as well as neurological health effects and birth defects, particularly in civilian on-base workers who apparently experienced higher exposures than those modeled for off-base exposures.

## References

1. ATSDR (Agency for Toxic Substances and Disease Registry). 1999. Public Health Assessment, Phase I, Kelly Air Force Base, San Antonio, Bexar County, Texas (Cerclis No. TX2571724333).
2. ATSDR (Agency for Toxic Substances and Disease Registry) Health Consultation. Health Outcome Data Evaluation. Kelly Air Force Base, San Antonio, Bexar County, Texas. (Available at [www.atsdr.cdc.gov/HAC/PHA/kafb2/kap\\_p1.html#birthb](http://www.atsdr.cdc.gov/HAC/PHA/kafb2/kap_p1.html#birthb))
3. CHPPM (Center for Health Promotion and Preventive Medicine) Joint Use Supplemental Environmental Impact Statement. Kelly Air Force Base, San Antonio, TX, August, 2000
4. Cordier, S., Ha, M.-C., Ayme, H., and Goujard, J. Maternal occupational exposure and congenital malformations. *Scand. J. Work Environ. Health* 18: 11-17.
5. Loffredo, C. The Interaction of Prenatal Solvent Exposures with Genetic Polymorphisms in Solvent-Metabolizing Enzymes. PhD Thesis, University of Maryland, Baltimore School of Medicine, 187pp., 1996.
6. Health and Safety Risk Assessment. Quintana Road Neighborhood. NUS Corporation. June, 1990.
7. ATSDR (Agency for Toxic Substances and Disease Registry). 2001. Petitioned Public Health Assessment. Kelly Air Force Base (a/k/a East Kelly Air Force Base), San Antonio, Bexar County, Texas.

**TAPP Budget Update  
19 Apr 05**

Beginning Amount \$100,000.00

Fiscal Year	Project/Document Name	Contractor	Amount
1998	ATSDR Report (Water)	University of Maryland	\$9,706.00
1998	1997 Base-wide Remediation Assessment	Clearwater Revival	\$6,975.00
1998	OU-2 Workplan	Neathery Environmental	\$5,145.00
1999	Zone 3 Corrective Measures Study Addendum	Clearwater Revival	\$6,375.00
1999	Remedial Investigation of Zone 4 OU-2	Neathery Environmental	\$6,195.00
1999	Final Zone 5 Corrective Measures Study	Geomatrix	\$3,617.50
2000	Shallow Groundwater Report	Geomatrix	\$5,572.50
2000	Site S-8 Draft Final Corrective Measures Investigation	Neathery Environmental	\$5,660.00
2000	Site MP Draft RCRA Facility Investigation	Clearwater Revival	\$5,925.00
2001	Zone 3 RCRA Facility Investigation	Clearwater Revival	\$5,775.00
2001	Zone 4 Corrective Measures Study	Geomatrix	\$8,390.00
2001	ATSDR Health Assessment	University of Maryland	\$7,428.00
2003	(Mod-01) Additional Travel Expenses for Presentation to RAB	Clearwater Revival	\$500.00
2003	Zone 2/3 Correctives Measures Study	Neathery Environmental	\$5,570.00
2003	ATSDR Air Emission Study	University of Maryland	\$8,366.00
2005	2005 Semiannual Compliance Plan	TBD	TBD
<b>Total Spent to Date</b>			<b>\$91,200.00</b>
<b>Remaining Balance</b>			<b>\$8,800.00</b>

## ***Air Force Real Property Agency***

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# **Restoration Update Status**



**Mr. Don Buelter, P.G.  
AFRPA**

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## ***Outline of Topics***

- ***Restoration Projects for FY04 and FY05***
- **Site Closure Status of Soil Sites, SWMUs and Environmental Factors**
- **Status of Long Term Sites and Installation of Remedial Actions**
- **Plume Maps and Extent of Concentration**

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## FY04 Environmental Restoration Projects

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Description	Contractor	Cost	Completed?
Off-base PRBs	CH2M Hill, Shaw, GeoSierra	\$12,115,891	Summer 2005
Zone 2 PRB/Slurry Wall	HGL	\$3,945,000	Completed
O&M GWTP	SAIC	\$5,336,000	Completed
GWTP Utilities	CPS	\$337,000	Completed
Site E-1	ECC	\$4,956,747	Completed
Compliance Plan Sampling	CH2M Hill	\$2,389,000	Completed
B326 Sanitary Sewer	Earth Tech	\$2,182,000	Summer 2005

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## FY05 Environmental Restoration Projects

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Description	Contractor	Cost	Completed?
O&M GWTP	SAIC, HGL	\$5,422,044	Dec 2005
Compliance Plan Sampling	CH2M Hill	\$2,255,500	Mar 2006
GWTP Utilities	CPS	\$330,000	Dec 2005

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## Outline of Topics

- Restoration Projects for FY04 and FY05
- **Site Closure Status of Soil Sites, SWMUs and Environmental Factors**
- Status of Long Term Sites and Installation of Remedial Actions
- Plume Maps and Extent of Concentration

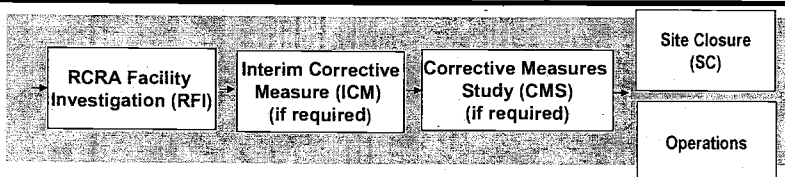
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## Soil Sites and SWMUs



- **Site Closure with Risk Reduction Rules**
- **Status Categories:**
  - ✓ Investigation
  - ✓ Closure Pending – SC Report submitted to TCEQ
  - ✓ Site Closure Pending Ecological Risk Assessment
  - ✓ Site Closure
- **Total number of sites = 324**
  - ✓ 78.1% of sites are closed or have closure pending
  - ✓ 13.9% of sites are being investigated (12.3% in EPCF RFI)
  - ✓ 8.0% of sites are involved in long term operations

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### Zone 2 Site Status

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	Investigation	Closure Pending	Closed	Pending Ecological Risk	Operations	Total
IRP Sites	0	0	3	9	4	16
Wash Racks	0	0	2	1	0	3
Radiation Sites	0	0	1	0	0	1
Waste Water Tanks	40	0	0	22	0	62
Oil Water Separators	0	0	5	8	0	13
Chemical Storage Areas	0	0	2	5	0	7
Other Compliance Sites	0	0	4	3	0	7

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### Zone 3 Site Status

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	Investigation	Closure Pending	Closed	Pending Ecological Risk	Operations	Total
IRP Sites	0	0	5	1	4	10
Wash Racks	0	1	6	0	0	7
Radiation Sites	2	0	13	0	2	17
Waste Water Tanks	0	0	0	0	0	0
Oil Water Separators	1	0	11	0	1	13
Chemical Storage Areas	0	5	8	0	1	14
Other Compliance Sites	0	6	21	0	10	37

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### Zone 4 Site Status

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	Investigation	Closure Pending	Closed	Pending Ecological Risk	Operations	Total
IRP Sites	0	0	2	0	2	4
Wash Racks	0	6	7	0	0	13
Radiation Sites	0	0	3	0	0	3
Waste Water Tanks	0	0	0	0	0	0
Oil Water Separators	0	0	8	0	0	8
Chemical Storage Areas	0	17	8	0	0	25
Other Compliance Sites	0	0	1	0	0	1

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### Zone 5 Site Status

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	Investigation	Closure Pending	Closed	Pending Ecological Risk	Operations	Total
IRP Sites	0	0	3	0	2	5
Wash Racks	0	1	16	0	0	17
Radiation Sites	0	0	6	0	0	6
Waste Water Tanks	0	0	0	0	0	0
Oil Water Separators	2	1	13	0	0	16
Chemical Storage Areas	0	0	2	0	0	2
Other Compliance Sites	0	1	16	0	0	17

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## Outline of Topics

- Restoration Projects for FY04 and FY05
- Site Closure Status of Soil Sites, SWMUs and Environmental Factors
- **Status of Long Term Sites and Installation of Remedial Actions**
- Plume Maps and Extent of Concentration

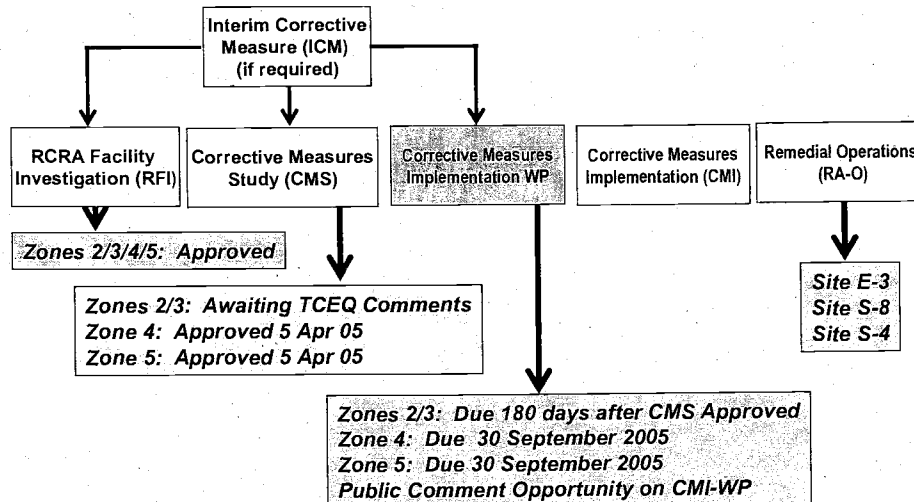
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## Sites with Long-term Operations



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## Zone 2 Treatment Systems

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Selected Alternative	Installed?
Site E-3 – Soil Vapor Extraction / Pump and Treat	Installed
Site FC-2 – Bioventing	Site Closed
Bldg. 522 – Soil Vapor Extraction	Installed
Bldg. 522 – Enhanced Bioremediation	FY07
Northbank – Permeable Reactive Barrier	Installed
Site E-1 – Excavation / Enhanced Bioremediation	Installed
Site E-1 – Pump and Treat	Installed

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## Zone 3 Treatment Systems

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Selected Alternative	Installed?
Bldg. 360 – Permeable Reactive Barrier	Installed
Bldg. 301 – Permeable Reactive Barrier	Installed
Site MP – Slurry Wall / Pump and Treat	Installed
Site S-8 – Bioventing / Pump and Treat	Installed
Site S-4 – Pump and Treat	Installed
Bldg. 360 – Soil Vapor Extraction and Enhanced Bioremediation	FY07
Bldg. 301 – Enhanced Thermal Extraction	FY07
Bldg. 348 – Soil Vapor Extraction	FY07
Bldg. 324 – Soil Excavation	FY07

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## Zone 4 Treatment Systems

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Selected Alternative	Installed?
Horizontal Wells along East Kelly Boundary	Installed
SS051 Source – Enhanced Bioremediation	Installed
Commercial Street Permeable Reactive Barrier	Installed
Malone St. (UPRR) Permeable Reactive Barrier	Summer 2005

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## Zone 5 Treatment Systems

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Selected Alternative	Installed?
Plume A – Permeable Reactive Barrier – B1530	Installed
Plume A – Enhanced Bioremediation	Installed
Plume B – 34 <sup>th</sup> Street Permeable Reactive Barrier	Installed
Plume C – Soil Vapor Extraction and P&T	Installed
Plume D – Enhanced Bioremediation	Installed
Plume F – Monitored Natural Attenuation	Installed
Plume H – Monitored Natural Attenuation	Installed
Plume J – Monitored Natural Attenuation	Site Closed
Plume K – Monitored Natural Attenuation	Installed

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## Outline of Topics

- Restoration Projects for FY04 and FY05
- Site Closure Status of Soil Sites, SWMUs and Environmental Factors
- Status of Long Term Sites and Installation of Remedial Actions
- *Plume Maps and Extent of Concentration*

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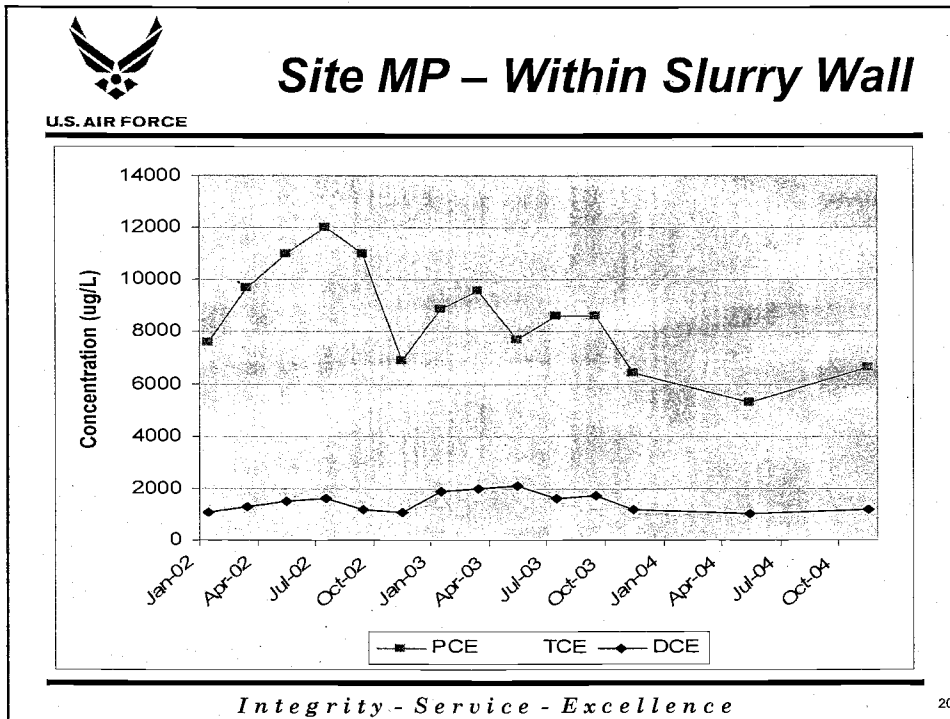
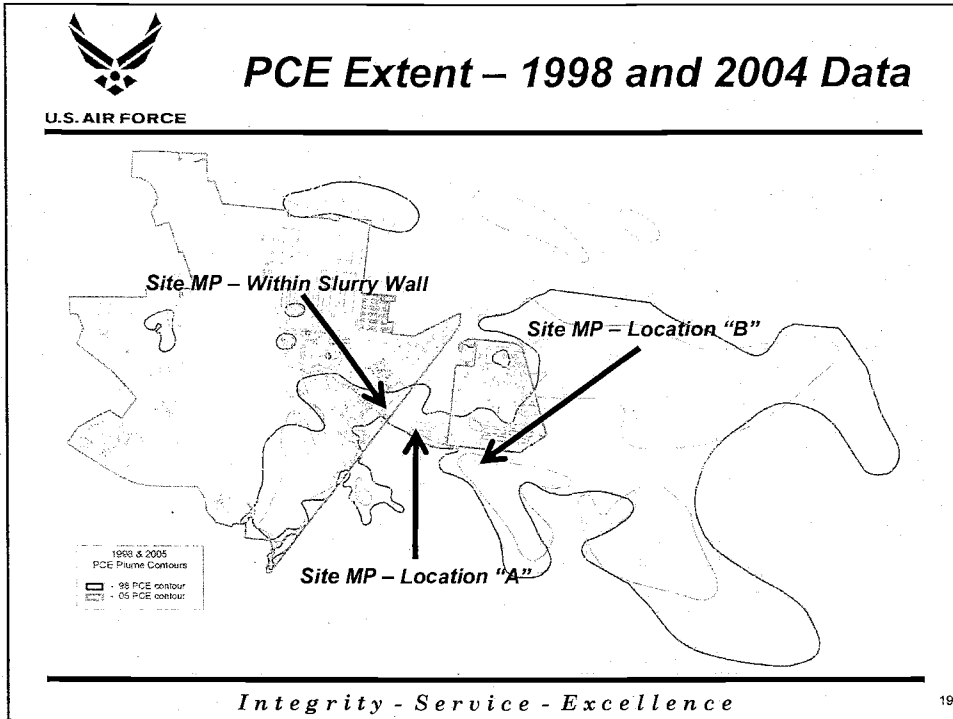
## Annual Groundwater Sampling

- Sampled over 450 monitoring wells on and off-base
  - Samples collected between April – June
  - Over 90% of wells are sampled year to year
- Samples from *each well* are sent to a laboratory for analysis of a broad range of chemicals including:
  - VOCs: 27 volatile organic compounds
  - SVOCs: 32 semi-volatile organic compounds
  - 16 metals, cyanide, pesticides and polychlorinated biphenyls (PCBs)  
(Pests/PCBs - Zones 1 & 2 only)

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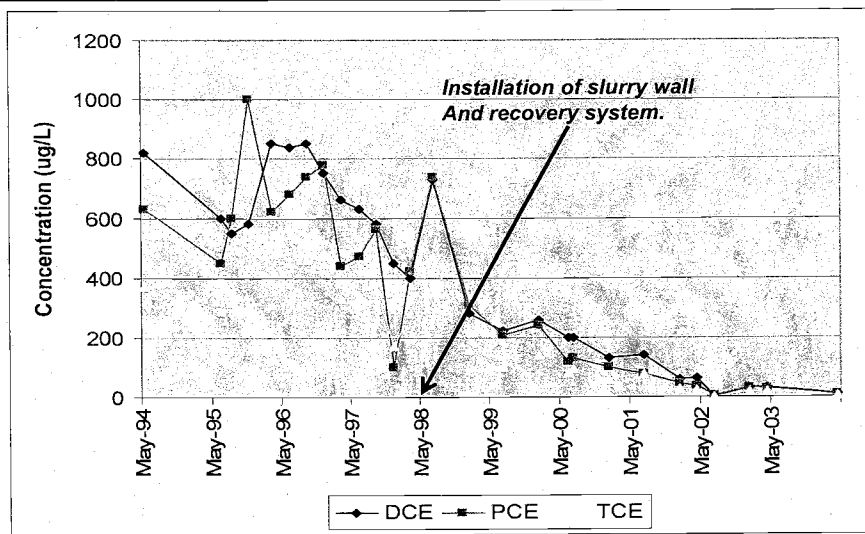
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### Site MP – Location “A”

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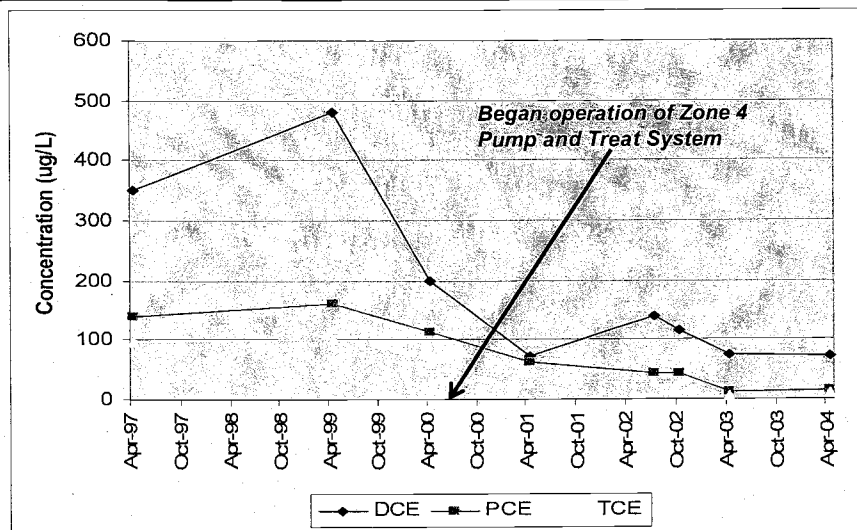
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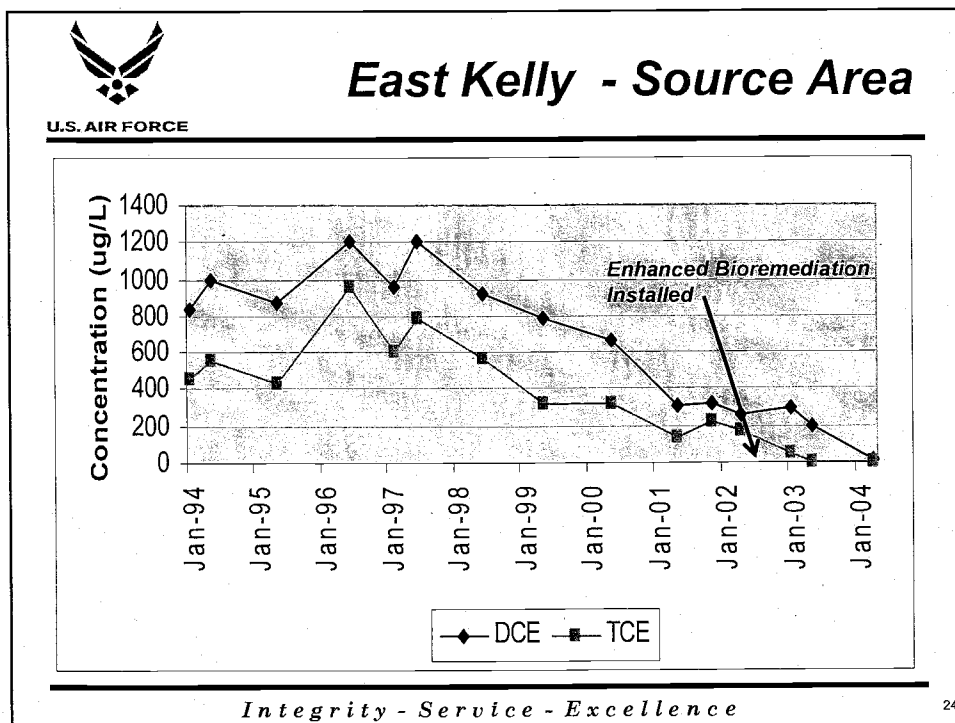
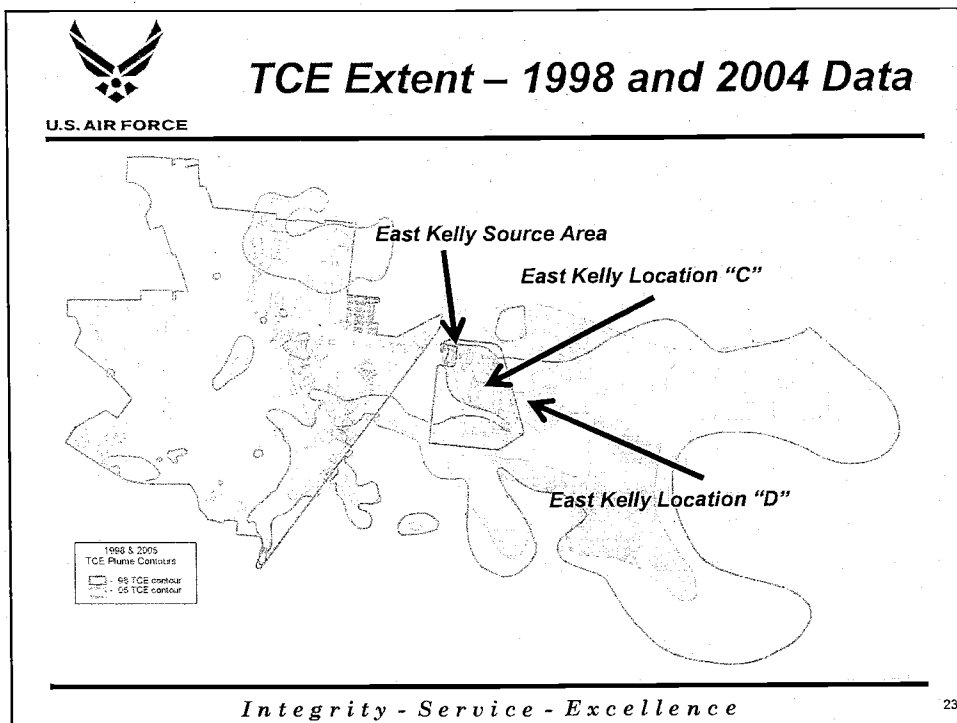
### Site MP – Location “B”

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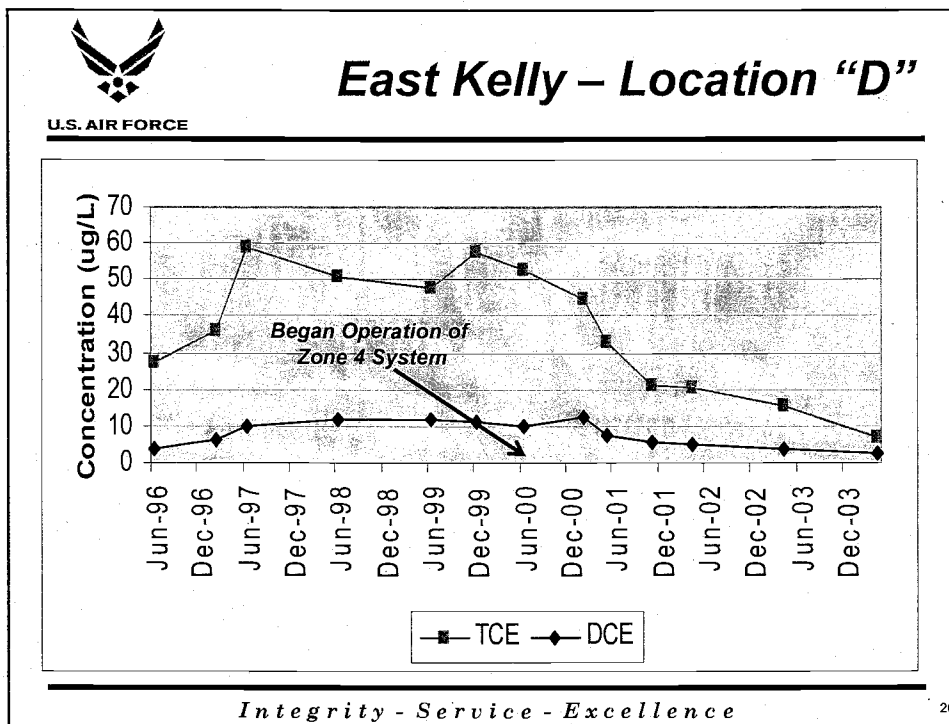
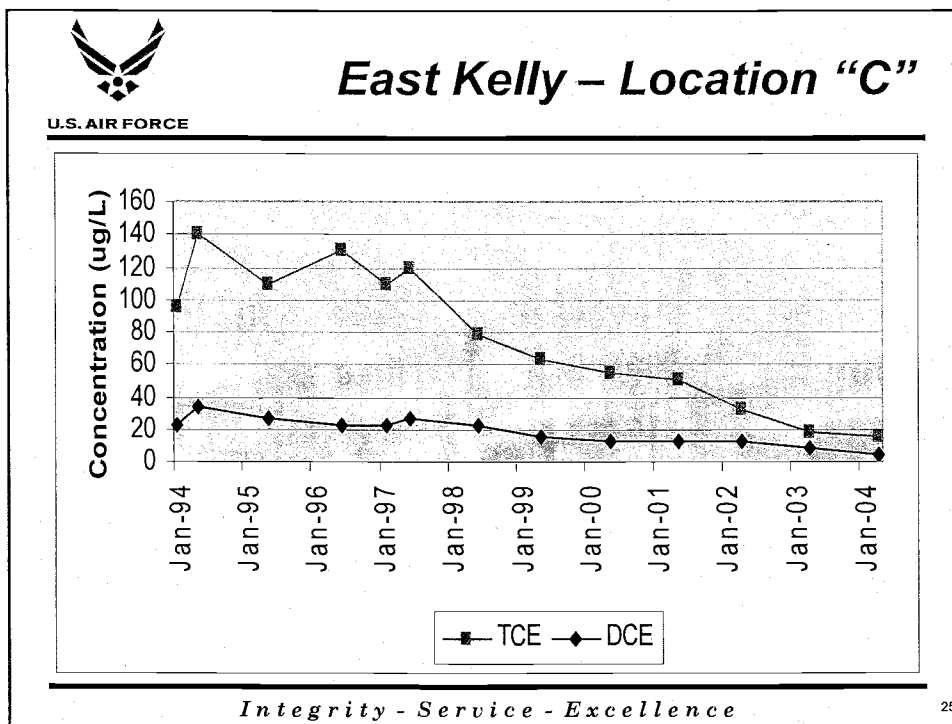


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**ADMINISTRATIVE RECORD**

**FINAL PAGE**