

SUCCESS STORY

DECEMBER 1999

Spotlight On: Vandenberg AFB, “Guarding the High Frontier” of Space for America

Introduction

Vandenberg Air Force Base (AFB) is located in central California, approximately 150 miles Northwest of Los Angeles, and is the 3rd largest Air Force Base in the nation. Encompassing 98,400 acres along 35 miles of undeveloped Pacific coastline, Vandenberg AFB evolved from the Lompoc-Guadalupe-Santa Maria triangle wild game and cattle grazing area. The property is comprised of parts from five Mexican land grants: Casmalia, Guadalupe, Mission de la Purisima, Ranchos Lompoc, and Todo Santos y San Antonio. This tract of land was then transformed into an Army tank-training base for armored and infantry troops, known as Camp Cooke.

When Federal officials converted the Army base into a missile launch site in 1957, they renamed the installation in honor of General Hoyt Vandenberg, the Air Force's second chief of staff, and an early advocate of space and missile operations. Through eminent domain, the Air Force also purchased approximately 15,000 acres of Sudden Ranch territory, south of the installation's borders, enlarging it to the current acreage of which only 15% is developed. Its remote location and proximity to the coast offer an excellent setting for safely launching satellites into polar orbit without overflight of populated landmasses during missile liftoff.

Vandenberg AFB launched the first Thor ballistic missile on 16 December 1958, and boosted the world's first polar-orbiting satellite, Discoverer I, aboard a Thor/Agema booster combination on 28 February 1959. It is still the only military installation in the United States that launches unmanned government and commercial satellites into polar orbit. Vandenberg is also the only site from which ICBMs are launched toward the Kwajalein Atoll to verify weapon system performance. The base is operated by Air Force Space Command's

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(AFSPC) 30th Space Wing and its mission at Vandenberg is to:

- Conduct and support space and missile launches;
- Operate the Western Range;
- Respond to world wide contingencies; and
- Host the Vandenberg AFB community.

VISION: “World's Finest Professionals building the premier gateway to space.”

Commitment to Pollution Prevention

Vandenberg AFB's commitment to pollution prevention (P2) and protection of the environment is evidenced by its selection as the recipient of the 1998 Air Force's General Thomas D. White Award for Environmental Quality and the 1998 Secretary of Defense Environmental Security Award for cultural resources management. The environmental program is structured to embrace all elements of P2, meet environmental challenges head-on, and serve as a shining example both in the local community and for the rest of the Air



PRO-ACT

A Base-level Pollution Prevention Resource sponsored by HQ Air Force Center for Environmental Excellence



Force. The environmental Management Flight is comprised of 38 personnel, each dedicated to their individual programs and causes. A brief summary of the P2 initiatives instituted by the Vandenberg AFB environmental staff is presented below.

Wastewater Reclamation Initiative for Space Launch Complexes (SLCs) and Minutemen Launch Facilities (MLFs)

Launch operations generate great volumes of wastewater through the use of cooling, pulse suppression, sound suppression water systems, and pad wash-down operations. Each launch cycle uses 10,000 to 70,000 gallons of potable water, resulting in the generation of approximately 10,000 to 60,000 gallons of industrial wastewater. The resulting wastewater contains trace levels of zinc, chromates, and solids. Currently the launch related wastewater is collected in a retention basin, then batch sampled, characterized as industrial or hazardous waste, and scheduled for pick-up by a tanker truck. This wastewater is eventually transported approximately 20 miles in 5,000 gallon increments to a centralized Industrial Wastewater Treatment Plant (IWTP) on South Vandenberg AFB. Numerous trips are required to transport the launch facility wastewater from the point of origin to the IWTP. The waste water transport cycle time must be considered when scheduling launches, and can impact launch-processing schedules. Additionally, during the rainy season, stormwater comingles with retained waters awaiting sampling, analyses, and transportation, thereby increasing the volume of contaminated wastewater requiring proper management.

A closed-loop, mobile, reclamation pilot system was initiated in October 1999 in an effort to reduce the extensive resources and high costs associated with sampling, characterization, pumping and transporting of hundreds of thousands of gallons of industrial wastewater. This system is designed to reclaim launch wastewater from the retention basin and condition it to achieve/maintain potable water standards. Through the use of this pilot system, industrial wastewater will become a resource rather than a 'waste,' and there will be no 'hazardous discharges' to the environment. Additionally, launch process water will be retained on site for reclamation, significantly reducing sampling and analyses requirements. There will also be a net reduction in air emissions due to the elimination of the current logistical/transportation process. The cost for the pilot

system implementation is \$850,000, with recurring costs of \$40,000 for year 2, \$40,000 for year 3, and \$25,000 for year 4.

Space Launch Complex (SLC) -2 is the chosen site for the initial pilot testing for this wastewater reclamation system. SLC-2 was chosen because it generates the highest volume of wastewater per year, its location is the furthest away from the IWTP, and the generated wastewater stream has a consistent waste profile.

Cost avoidance is expected through elimination of the wastewater transportation, the reduction and/or elimination of treatment processes, the reduction of sampling and analyses requirements, and elimination of process permitting requirements. Costs associated with industrial wastewater management could be reduced from \$0.78/gal to less than \$0.15/gal through implementation of on-site reclamation. With the proposed frequency of 7-8 launches per year, the initiative will result in a cost avoidance of over \$300,000 per year. Other benefits include increased operational flexibility granted to launch processing operations due to the on-site control of water movement. Potable water use will be significantly reduced, and the potential for overflow from the IWTP and associated enforcement action liability will also be minimized.

For more information or current status of this initiative, contact MSgt Steve Kauffman, 30 CES/CEVCC, DSN 276-6023, steve.kauffman@vandenberg.af.mil.

Abandoned Well Inventory and Management

The California Department of Water Resources, in accordance with California well standards contained in Bulletin 74-90 and Bulletin 74-81, requires wells that have not been used for over one year to be properly closed and destroyed. A well is considered abandoned, or permanently inactive, if it has not been used for one year unless the owner can demonstrate intentions to use that well in the future. This program is designed to identify wells not in use, prevent surface water from entering inactive or abandoned wells and contaminating ground water aquifers, assure that the ground water supply is protected and preserved for future use, and eliminate physical hazards. A need for an up-to-date, functional well-management plan was identified as a result of an external Environmental Compliance and Assessment Management Program (ECAMP) audit performed at Vandenberg AFB.

In 1997, the United States Geological Survey (USGS) was contracted to perform a well identification survey.

By researching their own USGS files, performing literature searches, and using a Global Positioning Satellite (GPS) recorder to pinpoint locations, they were able to effectively compile a complete inventory of 750 wells. Of the 750 identified wells, 300 of the wells were verified as being officially closed, 150 wells were identified as Installation Restoration Program (IRP) monitoring wells, and the remaining 300 wells were classified as either production wells or non-IRP monitoring wells. About 25 wells were identified as unused, and plans were made to start closing them. Beginning in October 1999, the project focus shifted to one of properly closing and destroying the 25 unused wells. The project is expected to take 6-8 months, and the costs will run about \$6,000 per well.

For more information concerning the identification procedure and the well inventory and management project, contact Mr. Jim Rohr, 30 CES/CEVCC, DSN 276-2122, jim.rohr@vandenberg.af.mil.

Air Quality ENVVEST Initiative

One of the more complex aspects of the Clean Air Act Amendments (CAAA) of 1990 is the Title V operating permit program. Implemented by regulations found at Title 40 Code of Federal Regulations (CFR) Part 70, this program requires that major sources of non-attainment pollutants and hazardous air pollutants (HAPs) obtain permits.

In California, the CAA is typically administered and enforced at the county level. In Santa Barbara County, the Air Pollution Control District (SBCAPCD) administers regulations for non-vehicular sources of air pollution. The CAAA required permits for only major sources, i.e., those emitting over 100 tons of any criteria pollutant. However, California air districts historically have required permits for much smaller sources. Another major difference in the permitting process is that the California program issues permits on an "individual source-by-source basis" versus the comprehensive facility-wide federal operating permit issued in most other states.

Under an innovative pilot program called ENVVEST (Environmental Investment), Vandenberg AFB has initiated a program that is intended to yield greater environmental benefits by improving air quality beyond that achieved through federal, State, and local permit programs. The ultimate goal of this initiative is to reduce the installation's emissions of ozone precursors by a total of 10 tons or more by 30 November 2002. In accomplishing this goal, Vandenberg will no longer be designated as a single major source of air pollution

under the Clean Air Act, thereby exempting them from maintaining a Title V permit.

Vandenberg's initiative began with the identification and evaluation of several potentially cost-effective opportunities that could result in decreased nitrogen oxides (NOx) and volatile organic compounds (VOC) emissions. Some of the processes evaluated for this initiative include:

1. Replacement of internal combustion (IC) engines with zero or low emission units;
2. Low NOx boiler retrofit or replacement;
3. Zero VOC paint and coating substitutions;
4. Paint booth consolidation;
5. Wastewater reclamation system at SLC-2;
6. Sustainable housing/energy conservation; and
7. Electric vehicle implementation.

[Note: A short synopsis of each reduction opportunity evaluation is available through PRO-ACT, or by contacting the POC listed at the end of this section.]

Ultimately, Vandenberg expects to realize administrative cost savings by removing itself from the requirements and associated costs of preparing and complying with a Title V permit. The estimated first year savings is approximately \$400,000, with a potential cost avoidance of \$512,500 annually thereafter. The Vandenberg ENVVEST initiative is expected to significantly reduce paperwork since it requires only an abbreviated record keeping effort, estimated at less than \$50,000 per year, to track and verify emission reductions from established baselines.

Since the primary focus of Vandenberg will be on non-attainment pollutants, ENVVEST will contribute towards Santa Barbara County's achievement of State and national ambient air quality standards. Additionally, ENVVEST teams Vandenberg AFB with SBCAPCD and EPA to meet CAA goals and objectives for reducing ozone levels, while ultimately protecting the health and welfare of Santa Barbara County residents.

The point of contact for more information or details regarding the reduction opportunity evaluation procedures and results is Mr. Monte D. McVay, 30 CES/CEVPP, DSN 276-201, monte.mcvay@vandenberg.af.mil.

Public Rule Making

In addition to ENVVEST initiatives, Vandenberg AFB environmental personnel are active participants in the monthly regional air quality meetings with the SBCAPCD. During 1996 and 1997, participation in this forum, specifically on the Rulemaking Committee, led to significant changes in permitting regulations. In 1994, Vandenberg maintained a total of 110 air permits that incurred permitting and fee costs of \$450,000 per year. The changes in the air permitting regulations regarding temporary equipment permitting, de minimus exemptions, portable internal combustion (IC) engines, construction activity engines, aircraft show engines, and miscellaneous other equipment have lowered Vandenberg's air permit total to 46. This achievement significantly decreased inspections and has resulted in savings of \$300,000 per year in permitting fees. Additional active participation in the development of the California Statewide Portable Equipment Registration Program, which regulates portable engines and portable engine driven equipment units, led to the implementation of a simplified program specifically for Tactical Support Equipment and the elimination of operating limits on virtually all deployable portable engines. Portable equipment, once registered with the Air Resources Board (ARB), no longer requires the more stringent individual permits from the local air districts.

For more information concerning the public rule making initiatives, contact Ms. Bea Kephart, 30 CEV/CECC, DSN 275-7924, bea.kephart@vandenberg.af.mil.

Air Emissions Inventory/ EnviroCom

EnviroCom is an air quality database used to track sources, monitor permits, track inspections, and generate standardized emission reports. In use at Vandenberg AFB since 1996, EnviroCom, created by Metcalf & Eddy, Inc. (M&E), and currently operated by M&E under contract to Tetra Tech Inc., was tailored to meet Vandenberg's mission needs and unique air emissions inventory requirements. A flexible tool, the database has a Windows 95 or NT graphical user interface and runs off either the Oracle or FoxPro platform. EnviroCom tracks toxic and criteria air pollutants for over 1,000 base sources and stores an abundance of other information including equipment manufacturers, emission factors and physical descriptions, potentials to emit (PTEs), and various emission calculations. In addition, the program can be queried to provide emission information by source category, facility location, or source operator. Emission

equations can be easily edited and changed to reflect report needs such as annual, monthly, or even 8-hour operating schedules. The system also boasts a "what if" option; that is, if a certain source parameter changes, such as emission factor, a new set of data can be generated from the hypothetical scenario. EnviroCom derived data has demonstrated compliance for Vandenberg AFB and other users, such as the United States Navy and the city of San Diego.

For more information on the EnviroCom air inventory database, contact Ms. Bea Kephart, 30 CEV/CECC, DSN 275-7924, bea.kephardt@vandenberg.af.mil or Mr. Albert Mar, Metcalf & Eddy, Inc. (619) 233-7855 or email albert_mar@aquaalliance.com.

Web EnTrack: Management Program for Hazardous Materials

When Vandenberg AFB began their hazardous material pharmacy (HAZMART) in 1994, they quickly recognized the need for a tracking system to manage the storage and issue of materials at the pharmacy. At the time, there was no system that met their requirements, and the search began for a commercially available system that could be tailored to meet them.



HAZMART Free Issue

EnTrack, designed by Jordan Systems, Inc., was originally developed for this purpose. Upon development of the AF Form 3952 (Chemical/Hazardous Material Request Authorization Form) authorization process, Team Vandenberg began an effort with the support of Jordan Systems and HQ AFSPC to automate and streamline this process. The end product resulted in a new Web-based EnTrack® system that is on the

cutting edge of hazardous materials (HAZMAT) requisition. The multifaceted EnTrack® database offers an online, interactive overview of the HAZMAT exchange program operated by the HAZMART that is unavailable in the Department of Environmental Security Corporation Information Management (DESCIM) systems. Features that make EnTrack® a faster, easier, and more cost-effective requisition process include:

On-line Completion of AF Form 3952

All HAZMAT users can complete AF Form 3952s online. The form is then forwarded to the proper authorities for evaluation and review, concurrently allowing customers to track the status of their authorization requests.

Find Material Safety Data Sheets (MSDSs) for HAZMAT in the Workplace

All HAZMAT users are able to search the EnTrack® MSDS library by simply inputting the product's national stock number, nomenclature, manufacturer's name, container barcode, or several other possible identifiers.

Request HAZMAT Online

After the user has initiated the AF Form 3952, filled in the needed information, and received authorization, users are able to request a HAZMAT online for either pickup or delivery by the HAZMART.

Identify Free Materials

Following authorization for a material, a user can access a current list of free-issue HAZMAT online, and upon approval, receive an item free of charge.

Fire Department Interface

The EnTrack® system can be used as a vital tool for the base Fire Department. In response to an emergency, the Fire Department can input the building number in question and instantly view a list of HAZMAT located throughout the building.

Online Reports

Shop Inventory - This report provides users access to the active inventory assigned to their shop. The report also has the ability to access and print out all MSDSs for the inventoried material.

Over 45 Days Inventory - This report provides the user with a listing of all materials in overdue status to the HAZMART. The report also allows users to update usage information as a material is depleted, and displays the usage rate of a specific material (down to 1-percent accuracy), which is critical for environmental reporting. All of these reporting processes can be accomplished online to the HAZMART for updating overdue items.

For more information about EnTrack, contact Mr. Dave Schmarje, DSN 276-9494, schmarjd@vafb.af.mil or Mr. Monte McVay, DSN 275-2015, monte.mcvay@vandenberg.af.mil.

Chumash Hunting Rights

Vandenberg AFB has a rich history with over 2,000 archeological sites showing Chumash occupation. The Chumash, a Native American tribe, presently consists of approximately 200 members residing on the Santa Ynez Reservation, and a total of 10,000 members located elsewhere throughout Central and Southern California. Since the early 1980s, the Chumash have sought permission to hunt and fish on Vandenberg AFB.

In 1996, Vandenberg AFB took the initiative to enhance the existing Native American Program by providing the Chumash limited access to the base for the use of sacred sites and plant gathering. The base initiated a Good Neighbor Policy to allow Chumash hunting and fishing on Vandenberg in order to comply with Department of Defense Instruction (DoDI) 4715.3, "Environmental Conservation Program," 3 May 1996. The instruction allows Native Americans access to Department of Defense (DoD) sites and resources, including plant gathering and hunting, if the area was traditionally used in such a manner. The Judge Advocate (JA) office was involved in every step of the policy agreement, and required Vandenberg AFB to provide a written record substantiating that the Chumash historically used the base for hunting and fishing.

The hunting and fishing initiative, which took over a year to complete, now allows the Chumash to hunt and fish on Vandenberg AFB wherever it is legal for military personnel to hunt or fish. The initiative also reaffirms the right of the Chumash to gather plants on the base. The policy was placed into effect in 1998, and 20 members of Chumash tribe participated in the first hunting season. Currently, over 100 Chumash have permission to hunt and fish on Vandenberg AFB.

For more information about the Native American Program at Vandenberg AFB contact Mr. Laurence Spanne, Chief Cultural Resources Section, 30 CES/CEVPC, DSN 275-0748, or larry.spanne@vandenberg.af.mil.

Non-Lethal Predator Management

Vandenberg AFB is home to 13 threatened and endangered species, including the California Least Tern. California Least Terns are migratory birds that nest between mid-April and August in isolated colonies including a one-mile area along Purisima Point on the Vandenberg AFB coastline. The base has two launch sites adjacent to the tern nesting area which adversely impact tern reproduction. In order to continue launches at these two sites, Vandenberg AFB received a Biological Opinion from the United States (U.S.) Fish and Wildlife Service allowing an annual Incidental Take of five tern nests due to authorized launch activities. *[Note: The Endangered Species Act (ESA) defines "take" as "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." The taking of a threatened and endangered species is prohibited; however, the U.S. Fish and Wildlife Service may issue permits to take a threatened or endangered species if such taking is "incidental to, and not the purpose of, otherwise lawful activities."]* It was discovered that it took only one launch for Vandenberg AFB to meet their permitted annual Incidental Take limit. This action motivated the base to reinstate consultation with the U.S. Fish and Wildlife Service, and to formulate practices to help protect the Least Terns. These consultations resulted in the continuation and expansion of the Air Force's existing non-lethal predator management program.

The Predator Management Program developed by Vandenberg AFB uses a non-lethal approach to managing the native predators of threatened and endangered species. *[Note: Native predators are normally eliminated if they threaten or pose a threat to a listed threatened and endangered species.]* The program, although labor intensive, provides better management of species and less impact to the overall ecosystem. Least Terns are ideal prey for numerous avian predators such as hawks, owls, and falcons, and mammalian predators such as coyotes and bobcats. The total eradication of these top-level native predators under normal management practices provides an open niche for secondary predators such as squirrels, blackbirds, and non-native red foxes.

Through the Predator Management Program, several avian predators in the Least Tern nesting area were trapped, fitted with radio-transmitters, and released. The transmitters provided data on the foraging habits of the predatory birds enabling the base to determine which birds would pose a problem during the tern nesting season. For certain problem avian predators, the U.S. Fish and Wildlife Service and the California Department of Fish and Game approved a relocation site in which the birds would continue to be monitored. To date, none of the relocated birds have returned to prey on the Least Terns. For the remainder of the problem avian predators, Ms. Read, a Wildlife Biologist for Vandenberg AFB, was able to personally obtain



Least Tern

permits from the U.S. Fish and Wildlife Service and the California Department of Fish and Game, allowing her to capture and hold birds of prey in captivity. The permits allowed the live trapping of the birds and enabled Ms. Read to hold and care for the birds until the Least Tern-nesting season ended. At the end of the season, the captive birds were banded, or marked for future identification, and then released. Mammalian

predators were deterred from the nesting area with an electric fence. If the predator still entered the nesting area, or persisted in testing the fence, the animal was eliminated since relocation of mammalian predators was not a viable option. The program focused on removal of single problem animals rather than entire populations, and the base continues to investigate alternative methods for non-lethal control.

The non-lethal management approach initiated by VAFB is a proven and viable alternative to the total eradication of natural predators within a threatened and endangered species nesting area. Since the initiation of the Predator Management Program, California Least Tern fledgling output has increased dramatically. In 1997 the base had 2 documented fledglings compared to the recorded 14 fledglings in 1998 and 13 fledglings in 1999. With the success of the Predator Management Program, the U.S. Fish and Wildlife has also supported Vandenberg AFB in expanding the program to more effectively deter mammalian predators of the Western Snowy Plover, another federally-listed threatened species.

In anticipation of increased reproductive success of Least Terns and Snowy Plovers resulting from the

Vandenberg Predator Management Program offsetting launch impacts, U.S. Fish and Wildlife Service issued a Biological Opinion doubling the allowable annual Incidental Take to ten nests for both species. For more information about the Predator Management Program at Vandenberg AFB contact Ms. Nancy Read, Wildlife Biologist, 30 CES/CEVFN, nancy.read@vandenberg.af.mil.

Range Management Plan

Due to past range management practices that allowed overgrazing, and subsequent severe soil erosion, Vandenberg AFB developed a new Range Management Plan (RMP) in 1992, and issued exclusive grazing privileges to the Federal Bureau of Prisons (BOP). In 1994, the RMP was implemented, evaluating rangeland with respect to endangered species, critical habitat, oak woodlands, riparian areas, wetlands, archeological sites, livestock distribution, and forage carrying capacity levels.

Vandenberg AFB currently permits 23,500 acres of rangeland for grazing and 1,100 acres for farming. The rangeland supports an 800-head cow/calf operation, and is divided into six units, with each unit further divided into pastures. The pastures are grazed under rest and deferred rotational grazing systems. The RMP requires minimum residual dry matter (RDM) levels of 1,000 pounds per acre in areas with exotic annual grasses. Vandenberg has achieved a RDM level of 1,500 pounds per acre, which in some pastures has resulted in the re-establishment of some native perennial grass species. Many gullies, previously raw and eroding, are now lined with vegetation. The 1,500-pound per acre RDM was accomplished through effective monitoring, BOP cooperation, and livestock distribution techniques such as water trough placement, salting, fencing and riding.

The success of the Range Management Plan is most clearly evident through photo-documentation, which displays before (1994) and after (1994) range conditions, and dramatically emphasize species composition and soil stabilization. The range management practices implemented at Vandenberg AFB not only directly combated soil erosion, but also improved native plant communities and overall range conditions.

For more information about the Range Management Plan at Vandenberg AFB, contact Mr. Craig Nathe, Rangeland Management Specialist, 30 CES/CEVFN, DSN 276-0623, craig.nathe@vandenberg.af.mil.

Solid Waste Management

In 1996, Vandenberg AFB approved a renovation project to replace all existing Military Family Housing (MFH) units. The renovation project includes initial asbestos and lead abatement, identification of appliances and materials which can be reused, and demolition. The renovation project has to date generated tons of demolition debris such as asphalt, concrete, and organic material including wood, siding, shingles, etc. The estimated 16,000 tons of demolition debris generated thus far has been disposed of in the base landfill.

In 1998, Vandenberg AFB leased a Maxigrinder to process and remove the demolition debris from the landfill. It is used to grind asphalt and organic material debris generated from the renovation project, which was then recycled and used as road base. One of the main reutilization areas for the road base is on dirt roads within the landfill, thereby reducing fugitive dust emissions from the roads. The ground organic material debris is also utilized in the landfill as an alternative daily cover. The concrete debris is crushed into Class I and Class II road base, and utilized as a compaction material. By using the Maxigrinder, Vandenberg AFB has prevented an estimated 44,000 tons of material from being disposed of in the base landfill over the last two years. In addition to preserving landfill capacity, these waste diversion practices helped to achieve a solid waste diversion rate of over 80% while reducing operating costs by an estimated \$200,000.

In 1999, to further divert recyclable solid waste and comply with California Assembly Bill 939 which requires a 50% reduction in solid waste by 2000, Vandenberg AFB developed a performance-based landfill contract. The new landfill contract, awarded to



Maxigrinder

a single contractor, combines the previous refuse and recycling collections contract with the overall management of the base landfill. The base retains ownership of the landfill; however, it relinquishes daily operation and maintenance of the landfill to the contractor. The transfer of landfill management saves Vandenberg AFB money by reducing the cost of manpower and equipment upkeep. The landfill management contractor also carries the burden of complying with all federal and State regulations governing management of the landfill.

The performance-based contract provides award fee incentives to achieve a decrease in the amount of solid waste placed in the landfill, and to increase the amount of solid waste diverted for reuse. The new contract, by not setting strict specifications, allows the contractor to decide how to approach reducing and diverting solid waste from the landfill. Also, by awarding the contract to a single contractor, Vandenberg AFB enables the contractor to track the waste to the source, and provide the shop or facility with assistance in recycling certain materials prior to landfill disposal. With the new landfill contract, Vandenberg AFB successfully combined solid waste collection efforts resulting in better cradle-to-grave management, an estimated increase in the solid waste diversion rate, and an overall estimated monetary saving.

For more information on the Solid Waste Management efforts at Vandenberg AFB, contact Mr. Gary Kamei, Compliance Programs, 30 CES/CEVCC, DSN 276-3271, gary.kamei@vandenberg.af.mil. For a copy of the Statement of Work for the performance-based landfill contract, please contact PRO-ACT at DSN 240-4214 or (800) 233-4356.

Hazardous Waste Management

In 1995, Vandenberg AFB, under the Wing Environmental Services Contract, initiated an effort to modify the management process for hazardous waste disposal. The modified process enabled the installation to reduce the number of satellite accumulation points from over 100 sites to approximately 24, and to manage all hazardous waste through a consolidated Collection Accumulation Point (CAP). The CAP provides cradle-to-grave tracking of hazardous waste from individual shops, retains a history of waste streams produced from individual shops, ensures all required documentation is complete for disposal, and

prepares federal and State reports. The CAP also has sampling capabilities, which aid in the identification of unknown hazardous wastes, a rag laundering service, and a drop-off service for household hazardous materials. The CAP is contract operated under the 30th Space Wing 45-3 Rule, which allows 45 days for generator accumulation and then 3 days to turn-in the item for disposal to the Defense Reutilization and Marketing Office (DRMO). Disposal of full containers by the DRMO is operated by another contractor, who has 15 days to dispose of the hazardous waste.

The success of the CAP and the subsequent rapid turn over rate of hazardous waste, well below the required minimum of 90 days, allows for the closure of Building 3300 - the Treatment, Storage, and Disposal Facility (TSDF) at Vandenberg AFB. In 1995, the TSDF stored over 700 drums of hazardous waste; however, during the last 11 months the building housed only a single drum of waste for four days. The closure of Building 3300 will eliminate the need for a TSDF permit and save the installation \$20,000 in annual costs associated with operating and maintaining a hazardous waste storage facility.

When the current DRMO disposal contractor defaulted, the Environmental Office partnered with the Defense Reutilization and Marketing Service (DRMS) to preserve required management of the waste. The partnership resulted in selection of an interim contractor to take over hazardous waste disposal operations. The temporary fix provided Vandenberg AFB with the opportunity to develop an innovative umbrella contract with DRMS. This contract will task a single contractor to operate the CAP, prepare all required documentation, and control the transportation and disposal of the



Consolidated Accumulation Point

hazardous waste. The umbrella contractor provides cradle-to-grave management of the hazardous waste generated on Vandenberg AFB. The initiative taken by Vandenberg AFB will provide a streamlined disposal process, has the potential to further shorten the time it takes to dispose of the waste, and will eliminate excess paper work with the utilization of a single electronic file.

For more information on the Hazardous Waste Management initiative taken at Vandenberg AFB, contact Mr. Pat Maloy, 30 CES/CEVCC, DSN 275-0544, pat.maloy@vandenberg.af.mil or Mr. David Estrada, 30 CES/CEVCC, DSN 276-0133, david.estrada@vandenberg.af.mil.

Other Successes at Vandenberg AFB

Vandenberg AFB has implemented many other pollution prevention and compliance initiatives in addition to those discussed above. However, because of space limitations, PRO-ACT is unable to fully expound upon all of them. Additional information on the following success stories can be obtained by contacting us at DSN 240-4215:

- Marine Mammal Programmatic Agreement;
- Evolved Expendable Launch Vehicle (EELV);
- Wetlands Mitigation to Retain Mission Critical Road;
- Integrated Pest Management;
- Underground Storage Tank (UST) Identification; and
- Cultural Resource Management.

The AFCEE Team - Recognized as a customer-oriented leader and the preferred provider of environmental, planning, design, and construction services.

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Need more information? Contact PRO-ACT at DSN 240-4214, (800) 233-4356, or pro-act@hqafcee.brooks.af.mil.



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