

KELLY AFB TEXAS

ADMINISTRATIVE RECORD COVER SHEET

AR File Number 3224

Kelly Restoration Advisory Board (RAB)

Technical Review Subcommittee (TRS)

Meeting Agenda*

August 9, 2005, 6:30 p.m.

Environmental Health & Wellness Center

911 Castroville Road

(formerly Las Palmas Clinic)

6:30 - 6:40	Introduction A. Agenda Review B. Packet Review	Dr. David Smith
6:40 - 7:00	Administrative A. BRAC Cleanup Team (BCT) Update B. Spill Summary Report C. Documents to TRS/RAB D. Action Items E. Outreach Report	Ms. Norma Landez Ms. Norma Landez Please refer to your packets Ms. Sonja Coderre Ms. Sonja Coderre
7:00 - 7:20	Zones 4/5 Update	Mr. Don Buelter
7:20 - 7:30	Question & Answer Session on the Zones 4/5 Update	Dr. David Smith
7:30 - 7:45	Groundwater Treatment Plant Presentation	Mr. Don Buelter
7:45 - 7:55	Question & Answer Session on the Groundwater Treatment Plant Presentation	Dr. David Smith
7:55 - 8:00	Meeting Wrap-up Next TRS Meeting Sept. 13, 6:30 p.m.: Environmental Health & Welln Next RAB Meeting Oct. 18, 6:30 p.m.: Kennedy High School, Cafeteria	
8:00	Adjournment	

August 9, 2005 Technical Review Subcommittee (TRS) Meeting of the Kelly Restoration Advisory Board (RAB) Environmental Health and Wellness Center 911 Castroville Road San Antonio, Texas 78237

MARAFT Meeting Minutes

RAB Community Member Attendees:

Mr. Robert Silvas, Community Co-chair

Ms. Esmeralda Galvan

Mr. Rodrigo Garcia, Jr.

Ms. Coriene Hannapel-

Mr. Nazirite Perez

Mr. Armando Quintanilla

Mr. Sam Murrah, alternate for Mr. Michael Sheneman

RAB Government Member Attendees:

Mr. Gary Martin, Greater Kelly Development Authority (GKDA)

Mr. Greg Lyssy, Environmental Protection Agency (EPA) Region VI

Ms. Melanie Ritsema, San Antonio Metropolitan Health District (SAMHD)

Mr. Mark Weegar, Texas Commission on Environmental Quality (TCEQ)

Other Attendees:

Mr. Don Buelter, Air Force Real Property Agency (AFRPA)

Ms. Sonja S. Coderre, AFRPA

Ms. Kyle Cunningham, Public Center for Environmental Health

Ms. Cassie Kalin, TCEO

Ms. Linda Kaufman, Environmental Health and Wellness Center (EHWC)

Ms. Kelley Kravitz, AFRPA Contractor

Ms. Norma Landez, AFRPA

Ms. Martha A. Moduluo, Community Member

Mr. Jerry Needham, San Antonio Express-News

Ms. Abbi Powers, TCEQ

Ms. Heather Ramon-Ayala, AFRPA Contractor

Dr. David Smith, Facilitator

Ms. Linda Ward, Community Member

Mr. David Yanez, Office of Texas Senator Leticia Van de Putte, District 26

The meeting began at 6:35 p.m.

I. Introduction – Dr. David Smith

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

II. Administrative - Ms. Norma Landez/Ms. Sonja Coderre

A. BCT Update – Ms. Norma Landez

Ms. Landez provided an update on the Base Realignment and Closure Cleanup Team (BCT) meeting.

Mr. Rodrigo Garcia, Jr. moved that the people who review AFRPA should reprimand AFRPA for not providing proper training or complete documents on items being discussed at the meetings such as the BCT minutes. Mr. Armando Quintanilla amended the motion to state that Mr. Robert Silvas should make Mr. Adam Antwine aware at the soonest available time that complete documents on items being discussed at meetings should be provided to the members. Mr. Rodrigo Garcia agreed to amend the motion as stated by Mr. Armando Quintanilla. Mr. Armando Quintanilla seconded the motion. The motion was voted on by the RAB, 7 for, none opposed.

- B. Spill Summary Report No spills to report.
- C. Documents to TRS/RAB A report was given of documents included to RAB members in their packet.
- D. Action Items The action items from the May TRS meeting were reviewed.
- E. Outreach Report An update on the outreach program was provided.

III. Zones 4/5 Update – Mr. Don Buelter

Mr. Don Buelter provided a Zones 4/5 Update.

Question and answer session followed regarding the Zones 4/5 Update.

IV. Groundwater Treatment Plant Presentation - Mr. Don Buelter

Mr. Don Buelter provided a presentation on the Groundwater Treatment Plant.

Question and answer session followed regarding the Groundwater Treatment Plant Presentation.

V. Adjournment

The meeting was adjourned at 9:12 p.m.

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

Community Co-chair

Installation Co-chair

These minutes are summaries of proceedings of the Technical Review Subcommittee meeting August 9, 2005.

Headquarters U.S. Air Force

Integrity - Service - Excellence

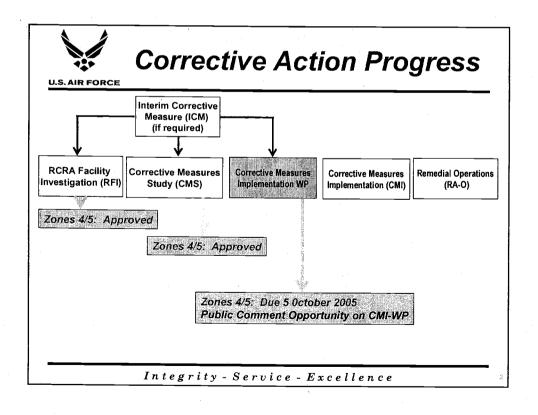
Former Kelly AFB Technical Review Subcommittee 9 August 2005



Zone 4 and 5 Update

Mr. Don Buelter, P.G.

U.S. AIR FORCE





Zone 4 Treatment Systems

Selected Alternative	~ Cost	Installed?
Horizontal Wells along East Kelly Boundary	\$4,400,000	Installed
SS051 Source – Enhanced Bioremediation	\$400,000	Installed
Commercial Street Permeable Reactive Barrier	\$10,750,000	Installed
Malone St. (UPRR) Permeable Reactive Barrier		Summer 2005

Integrity - Service - Excellence



Zone 5 Treatment Systems

Selected Alternative	~ Cost	Installed?
Plume A – PRB – B1530	\$1,500,000	Installed
Plume A Enhanced Bioremediation	\$300,000	Phase 2 this Fall
Plume B – 34 th Street PRB	\$1,400,000	Installed
Plume C – Excavation, SVE and P&T	\$1,790,000	Installed
Plume D – Enhanced Bioremediation	\$300,000	Installed
Plume F - MNA	\$0	Installed
Plume H - MNA	\$0	Installed
Plume J – MNA	\$0	Site Closed
Plume K – MNA	\$0	Installed



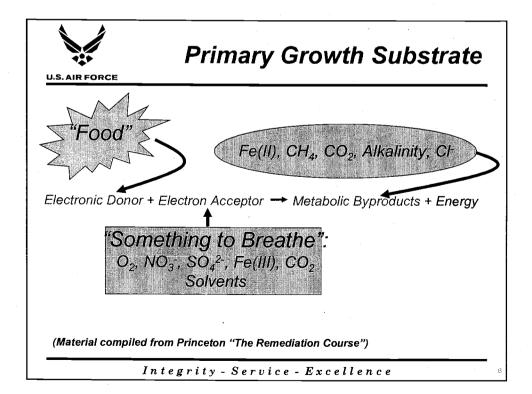
Enhanced Bioremediation

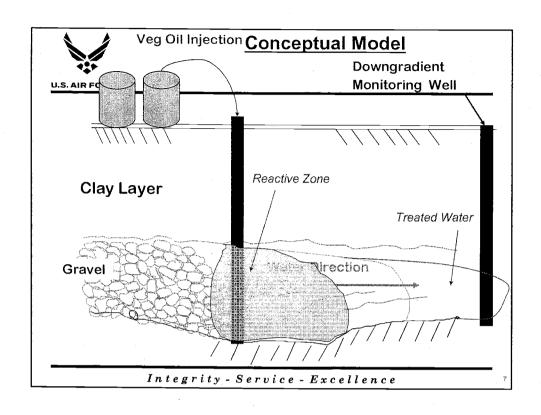
- Stimulate natural microbial processes by adding nutrients
 - Carbon source
 - Oxygen
 - Hydrogen
 - Trace nutrients

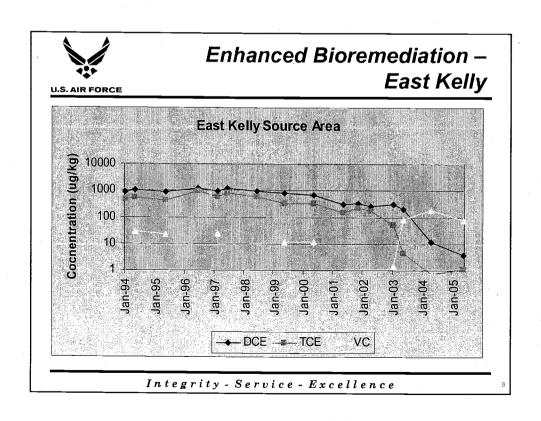


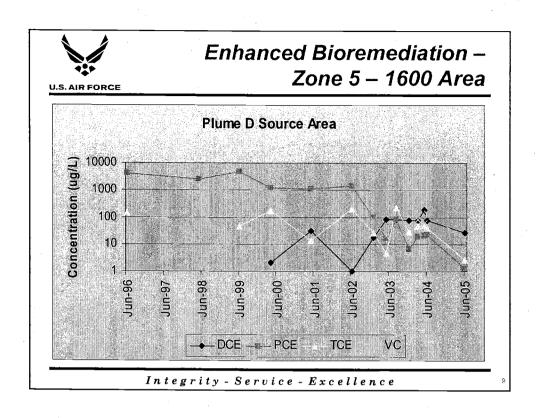
Reductive Dehalogenation of PCE

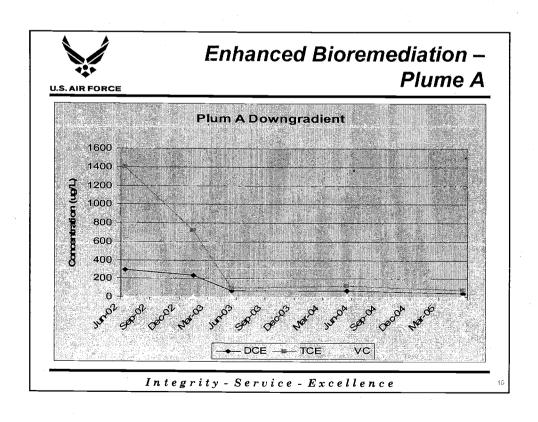
(Material compiled from Princeton "The Remediation Course")













Zone 4 and Zone 5 PRBs

- U.S. AIR FORCE
 - Building 1533
 - Five Rounds of sampling completed
 - 34th Street
 - Two rounds of sampling completed
 - Commercial/Collingsworth
 - 1st Round of samples collected in May 2005
 - UPRR PRB
 - Estimated Completion Sep 05

(Maps and data provided at the TRS meeting)

•	2	ᄃ
	_	J

f. PRB Performance Monitoring Data 34氏Street

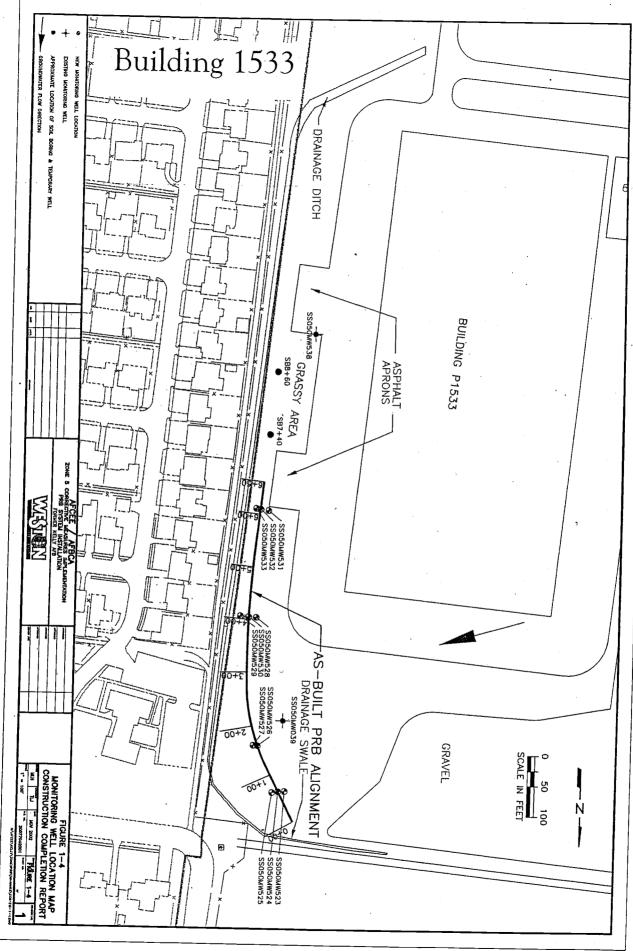
KE Q-May05 ug		D&E-May05 ug/L	DCE-Jan05 ug		TGE-Jan05 ug		PCE-Jan05 ug	⊕ Parameters Units P
/L 1U						/L 3.93		its South End SS050MW597
10	ć	305	96	242	640	ć	ċ	Upgradient SS050MW598
10	1	1.32	1.6	i	i	i	ť	PRB Trench SS050MW613
ċ	ĭ	41.8	5.3	2.54	ć	ć	0.5	Downgradient SS050MW599
10	ĭ	125	140	ī.	1.6	22.2	i	Upgradient SS050MW600
ť	ć	5.73	1 C	i	í	ć	0.7	PRB Trench SS050MW615
10	ć	54.8	67	47.3	45	ť	9.4	Downgradient SS050MW601
ć	ć	53.4	18	14.8	14	71.9	190	Upgradient SS050MW611
ć		i		i		ć		PRB Trench SS050MW618
i c	ć	36.5	70	0.98	ć	2.17	ć	Downgradient SS050MW603
Ë	10	51.5	35	24.7	41	73.5	180	Upgradient SS050MW612
ć	í	i	i	i	ť	ť	ć	PRB Trench SS050MW619
i i	ĭ	82.7	190	15.6	7.2	32.9	9	Downgradient SS050MW605
ć	į,	49.5	61	í	ć	9.96	0.7	North End SS050MW606
ć	ź	2.47	12	24.1	17	15.9	71	Downgradient SS050MW474
Ē		15.1		12		25		Downgradient SS050MW156

PRB Performance Monitoring Data Commercial Street

VC-May05	DCE-May05	TCE-May05	PCE-May05	Parameters
ug/L	ug/L	ug/L	ug/L	Units
10 -	2.12	16.9	1.74	Upgradient SS052MW710
1ú	2.24	15	1.49	Downgradient SS052MW718
í	11.3	76.4	9.4	Upgradient SS052MW712
ť	16.4	53.1	7.61	Downgradient SS052MW711
Dry	Dry	Dry	Dry	Upgradient SS052MW713
10	ź	1.43	1	Downgradient SS052MW719
10	7.98	54.5	8.72	Upgradient SS052MW71
ĭ	4.24	28.3	4.9	Downgradient 4 SS052MW715
1 U	6.94	22.9	1.87	Upgradient SS052MW717
Dry	Dry	Dry	Dry	Downgradient SS052MW716

PRB Performance Monitoring Data Building 1533

VC-May05 ug/L	VC-Jan05 ug/L	VC-Spr04 ug/L	VC-Win03 ug/L	VC-Spr03 ug/L	DCE-May05 ug/L	DCE-Jan05 ug/L		DCE-Win03 ug/L	DCE-Spr03 ug/L	TCE-May05 ug/L	TCE-Jan05 ug/L	TCE-Spr04 ug/L	TCE-Win03 ug/L	TCE-Spr03 ug/L	PCE-May05 ug/L	PCE-Jan05 ug/L	PCE-Sp r 04 , _ ug/L	PCE-Win03 ug/L	PCE-Spr03 ug/L	Parameters Units Up SSC
ć	10	1U	í	í	ć	ω	ω	N	N	2.17	13	12	9.2	œ	i	i	ć	í	ć	Upgradient SS050MW523 S
1	10	ī	1	i	i	10	10	10	10	10	í	10	10	10	í	í	ć	í	í.	PRB Trench SS050MW524
10	10	10	1U , ,	10	10	1.8	_	ĭ	ĭ	1U	2.9	ω	N	4	1 U	i	1 U	i	í	Downgradient SS050MW525
NS	í	i	1U	10	SS	3.6	4	3.3	29	NS	25	26	26	29	NS	ć	-	1.4	_	Upgradient SS050OW193
ť	í	í	í	ť	í	ć	ī	ć	í	í	ć	ć	ĭ	i	10	ĭ	i	ĭ	ĭ	PRB Trench SS050MW526
NS	ć	ć	ć	i	NS	4.4	7	6.4	14	S	1.3	8	2.8	14	NS	ć	ź	í	_	Downgradient SS050MW527
i	1ú	1 U	ĭ	10	2.78	2.9	N	2.9	ω	13.5	16	16	14	17	ć	ć	ć	ć	ć	Upgradient SS050MW528
ć	UI.	D I	ć	ť	ć	ť	ć	ć	ť	ť	ć	ć	ť	ť	ć	ć	ť	ť	ć	PRB Trench SS050MW530
ć	UI.	D I	ź	ć	2.19	3.4	N	ω	N	6.49	18	19	20	21	i	i	i	ć	ź	Downgradient SS050MW529
í	ć	ċ	ź	ċ	5.14	5.6	ω	3.1	N	12.8	19	19	20	29	ć	ć	ć	ć	ź	Upgradient SS050MW531
ć	i	i	i	ć	2.38	i	ω	N	į	8.98	i	9	7.4	9	i	í	ć	ť	ť	PRB Trench SS050MW532
ć	10	ĭ	ĭ	1u	1.56	1.7	2	2.2	_	15.8	20	21	22	17	i	ĭ	ć	i	ť	Downgradient SS050MW533
ť	ť	ť	i	ť	1.1	1.4	_	10	10	14.7	18	15	13	13	ć	ť	ć	ć	ť	End Wall SS050MW534



Air Force Real Property Agency

Integrity - Service - Excellence

Groundwater Treatment Plants: Zones 2, 4 and 5



9 August 2005



U.S. AIR FORCE



Groundwater Recovery Sites

- Zone 2
 - Site E-3 and Site E-1 currently have groundwater recovery wells that send groundwater to the Zone 2 treatment plant.
- Zone 3
 - Site MP, Site S-8 and Site S-4 currently have groundwater recovery wells that send groundwater to the Zone 2 treatment plant.
- Zone 4
 - Horizontal wells along East Kelly currently send groundwater to the Zone 4 treatment plant.
- Zone 5
 - Site S-1 currently has groundwater recovery wells that send groundwater to the Zone 5 treatment plant.

6/0/0



Project Overview

U.S. AIR FORCE

Major Components of O&M:

- Scheduled O&M
 - plan preparation, regulatory requirements, site work, system sampling requirements, data management analysis, document assessment
- Unscheduled O&M
 - major system upgrades, major controls upgrades, unscheduled maintenance/spill response, digging permit investigation
- Building and Grounds Maintenance
 - provides for critical facilities and infrastructure within base boundaries
- Remedial Process Optimization (RPO)
 - Type A RPO and FY03 RPO recommendations implementation

6/9/05

Integrity - Service - Excellence



Scheduled O&M

U.S. AIR FORCE

<u>Scheduled O&M</u> provides support for planned events occurring in remedial systems and GWTPs in Zones 2-5 including routine testing, materials, and system upgrades.

Scheduled O&M includes:

- Plan Preparation
- Regulatory requirements
- Site Work
- System sampling requirements
- Data management
- Data analysis
- Document assessment

ሰ/መሆን



Scheduled O&M: Field Investigation

Compliance plan requires inspections (daily, weekly, monthly, semiannual, & annual)

		Requi	red Inspec	tions	
	Leaks	Efficiency	Accuracy	Safety	Proper Functioning
Wastewater & chemical pumps	> <	> <			
Piping	> <				
Flow meters			\times		
Valves				\times	> <
Computers & controls					> <
Lift stations		> <			
Recovery well vaults	\times				> <

Integrity - Service - Excellence



Scheduled O&M: Required Sampling

REGULATORY SAMPLING REQUIREMENTS

Sampling Type	# Samples/Year
Quarterly In-Situ Respiration Tests (ISRTs)	8
Sites S-8 & E-3	•
Monthly TPDES sampling	36
Outfalls 01, 03, & 04	,
Annual Soil sampling	4
Require where GWTP-treated water is used for irrigation	
 Zone 2: area from Building 618/633 to Lackland AFB golf course 	
Zone 5: area from S-1 GWTP to adjacent sampling area	
Total Yearly Samples	48



Scheduled O&M: System Sampling

	Maximum Number of Samples	Sampling Types			
Monthly System Composite Sampling	16 per month	VOCs, SVOCs, metals			
Semiannual Recovery Well Sampling	77 twice yearly	VOCs, SVOCs, PCBs, metals, pesticides, COD, BOD, TDS, TSS, pH, hardness, oil, grease			
Quarterly Individual Unit Process Efficiency Evaluation Sampling	23 per quarter	VOCs, SVOCs, PCBs, metals, pesticides, COD, BOI TDS, TSS, pH, hardness, oil, grease			
Monthly Total System Efficiency Sampling	30 per month (15 influent + 15 effluent)	VOCs, SVOCs, PCBs, metals, pesticides, COD, BOD, TDS, TSS, pH, hardness, oil, grease			
Sludge Sampling	varies	Toxicity Characteristics Leaching Procedure required for all sludge removed from GWTP processes			

6/9/05

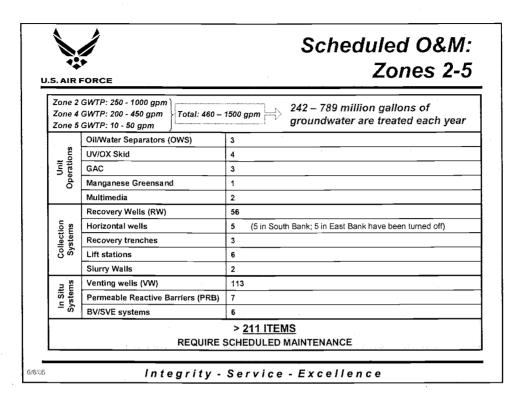
Integrity - Service - Excellence



U.S. AIR FORCE

Scheduled O&M: Site Work

SITE	REQUIRED WORK				
Building 545 Building 616 total 28,524 ft² Building 617	operation and facility process maintenance				
GWTPs in Zones 2, 4, & 5	daily routine operations monitor equipment repair/replace parts verify functioning of field communication systems coordinate with site technicians in the event of shut-downs				
Zones 2, 3, & 5	groundwater treatment source containment soil treatment procedures				
Zone 4	groundwater treatment source containment				





Scheduled O&M: Replacement Parts

- UV bulbs: \$2,495 each (51 bulbs/yr)
- H_20_2 : \$4.50/gallon (11,365 gal/yr)
- Liquid-carbon exchange for GAC unit (10,000 lbs carbon/exchange)
- Electronic/radio devices for remote monitoring of GWTPs
- Other major parts:
 - Instrumentation, pumps, motors, valves, fittings, pipe, vaults
- Air-phase carbon exchange for S-1 SVE units (6,000 lbs./exchange) (annual exchange)



U.S. AIR FORCE

Scheduled O&M: Data Reporting

Data Management	 Review and evaluate field documentation, sample collection technique, data reporting, instrument calibrations, and quality control data.
Data Analysis	Evaluate data usability
	 Reduction, tabulation, evaluation of data
	Provide recommendations for RPO
	Maintain documentation:
•	Monthly Status Report
	 Annual In-Situ Respiration Test Reports
	 Annual Performance Evaluation Report
Document Assessment	O&M Manuals updates
	 Reviews for compatibility and avoidance of previous problems:
	Design reviews
	New O&M Manual reviews

Integrity - Service - Excellence



Unscheduled O&M

U.S. AIR FORCE

<u>Unscheduled O&M</u> provides support for unplanned events occurring in remedial systems and GWTPs in Zones 2-5. To a certain extent, these activities are foreseeable.

Unscheduled O&M includes:

- Major system upgrades
- Major controls upgrades
- Unscheduled maintenance/spill response

Digging Permit Investigation

<u>Note</u>: This is a regional project with funding expected primarily to serve activities at Kelly AFB. Operations at other Division C bases will be prioritized according to spill response, properly transfer, and site closure requirements.

6/0/05



Unscheduled O&M: Major System Upgrades

<u>Major system upgrades</u> are performed to optimize equipment efficiency, flow capacity, and contaminant removal.

Sys	TEM	UPGRADES

Pressure test system trunk lines

Chemically clean system lines

Optimize RWs; compute and assess well capacity

Evaluate & report well capacity loss

Install, modify, or remove RW/MW and treatment equipment

Inject & monitor bioremediation catalyst

Provide sampling & analysis to assist with treatment

a remove

Integrity - Service - Excellence



Unscheduled O&M: Major Controls Upgrades

- Controls upgrades will be applied to all remedial systems and GWTPs as necessary. These upgrades include:
 - Control modifications for addition or deletion of system processes
 - Controls upgrades for additional flow meters and panel changes
 - Upgrade of Human Machine Interface (HMI) to enable real-time data reporting

6/0/08



U.S. AIR FORCE

Unscheduled O&M: Spill Response

SPILL CAUSES:

- Pipe or valve breaks
- Treatment equipment failures
- Pump or motor malfunctions
- Mechanical, electrical, control problems associated with equipment failure

SPILL RESPONSE REQUIREMENTS:

Notification

Documentation -

Containment

Sampling & Analysis

Repair

6/9/195

Integrity - Service - Excellence



Building & Grounds Maintenance

U.S. AIR FORCE

<u>Building Grounds and Maintenance</u> provides for critical facilities and infrastructure within base boundaries.

TOTAL GROUNDS: 26.5 acres

TOTAL BUI	LDING SQU	ARE FOOTAGE: 55,041 ft²
Building 5	545 25,824 ft ²	Soil storage area
Building 6	300 ft ²	Decontamination pad
Building 6	317 2,400 ft ²	Chemical storage facility
Building 6	518 5,225 ft ²	GWTP equipment housing, operations office & containment
Building 6	521 4,874 ft ²	On-site office for AFRPA management, O&M project staff
Building 6	3,500 ft ²	GWTP carbon polishing building
Building 6	338 ft ²	GWTP central electrical power facility & backup generator
Building 6	5,580 ft ²	Equipment storage facility & high-pressure air generation station
Building 3	3,500 ft ²	Zone 4 GWTP equipment housing
Building 1	1584 3,500 ft ²	Zone 5 GWTP equipment housing

6/6/05



RPO

U.S. AIR FORCE

Remedial Process Optimization (RPO):

- **Type A RPO:** Provides oversight of remedial action-operations (RA-Os) and long-term monitoring (LTM) to ensure cleanup goals, monitor effectiveness and maintain cost efficiency
- FY03 Kelly RPO recommendations implementation (Type B RPO): Implementation of recommendations prepared by P&PR team in 2003

6/0/05

Documents to the TRS/RAB

I, Robert Silvas, Co-chair of the Kelly Restoration Advisory Board, accept the following document(s) to be included in the Co-chair Library at the Environmental Health and Wellness Center. The document(s) will remain in the Co-chair library to allow fellow RAB members the opportunity for review. The documents will not be replaced if removed.

1.	Texas Commission on Environmental Quality letter dated 11 Jul 05 regarding "Approval – Response to TCEQ March 18, 2005 Comments Letter – Sanitary Sewer Release Assessment Report"
2.	Documents not related to the environmental restoration program at the former
	Kelly AFB submitted by Mr. Robert Silvas to AFRPA 18 Jul 05
3.	
4.	
Rober RAB	Adam Antwine Date Co-chair Co-chair Copile to all P. A. B mem leas and alternates

FINAL PAGE

ADMINISTRATIVE RECORD

FINAL PAGE