COMPLIANCE EVALUATION INSPECTION REPORT

VANDENBERG AIR FORCE BASE
California, 93437-6021

EPA ID # CA 9570025149

Inspected By: Larry Stuck
Date Inspected: December 22 & 23, 1992
Report By: Larry Stuck
Date of Report: April 22, 1993

I. Purpose:

To conduct a Compliance Evaluation Inspection (CEI) of Vandenberg Air Force Base which has a State permitted storage facility and has applied for a RCRA TSDF permit.

II. Representatives Present:

Vandenberg Air Force Base (VAFB):

John Sipos, Lieutenant Colonel
Jeff Mathieu, 2nd Lieutenant
Karl Kneeling
Michael Cummings, MSgt

Others present at closing meeting, please refer to Surveillance and Compliance Report (see Attachment 8).

California Environmental Protection Agency / Department of Toxic Substances Control (Department):

Larry Stuck, Hazardous Materials Specialist
Nancy Carder, Associate Hazardous Materials Specialist
Robert Kou, Associate Hazardous Materials Specialist

III. Owner/Operator:

This facility is legally owned by the Department of the Air Force and is operated by the Defense Logistics Agency. Many of the units are operated or cooperated by civilian contractors and consultants. VAFB assumes the role of generator and ISD facility for all activities on the base whether or not military personnel are directly involved. Currently, Jacobs Engineering Group, Inc. is the consultant hired to help with all Permit requirements and to operate many units.

IV. Background:

December 18, 1981	The Department issued an Interim Status Document (ISD) to VAFB.
April 25, 1985	Department inspector, Maxine Richey performed a record review at VAFB to determine compliance.
August 15, 1985	Department inspector, Maxine Richey performed a "walk through" inspection of VAFB.

June 5, 1986	Department permit writer, Carmelita Lampino performed a "pre-permit" inspection of VAFB.
June 25, 1986	Jacobs Engineering Inc. conducted a Compliance Evaluation Inspection under contract with the Environmental Protection Agency (EPA).
July 24, 1986	The Department issued a State Hazardous Waste Facility Permit to VAFB.
May 26, 1988	Jacobs Engineering Group, Inc. conducted a Compliance Evaluation Inspection under contract with the EPA.
October 24, 1990	Department inspector, Larry Stuck conducted a CEI inspection.
January 9, 1991	The Department issued a Report of Violation and Schedule of Compliance citing 12 counts.
August 5, 1991	The Department sent VAFB a letter authorizing them to continue operating according to conditions defined in their hazardous waste facility permit issued July 24, 1986, until their new Part A and B permit application is reviewed by the Department.
October 29, 1991	Department inspector, Larry Stuck conducted a CEI inspection.
January 16, 1992	The Department issued a Report of violation and Schedule of Compliance citing 5 counts.
December 17, 1992	VAFB submitted a revised Part A application for five treatment or storage units (see Attachment 3).

V. <u>Hazardous Waste Status:</u>

VAFB is operating a hazardous waste storage facility under a RCRA ISD as well as a State Hazardous Waste Facility Permit. VAFB also operates an open burn/open detonation (OB/OD) pit under a RCRA ISD.

Activities operating at VAFB which were noted in their December 17, 1993 RCRA Part A application include:

1) Explosive ordinance disposal (EOD) - an OB/OD unit requiring a RCRA Permit.

2) Ultra-violet (UV)/Ozone wastewater treatment - requiring a RCRA Permit.

3) Bulb crusher - requiring a RCRA Permit.

4) Hazardous waste storage facility - requiring a RCRA Permit.

5) Acid/Base neutralization - requiring a RCRA Permit.

Other hazardous waste activities include on-site recycling of silver, freon and lacquer thinner which fall under tiered permitting requirements.

VAFB also has a network of approximately 18 hazardous waste collection accumulation points (CAPs) which are operated as generator units with storage less than ninety days. The Department inspected nine CAPs during the December 22 & 23, 1992 inspection.

VAFB has APCD permits for two air scrubber units at the Hypergolic Storage Stockpile Facility (HSSF) and oxidizer storage facility and Water Quality Control Board permits for wastewater treatment units and two evaporation ponds.

VI. General Description of Facility:

VAFB is located along 35 miles of Santa Barbara County coast, approximately 55 miles northwest of Santa Barbara. VAFB is currently the third largest USAF installation, covering more than 98,400 acres or 154 square miles. The base is bordered by the Pacific Ocean to the west and south, by Casmalia Hills to the north and six miles to the east is the city of Lompoc (see Attachment 1).

VAFB hosts more than 40 Department of Defense (DOD) and non-DOD government organizations and 75 civilian aerospace contractors, employing a total of over 22,300 people. VAFB remains the generator for all hazardous wastes generated on the base and is responsible for all environmental permits.

The base was first established in 1941 as a training center for armored and infantry divisions of the army and was designated Camp Cooke. In June 1957, Camp Cooke was transferred to United States Air Force (USAF) to become USAF's first missile base. In 1958, the base was redesignated VAFB. In December 1958, VAFB launched its first missile and has launched more than 1,638 missiles and space boosters to date. VAFB's primary mission is to conduct strategic air command (SAC) missile combat crew training, operational testing and other intercontinental ballistic missile and space-related programs.

VI. Hazardous Waste Activity:

VAFB stores hazardous waste in a secure storage building which is covered by an ISD. This storage building has a maximum capacity of eight hundred and thirty-two 55 gallon drums. VAFB also temporarily stores hazardous waste up to 90 days in approximately 18 collection accumulation points (CAPS). All wastes from the CAPS are sent to the ISD storage facility prior to shipping to a permitted treatment or disposal facility. VAFB generates and stores annually approximately 32,000 pounds (lbs.) of spent halogenated solvents, 10,000 lbs. of spent non-halogenated solvents, 1,200 lbs. of spent cyanide, 2,000 lbs. of cadmium, 20.000 lbs. of corrosive wastes, 3,000 lbs. of pesticides, 15,000 lbs. of polychlorinated biphenyl (PCB), 1,000 lbs. of chromium, 500 lbs. of arsenic wastes, 500 lbs. of lead, 200 lbs. of silver, and 3,000 lbs. of water reactive wastes according to Attachment A of VAFB's 1986 Hazardous Waste Facility Permit issued by the Department. These wastes are generated as a result of missile maintenance and operations, lubricating oil change, film processing, paint stripping, cleaning, and metal finishing and plating operations.

VII. Observations:

On December 22, 1992 at approximately 0815 hours, Department inspectors Carder and I arrived at the main gate of the facility. Second Lieutenant Jeff Mathieu arrived and led us to the Environmental Management Office. We held a brief introduction and opening meeting with VAFB's Environmental officers, discussing the purpose of the visit and what we needed to see. I was presented with an itinerary which VAFB had made. I explained that this inspection would be basically the same as the previous years' inspections.

Carder and I rode with Sipos in a VAFB van to the Explosive Ordinance Disposal (EOD) range where VAFB planned to give us a demonstration. Sgt. Cummings explained that the ordinances that they detonate are occasionally found on the base property and are live relics from past military operations. These ordinances are not stored on the base and are not over stock or off-specification ammunition or explosives. They are detonated shortly after the time they are found. During the demonstration no ordinances were detonated. Cummings placed a 1.25 lb. C-4 charge on the bare soil and instructed us to walk back to the vehicles behind an approximately ten foot tall dirt berm and 75 to 100 yards away. Cummings then inserted two blasting caps into the plastic explosive and wired them to a remote detonator and antenna. Cummings then joined us, entered the detonation code into the remote control box and called for detonation clearance on a radio. He gave me the controls and instructed me to press the red button. After the

detonation, we walked to the place where the charge had been left and a hole approximately 2 feet across and over a foot deep was there in the wet soil. Cummings stated that there is complete combustion of any ordinance that they detonate.

Next, we went to the Civil Engineering (CE) CAP and met with Sgt. Minick. Minick showed us a new metal shed for the fluorescent light bulb crusher. Only one crusher is being used presently and another one is stored in the CE storage building. Fluorescent light bulbs are considered hazardous due to mercury vapor content. Approximately 2,000 bulbs are crushed each month. Generators are typically responsible for crushing their own bulbs and logging the information into a logbook. I suggested that the date be included in the log book. We walked into the back lot and inspected hazardous waste drums. There was a 55 gallon drum with a funnel screwed into the bung hole. Minick stated that Black Gold Oil Company had pumped out the oil approximately 30 minutes ago. He stated that the waste oil is pumped out approximately every 45 days. We found another 55 gallon drum labelled as non-RCRA waste oil that was full and the accumulation date was changed to 12/22/92 (see Photo 1). Minick stated that this drum was rejected by Black Gold due to high chloride content. Carder asked Minick what the original accumulation date was and he stated approximately 45 days ago. I told VAFB that the accumulation date should not have been changed just because it was rejected and that the waste is probably a RCRA waste because of the chloride content. There were 40 drums of sandblast grit that were rejected and returned due to liquid content. These drums were relabelled with the words "awaiting analysis" and the accumulation date of August 21, 1992. I asked why the results were taking so long and they could not answer. They started to receive results on December 7, 1992. Two 55 gallon drums of synthetic petroleum did not have accumulation start dates (see Photos 2 & 3). Minick provided me with a copy of the profile sheet for the two drums which showed that the accumulation date was December 11, 1992 (see Attachment 5, page 1). We went inside the CE waste storage building CAP and found no violations. In the office I looked at the operating log book and the cross-referenced Document Turn-in Identification (DTID) sheets, the VAFB hazardous waste tracking system.

We next went to the CE paint shop. Carder found three 5 gallon plastic containers which a contractor stated were used to transfer lacquer wastes from the spray booth area to the CAP across the street. One of the containers was half full. None of the containers had hazardous waste labels or any markings. Carder informed VAFB that accumulation containers such as these need to be labelled and instead of writing an accumulation date they could write "emptied daily" or "weekly". The shop had an eye wash as did the CAP across the street.

Next, we went to the printed circuitboard shop. There were four metal sheds outside, one of which is designated for hazardous waste and the others are for product. The acid shed had shelves made of boards sitting on bricks. These shelves looked very unsafe and we recommended that a sturdier/safer shelf system be used. Inside the shop they showed us the plating baths. Most of the plating is done with copper. The waste water is run through an electrolytic process which plates the copper in foil sheets which are then recycled as scrap metal. The other baths are drained approximately once a year and sent as hazardous waste.

At approximately 1415 hours, we arrived at the hypergolic storage stockpile facility (HSSF) where rocket fuels are stored. We attended a brief safety meeting and orientation and then walked up to the CAP next to the storage tanks. There were 20 drums labelled as hazardous waste, awaiting analysis and 25 drums of hydrazine aqueous solutions. A contractor stated that the solutions typically range from 2-3% hydrazine. We walked over to the air scrubber which was put into operation after source testing from May to August, 1992. This scrubber took the place of a vapor incinerator. The air scrubber was permitted by the Santa Barbara Air Pollution Prevention Department (APCD). So far, the scrubber has treated to nondetectable levels according to the contractors. The oxidizer storage area, a sister storage facility, has a nearly identical air scrubber which was put into operation at the same time. This system, however, uses a sodium hydroxide solution with a pH above 12. A waste solution is produced which is managed as hazardous waste. We did not visit this oxidizer storage facility.

Next, we went to Space Launch Center - 6 (SLC-6). We walked through the CAP and found no violations. Across the driveway, we met Pete Cole who gave us a tour of the UV-ozone wastewater treatment facility. This facility has two treatment processes. The UV-ozone system treats wastewater contaminated by fuels for 16 hours to nondetectable limits. The other process uses a precipitation/reverse osmosis system (PROS) to treat metal-containing wastewater. This system has three by-products including approximately 80% recovered industrial water, brine water which is sent to the evaporation ponds, and hazardous waste filter cake. This facility started operation at the end of November, 1991 and has treated approximately 1.2 million gallons of wastewater.

On the second day of the inspection, December 23, 1992, at approximately 0830 hours Kou and I met Sipos at the front gate and followed him to the Environmental Management office. From there we went in a VAFB van to the ISD storage building. We met with Raymond Rudd, David Estrada and Elsa Meyers, all from Defense Reutilization and Marketing Office (DRMO). There were several hundred containers in the ISD storage building and Kou and I inspected nearly each container and label. We found approximately

40 containers in this building which did not have the physical property, the hazardous characteristic or both noted on the hazardous waste label (see Photos 4-8). One 10 gallon drum labelled as compressed gas, aliphatic hydrocarbons did not have the accumulation start date as well as the physical property and hazardous characteristic (see Photo 8). The in-coming waste log showed that this drum was received by DRMO on December 16, 1992 and the waste profile sheet showed that the accumulation start date was October 7, 1992 (see Attachment 5, page 3). One drum labelled as potassium hydroxide did not have the accumulation date (see Photo 9). The in-coming waste log showed that this drum was received by DRMO on December 15, 1992 and the profile sheet showed that the accumulation start date was October 7, 1992 (see Attachment 5, page 5). We asked DRMO to make sure that labels are visible for inspection by turning drums, limiting the storage of small containers three deep on pallets, and limiting the storage of drums on third shelves when possible. In general, there was not a problem and I did not cite VAFB.

The contingency plan was posted on the wall with updated coordinators and phone numbers. Kou reviewed the inspection log while I checked the in-coming waste log. There were nine days for which inspection logs did not include the time of inspection (see Attachment 6, pages 1 and 4-11). There was one day for which inspection logs did not include the date and nature of repairs (see Attachment 6, pages 12, 18 and 21).

We next went to the DRMO office to review records. I reviewed the training records which were up-to-date and adequate. Kou and I reviewed out-going manifests since the last inspection, October 1991. Three manifests did not have the transporter's ID number and one manifest did not have the transporter's phone number listed (see Attachment 7). Copies of Land Disposal Restriction (LDR) notices were kept in a separate file from the manifests.

Next, at approximately 1100 hours we met Sergeant Karl at the component cleaning facility, building 8430. Karl led us next door to two large storage sheds, building 8431, which comprise the transportation CAP. No violations were cited. The component cleaning facility stopped operation in October, 1990, however, VAFB began using this building as a CAP since the last Department CEI inspection. All of the drums were stored on new containment pallets. The wastes are brought to this CAP from the vehicle hobby shop and the missile maintenance facility.

The next stop was a Jacobs Services CAP located outside of building 3000. Two drums had labels which were missing the hazardous property and physical state of the waste and one drum missing the hazardous property (see Photo 10). Personnel immediately corrected the problem.

Next, we went to General Dynamics and met with Russ Person. Person led us to a newly constructed hazardous waste/materials structure outside of the main building. This structure had three walls and a roof and a concrete containment system which drained into a sump. There was a satellite accumulation drum here for storage up to one year or when the drum is full. Sipos stated that this area is the only area on the base that uses the satellite accumulation exemption.

At 1400 hours we returned to the Environmental Management Office. Here we reviewed VAFB's biennial report and spill reports both of which were adequate. We held a closing meeting with VAFB and contractor staff at approximately 1500 hours to discuss concerns and potential violations found during the inspection.

VIII. Sampling Summary:

No samples were collected during this inspection.

IX. Discussion With Management:

After each day's inspection, Department inspectors met with VAFB's environmental management staff and contractor staff to discuss concerns and potential violations. At the end of the closing meeting I provided VAFB with a copy of a Surveillance and Compliance Report (see Attachment 8). An attendance list is included on this report. VAFB expressed its concerns about receiving their TSD Permit and requested any guidance that would help the process. They also expressed a desire to reinstitute their household hazardous waste collection program which the Department ordered them to discontinue until authorization has been granted. They stated that they were working with Florence Pearson, from the Department, on permitting this activity and asked if I had any information on it. I did not have any information about that program, except that the Department would like it to continue under proper authorization.

X. Violations:

Count 1: Title 22, California Code of Regulations (Cal. Code Regs.), Section 66262.34 (f)(1) and (f)(3).

VAFB failed to follow labelling requirements, in that, they stored 4 drums of hazardous waste with no accumulation start dates on the labels, 2 at the ISD storage facility and 2 at the CE CAP. There were 3 hazardous waste accumulation containers at the CE paint shop which did not have hazardous waste labels attached.

There were at least 40 drums at the ISD storage facility which were missing the physical property and hazardous characteristic.

Evidence: Photos # 2, 3, 8 and 9 show that the accumulation start date is missing from the hazardous waste labels. Photos # 4, 5, 6, 7, 8 and 10 show that the physical property and hazardous characteristics were missing from the labels. Kou and I counted approximately 40 drums missing the physical properties and the hazardous characteristics. Carder and I saw three plastic 5 gallon containers in the paint shop without any hazardous waste labels. A contractor stated that the containers were used to accumulate and transfer lacquer wastes from the spray booth area to the storage area across the street. Carder lifted one container which was half full.

Count 2: Title 22, Cal. Code Regs., Section 66262.20.

VAFB failed to follow manifest requirements, in that, they failed to include the transporter's ID number on three manifests and the transporter's phone number on one manifest.

Evidence: Copies of manifest #s 91664744, 91660928 and 91660930 show that the State Transporter's ID numbers are missing. A copy of manifest # 89584763 shows that the transporter's phone number is missing.

Count 3: Title 22 Cal. Code Regs., Section 66265.15 (d).

VAFB failed to include the time of inspections and date and nature of any repairs or remedial action in the inspection logs, in that, there were nine incidence where inspection logs did not have the time of inspection listed and one incident where the inspection log did not have the date and nature of repair noted at the ISD storage facility.

Evidence: Copies of pages of the inspection logs for the ISD storage facility are included as Attachment 6. Pages 1, 4, 5, 6, 7, 8, 9, 10 and 11 show that the time of the inspection was not included on the inspection log. Page 21 shows that there were cracks in the containment area and unloading area during the 9/11/92 inspection. On the 9/16/92 inspection, page 18, the logs indicate that the containment cracks still exist, but the unloading area is okay. There is no date or description of repair in this

area. On the 9/21/92 inspection, page 12, the logs indicate that the containment area is okay. There is no date or description of repair in this area.

Count 4: Title 22, Cal. Code Regs., Section 66270.1 (c).

VAFB has been operating as a TSD without a TSD permit or variance issued by the Department, in that, they are operating a fluorescent bulb crushing unit, a wastewater treatment unit which treats hydrazine, a RCRA listed waste, and an open burn/ open detonation under an expired federal ISD.

Evidence: Department inspectors Stuck and Carder observed the bulb crushing unit. Minick stated that they are operating the crusher and dispose of approximately 2,000 bulbs each month. Stuck reviewed the bulb crusher's operating log book which showed who operated the unit, the quantity of bulbs crushed and the date. Pete Cole of Jacobs Engineering, VAFB's contractor, who is in charge of the UV-ozone wastewater treatment unit stated that this unit was put into operation at the end of November, 1991 and has treated approximately 1.2 million gallons of wastewater. Cole stated that the wastewater was non-hazardous since the hydrazine levels were below 1000 ppm. Hydrazine is a RCRA listed waste and therefore is regulated as hazardous waste at any level. VAFB stated that they are currently operating the OB/OD unit. VAFB's RCRA ISD for the OB/OD unit has expired due to the fact that a Part B permit application was not submitted by November 8, 1988 pursuant to H&SC 25200.5(i) and H&SC 25200.7(f). The ISD expired on November 8, 1992.

XI. <u>Attachments</u>:

1. Maps of Vandenberg Air Force Base - 2 pages.
2. Photographs from December 22 & 23, 1992 inspection - 5 pages.
3. Part A Application Submitted December 17, 1992 - 9 pages.
4. Interim Status Document - 26 pages.
5. Hazardous Waste Profile Sheets - 5 pages.

6. Inspection Logs From ISD Storage Facility - 22 pages.

7. Out-going Hazardous Waste Manifests - 4 pages.

8. Surveillance and Compliance Report - 2 pages.

9. EPA Inspection Checklist - 33 pages.

XII. Witnesses:

1. Larry Stuck
   Hazardous Materials Specialist
   California Environmental Protection Agency
   Department of Toxic Substances Control
   Region 3 (Burbank)

Will testify to the events and statements made during the inspection conducted on December 22 & 23, 1992.

2. Nancy Carder
   Associate Hazardous Materials Specialist
   California Environmental Protection Agency
   Department of Toxic Substances Control
   Region 3 (Burbank)

Will testify to the events and statements made during the inspection conducted on December 22, 1992.

3. Robert Kou
   Associate Hazardous Materials Specialist
   California Environmental Protection Agency
   Department of Toxic Substances Control
   Region 3 (Burbank)

Will testify to the events and statements made during the inspection conducted on December 23, 1992.

XIII. Signatures:

Larry Stuck
Hazardous Materials Specialist
Region 3 (Burbank)
Facilities Management Branch
Department of Toxic Substances Control

5-18-93
Date Submitted

Roy Yeaman
Senior Hazardous Materials Specialist
Region 3 (Burbank)
Facilities Management Branch
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5-18-93
Date Approved