

AWARD CATEGORY: Secretary of Defense Environmental Award for Team Excellence

NOMINEES INFORMATION: Dyess Air Force Base, Air Combat Command, USAF

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SUMMARY: Team Dyess has been a long-standing environmental champion with a flawless 5-year compliance history; numerous state, regional and national awards; annual reduction in operating costs in excess of \$750,000; reduction of waste streams by 50 to 95%; and reduction in related manpower requirements by as much as 90%. Aspects of Dyess’ Environmental Management System (EMS) were “tool kit” benchmarks during an external assessment by their command including completion of streamlining over 60 environmental plans into nine Integrated EMS Plans, as well as, the development and implementation of aggressive EMS Objectives, Targets and Results two years ahead of Air Force guidelines.

D y e s s A i r F o r c e B a s e



N o O n e C o m e s C l o s e

FY 2005 SECRETARY OF DEFENSE ENVIRONMENTAL AWARDS PROGRAM (Part II)
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TEAM BACKGROUND AND POSITION DESCRIPTIONS:

Teresa Clouse has been the Flight Chief of Environmental Engineering since 1992. Teresa has a masters degree in Environmental Management, and is responsible for oversight of all environmental programs for the base.



Lt Col Clint Taylor has over 24 years with the Air Force, and has been the Wing Environmental Manager since October of 2003. He oversees the Environmental, Safety and Occupational Health (ESOH) Environmental Leadership Council.



James Robertson has been the Chief of Analysis and Programs since 1998. Jim has a masters degree in Environmental Management, and is responsible for programming, analysis, conservation, natural and cultural resource programs for the base.



David Laurence has been the Chief of Compliance since 2002. David has a masters degree in Environmental Management, and is responsible for all environmental compliance programs for the base, including air, water, waste, and permits.

AWARDS:

- 2005 Environmental Protection Agency (EPA) Member *Green Power Leadership Club*
- 2005 National Arbor Day Foundation *Tree City USA Award*
- 2005 National Arbor Day Foundation *Tree City USA Growth Award*
- 2005 State of Texas Designation as a *Superior Water System*
- 2005 Air Force *Environmental Quality Award – Team Excellence*
- 2005 Air Combat Command *Environmental Quality Award for Team Excellence*
- 2004 Environmental Protection Agency Member *Green Power Leadership Club*
- 2004 National Arbor Day Foundation *Tree City USA Award*
- 2004 National Arbor Day Foundation *Tree City USA Growth Award*
- 2004 State of Texas Designation as a *Superior Water System*
- 2004 Department of Energy (DOE) *Presidential Award for Leadership in Energy Management*
- 2004 State of Texas *Compliance Commitment Partnership Award*
- 2004 DOE *Federal Energy Design Showcase Award*
- 2004 Air Force *Productivity Excellence Award*
- 2004 State of Texas Honors as *Clean Texas Champion*
- 2003 White House *Closing the Circle Award*

ACCOMPLISHMENTS

EMS IMPLEMENTATION...TO DATE

Key Criteria: Program Management; Technical Merit; Orientation to Mission; Transferability; and Stakeholder Interaction

Program Extent: Policy, Goal Setting, Implementation Plan, Aspect/Impact Analysis, Stakeholder Involvement, Integration with Mission, Training, and Management Review Process

The Environmental Management System (EMS) at Dyess Air Force Base (Dyess) is unique, by Air Force (AF) standards. Environmental programs are dynamic and volatile, and most environmental managers were low in the chain of command. Timely coordination of corrective actions and initiatives was difficult. For 2004-05, Dyess implemented a full-time, Lieutenant Colonel, wing Environmental Manager (EM) for advancement of environmental. In 2004, Team Dyess re-vamped leadership councils to include safety and occupational health programs, creating Air Combat Command’s first base level ESOH (environmental, safety and occupational health) Leadership Council and authored the base’s first EMS Implementation Plan. Each organization on base, including tenants, appointed Environmental Coordinators (ECs) that integrate on a day-to-day basis with the environmental programs.

In 2004, the *EMS Matrix* tool was completed; addressing 11 major functional areas, and over 120 sub-processes, activities and services. The *EMS Matrix* assesses applicable laws, permits, plans, and most importantly, potential impact to

14 environmental aspects. The first EMS Summary Performance Report was published in April 2004, and used a poster format to illustrate *Objectives, Targets, and Results* from the *EMS Matrix*. The **following page** is the second such report published in May 2005. Dyess pioneered “integrated” EMS plans for all environmental programs reducing 61 environmental plans to 9 EMS plans. These plans not only provide a one-stop reference tool for managers and concise executive summaries for commanders, but they also, reduce redundancy and overlapping and/or conflicting language between component plans. These recent advancements have Dyess postured to minimize pollution, increase efficiency, reduce costs for environmental requirements, and meet or exceed our EMS objectives and targets.

EMS management reviews are conducted annually with the most recent conducted in May 2005 during a triennial ESOH inspection. Dyess’ EMS was noted as “one of best” in the Command...”*well ahead of AF directives.*”

Prior to 2004, awareness training was conducted annually in the base theater, and supplemented with slides via email to unit ECs, with executive training conducted at ESOH councils. Beginning in 2005, awareness, executive, and team training is web-based and coordinated through each unit’s EC. For contractors and sub-contractors, Team Dyess conducts EMS awareness training with the Contracting Squadron as a joint session for EMS and general environmental awareness training. Subsequent site visits are routinely conducted at construction sites and contractor yards to further assist contractors’ environmental compliance.

PLANNING/ANALYSIS IMPLEMENTATION:

Key Criteria: Program Management; Mission Orientation; Transferability; and Stakeholder Interaction

Program Extent: Decision Making Process; Long-Term Plan; Public Involvement; Editorial Excellence; and Mitigation.

- Tremendous strides for 2005 included completion of the first **Programmatic Environmental Assessment (PEA)** for Dyess. The PEA:
 - ✚Streamlines NEPA Compliance
 - ✚Expedites Funding Approval
 - ✚Identifies Proposed/Alternate Actions, Mitigation Measures Well Beyond Prior Process
 - ✚5-Year Planning Expanse
 - ✚Provides Plenary Coordination for Base, Public and Agencies
 - ✚Defines Succinct Management
 - ✚Ultimate Decision-Making Tool

7th Bomb Wing



DYESS ENVIRONMENTAL MANAGEMENT SYSTEM

Summary performance report for 2004 / 2005

Dyess AFB Environmental Policy

Our continuing commitment to sound environmental management is an important part of the mission at Dyess AFB. We continue to fully integrate environmental management systems into all phases of operations, this policy requires the commitment of everyone working at Dyess AFB to pursue activities safely while protecting our health and preserving our environment. We promote a cross-functional approach to environmental management with members of Dyess AFB working to ensure that ownership and responsibility for protecting and enhancing our environment rest not within office or squadron but with all who are truly a part of this country's #1 warfighting wing.

As directed by EO 13148, Greening the Government through Leadership in Environmental Management vision, we will:

- Establish and periodically review our environmental goals within a program of continual improvement.
- Comply with all legal requirements pertinent to activities at Dyess AFB and operate within the framework of compliance through pollution prevention and judicious resource conservation (natural, labor and monetary).
- Implement corrective actions and requirements in a timely and well-coordinated manner. Regulatory requirements are not "open to interpretation" at the shop or squadron level. Interpretation of environmental regulations and correspondence is the responsibility of 7 CES/CEV (Environmental Flight) in conjunction with 7 BW/JA.
- Base leadership shall meet regularly to address major environmental issues affecting Dyess AFB.

Garret Harreneck, Colonel, USAF
Commander, 7th Bomb Wing

Objective

Target

Performance

Waste Minimization

1. Meet or exceed Air Force Hazardous Waste baseline set in 1992 by Air Staff	Based on calendar year (CY); goal of 4% reduction per CY; set at 68% for CY03, 74% for CY04, and 80% for CY05	Exceeded CY04 goals; HW reduction at 92%
2. Meet or exceed Air Force Solid Waste baseline set in 1994 by Air Staff	Based on fiscal year (FY); goal of 5% diversion rate per FY; set at 35% for FY03 and 40% for FY05	Exceeded FY04 goals; diversion rate at 42%
3. Meet or exceed Air Force Hazardous Material (HM) Usage baseline set in 1998 by Air Staff	Based on FY; reduce annual totals (lbs) of HM turned in as waste by 5% each year; set at 50% for FY03 and beyond.	Exceeded FY04 goals; unused HM reduction 65%
4. Meet or exceed Dyess' EMS baseline of 2003	Base on FY; increase purchases of Green Products by 5% each year; set at 5% for CY04, 10% for CY05, 15% for CY06	Exceeded FY04 goals; green purchases 6%

Resource Conservation

1. Meet or exceed Department of Energy baseline set in 1985 by DOE	Based on FY; reduce BTU/sq ft by 2% each FY; set at 2% for FY03; 4% FY04, 6% FY05	Exceeded FY04 goals; BTU reduction at 6.5%
2. Meet or exceed Potable Water Conservation from Dyess' EMS baseline set in 2002 by EPA Guidelines	Based on CY; reduce potable water usage by 3% each CY; set at 3% for CY03; 6% for CY04, 9% for CY05	Exceeded FY04 goals; potable water usage at 35%

Air Quality

1. Meet or exceed Volatile Organic Compound (VOC) emission standards for solvent use, painting, and chemical purchases as set by Dyess' 2002 EMS baseline emissions	Based on CY; reduce VOC emissions by 2% each CY; set at 2% for CY04; 4% for CY05	Exceeded CY04 goals; reduction at 14%
2. Meet or exceed Hazardous Air Pollutant (HAP) emission standards as set by TCEQ State Implementation Plan (SIP)	Based on CY; reduce HAP emissions by 2% each CY; set at 2% for CY04, 4% for CY05	Exceeded CY04 goals; reduction at 40%

POLLUTION PREVENTION AND WASTE REDUCTION EFFORTS...ALL MEDIA AREAS

Key Criteria: Program Management; Technical Merit; Orientation to Mission; Transferability; and Stakeholder Interaction.

Program Extent: Permits/Records, Operating Plant/Facility Improvements, Process Change/Source Reduction, Sampling/Monitoring, Human Health Considerations, Recycling Efforts, and Reducing Funds Expended

Land Quality (Solid Waste Management): Land Quality represents the highest enforcement vulnerable program on Dyess. It includes municipal solid waste, hazardous waste, universal and special waste, and waste minimization, recycling and re-use. Despite annual inspections, in one of the most aggressive states in the nation, Dyess has maintained a spotless compliance record for the past 5 years.

Streamlining Waste Management Operations:

In 2004, Dyess completed long-term goals for improving program efficiency and reducing environmental liability for "cradle to grave" management of waste and recycling processes. Dyess now has only 2 base-wide consolidated service contracts for all waste minimization and recycling, including refuse, recycled rags, parts cleaning vats, sampling/monitoring, spill response, and disposal. We substantially reduced resource

requirements for manpower by 14% and related budgets resources by a conservative 20%. Dyess has surpassed EMS reduction goals for hazardous and special waste, recycling, and municipal solid waste. By consolidating all waste management activities under a single contract for non-hazardous and one for hazardous and special waste, operations are simplified for contract management, as well as, being user friendly to the base populace...our ultimate customer.

Household Hazardous Waste Collection Program:



In 2004, Dyess partnered with the City of Abilene to recycle residential hazardous chemicals for the Dyess housing area. This new initiative saved the base over \$130K in needed infrastructure improvements. The program is manned by Dyess and city staff, and the program requires no Dyess budget support.

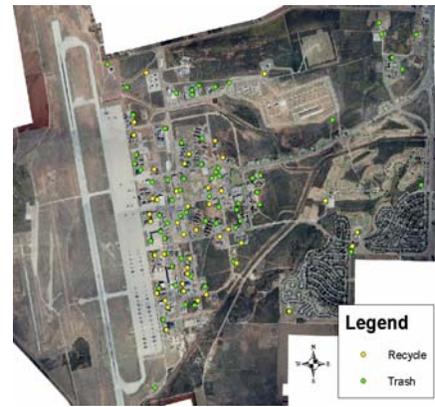


Workcenter Recycling Stations: In addition to co-mingled recycling dumpsters at base facilities, there are now interior recycle collections stations. These stations are purchased with recycle revenues. Selection of which waste streams to recycle is based on anticipated increases in revenue. This newest program targets waste streams where recyclers pay higher prices for segregation "at the source" to minimize or eliminate undesirable cross contamination for co-mingled recycling operations. For 2005, recycle revenue increased 18% due to these units. We have more on order for 2006.



Innovative Field Initiative:

Dyess completed a GIS field application for the refuse and recycle contract. Utilizing ArcMap and ArcPad, required daily inspections and annual inventories can be managed in 1/10th the time...a 90% reduction in manpower. Routine inspections to assess dumpster conditions are only a click away on lightweight, portable GPS handhelds, complete with drop-down menus for inspection field data, as well as, annual inventory data. There is a short learning curve for users with ease of trend analysis for problem areas. Similar applications have been applied to Water Break Log and fire hydrant inventories.

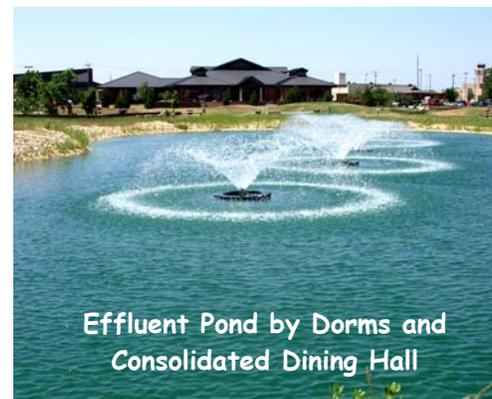
**Additional Initiatives During Award Period:**

In 2004, Dyess implemented its first centrifuge recycle unit - saving shops over \$113K annually with a 65% reduction in the waste stream. After only three months, the unit reached the break-even point for purchase of new absorbent/pad materials, truck/man-hour savings, purchase of drums for disposal, and disposal costs. Shops were initially reluctant to accept “used” absorbents, but are now appreciative of reduced costs and reduced volumes of waste managed. Dyess also implemented a bulk oil purchase program for auto shops - reducing costs by over 50% with an astounding 95%

reduction in the used oil waste stream. In addition to these achievements, Dyess partnered with state regulators to create DOD’s largest and Air Combat Command’s only ice plant saving the AF \$343K annually. Dyess was the first facility in Texas to close a 30-year restoration site with “No Further Action” 18 years in advance of compliance agreements and requirements. This award period announced completion of a Riparian Restoration Project demonstration and research project which stabilized over 180,000 square feet of severely eroded drainage channels, virtually eliminating further erosion and detrimental sedimentation.

Air Quality: Dyess is a minor air source with actual emissions reduced well below regulatory thresholds. Our last inspection in Oct 04 resulted in no violations, findings or minor concerns. This was the 5th consecutive year for such an excellent compliance record. **Recent Improvements:** Since painting (surface coating) operations are the most stringently regulated source category on base, Dyess developed a web-based database, available base wide to all painting operations, including tenants and contractors. Inputs are simple and easy with drop down menus, and previously complicated air emission calculations are done automatically. This web-based system represents “real time” data, i.e. at any given time, an inspector can “see” compliance emission levels. Reductions are also easily calculated with a 14% reduction in Criteria Pollutants for surface coating operation and a 40% reduction in related pollutants.

Water Quality: The Dyess water management program includes storm water, drinking water, waste water (sewer discharges), and effluent water (partially treated water, used primarily for irrigation purposes). **Recent Improvements:** Dyess completed the base’s first automatic flushing program resulting in a 23% reduction in man-hours and 15% reduction in water usage; completed a \$2.4M water system upgrade, and a \$7.3M sewer renovation project virtually *eliminating* groundwater contamination. Dyess also expanded the effluent water program, a joint city/base effort, which has reduced potable water usage by over 30%.



Effluent Pond by Dorms and Consolidated Dining Hall

**ENVIRONMENTAL
COMPLIANCE
ASSESSMENT AND
MANAGEMENT
PROGRAM**

Key Criteria: Program Management; Technical Merit; Orientation to Mission; Transferability; and Stakeholder Interaction.

Program Extent: Self-Assessments, Interaction with Regulators, Sustainable Operations, and Training Programs

Dyess conducts internal annual self-assessments, even in 2004 with the triennial *External* assessment conducted by Air Combat Command. All programs were rated *Solid* or *Model* by Command with vast improvements over last External in 2001: 35% fewer findings; previous “spike” in hazardous waste findings reduced by 50%; more positive findings noted than for any other base; total of 6 Command benchmark “tool kit” items (lessons learned); and Overall Compliance Index of 96% (with 98% of 730 compliance sites inspected). Dyess has an equally impressive compliance record with the regulatory community: Zero violations in all media (air, water, waste) despite intensive annual multi-media inspections, including a 3-Year Records Review and 6-Year Compliance Monitoring Evaluation...Unparalleled Compliance Record! Dyess annually trains over 300 managers, environmental coordinators and supervisors in preparation for assessments and inspections, and is an active member of the Texas DOD Air and Water Working Groups and an active charter member of the Texas Environmental Partnership for DOD facilities.

In addition to previously mentioned partnering with the regulatory community and DOD facilities in Texas and with the city for both the residential hazardous chemical recycling and effluent water system, Dyess holds annual stakeholders meetings which are attended by base and community members, and include the Community Advisory Council and Restoration Advisory Board. Agenda items include general overview of Dyess environmental programs, Environmental Management System (EMS), and recent environmental improvements. In February 2004, Dyess hosted the quarterly meeting of Texas DOD Environmental Partnership and conducted a workshop highlighting Dyess’ EMS Program -lauded as one of the best by the Texas regulators. These joint meetings allow military, state and federal regulators, and community leaders to come together and discuss restoration, pollution prevention, and conservation opportunities for the state. In addition, Dyess led the charge in the first joint city/base “Clean Sweep” in support of Clean Texas Cities program; conducted recycling workshops and Earth Day Poster contests for local schools; facilitated an Eagle Scout “Bat” Project; sponsored an Audubon “Birding” trip; completed a joint botanical inventory with state, university students and the Army Corp of Engineers; and each year sponsors environmental “interns” from 3 local universities, at no cost to the AF. The most rewarding venture was a joint Dyess/USDA Forest Service “Adopt A Tree” program with workshops at area schools in cooperation with the Association of State Foresters, Conference of Mayors, and the League of Cities. Hundreds of pine seedlings were adopted by participating students. Team Dyess is an active supporter of Habitat for Humanities and Meals-On-Wheels donating hundreds of man-hours each year. The most significant partnering venture involved networking with the local Planning and Zoning Board, county officials, and FAA averting a potential wind farm encroachment disaster for the Dyess mission. Team Dyess has much to write about, but no more pages. Thank you for your consideration.

**COMMUNITY
RELATIONS**

Key Criteria: Program Management; Technical Merit; Orientation To Mission; Transferability; and Stakeholder Interaction.

Program Extent: Enhance Environmental Awareness and Community Involvement, Cooperation With Federal, State, Local Agencies, Organizations, and Academic Institutions, and Environmental Education