UNITED STATES AIR FORCE

Installation Restoration Program

Final
Community Involvement Plan

AFP42
AIR FORCE PLANT 42
PALMDALE, CALIFORNIA
ENVIRONMENTAL PROGRAMS

January 2004

Task Order 189
Contract F41624-00-D-8021-0189

Prepared for:

Restoration Division, Environmental Management (ASC/ENVR
Aeronautical Systems Center
Wright-Patterson Air Force Base, Ohio 45433-6503

and

Air Force Center for Environmental Excellence (AFCEE)
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:O/171230.02.04.01 AFP42-CRP-Cvr-final.psd 06/03

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Contents

Section **Page**

1. **Introduction** **1-1**
   - 1.1 Basis 1-1
   - 1.2 Purpose and Objectives 1-1
   - 1.3 Agencies with Oversight Responsibilities 1-2
   - 1.4 Contact Information 1-2

2. **Community Background, Interests, and Concerns** **2-1**
   - 2.1 Description of Surrounding Community 2-1
   - 2.2 Community Interviews 2-4
   - 2.3 Interview Results 2-5
     - 2.3.1 Familiarity with AFP 42 2-5
     - 2.3.2 AFP 42 Activity Participation 2-6
     - 2.3.3 Effects of the Cleanup on the Community 2-6
     - 2.3.4 Perceptions of Regulatory Agencies 2-6
     - 2.3.5 Community Communications 2-7
     - 2.3.6 Public ERAB Meetings 2-7

3. **Community Involvement Program** **3-1**
   - 3.1 Community Involvement Objectives 3-1
   - 3.2 Implementation Techniques 3-2
     - 3.2.1 Public Contacts 3-3
     - 3.2.2 Environmental Restoration Advisory Board 3-3
     - 3.2.3 Public Meetings 3-3
     - 3.2.4 Fact Sheets 3-4
     - 3.2.5 Mailing List 3-5
     - 3.2.6 Information Repositories 3-5
     - 3.2.7 Administrative Record 3-6
     - 3.2.8 Media Notification 3-6
     - 3.2.9 Agency/Elected Official Notification 3-6
     - 3.2.10 Public Comment Period 3-6
     - 3.2.11 Responsiveness Summaries 3-7
     - 3.2.12 Workshops 3-7
     - 3.2.13 Presentations and Information Discussions 3-7
     - 3.2.14 Site Tours 3-7
     - 3.2.15 Community Involvement Plan Revisions 3-7
     - 3.2.16 Effective Management of the Community Involvement Plan 3-7

4. **CERCLA Community Involvement Activities Schedule** **4-1**

5. **Facility Description and History** **5-1**
   - 5.1 Facility Description 5-1
   - 5.2 History of AFP 42 5-1

5.3 History of Environmental Programs at AFP 42 5-2

6. Site Descriptions 6-1
6.1 Site 1: Fuel-Contaminated Ditch 6-1
6.2 Site 2: Paint Waste Disposal Ditch 6-1
6.3 Site 3: Engine Run-Up Area 6-2
6.4 Site 4: Vehicle Washrack and Leaking Underground Storage Tank 6-3
6.5 Site 5: Abandoned Fire Training Circle 6-3
6.6 Site 6: Original Fire Training Circle 6-4
6.7 Site 7: Engine Run-Up Area 6-4
6.8 Site 8: Fuel Transfer Area 6-4
6.9 Site 9: Paint Disposal Area – West 6-5
6.10 Site 10: Paint Waste Disposal Area – North 6-5
6.11 Site 11: Disposal Area A 6-6
6.12 Site 12: Engine Run-Up Area 6-6
6.13 Site 13: Disposal Area B 6-6
6.14 Site 14: Engine Build-Up Area 6-7
6.15 Site 15: Triethyl Borane Disposal Area 6-7
6.16 Site 16: Evaporation Ponds 6-7
6.17 Site 17: New Fire Training Circle 6-8
6.18 Site 18: Abandoned Disposal Area 6-8
6.19 Site 19: Engine Run-Up Area 6-9
6.20 Site 20: Noise Level Area 6-9
6.21 Site 21: Fuel Disposal Area 6-10
6.22 Site 22: Engine Run-Up Area 6-10
6.23 Site 23: Building Ditch Discharge Area 6-10
6.24 Site 24: Washrack at Fire Station 1 6-11
6.25 Site 25: Washrack at Fire Station 2 6-12
6.26 Site 26: Battery Shop UST 6-12
6.27 Site 27: Waste Piles 6-12
6.28 Site 29: Groundwater at Plant Site 1 6-13

APPENDIXES

A Glossary of Environmental Terms
B AFP 42 Contact List and Information Repositories
C Community Mailing List Including DTSC Mandatory Mailing List
D Media Contact List
E Interview Questions and Questionnaire Mailed to ERAB Members
F ERAB Charter and Bylaws
G ERAB Members
H IRP Fact Sheets

LIST OF FIGURES

Figure No. **Page No.**

2-1 Location Map 2-2

4-1 CERCLA Process 4-2

4-2 Required Community Relations Actions 4-3

Acronyms

Mg/L	microgram(s) per liter
AFB	Air Force Base
AFP 42	Air Force Plant 42
AOC	area of concern
ASC	Aeronautical Systems Center
Bgs	below ground surface
Cal-EPA	California Environmental Protection Agency
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CIP	Community Involvement Plan
CRP	Community Relations Plan
DERP	Defense Environmental Response Program
DOD	Department of Defense
DTSC	Department of Toxic Substances Control
EM	Environmental Management
EPA	United States Environmental Protection Agency
ERAB	Environmental Restoration Advisory Board
GOCO	government-owned, contractor-operated
IRP	Installation Restoration Program
LAWA	Los Angeles World Airports
Mg/L	microgram(s) per liter
MEK	methyl ethyl ketone
Msl	mean sea level
NPL	National Priorities List
PA/SI	Preliminary Assessment/Site Investigation
RI/FS	Remedial Investigation/Feasibility Study
ROD	Record of Decision

RWQCB	Regional Water Quality Control Board
SARA	Superfund Amendments and Reauthorization Act
TCE	Trichloroethene
TDS	total dissolved solids
TEB	triethyl borane
UST	underground storage tank
WPAFB	Wright-Patterson Air Force Base

1. Introduction

This Community Involvement Plan (CIP) describes the community involvement and public participation program for Air Force Plant 42 (AFP 42) in Palmdale, California. This CIP was developed by Air Force Public Affairs (ASC/PA located at Wright-Patterson Air Force Base in Ohio) in conjunction with the California Environmental Protection Agency (Cal-EPA) Department of Toxic Substances Control (DTSC). This plan updates the previously updated Community Relations Plan (CRP) dated November 1997 and the original CRP dated June 1995.

1.1 Basis

The CIP is based on community feedback obtained from interviews and a survey questionnaire completed in 2003, in addition to ongoing feedback received at ERAB meetings. Information also was obtained from AFP 42 community involvement files, news media reports, and input from AFP 42 and DTSC staff who are knowledgeable about AFP 42 and the surrounding community.

1.2 Purpose and Objectives

The purpose of the CIP is to identify an describe community concerns and interest and to organize and explain the Air Force community involvement efforts at AFP 42. The CIP describes community involvement activities that will be implemented as a key part of the environmental investigations and cleanup activities performed under the Air Force Installation Restoration Program (IRP). The public participation program for AFP 42 will be implemented in coordination with the DTSC and complies with Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) requirements.

The overall objectives of the Air Force community involvement program are to:

- Provide the community with information
- Promote two-way communication between the Air Force and the community
- Provide opportunity for citizen input and involvement in the IRP
- Identify and respond to community concerns and needs that arise during the IRP process
- Provide for effective management of the Community Involvement Program

These objectives are explained in more detail in Section 3.1. The AFP 42 team aspires to make this CIP site specific and flexible, so that as community needs evolve and change, the CIP can be revised to reflect those changing needs.

1.3 Agencies with Oversight Responsibilities

The Environmental Safety and Health Division, Engineering Directorate of Aeronautical Systems Center at Wright-Patterson Air Force Base (WPAFB) in Dayton, Ohio, is the lead federal agency responsible for implementing the IRP at AFP 42. The DTSC and the California Regional Water Quality Control Board (RWQCB), Lahontan Region, provide regulatory oversight of the environmental investigation and cleanup of AFP 42.

This CIP is designed in accordance with public participation guidance set forth in the DTSC document, *Public Participation Manual* (2001), and the United States Environmental Protection Agency (EPA) document, *Superfund Community Involvement Handbook* (2001). While the EPA is not directly involved with the environmental investigation at AFP 42, this CIP has been prepared in accordance with CERCLA, as amended by the Superfund Amendments and Reauthorization Act (SARA), otherwise known as Superfund. The IRP is the Air Force equivalent to the EPA Superfund process, as further described in Section 4.

1.4 Contact Information

The Air Force, DTSC, and RWQCB have designated contacts who are responsible for ensuring public participation in the environmental investigation and cleanup at AFP 42. The persons who are responsible for the implementation of this CIP are identified below. This information is subject to change and current information is provided in Appendix B of this CIP.

George Warner AFP 42 Remedial Program Manager Environmental Safety and Health Division, Engineering Directorate Aeronautical Systems Center (ASC/ENVR) Bldg. 8, 1801 Tenth Street, Suite 2 Wright-Patterson AFB, OH 45433-7626 (800) 982-7248 ext. 53241 George.Warner@wpafb.af.mil	**Charles Muston** Public Affairs Officer Environmental Safety and Health Division, Engineering Directorate Aeronautical Systems Center (ASC/ENVR) Bldg. 8, 1801 Tenth Street, Suite 2 Wright-Patterson AFB, OH 45433-7626 (800) 982-7248 ext. 53266 Charles.Muston@wpafb.af.mil
Kimberly Foreman Public Participation Specialist California EPA Department of Toxic Substances Control Southern California Region 5796 Corporate Avenue Cypress, CA 90630 (714) 484-5324 kforeman@dtsc.ca.gov	**Ted R. Saari** Water Resources Control Engineer Regional Water Quality Control Board Lahontan Region 15428 Civic Drive, Suite 100 Victorville, CA 92392-2359 (760) 241-7407 TSaari@rb6v.swrch.ca.gov

2. Community Background, Interests, and Concerns

This section provides an overview of the community surrounding AFP 42 (Section 2.1), describes the community interview activities performed (Section 2.2), and presents a summary of community interests and concerns regarding AFP 42 based on the interviews (Section 2.3).

2.1 Description of Surrounding Community

AFP 42 is a government-owned, contractor-operated (GOCO) facility located in the northeastern portion of Los Angeles County, California, approximately 80 miles north of the City of Los Angeles in an area commonly referred to as the Antelope Valley (Figure 2-1). AFP 42 is actually located in the City of Palmdale.

No schools, hospitals, or nursing homes are located within a half mile of AFP 42's boundaries. A day care center, run by the Federal Aviation Administration for its employees, called Just Plane Kids is the only day care facility within a half mile radius. No other sensitive receptors fall within a half mile radius of AFP 42.[1]

More than 20,000 Antelope Valley residents are employed by the aerospace industry, supporting work at AFP 42 and Edwards Air Force Base (AFB), which is located northeast of AFP 42. AFP 42 is one of the largest employers in the Antelope Valley, second only to Edwards AFB. The work force is approximately 9,000 civilian employees. AFP 42 occupies approximately 5,840 acres of land.

The nearest nonmilitary communities to AFP 42 are Palmdale and Lancaster, which abut AFP 42 along its southern and northern boundaries, respectively. In 1986, the population of the City of Palmdale was 23,350. Today, Palmdale is one of the fastest-growing cities in California, with a population of over 127,000 residents. The city's record growth has earned it the Census Bureau rating as the nation's eleventh fastest growing big city among those with populations over 100,000 (www.cityofpalmdale.org, October 2003).

Approximately 29 percent of the Palmdale population have earned college degrees, and 32 percent are high school graduates. Five percent of the population received a business or technical degree. The median age is 29.1. White-collar employees represent about 57 percent of the Palmdale population, while blue collar employment accounts for approximately 43 percent. Palmdale residents earn a median annual income of $73,027. The average home value is $138,954. About 65 percent of the population own their own homes, and 34 percent of Palmdale citizens rent. In keeping pace with the city's growth, the Palmdale School District opened 10 new schools in the past 8 years. The City of Palmdale is governed under the council/manager form of local government.

[1] According Barbara La Fata, Public Information Officer and Susan Koleda, Planner, City of Palmdale, January 8, 2004.

English is the primary language spoken in the Antelope Valley according to Ligia Sad, a bilingual instructional aid for the Palmdale School District. Spanish is the main other language spoken in the area. None of the community interview respondents stated a need for bilingual outreach materiails.

Lancaster is described as the largest city and the economic center of the Antelope Valley. Over the years, the population of Lancaster has steadily increased and is currently about 108,000. About 70 percent of Lancaster residents own their homes. The Lancaster work force is considered very diverse; most are in construction, management, or technical fields. The typical price range of a home in the City of Lancaster is $125,000. Beginning with one community-built, brick schoolhouse, the Lancaster School District has expanded to 14 campuses, stretching north from Avenue M to Avenue H, and east from 50th Street West to 20th Street East (*City of Lancaster 25th Anniversary Book*, City of Lancaster, February 2002).

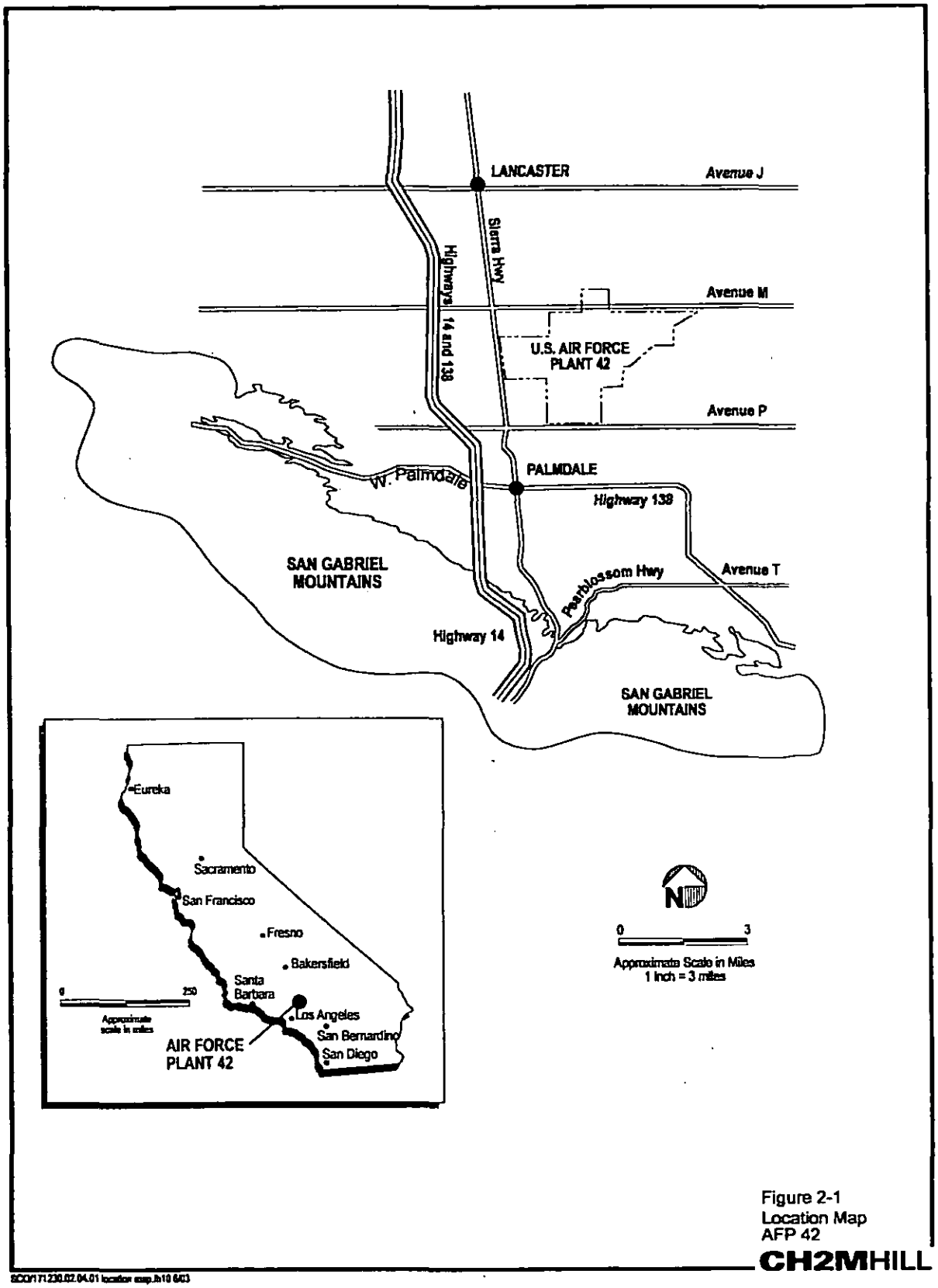

Figure 2-1
Location Map
AFP 42

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The cities of Palmdale and Lancaster primarily obtain drinking water from groundwater. The nearest public water supply wells are about 1 mile south of AFP 42. The groundwater in the vicinity of AFP 42 is potable, generally low in dissolved solids, and ranges from soft to moderately hard.

2.2 Community Interviews

Information contained in this section is based primarily on community feedback received from community interviews and questionnaires. The goals of these interviews were to identify community interests and concerns regarding environmental activities at AFP 42, to learn how the community would like to be informed and involved in the IRP process, and to evaluate the responsiveness of the Community Involvement Program to community concerns. Community feedback will be used to improve the AFP 42 Community Involvement Program.

Thirteen interviews were conducted during February and March 2003. The list of questions asked during the interviews is presented in Appendix E. In addition, current and former Environmental Restoration Advisory Board (ERAB) members and meeting attendees received a written questionnaire, located in Appendix E, which was reviewed and discussed at the February 5, 2003, ERAB meeting. Of these questionnaires, five were completed and returned. Feedback from the 18 respondents is incorporated into this report.

The respondents were selected from interested Antelope Valley community members who live and/or work in the area. A cross section of the community was interviewed, including residents, community and civic leaders, business and environmental groups, media representatives, school administrators, and ERAB members. Those who agreed to be interviewed or respond include:

- 5 ERAB members (1 in person interview, 4 questionnaires)
- 5 municipal and agency representatives
- 1 school official
- 1 local county official representative
- 1 librarian
- 1 business representative
- 1 AFP 42 onsite contract employee
- 1 media representative
- 1 representative of an environmental group
- 1 AFP 42 representative (questionnaire)

All but two respondents are residents of the Antelope Valley, and those who do not reside in the area, work in the area. All respondents were chosen specifically because of their involvement in the local community. Most respondents are long-time residents. Five have lived in the area for 25 to 50 years, five for 12 to 20 years, and three from 5 to 10 years. The

other respondents have been in the area 5 years or less (including the two who do not reside in the area, but work in it).

The ERAB is the most significant part of the community involvement program. ERAB members are highly interested, highly concerned, and very involved members of the community, who have the opportunity to informally give feedback at the quarterly ERAB meetings. The ongoing feedback has been used to identify issues of concern. ERAB members are primarily concerned with protection of water resources, human health and the environment, worker safety, finding the source(s) of contamination, and cleaning up the IRP sites as quickly as possible, and contamination affecting the groundwater outside AFP 42.

2.3 Interview Results

2.3.1 Familiarity with AFP 42

All 18 respondents were familiar with AFP 42 and its day-to-day operations; however, three people were not aware of any environmental restoration until the interview. Some were more aware of the Edwards AFB program, but not familiar with the AFP 42 program. Four were somewhat familiar, and 11 of the respondents were familiar or very familiar with the IRP program.

Most people knew about the environmental cleanup program through the local newspaper, the ERAB, and/or these community interviews. Others found out through friends, site tours, and/or the Internet. Everyone interviewed expressed an interest in receiving updates and information about the IRP.

All respondents believe that there is contamination at AFP 42 due to the nature of the industrial activities at the plant. However, most expressed "no concern" or a "low-level concern" because they felt that the Air Force was properly managing the contamination and cleanup.

Overall, ERAB members are intimately familiar with the IRP at AFP42 and have a higher level of concern than the general public. Because they attend meetings on a regular basis, they have the opportunity to review documents, provide comments and make their concerns heard in the presence of Air Force, DTSC, RWQCB representative. Key Concerns

Community interest in the environmental cleanup activities at AFP 42 was generally low. Consequently, the community does not perceive it as an immediate threat. Of much greater concern was the issue of local home and business growth encroaching upon the AFP 42 facility and threatening its long-term presence as a major employer in the area. Most of the respondents were not familiar with the IRP, or with the regulations guiding the AFP 42 investigation and cleanup. All respondents indicated that they value the economic benefit of AFP 42, which outweighs any concerns the community might have about environmental cleanup. The community feels that the Air Force is taking the necessary steps to clean up the areas that need it. Several of those interviewed felt that AFP 42 has been proactive in communicating with the public regarding facility activities.

Most respondents had a general interest in environmental issues but not pertaining specifically to AFP 42. The primary environmentally related concern of the community was that of potential groundwater contamination. Again, the concern was low; however, several respondents expressed concern over the possibility that contamination might be present. A few respondents raised concerns about public health, worker safety, and possible threats to public water sources. Other environmental concerns included air pollution from fire training operations, soil contamination, and the flight patterns at AFP 42. Most respondents are more concerned about the future of AFP 42 as an employer, rather than the environmental impacts from operations.

All respondents were asked if they had any environmental concerns about AFP 42. Most respondents had some level of concern. The most common issues were human health; worker safety; environmental impacts including groundwater contamination, quality, and availability; air quality; and the local economy. One person expressed concern about the flight patterns affecting the surrounding schools.

2.3.2 AFP 42 Activity Participation

When respondents were asked if they participated in any AFP 42 public outreach activities or had seen any outreach materials, three had never seen anything; three had received fact sheets; four had read articles in the newspaper; six had seen the public notices; eight had attended ERAB meetings; and one mentioned being on a site tour.[2] Most people knew that the AFP 42 information repositories existed; however, some were not aware of the repositories. Four people reported using the repositories in the past and said that a few people use the repositories regularly.

2.3.3 Effects of the Cleanup on the Community

Seven of the respondents felt that there is no effect to the community from the environmental cleanup at AFP 42. Others believe that some of the positive effects include a reduced risk of short- and long-term health effects for area residents, improved plant property conditions, and increased environmental awareness. Concern was expressed regarding potential job cuts due to strict environmental standards. One person stated that AFP 42 has a positive reputation in the community because it employs many residents. Another person stated that the community has a right to know and should have better information. Another commented that people do not know about the environmental investigation.

2.3.4 Perceptions of Regulatory Agencies

Most respondents indicated that the role of DTSC and RWQCB is a very important part of the process. Five persons said that they were not aware of the regulator role until they attended an ERAB meeting and suggested that the public probably does not understand the role of the Air Force as the lead agency. Two people thought that too much regulation holds up the process, but it is necessary to check the work of the Air Force. One person was annoyed at the turnover in agency personnel, and another expressed confusion as to the roles each of the representatives plays but had confidence that the environmental

[2] Most ERAB members have participated in site tours, the most recent on April 17, 2002.

investigation and cleanup would be done properly. One interviewee felt that the RWQCB should be more involved in the IRP. The involvement of DTSC helps build trust in the IRP process for some ERAB members. Especially in the past 2 years, DTSC has been thorough, professional and has worked to empower ERAB members, ensuring that the public's interests are part of the IRP.

2.3.5 Community Communications

The respondents felt that some of the best ways to communicate to the public about environmental activities at AFP 42 are through more media coverage such as press releases, newspapers, and television. Other suggested communication methods include e-mail, mail, fact sheets (very general overviews or monthly newsletters), site visits, public meetings, written summaries of regulatory meetings, community festivals such as the Poppy Festival and the Palmdale Fall Festival, information repositories, and a website.

2.3.6 Public ERAB Meetings

The respondents' preferences for the best day and time of meetings varied. On the whole, it was suggested that a regular day of the month (such as the fourth Thursday of the month) probably would increase attendance. The Antelope Valley is a bedroom community of 40,000 commuters, and people do not have time to go to meetings. The meetings should be scheduled so that they do not conflict with city council meetings. A few people suggested that more frequent meetings (rather than quarterly) would create consistency in terms of scheduling and understanding technical data.

The location and time of the current ERAB meetings is good for most people interviewed, although the Palmdale Cultural Center also was suggested as another good choice for the meeting location. A few respondents said that some of the ERAB members are not reflective of the Antelope Valley community and tend to distort the facts. Several respondents suggested that the meetings would be better attended if they stayed on topic, limited open discussion time, and if public notices were distributed through local schools and published in the community calendar. Additional training sessions on technical issues are needed for a better understanding of the cleanup process. Some people feel uncomfortable at times because the technical information presented seems too advanced, but these people added that the DTSC has helped them to better understand the technical information. Most who had attended ERAB meetings felt that overall the presentations are good however, some frustration occurs because they feel direct answers to their questions are not always provided by the presenter.

3. Community Involvement Program

This section discusses the objectives of the AFP 42 Community Involvement Program and describes required and recommended outreach activities.

3.1 Community Involvement Objectives

The community involvement portion of the AFP 42 IRP has five primary objectives. These objectives and activities were determined after considering the concerns and needs of the local citizens as determined during the community interviews, and as a result of the Air Force commitment to meeting the needs of the surrounding community. These objectives guide the community involvement activities throughout the investigation and remediation phases of work and are conducted in coordination with DTSC, RWQCB, and other appropriate regulatory agencies.

The five primary objectives are listed below.

1. **Provide the community with information.**

   To keep the community apprised of environmental activities, AFP 42 will disseminate information to those listed on the mailing list via fact sheets and ERAB meeting agendas, that describe site-specific updates and overall progress. Press releases and news articles also may be sent to the *Antelope Valley Press* newspaper and/or the *Daily News* community newspaper. The community will receive information on the results of sampling and any potential impacts to human health, and the schedule of planned activities during the various phases of investigation and cleanup.

2. **Promote two-way communication between the Air Force and the Antelope Valley community.**

   Sharing information with the local public, including elected and appointed officials during the various phases of investigation and cleanup allows the Air Force to receive feedback about community perception on issues related to cleanup activities. By promoting two-way communication, the Air Force is better able to maintain its awareness of community concerns. Part of this communication includes encouraging local officials and agencies, along with various county and city administrators and directors, to participate in community involvement activities. These community representatives will be informed of site activities, plans, findings, and developments to foster a cooperative effort.

3. **Provide opportunities for citizen input and involvement.**

   In an effort to elicit citizen input and involve the community, the Air Force has encouraged the participation of local community groups, business owners, and environmental associations. Members of these groups provide a resource base for dissemination of AFP 42 information through their constituent members. These involved citizens have the ability to reach a variety of interests in the region through

their newsletters, membership programs, mailing lists, and other communication mechanisms that can provide information about the AFP 42 environmental activities. The Air Force is committed to maintaining communication with key members of these groups. A list of Air Force contacts including a toll-free phone number is provided in Appendix B.

4. **Respond to community concerns and needs that arise during IRP activities.**

   Flexibility to recognize and respond to the community needs and concerns is a primary objective of this CIP. When an issue is identified as a community concern, the issue may be placed on the next ERAB meeting agenda and discussed. Fact sheets may also address community concerns about a particular topic and training will be provided on an as needed basis.

5. ***Provide for effective management of the CIP and the community involvement program.***

   The CIP is a "living" document that is implemented upon acceptance and approval by regulatory agencies and assures that the community activities continue through the completion of remediation activities. As the agency of primary responsibility, the Air Force is responsible for directing and implementing community involvement activities for the IRP at AFP 42, with the guidance and assistance of the DTSC public participation specialist.

3.2 Implementation Techniques

This section of the CIP identifies approaches and implementation techniques that AFP 42 currently uses or will use to fulfill community involvement objectives.

To meet the primary objectives and based on the AFP 42 local community profile, this CIP takes the following approaches:

- Continued encouragement of community involvement through quarterly presentations and workshops at ERAB meetings to provide residents, regulatory agencies, government officials, civic leaders, environmental organizations, and news media with accurate, timely information about the investigation, cleanup activities, and other important related technical and administrative matters
- Continued opportunities for public review of key planning documents and reports
- Maintain open communication among the Aeronautical Systems Center, AFP 42, DTSC, RWQCB, and other local, state, and federal government agencies and officials, in addition to community leaders, organizations, media, and other interested groups or individuals
- Distribute fact sheets at milestones throughout the investigation and cleanup process
- Maintain Information Repositories at the Palmdale and Lancaster public libraries
- Facilitate interagency participation and decision-making

- Monitor community concerns and update this plan as necessary

3.2.1 Public Contacts

The AFP 42 Public Affairs Officer will provide information about site activities and respond to community inquiries and concerns. This person will answer questions directly or refer questions to the people most knowledgeable about the subject. Inquiries also may be directed to the DTSC public participation specialist or project manager or the RWQCB representative. The contact information for these key contacts is listed in Appendix B of this CIP.

3.2.2 Environmental Restoration Advisory Board

The purpose of the AFP 42 ERAB, established in October 1996, is to promote community awareness and obtain constructive community review and comments on environmental restoration actions at AFP 42. The ERAB broadens community input and participation and allows for government agencies and local residents to engage in coordinated review and dialogue on various IRP issues.

The ERAB is composed of community members with various interests and ties to the community. AFP 42 staff, DTSC, RWQCB personnel, city and county health and environmental officials, and ERAB members meet on a quarterly basis to discuss project progress, and comment on investigation activities. ERAB meetings include updates on field activities, funding issues, and other technical and administrative issues. In addition, the ERAB acts as a document review committee, reviewing and providing comments on key reports. The Air Force provides copies of key documents to the ERAB and/or the community co-chair as well as placing them in the information repositories.

ERAB meeting notices are mailed to the AFP 42 mailing list at least two weeks in advance of the meeting, usually held on Wednesday. A public notice is published in the *Antelope Valley Press* on the Sunday before the meeting.

The requirement for nomination to the ERAB is a willingness to communicate with local community members and interest groups concerning specific cleanup issues and bring local concerns to the attention of the ERAB. Members serve as a direct and reliable conduit for communication between the public and the agencies responsible for cleanup activities. All community members of the ERAB serve without compensation and may serve for the life of the ERAB. ERAB membership is periodically reviewed by the ERAB, which may vote to include new members, remove inactive members, or solicit new members to represent groups not represented on the ERAB. ERAB membership may not exceed twenty community members. A copy of the ERAB Charter and Bylaws are in Appendix G. A list of the current ERAB members is in Appendix H.

3.2.3 Public Meetings

The AFP 42 will hold public meetings at important milestones (during the investigation and clean-up) to provide the public with current information about investigation activities and to respond to specific community concerns, issues, or events. These meetings typically are held at public locations where people can talk in an open house setting. Citizens are able to

ask questions and express their concerns directly to the community involvement and technical staff.

Formal public meetings or hearings are part of the public comment period for decision documents and other selected documents. This allows the public to file formal comments, if desired. These comments then become part of official public record. In some cases, regularly scheduled ERAB meetings will serve as the required public meeting for a document.

Public meetings and public hearings will be announced in fact sheets, public notices in local newspaper(s), and/or announcements to the mailing list. The AFP 42 Public Affairs Officer will be responsible for obtaining answers to questions and following through on action items from the meetings.

3.2.4 Fact Sheets

AFP 42 will continue to publish fact sheets at milestones to inform the public about environmental management and restoration activities underway at AFP 42. These brief publications are intended to explain technical information or upcoming activities to the general public. Fact sheets will be mailed to all individuals on the community mailing list and distributed to the public at the information repositories and community events.

The information presented in the fact sheets will be written in clear and understandable plain language. An effort will be made to make technical language easily understood by lay persons without compromising accuracy. Each fact sheet will contain basic information along with the main topic. This basic information includes, in general, background information, key contacts, website information, locations of information repositories, and ERAB information. When appropriate, the fact sheet will list information such as:

- Opportunities for public participation in the process including public comment periods
- Locations of information repositories containing documents
- History of activities at AFP 42, the findings of previous investigations, descriptions of the IRP process
- Key contact persons for AFP 42 and lead regulatory agencies

The following fact sheets pertaining to the IRP have been produced to date, and copies are located in Appendix I:

- April 2002 – Groundwater Fact Sheet – Source of trichloroethylene (TCE)
- March 2001 – Remedial Investigation Fact Sheet
- April 2000 – Site 27 Removal Action
- October 1998 – Remedial Investigation Progress
- February 1997 – General Information about AFP 42

Career and ERAB brochures also have been produced for the Salute to Youth and Poppy Festival events, respectively. Possible future fact sheets may include the following information:

- Remedial Investigation

- Feasibility Studies of potential remedial actions
- Alternatives that were considered and the rationale for selecting the preferred alternative (Proposed Plan fact sheets)
- Removal Action Work Plan

The Record of Decision (ROD) is the document that officially recognizes the final decision regarding the alternative of choice for an IRP site. Prior to this decision being made, the Feasibility Study and Proposed Plan will have been commented on and possibly revised. If revisions are required, this information will be summarized in the ROD. A fact sheet will be issued to describe the revisions made by the Air Force and all other agencies involved in overseeing the investigations and the approval process for this document, thereby signifying the final acceptance of the decision. A fact sheet will be issued describing the final remedial design of the alternative decided upon prior implementation of the selected remedy.

3.2.5 Mailing List

AFP 42 is dedicated to keeping the surrounding communities informed. A mailing list of local residents; local, state, and federal regulatory agencies; government offices; the news media; and other interested parties, including the DTSC Mandatory Mailing List is provided in Appendix C. Individuals, groups, and businesses on the mailing list will receive fact sheets, news releases, meeting notices, and other important information. Methods used to create and maintain the mailing list include: documentation of telephone inquiries, meeting sign-in sheets, return mail coupons in fact sheets, and annual updating of the list of local elected officials. The mailing list will continue to be updated as changes are reported to ensure that AFP 42 is reaching interested and concerned parties. Any individual, organization, or agency can request to be placed on the mailing list by contacting the AFP 42 Public Affairs Officer (listed in Appendix B).

3.2.6 Information Repositories

An information repository contains site information, documents regarding site activities, and general information about the cleanup program. The information provides citizens, local officials, and the media with easy access to accurate, detailed, and current data about specific sites or issues related to AFP 42. Information repositories for AFP 42 have been established at the locations listed below.

Palmdale Public Library
700 E. Palmdale Boulevard
Palmdale, CA 93550
(661) 267-5600
Contact: Diane Hanville

Hours of Operation
Monday – Thursday: 10 a.m. to 8 p.m.
Friday and Saturday: 12 p.m. to 5 p.m
Closed Sunday

Lancaster Public Library
610 W. Lancaster Boulevard
Lancaster, CA 93534
(661) 948-5029
Contact: Ted Miles

Hours of Operation
Monday – Wednesday: 10 a.m. to 8 p.m.
Thursday – Friday: 10 a.m. to 5 p.m.
Saturday: 11 a.m. to 5 p.m.
Sunday: 1 p.m. to 5 p.m.

Each repository contains a set of IRP documents for AFP 42. The repositories are maintained by the Air Force throughout the remediation process. If the repository content is not adequate for a specialized need, individual requests for documents can be handled on a case-by-case basis. Requests for documents should be directed to the AFP 42 Public Affairs Officer.

3.2.7 Administrative Record

The Administrative Record is a file of all documents that contribute to remediation decisions made for the AFP 42 IRP. The Administrative Record, which will be maintained for at least 10 years after remediation is complete, will serve as the legal and public information resource. The Administrative Record is maintained at the AFP 42 Public Affairs Office; a similar set of these documents is maintained at the information repositories in Palmdale and Lancaster.

The DTSC also maintains a set of documents related to the AFP 42 IRP at their office located at 5796 Corporate Avenue , Cypress, California. Julie Johnson, the File Room Coordinator may be contacted at (714) 484-5337 to make an appointment to view the documents. File room hours are 8 a.m. to 5 p.m. Monday through Friday.

3.2.8 Media Notification

Members of the media are the eyes and ears of the public. As such, an active media relations posture is vital to the success of the CIP. News releases that provide important information about the site will be issued to the newspapers, radio stations, and television stations that serve the AFP 42 area (listed in Appendix D). ERAB members should be given news releases at the same time as the media. Media inquiries, releases, and answers are coordinated through the AFP 42 Public Affairs Office, the regulatory agencies, fact sheets, and various mailings.

The local media also have access to documents and general information through the information repositories, the administrative record, AFP 42 Public Affairs Office, the regulatory agencies, fact sheets, and various mailings.

3.2.9 Agency/Elected Official Notification

AFP 42 representatives will notify regulatory agencies and local elected officials of any significant remedial activities and findings. The news media also will receive important information as soon as it can be distributed.

3.2.10 Public Comment Period

The CERCLA process requires a public review period prior to the selection of a remedial action. A 30-day public comment period will be provided for review of the remedy selection documents, such as Removal Action Work Plans and Proposed Plans. Public comment periods will be announced via news releases, public notices, and general mailings. Public comment periods may also be announced in fact sheets. During this time, the general public will have the opportunity to review and comment on the program's major technical documents. These documents will be available at the information repositories and the

administrative record locations. Copies of these documents are provided to the ERAB through the community co-chair. Verbal or written comments will be accepted during the public comment period and during the public meeting.

3.2.11 Responsiveness Summaries

The Air Force, as lead agency, will prepare responsiveness summaries (also called "response to comments") following the formal public comment periods. These summaries will summarize the issues, concerns, and comments raised during the public comment period and will reflect the Air Force responses. The responsiveness summaries will be distributed to the information repositories, the ERAB, and those who submitted comments during the comment period. In addition, the responsiveness summaries will be included in the final version of the report that was commented upon, and placed in the administrative record.

3.2.12 Workshops

Informational workshops will be held on as needed basis to assist ERAB members (especially new members) to gain a technical understanding of the investigation and cleanup process. These workshops will be coordinated by the Air Force.

3.2.13 Presentations and Information Discussions

AFP 42 representatives are available to give presentations and hold informal discussions about the site investigations, remediation activities, or other IRP issues.

3.2.14 Site Tours

The Air Force will conduct site tours for the ERAB members to help them better understand the investigation and cleanup situation at the IRP sites. While not all IRP sites will be visited on each site tour, an effort is made to visit as many sites as time allows, and to visit those with a high level of interest and activity. Due to security clearance reasons, tours are not open to the general public at this time.

3.2.15 Community Involvement Plan Revisions

The CIP will be revised as needed to document and address community concerns, and to ensure that the chronologies and activities schedules are kept current. Additional interviews may be conducted to identify issues and concerns. The purpose of the community interviews is to gain a better understanding of community concerns and to ask for suggestions for improving the public involvement program. Feedback will assist the Air Force in maintaining effective communication with the community about issues regarding the IRP at AFP 42.

3.2.16 Effective Management of the Community Involvement Plan

As the office of primary responsibility for the CIP, Air Force Public Affairs is responsible for directing and implementing community involvement activities. Each activity is monitored by the Air Force and regulatory agencies to ensure effectiveness in meeting CIP objectives. This office will maintain ongoing coordination to ensure maximum quality of the community involvement program.

Coordination with regulatory agencies, AFP 42 committees, or other groups with direct IRP involvement will be done to ensure information accuracy, and develop and maintain a positive operational environment.

4. CERCLA Community Involvement Activities Schedule

In 1980, the U.S. Congress passed CERCLA to address the cleanup of hazardous waste disposal sites across the country. CERCLA gives the President authority to require responsible parties to clean up sites or undertake response actions through the use of a fund, known as the Superfund. In 1981, the Secretary of Defense established the Defense IRP to investigate and clean up Department of Defense (DOD) sites. In turn, each military service established its own IRP to locate and investigate hazardous waste sites on its installations.

Since 1984, the U.S. Air Force has been conducting environmental investigations and cleanup at AFP 42 as part of the DOD IRP. These investigations are conducted in accordance with local, state, federal, and Air Force IRP guidelines. The IRP at AFP 42 is managed by the Environmental Safety and Health Division, Engineering Directorate of the Aeronautical Systems Center (ASC/EM) at WPAFB, Ohio.

The IRP is a progressive, comprehensive program aimed at identifying, investigating, evaluating, and cleaning up former waste and disposal sites contaminated from accidental spills, runoff, and past waste disposal practices. Additionally, the IRP guides the Air Force as it takes action to eliminate any possible hazards these sites might pose to the public health and environment.

Congress amended CERCLA in 1986 through SARA. Subsequently, SARA waived sovereign immunity for all federal facilities and gave authority to EPA to oversee the cleanup of federal facilities and to have the final authority to select cleanup actions at federal facilities placed on the National Priorities List (NPL) if EPA and relevant federal agencies cannot concur in the selection. Congress also codified the Defense Environmental Response Program (DERP) (SARA Section 211), which set up a fund for the DOD to clean up its sites because the Superfund is not available for the clean up of federal facilities.

The Air Force follows the investigation and cleanup stages of the EPA CERCLA process. The phases of action and treatment at IRP sites are:

- **Preliminary Assessment/Site Investigation (PA/SI)** – Determines if contamination is present (also referred to as a Phase I study)
- **Remedial Investigation/Feasibility Study (RI/FS)** – Characterizes the site and determines alternatives for clean up (also referred to as a Phase II study)
- **Proposed Plan** - A plan for a site cleanup that summarizes cleanup alternatives presented in the analysis of the RI/FS and identifies the preferred alternative and the rationale for that preferred alternative.
- **Record of Decision (ROD) for the selection of a remedial action** – Documents the selection of the best cleanup alternative

- **Remedial Design/Remedial Action** – Provides an engineering design plan and implements the selected cleanup plan
- **Interim Removal Actions** – Short term immediate cleanup actions taken to address releases of hazardous substances that require rapid response.

At any point during a site cleanup process, it may be necessary to conduct an interim remedial measure or removal action. A removal action could be installation of a pump and treat system for groundwater, excavation and disposal of soil, or stabilization of a site to ensure there is not direct contact threat to the public and the environment. Federal and state law requires public participation activities for all removal actions.

During these phases of investigation and cleanup, CERCLA also requires that the public be regularly informed about and involved in the cleanup process. Community involvement activities are tailored to each individual facility and take into consideration the level of community concern, progress of cleanup, and response actions. Public information and participation programs are an integral component of CERCLA restoration activities. CERCLA community involvement programs ensure that people who live and/or work in the communities surrounding facilities where cleanup actions are being conducted, as well as those who work in or for these facilities, have opportunities for public participation in the environmental restoration process. The required community involvement activities for each stage of the CERCLA process are listed in Figure 4-2. The road map for public information and participation is the Community Involvement Plan. This document identifies the public's concerns and suggests ways in which those responsible for implementing the cleanup plan will respond to those concerns. It also documents how and when community involvement activities, required by CERCLA, are carried out.

Figure 4-1

The CERCLA Process

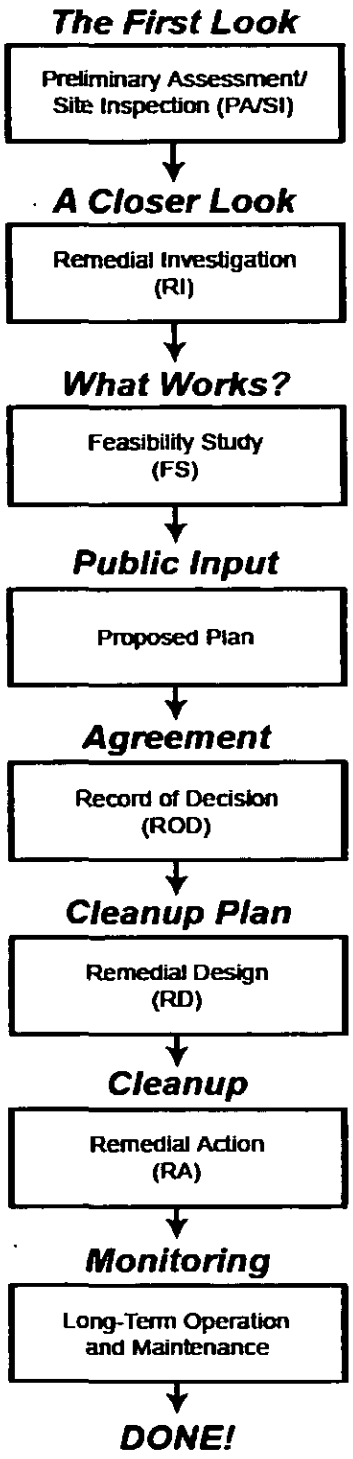

Figure 4-2: **Required Community Involvement Activities**

Actions	Preliminary Assessment	Site Inspection	Remedial Investigation	Feasibility Study	Proposed Plan	Remedial Design	Remedial Actions*	Interim Removal Actions* (<120 days)	Interim Removal Actions* (>120 days)
Administrative Record			X	X	X	X	X	X	X
Implement ERAB			X	X		X	X		
Designate Public Contacts	X	X	X	X	X	X	X	X	X
Contact State & Local Officials	X	X	X	X	X	X	X	X	X
Information Repository			X	X	X	X	X		X
Public Meetings & Workshops			X	X	X	X			
Public Notice			X	X	X	X	X	X	X
Fact Sheet or Summary			X	X	X	X			
News Release	X	X	X	X	X	X	X		X
Public Comment Period			X		X			X	X
Responsiveness Summary			X		X			X	X
Update CRP			X	X		X			

*In addition to or concurrent with the Remedial Investigation and Feasibility Study requirements

5. Facility Description and History

This section provides information about the history of operations at AFP 42 and summarizes the environmental investigation and cleanup activities performed to date.

5.1 Facility Description

AFP 42 is located in the northeastern portion of Los Angeles County, California, approximately 80 miles north of the City of Los Angeles. Plant 42 lies within the Antelope Valley of the Mojave Desert, which is generally low relief consisting of broad alluvial basins. The valley is sharply delineated on the northwest by the Tehachapi Mountains and on the southwest by the San Gabriel Mountains. The elevations within AFP 42 property range from 2,590 feet above mean sea level (msl) in the southwest to about 2,470 feet above msl along Avenue M in the north, as shown in Figure 2-1.

AFP 42 consists of 5,832 acres of land, of which 1,444 acres are industrial sites, 288 acres are obstruction easements, and approximately 4,100 acres are airfields and other common use lands.

AFP 42 comprises eight separate production sites, including common areas. These sites should not be confused with IRP sites under investigation. Six of the plant sites house contractor-operated aircraft assembly and warehouse facilities. The two other sites are used for general administrative, operation, and maintenance activities. Among the facilities located in common areas are a sewage and waste treatment plant, two fire protection stations, the offices of Aeronautical Systems Center's Detachment 1, and the active Los Angeles County Palmdale Air Terminal. Two neighboring aircraft manufacturing facilities not owned by the Air Force also share airfield use. These are Lockheed Martin Aeronautics Company (Plant 10) located southwest of AFP 42 and a vacant facility southeast of AFP 42, operated by Los Angeles World Airports (LAWA).

The primary mission of AFP 42 is to provide and maintain facilities for three purposes: (1) final assembly of jet aircraft; (2) production engineering and flight testing programs; and (3) Air Force acceptance flight testing of high performance jet aircraft assembled by the DOD contractors assigned to AFP 42.

Groundwater beneath AFP 42 is the primary source of drinking water, fire protection, and industrial uses at the plant. Based on regional information groundwater occurs at approximately 300 to 450 feet below ground surface (bgs) at AFP 42.

5.2 History of AFP 42

During World War II, the Air Force (Army Air Corps) managed over 100 GOCO industrial plants located throughout the United States. The purpose of the plants was to support the industrial requirements of the Air Force during the war. Air Force management of these facilities was formulated during the mobilization for World War II.

The Works Progress Administration built the first concrete runways for the Palmdale Airport, which was activated as a U.S. Army Air Corps Base in 1940. The base was used as an emergency landing strip and B-25 aircraft support training during World War II. The installation was declared a surplus facility in 1946 and was purchased by Los Angeles County for use as a municipal airport. In 1950, the installation was reactivated by the Air Force for final assembly and flight testing of jet aircraft and was later repurchased in 1954 from Los Angeles County.

In 1953, North American Aviation, Inc., was granted exclusive use of approximately 272 acres to support aircraft production and engineering flight testing programs. Northrop Corporation was granted exclusive use of about 220 acres for use as a final production and Air Force acceptance flight test facility. During that same year, Lockheed Aircraft Corporation was authorized by the federal government to construct joint-use facilities and secure engineering design and architectural services. The primary result of this contract was the extension of the existing northeast-southwest runway (4-22) from 7,000 to 12,000 feet and the construction of related taxiways.

Following approval of a master plan in 1953, the Palmdale Airport officially became Air Force Plant 42. Ownership of the installation was transferred to the federal government in 1954. The installation was assigned to the Aeronautical Systems Division in 1961 and officially became known by its present name as the Production Flight Test Installation, Air Force Plant 42, Palmdale, California. Since 1953, the plant has supported facilities for the production engineering, final assembly, and flight testing of high performance aircraft, including the B-1, B-2, F-117, F/A-22, and U-2.

Eight industrial plant sites were identified and used by companies under contract with the Air Force to produce, maintain, and flight test various jet aircraft or the operate and maintain the plant industrial sites and common-use facilities.

5.3 History of Environmental Programs at AFP 42

Petroleum, oils, lubricants, solvents, and other chemicals have been used to support the operations at AFP 42, and the resulting wastes have required disposal. Some of the wastes are known to have been released and disposed of at AFP 42. In 1983, the Air Force initiated the Installation Restoration Program (IRP) at AFP 42. The IRP is an Air Force program to identify, characterize, and remediate past environmental contamination on its facilities. The IRP evaluates past disposal and spill sites, cleanup contains the migration of contaminants, and minimizes potential hazards to human health and the environment.

The IRP at AFP 42 began in 1983 when the Air Force performed a Phase I Installation Assessment/Records Search to investigate the presence of environmental contamination at AFP 42. The study identified 25 disposal and spill sites at AFP 42. For one site, it was determined that all cleanup activities had been completed and this site was not carried forward in the IRP.

Investigations at the 24 sites were performed in 1987 and 1988 (IRP Phase II/Stage 1 Confirmation/Quantification Investigation). As part of the former investigation, 3 additional sites were identified, bringing the total number of sites to 27. In 1991 and 1992, the Air Force performed additional investigation at 6 of the IRP sites (IRP Phase II/Stage 2

Site Investigation). In 1992, the Cal-EPA DTSC and RWQCB notified the Air Force that the investigations performed from 1987 to 1992 did not adequately characterize the lateral and vertical extent of contamination at the sites, and required further investigation.

Beginning in 1997, the Air Force performed Remedial Investigations at 27 IRP sites. In 2002, the Air Force identified a twenty-eighth site (Site 29) based on the detection of trichloroethylene in a production well at Plant Site 1. (Note that due to a numbering oversight, no Site 28 has been identified at AFP 42.) The Remedial Investigation activities have included soil-gas surveys, and shallow and deep soil investigations, which were completed in 2000. Groundwater monitoring wells were installed at five of the sites and groundwater monitoring activities are continuing. The results of the Remedial Investigation were published in the draft final version of the Remedial Investigation Report in May 2003. This report includes the results of the human health and ecological risk assessment, and threat to groundwater assessment. Further investigation is planned at two sites (Sites 23 and 29) and soil removal actions are planned at two sites (Sites 4 and 6). Final remedies for each site, which may include institutional controls, long-term groundwater monitoring, and/or site cleanup will be evaluated in the Feasibility Study process, which will begin in 2004 following completion of the Remedial Investigation Report.

The Remedial Investigation Report described above did not include IRP Site 27 (Waste Piles) because an interim removal action currently is being performed at this site. The removal action began in 2000 and several surface and subsurface removal actions have been completed. In addition to the IRP sites, three areas of concern (AOCs) have also been identified under the AFP 42 IRP. At AOC 1 (Waste Piles), field investigations were performed in 2000 and cleanup activities were completed in March 2002. Cal-EPA DTSC and RWQCB have provided concurrence that no further cleanup is needed at AOC 1. The Air Force identified two former firing ranges at AFP 42 as AOCs 2 and 3 in January 2003. Investigation activities at these AOCs are planned to begin in 2004. Removal actions will be performed following the investigations.

6. Site Descriptions

The sections below describe the AFP 42 sites that are being investigated under CERCLA regulation and guidance. Brief summaries of the 28 Installation Restoration Program (IRP) sites, including location, dates of operation, historical activities, and potential contaminants are provided. For more detailed descriptions on the IRP sites and associated investigations, please refer to the documents available at the repositories.

6.1 Site 1: Fuel-Contaminated Ditch

Site 1 is located in the north-central portion of AFP 42 between Plants Sites 2 and 3. The site consists of a north-trending, unlined ditch and ditch embankments. The ditch is approximately 1,100 feet long, 40 feet wide, and 12 feet deep (approximately 44,000 square feet or 1 acre).

From 1954 to 1958, the ditch was used for the disposal of mixtures of JP-4 jet fuel, engine oil, hydraulic fluids, and solvents. Approximately 100 gallons of waste were disposed of each month into the Site 1 ditch. Assuming disposal of 100 gallons of waste fluids per month for a 5-year period, an estimated total of about 6,000 gallons were discharged to the ditch during this time.

From 1964 to 1981, JP-7 waste jet fuel generated in Building 215 was washed from the concrete swale at Site 7 (located directly west of Site 1) into the Site 1 ditch. Approximately 25 times per year, 25 to 50 gallons of fuel were disposed of in this manner. Based on these disposal rates, an estimated total of 11,250 to 22,500 gallons were discharged to the ditch during the 18-year period.

6.2 Site 2: Paint Waste Disposal Ditch

Site 2 is located in the north-central portion of AFP 42, in the west-central portion of Plant Site 2. The site consists of a north-trending, unlined ditch and ditch embankments. Site 2 is situated approximately 200 feet north of Building 211 and is approximately 450 feet long, 20 feet wide, and 8 to 10 feet deep (approximately 9,000 square feet; 0.21-acre). Also included in Site 2 are the open areas situated adjacent to the east and west sides of the Site 2 ditch. The open areas included in the Site 2 RI extend to the fenceline located north and west of the Site 2 drainage ditch and approximately 250 to 300 feet to the east. In addition, the abandoned underground pipeline leading from the Building 211 floor drain system to the Site 2 ditch is included in Site 2.

Once every 2 weeks from 1954 to 1958, approximately 250 gallons of commingled Turco, toluene, methyl ethyl ketone (MEK), and paint residues were rinsed down the Building 211 floor drain system with washwater (approximately 6 parts water to 1 part waste) and discharged to the Site 2 underground pipeline and ditch located approximately 200 feet north of the building. During past interviews, shop personnel reported that this ditch was

also used from 1958 to 1972 for paint waste disposal with approximately the same quantities being generated. In addition, each year from 1972 to 1974, two U-2 aircraft were stripped and painted in Building 211. Each time an aircraft was cleaned, approximately 150 to 200 gallons of the paint stripper (Cee Bee) were rinsed with washwater (approximately 6 parts water to 1 part waste) down the floor drains.

Based on the disposal rates discussed above, the Site 2 ditch received approximately 125,000 gallons of waste and 750,000 gallons of wastewater from 1954 to 1974. Wastes included paint strippers, paint residues, and desealant solvents.

In approximately 1974, a 3,000-gallon underground clarifier was installed at the southeast side of Building 211 to collect washwater generated inside the building. Anecdotal information indicates that the clarifier may have discharged to the sanitary sewer for an unknown period; however, this could not be confirmed. A small collected sump associated with the clarifier was also installed adjacent to the clarifier, but the installation data could not be confirmed. Following installation of the clarifier, discharges to the Site 2 ditch were discontinued; and the pipeline leading to the ditch was plugged.

6.3 Site 3: Engine Run-Up Area

Site 3 is located in the central portion of AFP 42, along the east side of Plant Site 7. The site consists of a north-trending, unlined drainage ditch and ditch embankments, located adjacent to a former engine run-up area.

The ditch is situated approximately 60 feet east of Building 763, along the Plant Site 7 fenceline. The ditch consists of two segments connected by a drainage culvert that runs beneath a partially paved area. The northern segment is approximately 950 feet long, 50 feet wide, and ranges from 6 to 11 feet deep. The southern segment is approximately 300 feet long, 50 feet wide, and 4 to 5 feet deep (62,500 square feet; 1.43 acres). The drainage culvert connecting the northern and southern segments is approximately 525 feet long.

At the northern segment of the ditch, a 6-inch-high asphalt berm is present along the west bank of the ditch to prevent direct stormwater runoff into the ditch. The berm channels flow through eight man-made inlets positioned along the west side of the ditch. In addition, one natural drainage inlet enters the ditch near it northernmost point. These inlets discharge to the approximate centerline of the ditch.

In the southern segment of the ditch, two drainage inlets are positioned along the west side of the ditch. One inlet is fed by an unlined drainage swale to the southwest of the Site 3 ditch. The second inlet is an aboveground feature that channels surface drainage into the drainage ditch from the paved areas west of the ditch.

The Site 3 ditch formerly received wastes generated during routine aircraft maintenance activities conducted on the run-up apron located west of the Site 3 ditch. Wastes, including jet fuel (JP-4), engine oils, and hydraulic fluids, were reportedly dumped along the west side of the ditch from 1956 to 1971. Approximately 20 gallons per day of wastes were reportedly disposed of during this time period. Based on this disposal rate, the Site 3 drainage ditch received a total of approximately 83,000 gallons of wastes from 1956 to 1971 (5 days x 52 weeks x 16 years x 20 gallons).

6.4 Site 4: Vehicle Washrack and Leaking Underground Storage Tank

IRP Site 4 is located in the southeastern portion of AFP 42, 340 feet southeast of Runway 4-22. The Site 4 boundaries encompass a shallow drainage swale situated adjacent to the Building 531 vehicle washrack, and extend north and east along an unlined drainage ditch leading from the vehicle washrack. The drainage ditch is approximately 900 feet long, and ranges from 10 to 35 feet wide and 1 to 4 feet deep (approximately 31,500 square feet or 0.72-acre). Site 4 also includes a former leaking waste oil underground storage tank (UST) site (UST T5-20), located adjacent to the vehicle washrack.

From 1954 to 1983 engine dirt, oils, fuels, and detergents from the vehicle washrack were washed into the drainage ditch. No information is available regarding the volume of wastewater generated and disposed of. Currently, the washrack discharges to a water-recycling unit. The underground waste oil storage tank located adjacent to the washrack was used to collect waste engine oils, hydraulic fluids, and small quantities of spent solvents from maintenance operations in Building 531. In 1983, this tank was found to be leaking and was removed along with the surrounding contaminated soil. The amount of materials and wastewater lost from the tank was not determined; however, several vehicles were washed during a typical workweek.

6.5 Site 5: Abandoned Fire Training Circle

Site 5 is located at Plant Site 5 in the central airfield portion of AFP 42, between Plant Sites 1 and 7. Site 5 is situated just east of Site 17 (New Fire Training Circle).

Site 5 formerly was used as a fire department training facility. According to interviews with former firefighters, water was added to the pits; flammable liquids were poured onto the water; and the flammable liquids were ignited. Records indicate that Site 5 was originally an unpaved, bermed, approximately 105-foot-diameter circular fire-training burn area (approximately 8,660 square feet; 0.2-acre). From 1959 to 1973, the site was used for the disposal of commingled fuels, engine oils, hydraulic fluids, and spent solvents during fire department training activities. An estimated 550 to 800 gallons of these liquids were applied during each training exercise. From 1973 to 1981, 300 to 500 gallons of JP-4 jet fuel were used for fire department training exercises. The fire department held the fire-training exercises at Site 5 six times per quarter (24 times per year). No fire-training activities occurred at Site 5 after 1981.

Based on the reported application rates, it is estimated that from 1959 to 1973 (15 years), the total volume of liquids applied to the site was approximately 198,000 to 288,000 gallons. From 1973 to 1981 (8 years), an estimated total volume of approximately 57,600 to 96,000 gallons of liquids was applied. Thus, over the active life of Site 5, an estimated 255,600 to 384,000 gallons of liquids were applied. While most of the flammable liquids applied to the site were consumed in the fires, some percolation into the ground occurred.

6.6 Site 6: Original Fire Training Circle

Site 6 is located in the south-central airfield portion of AFP 42, approximately 400 feet southeast of Runway 4-22. The site consists of an abandoned earth-lined burn pit measuring approximately 60 feet in diameter (2,830 square feet; 0.06-acre) that previously was encircled by an earthen berm of unspecified height. The site currently is uncapped, and there is no longer a berm around the site.

From 1954 to 1959, Site 6 was used to conduct fire department training activities. On a weekly basis during this period, an estimated 1,100 gallons of commingled jet fuels (JP-4 and JP-7), gasoline, diesel, engine oils, hydraulic fluids, and unspecified solvents were brought to the area, released to the ground, and ignited. Unlike Sites 5 and 17, water was reportedly not applied to Site 6 prior to the release of wastes. Unspecified dry cleaning compounds from the City of Palmdale local dry cleaners were also burned at the site. During the operational period of Site 6, the total volume of liquids applied to the site is estimated to be approximately 286,000 gallons (5 years x 52 weeks x 1,100 gallons). During each exercise, three burns were generally conducted. During larger training exercises, as much as 6,000 gallons of commingled wastes were applied.

6.7 Site 7: Engine Run-Up Area

Site 7 is located in the north-central portion of AFP 42 at Plant Site 2. The east end of Site 7 was formerly occupied by a concrete-lined swale that was used to channel runoff water generated from engine run-up activities eastward to the Site 1 drainage ditch. The swale previously had been removed and the site graded flat; the concrete since has been replaced. The portion of Site 7 that is south of the former swale is paved and was previously used for the ignition and testing of jet engines. The portion of Site 7 that is north of the former swale is unpaved and covered in part by steel-mesh ground panels used for dust control. The site encompasses approximately 99,550 square feet (approximately 2.3 acres).

Included in the RI for Site 7 are portions of an abandoned fuel pipeline that was previously used to convey jet fuel from USTs located south of Building 214 to refueling areas near Site 7. The pipeline runs from the former USTs, northerly along the west bank of the Site 1 ditch, then turns westerly beyond Building 212 where it runs to the refueling areas at Site 7. During the Building 214 UST removals in 1996, the pipelines were evacuated of all residual fuel using a vacuum truck, purged of vapors, capped, and left in place.

From 1954 to 1962, Site 7 was periodically used for the disposal of recovered fuels, engine oils, hydraulic fluids, and spilled fuel generated during routine maintenance of SR-71 aircraft. The commingled waste was washed into the concrete-lined swale with water for eventual discharge into the Site 1 ditch. There is no indication that actions were taken to reduce infiltration of wastewater into the soil.

6.8 Site 8: Fuel Transfer Area

Site 8 is located in the southern portion of AFP 42. The Fuel Transfer Area is located along the railroad tracks between Building 871 (Plant Site 8) and Taxiway Victor. The site is approximately 850 feet long and 80 feet wide (approximately 68,000 square feet; 1.6 acres).

From the 1950s to 1984, Site 8 was used to transfer jet fuel from railcars to fuel trucks for distribution to Plant Sites 1, 2, 3, and 5. No fuel transfer activities have been performed along these tracks since 1984. Types of jet fuel have included JP-7 jet fuel for the SR-71 aircraft in the past (up to 1975) and currently JP-TS (thermally stable jet fuel) for U-2 aircraft. From the 1950s to 1984, small quantities of fuels were reportedly spilled along the main railroad tracks while connecting and disconnecting fuel lines during the fuel transfer process. Available information does not indicate the precise location of past transfer activities within the site, or dates of releases.

The fuel transfer area was expanded in 1984 to accommodate a new railcar unloading facility. A railroad spur was added directly south of two existing railroad tracks. This southern railroad spur supports aircraft fueling operations for Plant Site 2. Fuel tanker trucks from Plant Site 2 travel to this railroad spur to unload jet fuel from rail cars. This southern railroad spur area is included in Site 8. In December 1997, the overflow protection on a fuel truck failed during transfer activities at the southern spur and fuel overflowed the top of the tanker truck. An estimated 50 to 100 gallons of jet fuel were released to the soil along the south side of the railroad spur. Approximately 32 cubic yards of soil were excavated based on visual observations of soil staining and odors, and disposed of offsite.

6.9 Site 9: Paint Disposal Area – West

Site 9 is located in the north-central portion of AFP 42 and the west-central portion of Plant Site 2. The site consists of an asphalt-paved area that measures approximately 200 feet by 60 feet (12,000 square feet; 0.28-acre). The site is bordered by Building 211 to the east, by concrete tarmac to the south, and by unpaved areas to the north and west. The area to the west includes a general storage area. Stationary equipment (e.g., air emissions control devices) extends westward from Building 211 into Site 9; this equipment limits access to much of Site 9.

From 1954 to 1956, Site 9 was used for the disposal of waste paint residues and lacquer thinners generated while cleaning paint guns from Building 211. Approximately 20 gallons of commingled waste materials were reportedly disposed of each day at the site. Based on this disposal rate, an estimated 15,000 gallons of waste were disposed of at Site 9 (i.e., 5 days per week for 3 years [50 weeks per year] at a disposal rate of 20 gallons per day).

6.10 Site 10: Paint Waste Disposal Area – North

Site 10 is located in the north-central portion of AFP 42 and the west-central portion of Plant Site 2. The site consists of an open area that measures approximately 70 feet by 130 feet (9,100 square feet; 0.21-acre). The northern portion of the site is unpaved; the southern one-third of the site is asphalt-paved. Site 10 is situated near the south end of the Site 2 ditch and is located approximately 120 feet north of Building 211.

From 1954 to 1956, Site 10 was used for the disposal of lacquer thinners, MEK, toluene, and other paint waste residues. Approximately 25 gallons of commingled wastes were reportedly disposed of each day during this period. Based on this disposal rate, approximately 19,500 gallons of waste (25 gallons x 260 work days/year x 3 years) were disposed of at Site 10.

6.11 Site 11: Disposal Area A

Site 11 is located in the central portion of Plant Site 2. Site 11 is situated north of Building 210 and east of a maintenance building. The west portion of the site is paved with asphalt and the east portion is unpaved. The site measures approximately 75 by 140 feet (10,500 square feet; 0.24-acre). An active petroleum aboveground gasoline storage tank is located on a concrete pad near the southeast corner of the site.

From 1954 to 1981, Site 11 was used periodically for the disposal of recovered fuels, hydraulic fluids, engine oils, spent solvents, and paint strippers. No information is available on either waste quantities disposed of or frequencies of disposal.

6.12 Site 12: Engine Run-Up Area

The Site 12 Engine Run-up Area is located in the southeast portion of Plant Site 1. The site is situated along the east edge of a concrete tarmac aircraft parking area. During past disposal activities, the site was unpaved. Currently, the entire site is covered by asphalt. The site measures approximately 130 wide, east to west, by 600 feet long, north to south (78,000 square feet; 1.79 acres). Key features at the site are the jet blast barriers located about 20 feet west of the site. There are two gaps in the barriers that allow access to Site 12, one at the north end and one near the center of Site 12. Site 12 was sporadically used for the disposal of fuels, engine oils, and hydraulic oils. Quantities disposed of and the time period of disposal are not known.

There are two likely waste release mechanisms at Site 12. The primary mechanism was probably the leakage of wastes (e.g., fuels and oils) from aircraft parked on the concrete tarmac area located west of the site; the wastes would flow easterly to Site 12. Another possible release mechanism is the direct disposal of wastes to the ground at the site.

6.13 Site 13: Disposal Area B

Site 13 is located in the north-central portion of AFP 42 and the west-central portion of Plant Site 2. The southern portion of Site 13 is asphalt paved; the remainder of the site is unpaved. Site 13 measures approximately 60 feet by 150 feet (9,000 square feet; 0.21-acre). The site is bordered on the south by a chain-link fence and asphalt and concrete pavement, and on the north, west, and east by open, unpaved areas. Site 13 is situated near the south end of the Site 2 ditch and is located approximately 160 feet northwest of Building 210 and approximately 130 feet north of Building 211.

Included in the RI for Site 13 is an abandoned underground pipeline that originates in Building 210 (General Maintenance Shop); this building was constructed in 1954. The portion of the pipeline associated with Site 13 begins at the west side of Building 210 and runs northward beneath the concrete tarmac to approximately the east edge of Site 13. From this point, the pipeline runs west through the center of Site 13 and connects to the abandoned underground pipeline from Building 211 near the west edge of Site 13 and the south end of the Site 2 drainage ditch. The portion of the pipeline originating at Building 211 is included in Site 2. The portion of the pipeline that discharges to the Site 2

ditch was noted as being a vitrified clay pipe. Based on this observation, it is likely that the Building 210 pipeline is also vitrified clay pipe.

From 1954 to 1958, the Site 13 area was used for disposal of photochemical wastes generated in a photolab at Plant Site 2 and detergent wastes from the fire department. From 1965 to 1969, spent solvents from a repair garage at Plant Site 2 were disposed of at Site 13. No information on either the quantities disposed of or disposal rates was available.

6.14 Site 14: Engine Build-Up Area

Site 14 is located in the north-central portion of AFP 42, at the south side of Plant Site 2. The site consists of a shallow drainage swale situated south and west of Building 231. The Site 14 drainage swale is approximately 180 feet long, 35 feet wide, and 2 feet deep at its deepest point (approximately 6,300 square feet; 0.15-acre). The area north of the site consists of Buildings 231 and 234, and a large paved area. Three man-made inlets drain into the swale, just south of Building 231. The area west of the site is an open, unpaved area. The Site 14 drainage swale leads eastward toward Site 15, located approximately 250 feet downstream of Site 14, and then to Site 1, a northward-flowing drainage ditch located along the eastern boundary of Plant Site 2. From 1954 to 1957, Site 14 received washdown water and hydraulic fluids from engine buildup operations adjacent to Building 231.

6.15 Site 15: Triethyl Borane Disposal Area

Site 15 consists of a shallow, unlined east-west trending drainage swale located at Plant Site 2 in the north-central portion of AFP 42. The site measures approximately 255 feet long (in the direction of the drainage swale) and 50 feet wide, and approximately 4 feet deep at its deepest point (approximately 12,750 square feet; 0.29-acre). The site is located approximately 50 feet south of Building 232, which is currently used on a daily basis for storage and distribution of aircraft supplies by approximately 10 employees.

From 1964 to 1986, the Site 15 drainage swale was reportedly used as a disposal area for a mixture of hydraulic fluid and triethyl borane (TEB). This was used to ignite JP-7 jet fuel in SR-71 aircraft. TEB is a highly volatile chemical that is spontaneously flammable (i.e., its vapors ignite in the presence of oxygen). Mixtures of hydraulic fluid and TEB can be either stable or pyrophoric depending on the volume of the two materials in the mixture. When the mixture ignites, most of the hydraulic oil and TEB are destroyed.

About four times per year, the Site 15 area was used for the disposal of approximately 5 gallons (20 gallons per year) of the hydraulic fluid and TEB mixture. Based on this reported disposal rate during the period that disposal occurred (1964 to 1986), an estimated total of 440 gallons (20 gallons x 22 years) of hydraulic fluid-TEB mixture was released to Site 15.

6.16 Site 16: Evaporation Ponds

Site 16 is located in the north-central portion of AFP 42 at Plant Site 3. The site is located directly west of Building 308, in an open area that measures approximately 100 feet by

450 feet (approximately 45,000 square feet; 1.03 acres). The site was formerly occupied by plastic-lined evaporation ponds used for the containment of nickel-plating wastewater. Available records do not provide information on the depth of the ponds. The site is currently an open area with remnant patches of asphalt, surrounded by non-native grasslands on all sides.

Rockwell International conducted the XB-70 Aircraft Program at Plant Site 3 from 1961 to 1967. Activities under this program included nickel-plating operations in Building 307, which is located approximately 300 feet south of Site 16. Aircraft parts were nickel-plated in a batch system, and spent nickel-plating wastewater was hauled by truck to the plastic-lined evaporation ponds. From 1963 to 1967, wastewater from the batch nickel-plating operations was discharged to the Site 16 evaporation ponds. The evaporation ponds were used to recover nickel from the wastewaters produced by the nickel-plating operation. The water was allowed to evaporate, and the crystallized nickel-plating residues were collected and sent offsite to be recycled. The volume of wastewater discharged into the ponds is unknown. Upon completion of the XB-70 Aircraft Program, the solid waste that accumulated in the ponds was reportedly removed and disposed of offsite. The ponds were reportedly backfilled and graded level.

6.17 Site 17: New Fire Training Circle

Site 17 is located on Plant Site 5 in the central airfield portion of AFP 42, between Plant Sites 1 and 7. Site 17 is located approximately 150 feet southwest of Site 5. The area measures approximately 220 feet in diameter (38,000 square feet; 0.87-acre).

Site 17 was previously used as a fire department training facility. According to interviews with former firefighters, water was added to the pits, flammable liquids were poured onto the water, and the flammable liquids were ignited. Site 17 was originally a bermed, earth-lined, fire-training burn area. This facility was constructed in 1981 to replace a similar operation at Site 5 and was operated from 1981 to 1983. Approximately 6 times per quarter (24 times per year), an estimated 300 to 500 gallons of JP-4 jet fuel were applied for fire-training exercises. Based on these application rates, the total volume of JP-4 jet fuel applied to the site from 1981 to 1983 is estimated to be 21,600 to 36,000 gallons. While most of the liquids applied to the site were consumed in the fires, some percolation into the ground may have occurred. The site was not used after 1983 due to construction and grading activities in the area. The Site 17 area was graded in 1990 to prevent soil erosion during rainfall events. The burn area remains an unpaved, open area with sparse vegetation present.

6.18 Site 18: Abandoned Disposal Area

Site 18 is located in the north-central portion of AFP 42 and the west-central portion of Plant Site 2. The site currently consists of an open, unpaved area situated approximately 30 feet west of the Site 2 ditch and approximately 420 feet northwest of Building 211. The areas that border the site consist of open, unpaved areas and dirt roads.

The site formerly consisted of a bermed area measuring approximately 50 feet (north-south) by 55 feet (east-west) (2,750 square feet; 0.32-acre). The berm was constructed of soil and 55-gallon steel drums, which were empty or partially filled with water. The height of the

berm was approximately 6 feet above ground surface. From 1979 to 1981, several drums were removed from the site for disposal offsite. In August 1994, Lockheed Martin removed the remainder of the drums and disposed of them offsite.

From 1954 to 1974, Site 18 was used for storage of various materials including concrete and asphalt rubble, asbestos-containing blast fencing, wooden crates, rubber hoses, galvanized siding, light poles, fencing, and miscellaneous metals. From 1968 to 1974, the site was reportedly used to burn refuse for fire suppression training exercises for the AFP 42 Fire Department.

Based on the RI field investigation results, the Site 18 study area was expanded. The expanded Site 18 area includes an additional approximately 11,000 square feet situated adjacent to the west side of the original Site 18 study area. The extended Site 18 area encompasses a shallow drainage swale that may have received surface runoff or discharges from the original Site 18 study area.

6.19 Site 19: Engine Run-Up Area

The Site 19 Engine Run-Up Area is located in the north-central portion of Plant Site 3, south of the two hush-houses. Building 304 is located to the south of the site. The site measures approximately 800 by 40 feet (approximately 32,000 square feet; 0.73-acre). Approximately half of the site is concrete-paved with asphalt pavement along the edges of portion of the concrete-paved areas. The remainder of the site is unpaved.

From 1957 to 1961, the site was reportedly used for engine run-up tests, resulting in sporadic discharges of waste fuel along the northern edge of the flight apron. During this period, approximately 10 to 20 gallons per day of jet fuels were reportedly disposed of at the site. The type(s) of jet fuel disposed of is not known. Over the 5-year time span, approximately 13,000 to 26,000 gallons of jet fuels (5 days x 52 weeks x 5 years x 10 to 20 gallons) were disposed of at Site 19.

6.20 Site 20: Noise Level Area

Site 20 is located in the north-central portion of AFP 42 within Plant Site 2. The site is comprised of a concrete ramp extending east from the flight line at Plant Site 2 and the area around the ramp. The site is approximately 200 feet long and 70 feet wide (approximately 14,000 square feet; 0.32-acre). This area is situated south of the former Building 214 tank farm.

Site 20 was used sporadically from 1954 to 1958 for disposal of fuels, engine oils, and hydraulic fluids. These substances were dumped onto the ground adjacent to the end of the ramp. This area was also used as a truck fill station servicing the nearby former fuel tank farm. No information is available on the quantities of substances discharged. Currently, the ramp is periodically used as a parking area for fuel trucks containing JP-4 and JP-7 jet fuels.

6.21 Site 21: Fuel Disposal Area

The Site 21 Fuel Disposal Area is located in the south-central portion of AFP 42 at Plant Site 7. The site, located northwest of Building 740 and northeast of Building 726, was used sporadically in the past for disposal of fuels. The site is unpaved and is located just northwest of an asphalt-paved parking lot. The site is irregularly shaped with four sides that measure approximately 380 feet (east side), 260 feet (southeast side), 210 feet (southwest side), and 490 feet (northwest side) (approximately 87,300 square feet; 2 acres). Unlined drainage ditches border the northwestern and eastern sides of Site 21, intersecting at the northeastern tip of the site. The southwestern portion of the site includes a bermed, concrete-paved pad previously used for fuel-flow engine testing. The pad was likely the main source of waste releases at the site. Currently, the pad is used for the storage of drums containing hazardous waste. There is a sump located at the northeastern tip of the pad. A 1,000-gallon paint waste UST (Tank T7-13) was formerly located adjacent to the sump. Records do not indicate when the tank was installed; the tank was removed in 1993. It appears that liquids were transported to UST T7-13 and poured directly into the UST. No releases reportedly occurred from the tank.

The current hazardous waste storage pad area was used for aircraft fuel-flow testing during the late 1950s. "Small quantities" of waste jet fuels were reportedly discharged to the unpaved area to the north of the pad. The quantity of waste disposed of is unknown.

6.22 Site 22: Engine Run-Up Area

Site 22 is located in the southern portion of AFP 42 at Plant Site 5. The site is situated along the eastern edge of north-south Taxiway Lima. Site 22 is approximately 850 feet long and 100 feet wide (approximately 85,000 square feet; 1.9 acres).

Site 22 was used from 1955 to 1957 as an engine run-up area. During this time, jet fuel, engine oil, and hydraulic fluid were reportedly discharged from aircraft to the ground surface. Records indicated that approximately 10 to 20 gallons of wastes were disposed of daily. Based on these disposal rates, it is estimated that the total volume of wastes disposed of from 1955 to 1957 (3 years) was approximately 7,800 to 15,600 gallons (10 to 20 gallons per day x 5 days per week x 52 weeks per year x 3 years).

6.23 Site 23: Building Ditch Discharge Area

Site 23 is located in the southwestern portion of AFP 42 within Plant Site 8, north of Building 870. Site 23 consists of an unlined shallow ditch located along a dirt road immediately north of the Plant Site 8 fence line, north of Building 870. This ditch was designed to allow the percolation of rainwater from the Building 870 roof. In addition, the ditch received wastewater formerly generated inside the building. Seven concrete rainwater culverts extend from the north side of Building 870 to the ditch. The discharge points for four of the culverts are located within the Site 23 boundaries. There are three additional concrete culverts outside the site boundaries, two culverts located to the west and one culvert located to the east. A former partially below-grade concrete sump is located near the southwest corner of the site; the past use of this sump is not known. The site covers an area

that is approximately 650 feet long and 50 feet wide (approximately 32,500 square feet; 0.75 acre).

From 1966 to 1967, Building 870 was used for the overhaul of J-57 jet engines used in the F-100, B-52, KC-135, F-101, and F-102 aircraft. The engines were disassembled, cleaned, and inspected, and then reassembled and tested. Approximately 43,000 gallons per day of rinse water were reportedly discharged to the ditch during the 2 years in which Rockwell operated the plant site. Based on this disposal rate, the ditch received a total of approximately 22,360,000 gallons of wastewater. Discharges to the ditch occurred under the approval of the Lahontan RWQCB. Maximum effluent concentrations were established as follows: 500,000 micrograms per liter (µg/L) total dissolved solids (TDS), 50 µg/L hexavalent chromium, 1,400 µg/L fluoride, and a 70 percent sodium-adsorption ratio. Soil staining observed in historic aerial photographs indicates that wastewater may not have been confined to the percolation ditch and may have flowed up to 500 feet north of Building 870.

Beginning in 1968, warehousing of dry goods has been the primary use of Building 870. Wastewater is no longer generated in Building 870.

6.24 Site 24: Washrack at Fire Station 1

Site 24 is located in the southeastern portion of AFP 42 at Plant Site 5. The site includes the following features:

- An outdoor vehicle washrack located on the north side of Building 553; the washrack measures approximately 24 feet by 50 feet
- A northwest flowing drainage ditch, leading from an outdoor vehicle washrack; the ditch and ditch bank measure approximately 480 feet long by 50 feet wide
- A washrack that formerly discharged via floor drains to a leach field south of the fire station; the pipeline leading to the leach field is approximately 220 feet long and the leach field is approximately 50 feet by 105 feet

The site features comprise a total area of approximately 36,000 square feet (0.83-acre).

The vehicle washracks began operation in 1959, and the washrack north of Building 533 is still in use. Wastewater was reportedly discharged primarily to the leach field located south of Fire Station No. 1 until 1996; the washrack inside the south end of this building has not been used since that time. Current and occasional past discharges of wastewater flowed to the ditch north of the fire station. The wastewater may contain oils, fuels, detergents, hydraulic fluids, and possibly spent solvents from maintenance operations. The washrack was cited in 1987 by the RWQCB for lack of a proper discharge permit. Based on subsequent analytical results, the RWQCB deemed the effluent to be a nonhazardous waste stream and a permit unnecessary.

6.25 Site 25: Washrack at Fire Station 2

Site 25 is located in the north-central portion of AFP 42, at the southwest corner of Plant Site 2. The site is located within AFP 42 Common Areas (Plant Site 5), and encompasses Fire Station No. 2 (Building 554). Site 25 includes indoor and outdoor vehicle washracks that discharge to a north-flowing drainage swale. The site also includes a septic tank (located west of Building 554) and septic system leach field (located southwest of Building 554). The site features comprise a total area of approximately 65,000 square feet (1.5 acres).

The vehicle washracks began operation in 1959 and are still in use. Wastewaters generated from the washrack historically drained to an oil/water separator that discharged effluent to a leach field. The location and status of the oil/water separator is not known. Currently, discharge from the indoor washrack has been rerouted to the sanitary sewer. Water from the outdoor washrack flows into a north-trending unlined drainage. Wastewaters generated at the washracks may have contained oils, fuels, detergents, hydraulic fluids, and possibly spent solvents from maintenance operations. The washrack was cited in 1987 by the RWQCB for lack of a proper discharge permit. Based on subsequent analytical results, the RWQCB Board deemed the effluent material to be nonhazardous and a permit unnecessary.

6.26 Site 26: Battery Shop UST

Site 26 is located at Plant Site 5 in the southeastern portion of AFP 42, approximately 900 feet southeast of Runway 4-22. Site 26 includes the former location of a UST (Tank T5-24) located adjacent to the battery shop in the southeastern corner of Building 531. The site is located adjacent to the southwest portion of IRP Site 4. Site 26 measures approximately 90 feet by 85 feet (approximately 7,650 square feet; 0.18-acre).

From 1954 to 1982, waste lead battery acid (sulfuric acid) generated in the battery shop at Building 531 (southeast corner of building) was allowed to drain into a floor drain and sink located in the shop. The waste acid drained via a subsurface pipeline into a 400-gallon UST located east of Building 531. On a routine basis, a contractor removed the contents of the UST for offsite disposal. An estimated 400 gallons of waste acid was generated and disposed of annually. The tank was removed in 1982. Available records do not indicate whether soil sampling beneath or adjacent to the tank was performed. The floor drain in Building 531 has been sealed with concrete, and the sink has been disconnected. The battery shop is still in operation, but the lead acid batteries are no longer drained prior to being sold to an offsite contractor for recovery.

6.27 Site 27: Waste Piles

Site 27 is located on Plant Site 5 in the central airfield portion of AFP 42, north of IRP Sites 17 and 5. Beginning in 1954, the site was used for surface disposal of construction rubble. The bulk of the wastes at Site 27 was generated during the demolition of an old runway in 1968 and 1969. In July of 2000, removal and offsite disposal of surface debris and underlying affected soil was performed at Site 27. Currently, IRP Site 27 is in the Interim Removal Action phase.

The wastes at Site 27 include four large rubble piles that consist of portions of the removed runway, surface soil from beneath it, and construction debris such as concrete, asphalt, and wood. Previous sampling results for shallow soil beneath the rubble piles do not indicate that a removal action is warranted. It is anticipated that these rubble piles will remain in place.

Other waste piles identified at Site 27 include areas of empty cans; an area of scattered battery parts, burned rubber piles, spilled tar areas, and a soil pile intermixed with paint chips. From July 25 through December 2001, removal actions were completed for the following waste types: empty cans, battery parts and associated concrete pad (where batteries were formerly smashed), burned rubber, and spilled tar. Wastes were transported offsite for appropriate disposal based on waste characteristics.

6.28 Site 29: Groundwater at Plant Site 1

Site 29 consists of groundwater at Plant Site 1, which is located in the northwestern portion of AFP 42. Construction at the plant site began in 1953. The two main aircraft hangars, Buildings 145 and 150, were constructed in 1953 and 1955, respectively. The types of hazardous substances reported to have been used at Plant Site 1 include paints and paint primers, petroleum-based solvents, cleaners and lubricants, sealants, metal finishing solutions, acids and caustics, resins, waxes and polishes, and chlorinated solvents such as 1,1,1-trichloroethane (1,1,1-TCA).

Site 29 was identified based on the presence of TCE in one of the Plant Site 1 production wells (Production Well DW1-2). Soil gas surveys and soil investigations performed at Plant Site 1 identified Building 150 as the likely source of TCE at Site 29. This building is located in the northern portion of the Plant Site 1 operational area, approximately 400 feet northwest of Production Well DW1-2. Four monitoring wells have been installed at Plant Site 1.

In 1973, Building 150 was modified to extend and heighten the roof to accommodate the tail of the space shuttle. The expansion on the north side of Building 150 is referred to as the High Bay. Based on historical aerial photographs, this area appeared to be asphalt paved prior to the addition of the High Bay.

Appendix A
Glossary of Environmental Terms

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1,1,1, Trichloroethane. A colorless liquid that is primarily used in industry as a degreasing solvent.

Administrative Record. The Administrative Record consists of all documents that have a legal bearing on the remedial action. It is required for every response action, is used for judicial review, and forms the basis for the selection of response actions at third-party sites.

Area of Concern (AOC). Any discernible unit or area which may have received solid or hazardous waste or waste containing hazardous constituents at any time.

Benzene. A petroleum derivative widely used in the chemical industry in the synthesis of rubber, nylon, polystyrene and pesticides, and the in the production of gasoline.

BTEX. Benzene, toluene, ethylbenzene and xylene. These organic compounds are common constituents of vehicle fuels.

Carcinogen. A substance that can cause cancer.

Carbon Adsorption. A treatment system where contaminants are removed from groundwater or surface water when the water is forced through tanks containing activated carbon, a specially treated material that attracts the contaminants.

Chromium. A naturally occurring metal.

Community Involvement Plan (CIP). A plan required by the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) at all National Priorities List (NPL) sites and all remedial actions. The plan is a guide for community involvement objectives and activities pertaining to a specific site.

Community Relations Plan. The terminology previously used for Community Involvement Plans.

Comprehensive Environmental Restoration, Compensation and Liability Act (CERCLA). A federal act (Public Law 96-510; December 11, 1980) that provides for liability, compensation, cleanup, and emergency response for hazardous substances released into the environment and the cleanup of inactive waste disposal sites.

Effluent. Wastewater—treated or untreated—that flows out of a treatment plant, sewer, or industrial outfall. Generally refers to wastes discharged into surface waters.

Emergency Response. A control measure or combination of control measures implemented to prevent or mitigate an immediate and substantial threat to public welfare posed by a hazardous waste site.

Feasibility Study (FS). A description and analysis of the potential cleanup alternatives for a site. This restoration phase identifies the means for development, evaluation, selection, and description of remedial action alternatives.

Hexavalent Chromium. Chromium hexavalent (CrVI) compounds, often referred to as hexavalent chromium, exist in several forms. These forms include: chromic acid, calcium chromate, chromium trioxide, lead chromate, strontium chromate, zinc chromate, and potassium dichromate. Chromates are often used as pigments for photography, pyrotechnics, dyes, paints, inks, and plastics. They can also be used for stainless steel production, textile dyes, wood preservation, leather tanning, and as anti-corrosion coatings (for example, chrome plating and spray coatings).

Installation Restoration Program (IRP). A Department of Defense program to identify the location of former hazardous waste disposal sites, to determine if any contamination releases have occurred, and to minimize the associated hazards to public health.

Long-Term Monitoring. A program of water, soil or sediment analysis intended to track the migration @or non-migration) of contaminants. Monitoring is implemented without concurrent implementation of a remedial action.

Monitoring. Periodic or continuous surveillance or testing to determine the level of compliance with statutory requirements and/or pollutant levels in various media or in humans, animals, and other living things.

Monitoring Wells. Special wells drilled at specific locations on or off a hazardous waste site where groundwater can be sampled at selected depths and studies to determine such things as the direction in which groundwater flows and the types and amounts of contaminants present.

National Oil and Hazardous Substances Contingency Plan (NCP) 40 CFR 300. The federal regulation that implements the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) program.

Preliminary Assessment. Part of the Installation Restoration Program (IRP), this process collects and reviews available information about a known or suspected hazardous waste site or release. The Air Force, EPA or state uses this information to determine if the IRP site requires further study. If further study is needed, a site inspection is undertaken.

Proposed Plan. A document that describes the Air Force's proposed methods of cleanup for a site or group of sites, the rationale for their selection, a summary of the Remedial Investigation and Feasibility Study results, and a summary of the alternatives considered for each site. The NCP requires the lead agency to hold a public comment period and public meeting for the Proposed Plan, and to consider and respond to all comments before making a final decision.

Public Affairs Office. Installation personnel who are responsible for maintaining proper communication channels with the public regarding site restoration activities.

Public Comment Period. A designated time period (usually coinciding with the release of the Remedial Investigation/Feasibility Study draft report or revision of the Record of Decision) when comments from citizens about environmental activities are invited.

Public Meetings. Meetings organized by the agency that are open to the public. Experts are available to present information and answer questions. Citizens are encouraged to ask questions and offer comments.

Public Notices. Advertisements published in major local newspapers, broadcast via local radio stations, or mailed to community members to announce Air Force decisions, major project milestones, public meetings, or to solicit public comment on Air Force actions.

Pyrophoric. Capable of igniting spontaneously in air.

Quatification Investigation. The analysis of a chemical substance to determine the amounts and proportions of its constituents.

Record of Decision (ROD). A public document that explains which cleanup alternative(s) will be used for all remedial responses at all sites in which the federal government is the lead agency The ROD is based on information and technical analysis generated during the remedial investigation/feasibility study and consideration of public comments and community concerns.

Remedial Action (RA). The actual construction or implementation phase that follows the remedial design of he selected cleanup alternative at a site.

Remedial Design. An engineering phase that follows the Record of Decision (ROD) when technical drawings and specifications are developed for remedial action at a site.

Remedial Investigation (RI). The Installation Restoration Program (IRP) or Comprehensive Environmental Response, Compensation and Liability Act (CERCLA)-related process to determine the nature and extent of contamination at a site. This phase of the IRP emphasizes data collection and site characterization of hazardous waste sites.

Removal Action. Short-term immediate action taken to address releases of hazardous substances that require expedited response.

Triethylane Borane. A highly volatile chemical used to ignite JP-7 jet fuel in SR-71 aircraft.

Toluene. A colorless waterinsoluble, flammable liquid, obtained chiefly from coal tar and petroleum. Used as a solvent in the manufacture of organic compounds.

Trichloroethylene (TCE). A stable, low boiling-point colorless liquid, toxic if inhaled. Used as a solvent or metal degreasing agent, and in other industrial applications.
Turco. A liquid cleaner.

Underground Storage Tank (UST). A tank located at least partially underground and designed to hold gasoline or other petroleum products or chemicals.

Appendix B
AFP 42 Contact List and Information Repositories

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AFP 42 Contacts

George Warner
AFP 42 Remedial Program Manager
Acquisition Environmental Management
ASC/EMR
Bldg. 8, 1801 Tenth Street, Suite 2
Wright-Patterson AFB, OH 45433-7626
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Ted Saari
Water Resources Control Engineer
Regional Water Quality Control Board
Lahontan Region
15428 Civic Drive, Suite 100
Cypress, CA 90630
Victorville, CA 92392-2359
(760) 241-7407
TSaari@rb6v.swrch.ca.gov

Information Repositories

Palmdale Public Library
700 East Palmdale Boulevard
Palmdale, CA 93550
(661) 267-5600

Hours:
Monday - Thursday, 10 a.m. - 8 p.m.
Friday - Saturday 12 p.m. - 5 p.m.
Closed Sunday

Lancaster Public Library
601 West Lancaster Boulevard
Lancaster, CA 93534
Phone: (661) 948-5029

Hours:
Monday – Wednesday, 10 - 8
Thursday – Friday, 10 - 5
Saturday, 11 - 5
Sunday, 1 – 5

Department of Toxic Substances Control (DTSC)
Julie Johnson
File Room Coordinator
5796 Corporate Avenue
Cypress, CA 90630
(714) 484-5337
Hours:
Monday – Friday, 8 - 5

Appendix C
Community Mailing List Including DTSC Mandatory Mailing List

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State Agencies

Department of Fish & Game
Natural Diversity Database
1416 9th Street, 12th floor
Sacramento, CA 94244-2090
(916) 324-3812

California Integrated Waste Management Board
8800 Cal Center Drive
Sacramento, CA 95826

Regional Agencies

Water Quality Control Board
Lahontan Region
15428 Civic Drive, Suite 100
Victorville, CA 92392-2359

Department of Transportation
Transportation Planning & Analysis Branch
District 7 IGR/CEQA Coordinator
120 S. Spring Street
Los Angeles, CA 90012

State Clearinghouse
Office of Planning & Research
1400 Tenth Street
Sacramento, CA 95814
(916) 445-0613

Regional Antelope Valley Transit Authority
1031 W. Avenue L-12
Lancaster, CA 93534
(661) 945-9445

Antelope Valley Unified School District
Administrative Offices
44811 N. Sierra Highway
Lancaster, CA 93534
(661) 948-7655

Antelope Valley Union High School District
Attn: Dr. David Vierra, Superintendent
44811 N. Sierra Highway
Lancaster, CA 93534

Antelope Valley Chamber of Commerce
Steve Malicott, President/CEO
554 W. Lancaster Boulevard
Lancaster, CA 93534
(661) 948-4518

Mojave Desert State Parks
Attn: Ranger/Docent – Antelope Valley CA Poppy Reserve
43779 15th Street West
Lancaster, CA 93534
(661) 942-0662

L.A. County Fire Department
Hazardous Materials Section
5825 Rickenbacker Road
Commerce, CA 90043

L.A. County Health Services
Director
313 N. Figueroa Street
Los Angeles, CA 90012

L.A. County Department for Environmental Health
2525 Corporate Place #150
Monterey Park, CA 91754

Department of Regional Planning
Hall of Records, 13th Floor
320 W. Temple Street
Los Angeles, CA 90012

Los Angeles Unified School District
Mr. Bill Piazza
1449 S. San Pedro Street
Los Angeles, CA 90015

Los Angeles Unified School District
Ms. Sharon Thomas
3355 S. Grand Avenue, Suite 702
Los Angeles, CA 90071

Local Agencies

Palmdale City Library
700 E. Palmdale Boulevard
Palmdale, CA 93550
(661) 267-5600

Quartz Hill Public Library
42018 N. 50th Street West
Quartz Hill, CA 93551

Lancaster Public Library
601 West Lancaster Boulevard
Lancaster, CA 93534
(661) 948-5029

Littlerock Public Library
8135 Pearblossom Highway
Littlerock, CA 93534

Palmdale Community Redevelopment Agency
38250 N. Sierra Highway
Palmdale, CA 93550
(661) 267-5125

City of Palmdale Planning Department
38250 Sierra Highway
Palmdale, CA 93550
(661) 267-5125

Palmdale Chamber of Commerce
817 E Avenue Q-9
Palmdale, CA 93550
(661) 273-3232

Palmdale Public Works
708 E. Palmdale Boulevard
Palmdale, CA 93550

Quartz Hill Town Council
3711 West Avenue, M #239
Quartz Hill, CA 93536

City of Palmdale
Barbara La Fata, Public Information Officer
38300 Sierra Highway, Suite 'A'
Palmdale, CA 93550

City of Lancaster
Ann Aldrich, Public Information Officer
44933 N. Fern Avenue
Lancaster, CA 93534

City of Lancaster
Brian N. Hawley, Director of Community Development
44933 N. Fern Avenue
Lancaster, CA 93534
(661) 723-6100

City of Lancaster
Ken Meichtry, Superintendent of Public Works
46008 N. 7th Street West
Lancaster, CA 93534
(661) 723-5985

Lancaster Redevelopment Agency
City of Lancaster
44933 N. Fern Avenue
Lancaster, CA 93534
(661) 723-6030

Palmdale Water District
37843 27th Place East
Palmdale, CA 93550

Government – Federal/ State/County/City

Legislators – Federal

Senator Barbara Boxer
2250 E. Imperial Highway, #545
El Segundo, CA 90245
(310) 414-5700

Senator Dianne Feinstein
11111 Santa Monica Boulevard, #915
Los Angeles, CA 90025
(310) 914-7300

Congressman Howard "Buck" McKeon
Lew Stults, Field Representative
1008 W. Avenue M-14, #E-1
Palmdale, CA 93551
(661) 274-9688
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Los Angeles, CA 90012
(661) 940-6700

Legislators – City

City of Palmdale Mayor James C. Ledford, Jr.
Councilmember Tem Mike Dispenza
Councilmember Richard Loa
Councilmember Richard H. Norris
Mayor Pro Tem James A. Root
38300 Sierra Highway
Palmdale, CA 93550
(661) 267-5100

City of Lancaster Mayor Frank C. Roberts
Vice Mayor Henry W. Hearns
Councilmember Jim Jeffra
Councilmember Ed Sileo
Councilmember Andy Visokey
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Interested Parties

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44355 N. 40th Street East
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Ted Melvin Environmental Safety & Health
Lockheed Martin Skunk Works
1011 Lockheed Way
Palmdale, CA 93599-3731

Natural Resources Defense Council
6310 San Vicente Boulevard #250
Los Angeles, CA 90048

Betty Smith
Palmdale Disposal
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Palmdale, CA 93551

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Palmdale, CA 93550-2196

Gary Patton
Planning and Conservation League
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Sacramento, CA 95814

Iris Weber
Luther Burbank Middle School
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Palmdale, CA 93552

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Paraiso Ho Group LUCI
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Lancaster, CA 93535-2862

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Headquarters Air Force Material Command
4375 Chidlaw Road, Suite 6
WPAFB, OH 45433-5006

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256 Bernard Way
San Bernardino, CA 92404

Chung Yen
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8001 Arnold Drive, Bldg. 642
Brooks AFB, TX 78235

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P.O. Box 425
Rosamond, CA 93560-0425

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45162 Elm
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1340 Dubuque Avenue
Walnut, CA 91789

Charles Houston
Oak Tree Learning Center
39139 N. 10th Street, East
Palmdale, CA 93550

Marty Foster
Marty's Tractor and Dump truck
23814 W. Avenue D-12
Neenach, CA 93536

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HPWR
1030 E. Avenue S Lot #158
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Lyle Talbot
High Desert Citizens Against Pollution
633 West J-11
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Sylvia Duarte
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38608 28th Street East
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Environmental Management Division
7301 World Way West, 3rd Floor
Los Angeles, CA 90045

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557 West Old Field Street
Lancaster, CA 93534

Gene Taylor, Office Supervisor
Palmdale Water District
2029 East Avenue Q
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Liz Allen
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394 Blaisdell
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California Communities Against Toxins
P.O. Box
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League of Women Voters
3250 Wilshire Boulevard, Suite 105
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41210 11th Street West, Suite E
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1955 Workman Mill Road
Whittier, CA 90607

L.A. County Fire Department
Steve Lindsey, Fire Chief
c/o Fire State 129
42110 6th Street West
Lancaster, CA 93534-7134

Kern Audubon Society
P.O. Box 3581
Bakersfield, CA 93385-3581
(661) 871-7304

Kerncrest Audubon Society
Contact Person: Dan Burnett
P.O. Box 984
Ridgecrest, CA 93556-0984

Beverly Kendrick, Community Builder
U.S. Dept. of HUD
Public Housing Division
611 W. 6th Street, #800
Los Angeles, CA 90017

Audubon Society
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Los Angeles, CA 90042
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Community Mailing List

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DTSC
P.O. Box 806
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Communities for a Better Environment
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Huntington Park, CA 90255

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P.O. Box 186
Stewart Point, CA 95480

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2800 Cottage Way, Room 2065
Sacramento, CA 95825

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Wildlife Conservation Board
1807 13th Street, Suite 103
Sacramento, CA 95814-7117

Mr. Robert Treanor, Director
California Fish & Game Commission
1416 Ninth Street, 13th Floor
Sacramento, CA 95814

Mr. James Bybee
National Marine Fisheries Services
777 Sonoma Avenue, #325
Santa Rosa, CA 95404

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CLCV Education Fund
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Los Angeles, CA 90025

Mr. Bill Nelson
Agency for Toxic Substance and Disease Registry
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San Francisco, CA 94105

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San Mateo, CA 94403

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Edina, MN 55439

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Sacramento, CA 95814

Ms. Jeanne Garcia
Public Information Officer
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Glendale, CA 91201

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Office of Legal Council/Planning
Analysis Env. Assessment
P.O. Box 806
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Glendale, CA 91201

Los Angeles County
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Mr. Herman Mulman
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Directing Attorney Legal Aid
Foundation of L.A.
8601 S. Broadway
Los Angeles, CA 90003

Hacienda Heights Improvement
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Hacienda Heights, CA 91745

Directing Attorney
NAACP Legal Defense
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Commerce, CA 90043

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Reclaim Administrator
SCAQMD
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Diamond Bar, CA 91765-4182

Dr. Paul Simon
L.A. County
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Mr. Bill Piazza
LAUSD
1449 S. San Pedro Street
Los Angeles, CA 90015

Hon. Yvonne B. Burke
LA County Hall of Administration
500 W. Temple Street, Suite 866
Los Angeles, CA 90012

Ms. Miriam Simmons
Senior Deputy
Environmental Issues
LA County Hall of Administration
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Los Angeles, CA 90012

Ms. Sharon Thomas
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Los Angeles, CA 90071

Communities for Better Environment
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Huntington Park, CA 90255

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Community Coalition for Change
P.O. Box 59027
Los Angeles, CA 90059

Councilmember Ed Reyes
City of Los Angeles
200 N. Spring Street, Room 410
Los Angeles, CA 90012

Ms. Sharon Lowe
Office of Councilmember Reyes
200 N. Spring Street, Room 410
Los Angeles, CA 90012

Appendix D
Media Contact List

Appendix D
Media Contact List

Local Media

The Daily News
P.O. Box 4200
Woodland Hills, CA 91365
Ph: 661 267-5741

Antelope Valley Journal
Editor, Michael Seiler
3166 E. Palmdale Boulevard
Palmdale, CA 93550
ph: 661 947-5009
fax: 661 947-5208

The Antelope Valley Press
Allison Gatlin
37404 Sierra Highway
Palmdale, CA 93550-9343
ph: 661 273-2700
fax: 661 947-4870
www.avpress.com is an extension of the Antelope Valley Press.

Aerotech News and Review
Leona Bull
456 East Ave. K-4, Suite 8
Lancaster, CA 93535
Ph: 661 945 5634
Fax: 661 723 7757

Appendix E
Interview Questions and Questionnaire Mailed to ERAB Members

AFP 42 Community Interview Questionnaire

CONFIDENTIAL

Name: _____

Date: _____

Interviewee (Circle One):

Community Member	Business Person
Agency Person	ERAB Member
Environmental Organization	Public Official

1) How long have you lived or worked in the area?

2) Are you familiar with the environmental issues at Air Force Plant 42?

3) How and when did you first become aware of these environmental issues?

4) What is your understanding of Plant 42's environmental investigation program? To what extent are you aware of contamination on site?

5) What are your major concerns regarding Plant 42? Please rank them in order of importance (i.e., health, property values, etc.).

6) What Plant 42 information have you seen or what Plant 42 activities have you participated in? (e.g., fact sheets, public notices, newspaper articles, ERAB public meetings, Poppy Festival booth, etc.)?

7) In what ways, if any, is the community affected by the investigation activities at Plant 42?

8) Are you familiar with the agencies involved in the investigation at Air Force Plant 42? Can you list them?

9) What is your perception of the roles the agencies play? How would you suggest their roles be modified, if at all, to better meet your needs?

10) What is the best way for Air Force Plant 42 and Wright-Patterson AFB to provide you with information on site-related activities?

11) Are you aware that an Environmental Restoration Advisory Board (ERAB) has been established for Air Force Plant 42?

⇨ If yes, how did you learn about its existence?

⇨ If no, are you interested in becoming a member or attending ERAB meetings?

12) What methods would you like to see implemented for future communications with the community (e.g., fact sheets. small meetings, large public meetings, newspaper articles, radio, television announcements, etc.)?

13) Do you feel that media coverage has presented an accurate picture of the Plant 42 environmental situation? Have you personally had any experience with the media regarding Plant 42?

14) How do you feel about community meetings (i.e., are they appropriate, are they effective, etc.)? Where would be the best location for community meetings? How often should meetings be held?

15) Do you know that AFP 42 has established Information Repositories at libraries in Palmdale and Lancaster? If yes, how did you learn of this? Have you used one or both of the information repositories?

16) Do you have any suggestions of individuals who would like to become involved in these community relations efforts?

17) Are you on AFP 42's community mailing list? If no, would you like to be added? (ask for contact information)

18) Are there any other comments, concerns or issues you would like to share with us?

THANK YOU FOR YOUR TIME!

AFP 42 Community ERAB Member Written Interview Questionnaire

CONFIDENTIAL

1) How long have you lived or worked in the area?

2) How and when did you first become aware of environmental issues at Air Force Plant 42?

3) What is your understanding of Plant 42's environmental investigation program? To what extent are you aware of contamination on site?

4) What are your major concerns regarding Plant 42? Please rank them in order of importance (i.e., health, property values, etc.).

5) What Plant 42 information have you seen or what Plant 42 activities have you participated in? (e.g., fact sheets, public notices, newspaper articles, ERAB public meetings, Poppy Festival booth, etc.)?

6) In what ways, if any, is the community affected by the environmental investigation activities at Plant 42?

7) Are you familiar with the agencies involved in the investigation at Air Force Plant 42? Can you list them?

8) What is your perception of the roles the agencies play? How would you suggest their roles be modified, if at all, to better meet your needs?

9) What is the best way for Air Force Plant 42 and Wright-Patterson AFB to provide you with information on site-related activities?

10) What methods would you like to see implemented for future communications with the community (e.g., fact sheets. small meetings, large public meetings, newspaper articles, radio, television announcements, etc.)?

11) Do you feel that media coverage has presented an accurate picture of the Plant 42 environmental situation? Have you personally had any experience with the media regarding Plant 42?

12) How do you feel about community meetings (i.e., are they appropriate, are they effective, etc.)? Where would be the best location for community meetings? How often should meetings be held?

13) Do you know that AFP 42 has established Information Repositories at libraries in Palmdale and Lancaster? If yes, how did you learn of this? Have you used one or both of the information repositories?

14) Do you have any suggestions of individuals who would like to become involved in these community relations efforts?

15) Are there any other comments, concerns or issues you would like to share with us?

THANK YOU FOR YOUR TIME! Please return the questionnaire by February 15, 2003 via e-mail at kdeane@ch2m.com or by mail to Kellie Deane, CH2M HILL, 3 Hutton Centre Dr., Suite200, Santa Ana, CA 92707

Appendix F
ERAB Charter and Bylaws

FINAL

AIR FORCE PLANT 42

INSTALLATION RESTORATION PROGRAM

ENVIRONMENTAL RESTORATION ADVISORY BOARD

CHARTER

May 2003

I. NAME

This organization shall be known as the Air Force Plant 42 (AFP 42) Environmental Restoration Advisory Board (ERAB).

II. AUTHORITY

The basis and authority for the AFP 42 ERAB and its Charter is established pursuant to the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) of 1980, as amended by the Superfund Amendments and Reauthorization Act (SARA) of 1986, particularly Sections 120 (a), 120 (f), and 121 (f); 10 U.S.C. 2705, enacted by Section 211 of SARA; Executive Order 12580; and the FY95 Defense Appropriations Act, Public Law 103-337, Section 326. Guidance may also be provided in accordance with the Federal Register notice on Restoration Advisory Boards (RABs), Vol. 61, No. 152, August 6, 1996, Pages 40764-40772, as it is later adopted and codified in the Code of Federal Regulations.

III. PURPOSE

A. The primary function of the AFP 42 ERAB is to enhance community awareness of the Installation Restoration Program (IRP) at AFP 42 in Palmdale, California, and to obtain constructive community review and comment on proposed environmental cleanup activities. Community ERAB members are asked to review and comment on cleanup activities and projects including the progress of projects, the level of restoration required, and acceptable risks. The ERAB will provide comments on environmental documents as individuals and/or on behalf of community organizations. The ERAB may either provide review and comment as a group or on an individual basis. Consensus on issues is not required and individual input is encouraged.

B. AFP 42 ERAB members provide a direct-line of communication between the community, the regulators and environmental managers who are involved in oversight of the AFP 42 IRP. ERAB members will disseminate information about the IRP and present public input relevant to cleanup activities at AFP 42 to reflect the diverse interests within the local community.

C. The ERAB shall help identify environmental issues at AFP 42 and help resolve those issues in a manner that is satisfactory to the community. Public members must be willing to communicate with the community concerning cleanup issues and bring local concerns to the attention of the ERAB.

IV. MEMBERSHIP AND RESPONSIBILITIES OF MEMBERS

A. The ERAB shall consist of the representatives from the Antelope Valley community who have volunteered to serve on the ERAB and the Government Co-Chair. After each new Community Co-Chair election, an addendum shall be added to the charter that lists the current membership, with new members' signatures added to the charter.

Ex-officio memberships are as follows:

- Lahontan Regional Water Quality Control Board
- Department of Toxic Substances Control (Cal-EPA, DTSC)

The ex-officio members shall not have (procedural) voting privileges except for voting in accordance with Section VII, Dissolution of AFP 42 ERAB.

Additionally, technical advisors to the Remedial Project Manager may participate in planning and discussions during all meetings. Technical advisors include, but are not limited to IRP project personnel, public health and safety representatives, a public affairs representative, and a legal representative.

B. Members may elect to identify to the ERAB one designated alternate representative who will represent the ERAB member at meetings when the member is unable to attend. Members are expected to attend all ERAB meetings, or to send the designated alternate representative.

C. Members shall serve without compensation. All expenses incident to travel shall be borne by the respective member's organization, if appropriate.

D. With the exception of the provisions in Paragraph E, below, members shall serve for the life of the ERAB, or until the individual member desires to resign. When a member of the ERAB resigns, that member will be replaced by a representative of the same organization. When this is not possible or appropriate, a replacement member will be sought by the current members of the ERAB. At meetings where membership is to be voted upon, membership will be determined by a majority of the ERAB members present, provided that a quorum of ERAB members is in attendance.

E. ERAB membership will be periodically reviewed by the ERAB. The ERAB may vote to include new members, remove inactive members, or solicit new members to represent groups not currently represented on the ERAB. Nominations will be reviewed and approved by a majority vote of the members of the ERAB present at the meeting. Members who miss three (3) consecutive meetings without just cause will be contacted to see if they wish to continue as members of the ERAB. New ERAB members will be subject to Air Force concurrence and may not serve on the ERAB until such concurrence is given. Air Force concurrence will not be unreasonably withheld. New member nominations must be submitted as an agenda item at least one meeting prior to the membership vote.

F. Membership shall not exceed twenty (20) community members in number.

G. Members must be willing to communicate with the local community members and interest groups concerning specific cleanup issues and bring local concerns to the attention of the ERAB. Members will serve as a direct and reliable conduit for communication between the public and the agencies responsible for cleanup activities. ERAB member's names may be published in various Air Force fact sheets and other informational materials.

V. STRUCTURE AND OPERATING PROCEDURES

A. A quorum of ERAB members must be present for an ERAB meeting to be considered official. A quorum is defined as a simple majority of ERAB members (50% + 1). A quorum is required for voting to occur. When voting is determined to be an appropriate approach to decisions, decisions will be made by a simple majority vote of ERAB members (if a quorum is present).

B. The U.S. Air Force will select the Government Co-Chair of the ERAB. A public ERAB member will serve as the Community Co-Chair. The Community Co-Chair will be selected by a majority vote of the community ERAB members. A quorum of ERAB members is required (as defined in Section V.A., above). The Community Co-Chair shall serve a term of one (1) year, commencing from the date of the election. The Community Co-Chair may serve more than one term if so elected by the ERAB.

The ERAB membership is responsible for terminating a Community Co-Chair who is ineffective or detrimental to progress of the ERAB. Community Co-Chair removal is determined by a majority vote of ERAB membership at the meeting where removal is addressed. A quorum of ERAB members is required (as defined in Section V.A., above).

Community Co-Chair election will take place at the first meeting of the new calendar year, with the search for nominations having been discussed by the membership during the last end-of-year meeting. Additional nominations from the floor will be accepted up to the time of the election. If the Community Co-Chair is not able to carry out the duties of this office prior to the end of the one year term, an interim Community Co-Chair will be elected by the ERAB membership until the original term has expired. At that time, normal election procedures will proceed to elect a new Community Co-Chair.

C. The ERAB meetings will be jointly chaired by the Community Co-Chair and the Government Co-Chair. The ERAB co-chairpersons will be responsible for coordinating an agenda for each meeting. The U.S. Air Force will provide administrative support to disseminate meeting minutes and agendas for each scheduled meeting. Agenda items for the next meeting will be decided on at the conclusion of each meeting and/or submitted to the co-chairs at least four weeks prior to a scheduled meeting. The ASC Public Affairs Office shall be responsible for distributing background materials prior to the meeting.

D. Meetings shall be held at least quarterly. The date, time and place of each meeting shall be decided by the ERAB.

E. Meetings will be open to the public and announced by press release to the local media and a paid advertisement in the local newspaper(s). These shall be accomplished by the U.S. Air Force.

F. Each meeting will follow the agenda as determined by the co-chairs and submitted to the members prior to the meeting, except for new business, which may be introduced at the discretion of the co-chairs. Meetings will be conducted as informally as possible unless or until Robert's Rules of Order is deemed appropriate. Observers at the meetings may ask questions related to the agenda item under discussion, but other

questions and comments will be held until the Open Discussion part of the meeting that will be included on each agenda.

G. The Air Force will consider all input provided by the ERAB, including input that represents the minority view. Group consensus is not a prerequisite for ERAB input. Each member of the ERAB may provide individual input. At the same time, although group consensus is not required or asked of the ERAB members, the Air Force recognizes that it can arise in the natural course of discussions.

H. The U.S. Air Force will be responsible for generating minutes of each meeting and for dissemination to ERAB members within two weeks. Minutes will also be sent by the Air Force to any meeting observer who requests a copy on the sign-in sheet for the meeting. Copies of all minutes will also be placed in the repositories at the Palmdale, California and Lancaster, California libraries.

VI. DECISIONAL AUTHORITY

A. The ERAB serves to provide informed stakeholder input to the IRP at AFP 42. The final selection and implementation of any remedial action will be made by the Air Force in accordance with applicable state and federal laws after considering ERAB member input.

B. This charter may be amended by a majority vote of the ERAB members present at the meeting where the amendment is presented for vote, provided that a quorum of ERAB members is in attendance. All amendments must be in writing and placed on the agenda for one meeting prior to voting on the amendment.

C. Nothing in this charter shall amend the rights and responsibilities of the U.S. Air Force; CalEPA, DTSC; or the Lahontan Regional Water Quality Control Board.

VII. DISSOLUTION OF AFB 42 ERAB

The provisions of the Charter shall be satisfied and considered complete under one of the following circumstances at AFP 42:

- The environmental restoration program has been completed.
- All remedies are in place and operating properly and successfully.
- There is no longer sufficient, sustained community interest.

IT IS SO AGREED. Signatures of all members are included after Section VIII, Effective Date.

VIII. EFFECTIVE DATE

The effective date of this charter shall be the date of the last signature on this page.

ASC/ENV Government Co-Chair **Date**

Aeronautical Systems Center; Acquisition, Environmental, Safety and Health Division, Engineering Directorate; Wright-Patterson Air Force Base, Ohio

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Community Co-Chair **Date**

Air Force Plant 42, Palmdale, California

Community ERAB Members

Juan Blanco	Date
Garry Cope	Date
Ron Cunningham	Date
Paula Hock	Date
Michael Husarek	Date
Desmond Kester	Date
Dennis LaMoreaux	Date
Michael Miller	Date
Zona Myers	Date
Walter Ranger	Date

Tom Stevenson	Date
Dean Webb	Date
Marta Williamson	Date

Appendix G
ERAB Members

Appendix G
ERAB Members

Juan Blanco – Community Co-chair

Garry Cope

Ron Cunningham

Paula Hock

Michael Husarek

Desmond Kester

Dennis La Moreaux

Zona Myers

Walter Ranger

Tom Stevenson

Dean Webb

Marta Williamson

Appendix H
IRP Fact Sheets

Air Force Plant 42

APRIL 2002 Palmdale, California PAM # 02-060

Groundwater Investigation Fact Sheet

Introduction

This fact sheet provides an update on the status of ongoing groundwater investigation activities at Air Force Plant 42 (AFP 42) in Palmdale, California. The Air Force is investigating and cleaning up 28 sites, including the groundwater, at AFP 42. These actions are being conducted under the Air Force Installation Restoration Program (IRP), a formal process that investigates, confirms, quantifies, and cleans up potentially contaminated sites.

IRP sites are numbered 1 through 29. Due to a numbering oversight, there is no Site 28 at AFP 42. IRP Site 29 is defined as groundwater contamination at contractor-operated Plant Site 1. The cleanup program at AFP 42 is managed by the Aeronautical Systems Center (ASC), Engineering Directorate, Acquisition Environmental, Safety and Health Division at Wright-Patterson Air Force Base in Ohio.

Air Force Locates Source of TCE Contamination in Groundwater at AFP 42

After an extensive investigation of the entire AFP 42 property, including monitoring to demonstrate that contamination has not moved offsite, the Air Force has located the source of trichloroethylene (TCE) groundwater contamination at AFP 42. The investigation began in July 2000 after TCE, a cleaning solvent, was detected in Production Well DW 1-2 used for industrial and drinking water purposes. The contamination was found near Building 150, an aircraft hangar located in the northwest section of AFP 42.

TCE concentrations at Production Well DW 1-2 are lower than the U.S. Environmental Protection Agency's drinking water standard of 5 parts per billion (ppb) with a maximum concentration of 3.7 ppb. As a safety precaution, however, the Air Force took this well offline, and it is no longer used for drinking water.

Searching for the Source

Once TCE was detected in groundwater at AFP 42, the Air Force developed a sampling plan to find where the chemical originated so that further tests and cleanup could be done. Field crews began the search by taking soil gas samples across the northwest section of AFP 42. The soil gas samples were used as a test to learn if volatile organic compounds, such as TCE, were present in gas form in the vadose zone (in the soil above the groundwater level). Based on the first soil gas samples, the Air Force identified Building 150 as the location of the TCE release. A second, more detailed soil gas survey indicated

What is Groundwater?

Groundwater is rainfall that has filtered through layers of sand, gravel, and cracks in bedrock and is stored in underground aquifers. Groundwater does not flow like a river, but rather it percolates around soil particles, moving either toward lower elevations or a pumping source. Groundwater moves at a variable rate, from a fraction of an inch per year to a couple of feet per day.

(continued on page 2)

that the TCE release occurred in the northwest portion of Building 150.

Following the soil gas sampling, the Air Force collected shallow and deep soil samples to further characterize TCE at the site. Shallow soil samples, taken down to 10 feet below ground surface, are used to evaluate any threat to workers who might come in contact with the soil. Deep soil samples are taken to get a clear picture of the TCE concentration at different depths including whether it has reached groundwater. The deep soil samples were collected down to the water table at 360 feet.

The results of the investigation indicate that the TCE has filtered down to the groundwater beneath Building 150 but has not moved off the AFP 42 property.

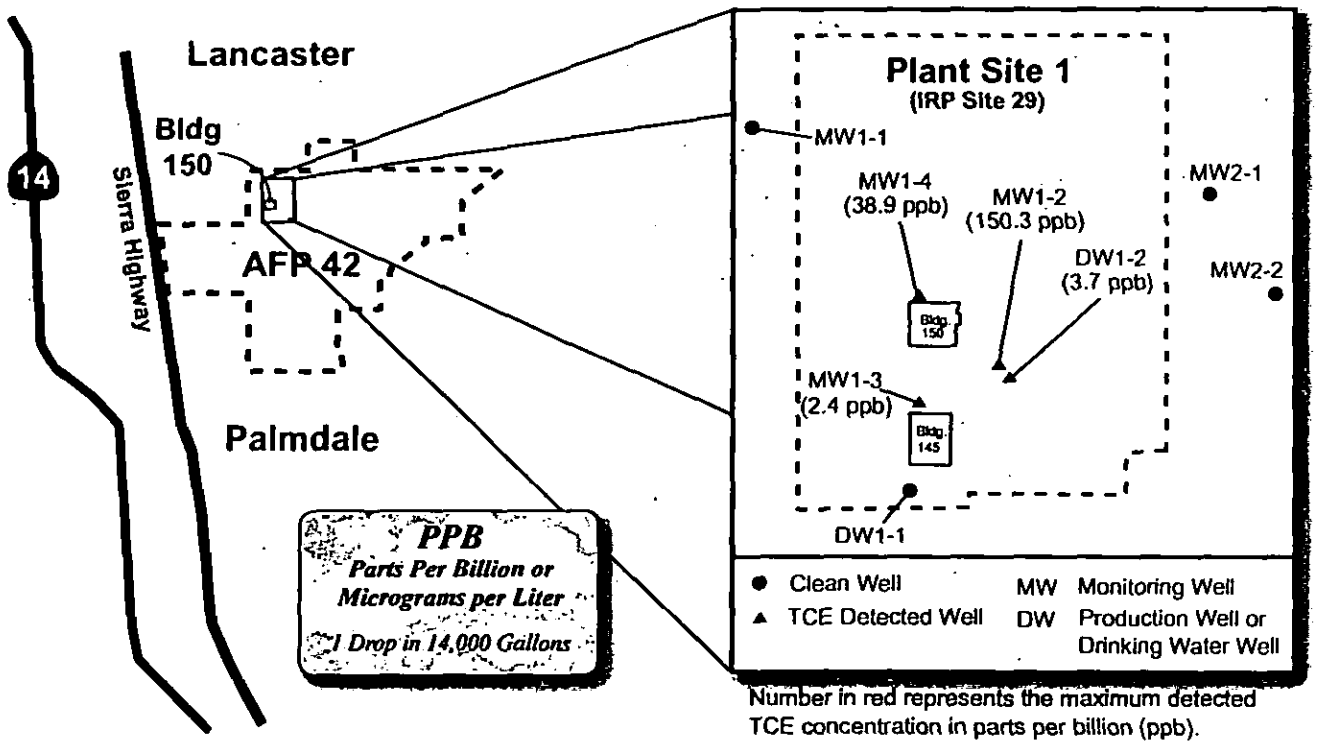
Extent of TCE in Groundwater

In December 2000, the Air Force installed three groundwater monitoring wells around Building 150 to assess the extent of TCE in the groundwater and evaluate the direction in which TCE is moving. The three wells were placed southeast, south, and northwest of Building 150. In July 2001, the Air Force installed a fourth well at the north side of the building to assess the TCE concentration in groundwater near the location of the past TCE release.

Samples collected in September 2001 showed the presence of TCE in three of the four monitoring wells located around Building 150. The highest TCE concentration, 150.3 ppb, was found at the well located to the southeast of Building 150 (MW 1-2). Lower concentrations were found at the well on the north side of Building 150 (38.9 ppb at MW 1-4) and south of Building 150 (2.4 ppb at MW 1-3).

The results of the investigation indicate that the TCE has filtered down to the groundwater beneath Building 150 but has not moved off the AFP 42 property. The TCE in groundwater appears to be limited to the area around and southeast of Building 150. Depth-specific groundwater samples collected in the production well impacted by TCE show that the bulk of TCE is in the shallowest

TCE Concentrations in Groundwater at AFP 42



Number in red represents the maximum detected TCE concentration in parts per billion (ppb).

portion of the aquifer just beneath the water table. The Air Force will evaluate cleanup technologies to be used to keep the TCE from migrating offsite or posing a threat to humans and the environment.

Assessment Evaluates Health Risks

Since its construction in 1958, Building 150 has housed several contractor operations, including operations by North American Aviation, Lockheed Martin, Rockwell, Boeing, and NASA. Various hazardous materials were reported to have been used and stored in the area such as paints, lubricants, chlorinated solvents, and acids. During the 1950s through 1970s, TCE was used by industry as a common degreaser. It is likely that TCE or spent TCE was released to the ground at Building 150 during this period. Over time, the TCE moved through the soil to the water table.

The TCE in groundwater is not a current hazard to workers or residents because the impacted groundwater is not used as a source of drinking water. As part of the required IRP process, the Air Force conducted a risk assessment to determine if TCE in soil beneath and near Building 150 poses a risk to onsite workers. The study found that, because soil is beneath one foot of concrete, workers are not directly exposed.

Cleanup technologies will be evaluated and implemented to keep the TCE from migrating offsite or posing a threat to humans and the environment.

What's Next?

The Air Force has prepared a draft Remedial Investigation (RI) report, which discusses the groundwater investigation results and also includes the sampling results for the other AFP 42 IRP sites. The Air Force released the draft RI report to the public in December 2001. Pending regulatory agency approval of the draft RI report, the Air Force will begin a Feasibility Study in 2002 to select technologies or actions for the sites requiring cleanup. Once this study is complete, the Air Force will begin cleanup actions.

History

AFP 42 began operation in 1940 when the Palmdale Airport site was activated as a United States (U.S.) Army Air Corps Base. The base was used as an emergency landing strip and for B-25 support training during World War II. The installation was declared a surplus facility in 1946, and Los Angeles County purchased it for use as a municipal airport. The Air Force reactivated the installation in 1950 for final assembly and flight testing of jet aircraft, and repurchased it from Los Angeles County in 1954. The plant has supported facilities for the production, engineering, final assembly, and flight testing of high-performance aircraft, including the B-1, B-2, F-117, and U-2. In 1961, the plant was assigned to the Air Force's Aeronautical Systems Division and became officially known as the Production Flight Test Installation, Air Force Plant 42. Over the years, wastes generated as a result of AFP 42 operations were disposed of at various locations on the plant property. The Air Force initiated its cleanup program in the early 1980s to address these potentially contaminated sites.

Workers install a groundwater monitoring well during the investigation at AFP 42

Regulatory Oversight

The California Environmental Protection Agency's Department of Toxic Substances Control (Cal-EPA DTSC) and the California Regional Water Quality Control Board (Cal-EPA RWQCB), Lahontan Region, oversee the environmental investigation and cleanup efforts at AFP 42.

Where Can I Get More Information?

Documents on cleanup activities, including the Draft Remedial Investigation Report, are available for public review at two information repositories located at the Palmdale and Lancaster Public Libraries.

If you have any questions about AFP 42 environmental activities, or would like to be added to or want to make corrections to the mailing list, please contact Larine Barr, ASC Public Affairs Specialist, at (800) 982-7248, x322 or via e-mail at larine.barr@wpafb.af.mil. Information is also available on the Aeronautical Systems Center website at: http://www.ascenv.wpafb.af.mil.

Additionally, the following individuals may be contacted for more information:

George Warner, AFP 42 Remedial Project Manager, ASC/ENVR, (800) 982-7248, x414
Tayseer Mahmoud, Remedial Project Manager, Cal-EPA DTSC (714) 484-5419
Tim Post, Cal-EPA RWQCB, (760) 241-7404.

AFP 42 Environmental Restoration Advisory Board

The public is invited to attend the AFP 42 Environmental Restoration Advisory Board (ERAB) quarterly meetings, which are advertised in the *Antelope Valley Press* the Sunday before the meeting. The primary function of the AFP 42 ERAB is to enhance community awareness of the IRP at AFP 42 in Palmdale, California, and to obtain community review on proposed environmental cleanup activities.

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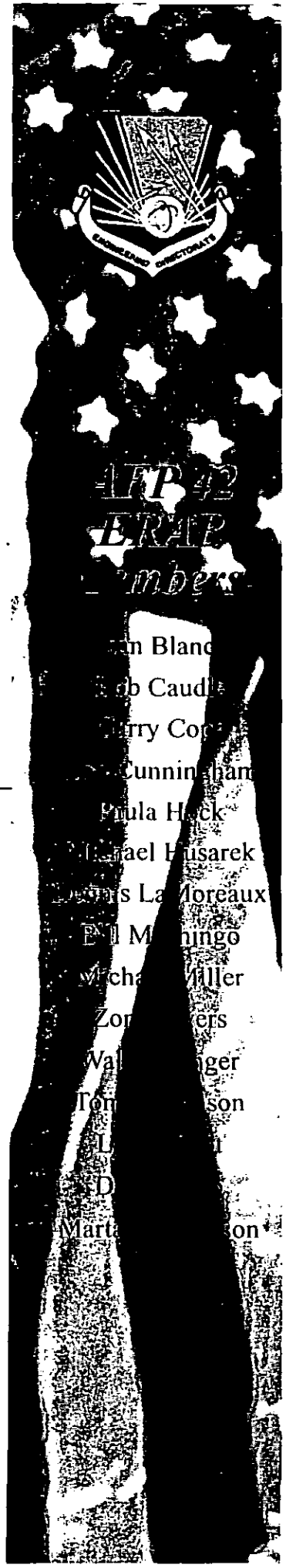


ASC/ENVR, Building 8
1801 10th Street, Suite 2
Wright-Patterson AFB, Ohio 45433-7626

Air Force Plant 42

Palmdale, California

Aeronautical Systems Center
Wright-Patterson Air Force Base, Ohio

Remedial Investigation Fact Sheet
March 2001

Introduction

The Air Force is investigating and cleaning up 28 sites at Air Force Plant (AFP) 42 in Palmdale, California. These actions are being conducted under the Air Force's Installation Restoration Program (IRP), which provides a formalized process for the investigation, confirmation, quantification, and cleanup of potential environmental contamination at Air Force facilities. The Aeronautical Systems Center, Acquisition Environmental, Safety and Health Division at Wright-Patterson Air Force Base, Ohio, manages the AFP 42 investigation and cleanup program. This fact sheet provides an update on current remedial investigation activities, including background information about the plant.

AFP 42 Site History

AFP 42 began operation in 1940 when the Palmdale Air Terminal site was activated as a U.S. Army Air Corps Base. The Works Progress Administration built the first concrete runways. The base was used as an emergency landing strip and for B-25 aircraft support training during World War II. The installation was declared a surplus facility in 1946 and was purchased by Los Angeles County for use as a municipal airport. The installation was reactivated by the U.S. Air Force in 1950 for use in final assembly and flight testing of jet aircraft and was repurchased from Los Angeles County in 1954.

In 1953, the Palmdale Air Terminal officially became AFP 42. The installation was assigned to the Air Force's Aeronautical Systems Division in 1961 and became officially known by its present name as the Production Flight Test Installation, Air Force Plant 42. Since 1953, the plant has supported facilities for the production engineering, final assembly, and flight testing of high performance aircraft, including the B-1, B-2, F-117, and U-2.

To support the operations at AFP 42, materials such as petroleum, oils, lubricants, and solvents were used and resultant wastes were generated and disposed at IRP sites. Current methods for addressing past practices are described in the following sections

Remedial Investigation Update

Of 28 IRP sites identified at AFP 42, 27 have been grouped into five operable units (OUs). An OU is a group of sites that share similar past site activities. In mid-2000, the Air Force identified the groundwater at Plant Site 1 as Site 29 (due to a numbering oversight, there is no Site 28 at AFP 42). Site 29, which has not been assigned to an OU, was designated an IRP site after observation of low concentrations (does not exceed drinking water standards) of the solvent trichloroethylene (TCE) were detected in two groundwater wells in the northwest portion of AFP 42. The map on page 2 shows the locations of the sites at AFP 42 and how they are organized into OUs.

The IRP effort at AFP 42 is currently in the Remedial Investigation (RI) phase to determine the nature and extent of contamination at the sites. This phase also assesses any risks to human health and the environment posed by onsite contamination. The schedule on page 3 illustrates the RI progress to date. The RI field investigations at the OU 1, 2, and 3 sites were completed by mid-1999, and the results of these investigations were presented in the *Draft Interim Remedial Investigation Report for the Operable Units 1, 2, and 3 Sites* in early 2000 (available for public review; see page 4). This draft report discussed remedial investigation activities for all sites within OUs 1, 2, and 3 with the exception of Site 27, for which a separate investigation and interim removal action were conducted. The RI field investigation activities were completed for the OU 4 and 5 sites by February 2001. In addition, a groundwater monitoring network was installed at Site 29 to assess the extent of TCE in groundwater. Based on the progress of the RI field investigations, the Air Force will prepare a combined RI Report that addresses all five OUs and Site 29. The draft version of this report is scheduled to be completed in 2001.

As displayed on the schedule, after the remedial investigation tasks are completed, a feasibility study (FS), remedial design (RD), and remedial action (RA) tasks will be conducted. Feasibility studies are used to assess cleanup alternatives to address site contamination. The remedial design phase includes the detailed plan for the selected cleanup alternative; remedial action is the cleanup phase.

The remainder of this fact sheet summarizes the scope of the remedial investigation activities at AFP 42, including a description of the soil gas surveys; shallow soil, deep soil, and groundwater investigations; and the risk assessment process and scope.

Scope of Remedial Investigation

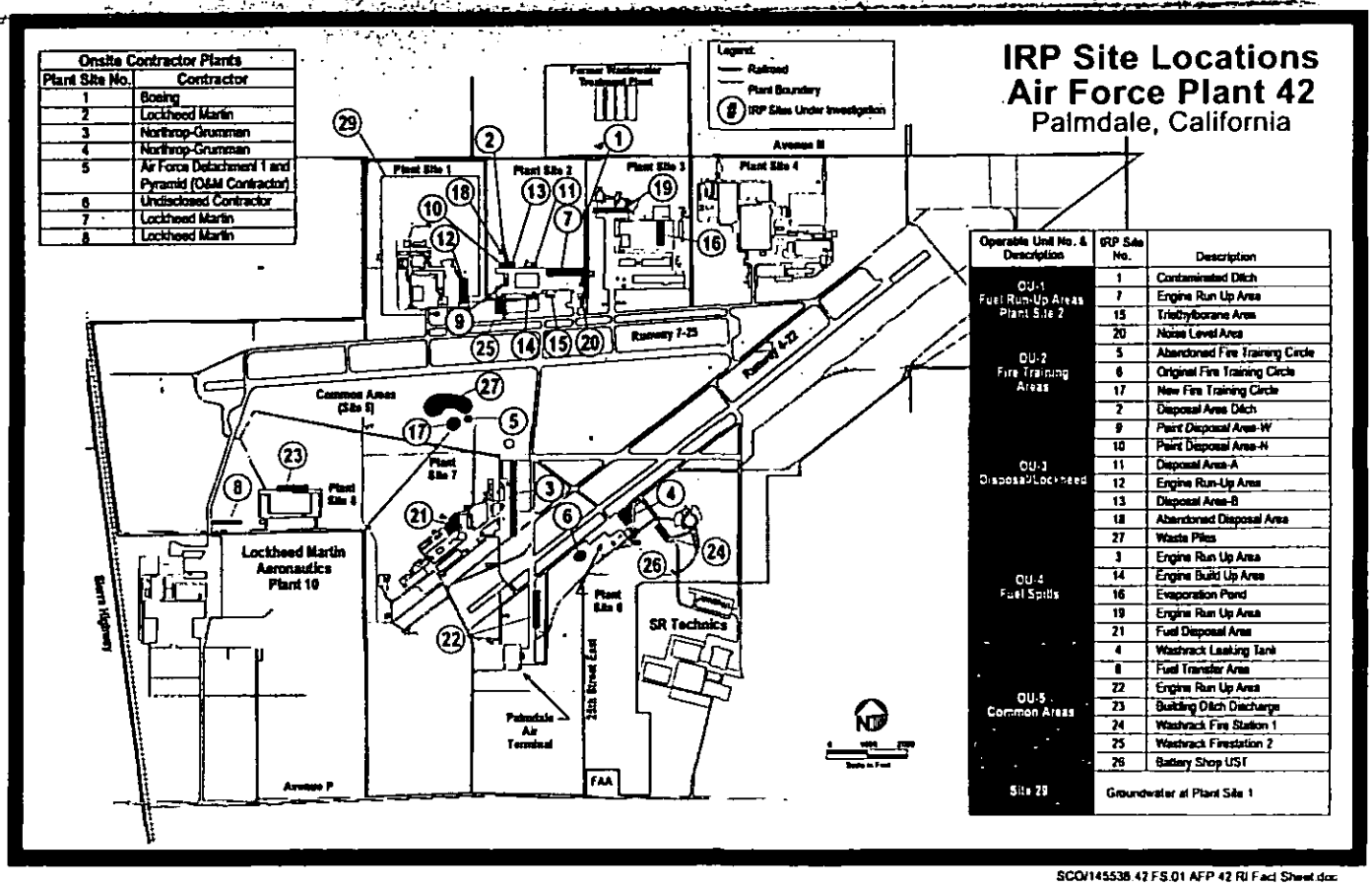
The remedial investigation at AFP 42 consists of a multiphase investigation, which includes soil gas surveys, shallow and deep soil investigations, and groundwater investigations. The investigation phases are complete at the majority of the sites, with the exception of the investigations at Site 29, which are ongoing.

Soil Gas Survey

Soil gas surveys were performed at all of the sites where past disposal activities may have involved wastes containing volatile organic compounds (such as cleaning solvents and fuel components). A soil gas survey involves the collection of vapor-phase samples from pore spaces in soil. The purpose of the soil gas surveys was to assess the presence of volatile organic compounds in the subsurface soil at the sites. Soil gas samples were collected at depths ranging from 15 to 30 feet below ground surface and analyzed for volatile organic compounds using an onsite laboratory. Identifying areas with volatile organic compounds present helped to focus the shallow soil and deep soil investigation phases, which are described below.

Shallow Soil Investigation

Shallow soil investigations were performed at each of the sites, regardless of past disposal activities. The shallow soil investigation results will be used to assess whether contaminants in shallow soil (defined as the surface to 10 feet below ground surface) are present that may pose a potential threat to human and ecological receptors (e.g., coyotes and hawks). Shallow soil samples were collected from the surface and at depths of approximately 5 and 10 feet below ground surface. At most sites, samples were analyzed for volatile organic compounds, semivolatile organic compounds (associated with hydraulic fluid), and metals (commonly associated with paint wastes).



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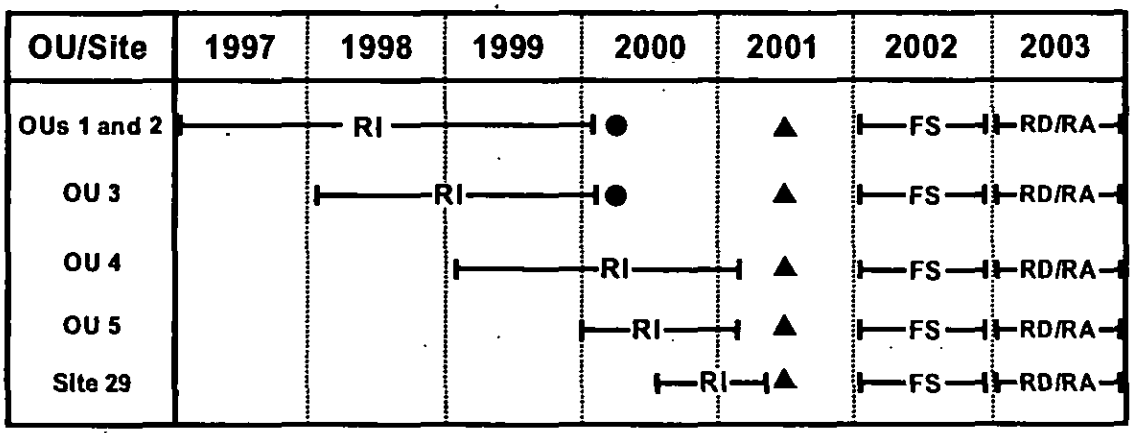
Remedial Investigation Schedule



● – Draft Interim Remedial Investigation Report for the OU 1, 2, and 3 IRP Sites, February 2000.

▲ – Remedial Investigation Report for the OU 1, 2, 3, 4, and 5 IRP Sites and IRP Site 29. Planned completion is mid-2001.

RI – Remedial Investigation

FS – Feasibility Study

RD/RA – Remedial Design/Remedial Action

Other types of analyses were performed for shallow soil samples at selected sites based on past site activities and included organic lead (commonly associated with leaded gasoline), petroleum hydrocarbons (associated with fuels), polychlorinated biphenyls (PCBs) (associated with transformer oil), and/or dioxins (can be formed by burning cleaning solvents).

Deep Soil Investigation

Deep soil investigations were performed at each of the sites where past disposal practices involved wastes that may have contained volatile organic compounds or petroleum hydrocarbons. The results of the deep soil investigations will be used to characterize and estimate the extent of contamination in subsurface soils that may have impacted groundwater or that may potentially migrate downward to groundwater beneath AFP 42. The depth to groundwater at the sites ranges from approximately 350 to 400 feet below ground surface. Available groundwater monitoring data from wells adjacent to and downgradient of the sites will also be used to assess whether groundwater has been impacted.

Groundwater Investigation

Groundwater investigations performed as part of the remedial investigation included the installation and sampling of 2 temporary and 11 permanent monitoring wells, 1 existing fire protection, and 4 production wells at AFP 42. The purpose of the groundwater sampling is to assess the presence and extent of contaminants in groundwater underlying AFP 42. Results from the groundwater investigation will be used to assess whether contaminants in groundwater are present that may pose a potential threat to humans.

Risk Assessments

Results from the remedial investigation will be used to perform risk assessments for the sites. Using results from the shallow soil and groundwater investigations, the human health risk assessments will examine exposures to current and potential future onsite workers. Human health risk assessments will be performed as part of the remedial investigation at each site.

Ecological risk assessments will be performed for those sites that have viable ecological habitat (i.e., open areas with natural vegetation present). The ecological risk assessment will use the results from the shallow soil investigation to evaluate risks to potential ecological receptors.

Risk assessments will be performed for each site to determine whether risks exist that will require remediation of contamination at a site. Results of the risk assessments and recommendations for each site will be documented in an RI Report.

Regulatory Oversight

The remedial investigation and all IRP activities at AFP 42 are being conducted with oversight by the California Environmental Protection Agency, Department of Toxic Substances Control (Cal-EPA, DTSC), and the California Regional Water Quality Control Board, Lahontan Region (RWQCB). DTSC oversees the environmental investigation and cleanup efforts to minimize potential risks posed to human health and the environment, and the RWQCB focuses on the protection of groundwater.

Where Can I Get More Information?

Published data, studies and documents related to the AFP 42 IRP are available for public review at the AFP 42 Information Repositories. The repositories are located at the Palmdale Public Library on 700 East Palmdale Boulevard, Palmdale, California, and at the Lancaster Public Library, 601 West Lancaster Boulevard, Lancaster, California.

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An AFP 42 Environmental Restoration Advisory Board (ERAB) meets quarterly to discuss IRP progress, review reports, and comment on investigation activities. These meetings are open to the public and are advertised in the Antelope Valley Press the Sunday before the scheduled quarterly meeting. The ERAB has been operating since 1997.

If you have any questions about the remedial investigation or any other AFP 42 environmental activity, please contact Larine Barr, ASC Public Affairs Specialist, at (800) 982-7248, extension 322, or via e-mail at larine.barr@wpafb.af.mil. In-depth information about the AFP 42 program is also available on the ASC Acquisition Environmental, Safety and Health Division home page on the internet at http://www.ascenv.wpafb.af.mil.

Additionally, the following individuals may be contacted for more information:

- George Warner, AFP 42 Remedial Project Manager, ASC/ENVR, (800) 982-7248, ext. 414
- Isaac Hirbawi, Remedial Project Manager, California EPA, DTSC, (714) 484-5445
- Kimberly Foreman, Public Participation Specialist, California EPA, DTSC, (714) 484-5324
- Tim Post, Regional Water Quality Control Board, (760) 241-7404

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Air Force Plant 42

Palmdale, California

Installation Restoration Program Site 27 Removal Action

Fact Sheet | Aeronautical Systems Center, Wright-Patterson AFB, Ohio | April 2000

Introduction

The U.S. Air Force is inviting public comment on a proposed removal of surface waste piles at Air Force Plant 42 (AFP 42) in Palmdale, Calif. The waste piles are being removed as part of the ongoing cleanup under the Air Force's Installation Restoration Program (IRP).

Identified as IRP Site 27, the waste piles are located in the central airfield portion of AFP 42, known as the common area. There are no buildings or current activities at the site. A removal action workplan (RAW) was prepared by the Air Force and submitted to the California Environmental Protection Agency, Department of Toxic Substances Control (DTSC) as the remedy selection document for hazardous substance release sites, pursuant to California Health and Safety Code Section 25356.1. The workplan includes the results of field investigations, summarizes current human health risks at the site, and describes the plan for site cleanup. The document also outlines cleanup objectives, including cleanup levels and a schedule for completion of removal actions.

IRP Site 27 Description

Beginning in 1954, the site was used for disposal of miscellaneous construction rubble. Most of the waste at the site includes debris from an old runway and materials generated in 1968 and 1969 during construction of Runway 7-25. Types of wastes at Site 27 include concrete, asphalt, clay and metal pipe, cable and wire, wood, paint chips, spilled tar, empty cans and drums, battery parts, and burned rubber. There are four, large concrete and asphalt rubble piles that consist of portions of the removed runway, surface soil from beneath it, and construction debris such as wood and concrete. Subsurface soil beneath the concrete and asphalt rubble piles was sampled in 1999. The results do not appear to warrant a removal action, however, the appropriate action will be evaluated in the final remedy for Site 27.

The other waste piles at Site 27 are collectively referred to as the "miscellaneous waste piles." Field investigations at these waste piles have included a soil gas survey and surface soil sampling. Surface soil samples collected from the paint chip pile indicated the presence of metals concentrations (chromium and hexavalent chromium up to 2,545 milligrams per kilogram [mg/kg] and lead up to 7,290 mg/kg) that exceed risk screening values. These values, used to determine whether further investigation or cleanup is necessary, are based on the assumption that a full-time occupational worker is directly exposed to contaminants in the soil (for instance, through ingestion of soil and inhalation of dust) over a 25-year period. The metal concentrations detected in the paint chip pile exceed these screening values.

Although Site 27 is located in the middle of the runways and is currently only visited intermittently by AFP 42 security workers, a potential risk to on-site workers would exist if the area began to be used on a full-time basis.

(Continued next page)

Public Comment Period

A public comment period is being held from April 21, 2000 through May 22, 2000 on the Removal Action Workplan for IRP Site 27, Air Force Plant 42, Palmdale, Calif. A copy of the document is available for review at the Palmdale and Lancaster Libraries. Library locations are listed under the Information Repository section of this fact sheet. Pursuant to the California Environmental Quality Act, DTSC has prepared a Negative Declaration that indicates the removal action will not have a negative effect on the environment. This document is available for review along with the RAW. Written or faxed comments may be submitted to AFP 42 Remedial Project Manager, Mr. George Warner, ASC/ENVR, Bldg. 8, 1801 10th St., Suite 2, Wright-Patterson AFB, Ohio 45433-7626; fax: (937) 255-9985.

No buildings exist at Site 27; the nearest facilities with regular occupants are located about 2,000 feet south of the site. The nearest residential area is located approximately two miles west-southwest of Site 27. AFP 42, including the Sites 27 area, is secured and is not accessible to the general public.

Remedial Alternatives

Two remedial alternatives were evaluated for IRP Site 27 (miscellaneous waste piles), based on site characteristics and the contaminants present.

- Alternative 1 – No Action;
- Alternative 2 – Removal of Miscellaneous Waste Piles.

The preferred cleanup for the miscellaneous waste piles is Alternative 2, removal of the debris and appropriate offsite disposal, to eliminate human health risk at the site, in accordance with removal requirements of 27 CCR 2140 (a) (1). The proposed removal action entails using small, earthmoving equipment, such as a backhoe, to excavate the debris, and transporting it to appropriate offsite landfills for proper disposal. Removal action activities are planned to occur over an approximate two-week period. During these activities, airborne dust will be minimized by applying water during excavation activities and by placing excavated materials in closed-top containers. Because excavation activities will involve relatively small earthmoving equipment, and Site 27 is located in a remote area, no noise impacts to the public or AFP 42 workers are expected. Transporting the removed wastes will occur intermittently over an approximate three-day period. An estimated total of 10 truckloads of waste will be transported to appropriate offsite landfills. Based on the estimated number of truckloads, no traffic impacts are expected.

A field technician uses an instrument to assess the presence of volatile organic vapors at the IRP Site 27 paint chip pile.

Installation Restoration Program at AFP 42

The Air Force Installation Restoration Program is a Department of Defense initiative that provides a formalized, comprehensive program for the investigation, confirmation, quantification and cleanup of potential environmental contamination at Air Force facilities as a result of past waste management practices. The cleanup program at AFP 42, managed by the Aeronautical Systems Center at Wright-Patterson Air Force Base, Ohio, began in 1983 with an extensive records search, followed by extensive field investigations.

Primary investigations have included soil gas surveys, soil sampling, groundwater monitoring, and chemical analysis. As a result, 27 sites were identified for further investigation and cleanup. To streamline the investigation process and all subsequent IRP activities, all 27 sites have been grouped into five operable units (OUs) with similar types of contamination. Operable Unit 1 contains sites with petroleum contamination, OU 2 consists of former fire training areas, OU 3 has former disposal sites, OU 4 consists of fuel spill areas, and OU 5 includes sites located in the common area of the plant. IRP Site 27, a former disposal area, is grouped into OU 3.

IRP Progress at AFP 42

The IRP at AFP 42 is currently in the Remedial Investigation (RI) phase. This phase is a comprehensive field investigation to determine the nature and extent of contamination at the site. It also assesses any risks to human health and the environment posed by on-site contamination.

To date, investigations during the RI have been completed for OUs 1, 2 and 3. A Feasibility Study, which evaluates cleanup alternatives and recommends cleanup actions for each site, will be conducted in mid-2000 for the three OUs. The remaining OUs are scheduled for investigation through 2003.

Information Repositories and Administrative Record

The removal action workplan for IRP Site 27, along with other published data, studies and documents relating to the AFP 42 IRP, are available for public review at two locations called Information Repositories. These repositories are located at:

1.) Palmdale Library

700 E. Palmdale Blvd., Palmdale, Calif.; (661) 267-5600

2.) Lancaster Public Library of LA County

601 W. Lancaster Blvd., Lancaster, Calif.; (661) 948-5029

The complete Administrative Record, containing all environmental documents developed to date for the AFP 42 IRP, is located at ASC, Acquisition Environmental, Safety and Health Division, Bldg. 8, Suite 2, 1801 10th Street, Wright-Patterson AFB, Ohio.

Site 27 Public Involvement Schedule

- **April 7 :** Air Force Issues Fact Sheet
- **April 12:** Air Force Publishes Public Notice for availability of RAW and California Environmental Quality Act documentation
- **April 20:** Air Force Issues Draft Final RAW
- **April 21-May 22:** Public Review Period for Draft Final RAW
- **May 22:** Public Comments due to Air Force

Regulatory Agencies

All IRP activities at AFP 42 are being conducted with oversight by the California Environmental Protection Agency, Department of Toxic Substances Control (Cal-EPA, DTSC), and the California Regional Water Quality Control Board, Lahontan Region (RWQCB). DTSC oversees potential risks posed to human health and the environment, and the RWQCB focuses on the protection of state water, including surface and groundwater.

AFP 42 History

AFP 42 began operation in 1940, when the Palmdale Air Terminal site was activated as a U.S. Army Air Corps Base. The Works Progress Administration built the first concrete runways. The base was used as an emergency landing strip and for B-25 support training during World War II. The installation was declared a surplus in 1946 and was purchased by Los Angeles County for use as a municipal airport. The installation was reactivated by the U.S. Air Force in 1950 for use in final assembly and flight testing of jet aircraft, and was repurchased from Los Angeles County in 1954. In 1953, the Palmdale Air Terminal officially became AFP 42; ownership of the installation transferred to the Federal Government in 1954. The installation was assigned to the Aeronautical Systems Division in 1961, and became officially known by its present name as the Production Flight Test Installation, Air Force Plant 42, Palmdale, California. Since 1953, the plant has supported facilities for the production engineering, final assembly and flight testing of high performance aircraft, including the B-1, B-2, F-117 and U-2.

To support the operations at AFP 42, petroleum, oils, lubricants, solvents, etc., were used and resultant wastes were generated and disposed. Sites that had potential releases of wastes prior to 1984 are being investigated under the IRP.

Community Involvement

In October 1996, an Environmental Restoration Advisory Board (ERAB) was established for AFP 42. The ERAB is comprised of community members, DTSC and RWQCB staffs, city and county environmental officials, and public representatives. The ERAB helps promote community awareness, involvement, and review of environmental restoration activities. The AFP 42 ERAB meets quarterly to discuss IRP progress, review reports, and comment on investigation activities. ERAB meetings are open to the public and are advertised in the Antelope Valley Press the Sunday before the scheduled quarterly meeting. The next ERAB meeting is scheduled for 6:30 p.m., May 3.

For More Information

For more information, please contact the following individuals:

- George Warner, AFP 42 Remedial Project Manager, ASC, (800) 982-7248, ext. 414
- Tizita Bekele, Remedial Project Manager, California EPA, DTSC, (714) 484-5450
- Maria Macario, Remedial Project Manager, California EPA, DTSC, (714) 484-5418
- Kimberly Foreman, Public Participation Specialist, California EPA, DTSC, (714) 484-5324
- Larine Barr, Public Affairs Specialist, ASC, (800) 982-7248, ext. 322

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AIR FORCE PLANT 42

Palmdale, California

OCTOBER 1998

Fact Sheet

REMEDIAL INVESTIGATION PROGRESS

This fact sheet describes activities relating to environmental investigation and cleanup of sites at Air Force Plant 42 (AFP 42). These actions are being conducted under the Air Force's Installation Restoration Program (IRP). This program is managed by the Aeronautical Systems Center (ASC), Aquisition Environmental Management at Wright-Patterson Air Force Base in Ohio.

This fact sheet provides a brief history of AFP 42, explains a process called the Remedial Investigation (RI), lists oversight regulatory agencies, describes how the IRP sites are organized, discusses activities conducted to date at AFP 42 and upcoming activities,and presents a schedule of the RI process at AFP 42.

WHAT IS THE HISTORY OF AFP 42?

AFP 42 began operation in 1940, when the Palmdale Air Terminal site was activated as a U.S. Army Air Corps Base. The Works Progress Administration built the first concrete runways. The base was used as an emergency landing strip and for B-25 support training during World War II. The installation was declared a surplus in 1946 and was purchased by Los Angeles County for use as a municipal airport. The installation was reactivated by the U.S. Air Force in 1950 for use in final assembly and flight testing of jet aircraft, and was repurchased from Los Angeles County in 1954.

In 1953, the Palmdale Air Terminal officially became AFP 42; ownership of the installation transferred to the Federal Government in 1954. The installation was assigned to the Air Force's Aeronautical Systems Division in 1961, and became officially known by its present name as the Production Flight Test Installation, Air Force Plant 42, Palmdale, California. Since 1953, the plant has supported facilities for the production engineering, final assembly and flight testing of high performance aircraft, including the B-1, B-2, F-117 and U-2.

To support the operations at AFP 42, quantities of petroleum, oils, lubricants, solvents, etc., were used and resultant wastes were generated and disposed.

WHAT IS A REMEDIAL INVESTIGATION (RI)?

An RI is a comprehensive field investigation to determine the nature and extent of contamination at a site. It also assesses any risks to human health and the environment posed by on-site contamination.

The Remedial Investigation/Feasibility Study (RI/FS) includes three major components:

- A remedial investigation to collect field data, characterize the site, and assess the nature and extent of contamination
- A risk assessment to determine whether the site poses unacceptable risks to human health or the environment
- A feasibility study to evaluate remedial actions that would mitigate existing risk

The IRP provides a formalized, comprehensive program for the investigation, confirmation, quantification, and cleanup of potential environmental contamination present at Air Force facilities as a result of past waste management practices. The RI, risk assessment, and the subsequent FS at AFP 42 are being conducted under the IRP.

Field personnel conduct sampling at an IRP Site at AFP 42

WHAT IRP ACTIVITIES HAVE BEEN CONDUCTED?

AFP 42 began its IRP with an extensive Records Search in October 1983. The study identified and prioritized past disposal and spill sites posing a potential threat to public health or the environment. An IRP Confirmation/Quantification study was completed in February 1987. This study was conducted to confirm the presence or absence of contamination at AFP 42. In October and November 1987, a soil-vapor survey was performed at IRP Sites 1, 5, 6, 7, 15, and 17. An IRP Site Investigation and RI/FS were completed in January 1992 for six sites previously identified during the Confirmation/Quantification study. The investigation included soil sampling, groundwater monitoring, chemical analysis, and fate and transport analysis. Also in 1992, a former waste disposal site was added as IRP Site 27. In June 1995, the Air Force agreed to conduct additional studies due to sampling deficiencies and data gaps noted by the DTSC and the RWQCB.

Planning documents outlining how the Air Force will conduct shallow-soil investigations for sites grouped in OUs 1 and 2 (IRP Sites 1, 5, 6, 7, 15, 17, and 20) were completed in May 1997. Field activities for the shallow soil investigations (soil down to 10 feet), including shallow-soil sampling, were conducted between October and December 1997. Sampling results have been compiled, a risk assessment conducted, and a draft report released for publication August 16, 1998.

Using information from the shallow-soil sampling results, human health risk assessments were prepared for all sites included in OUs 1 and 2. Ecological risk assessments were also completed for IRP Sites 1 and 17. Ecological risk assessments provide a quantitative and/or qualitative evaluation of the actual or potential effects of a contaminated site on plants and animals.

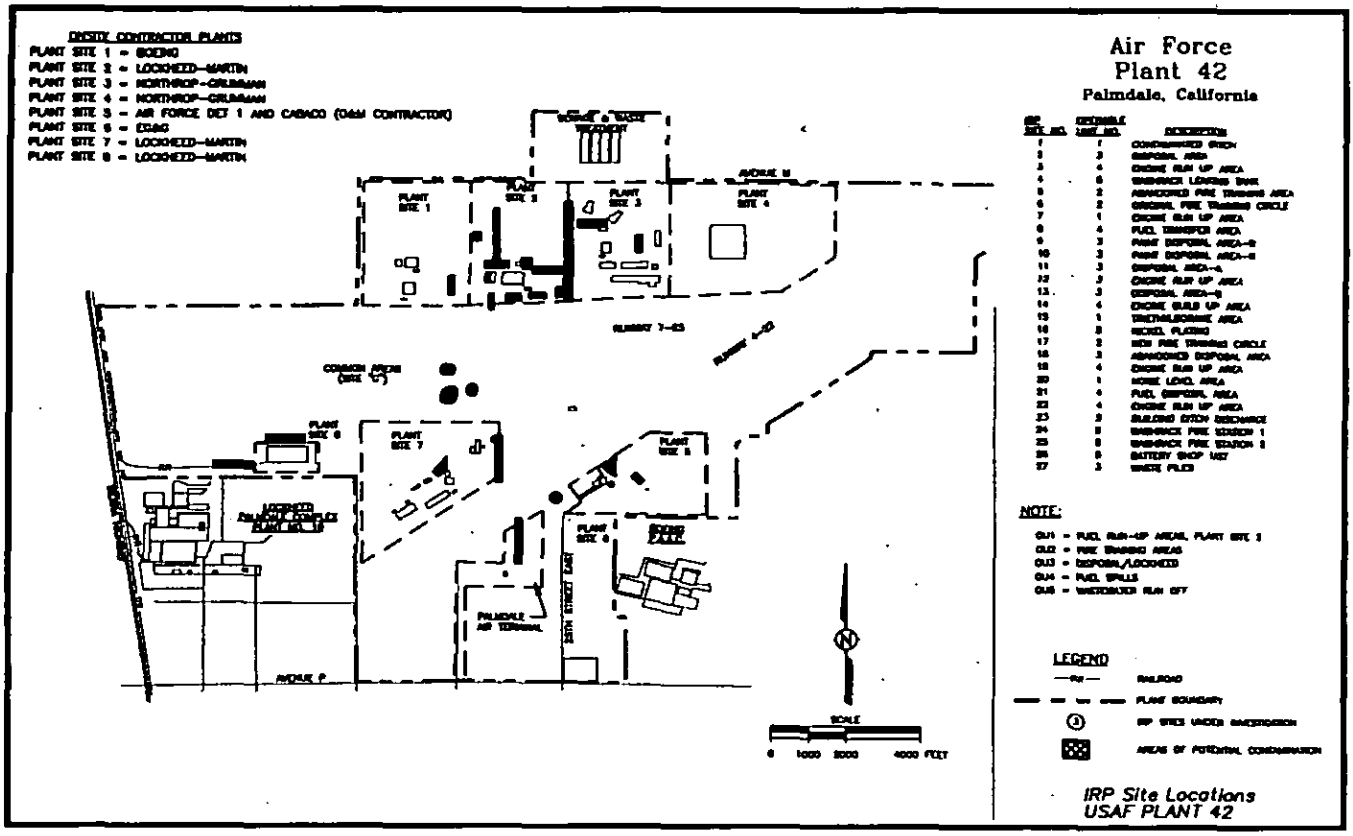
Planning documents, explaining how the deep soil investigations will be conducted at the OU 1 and 2 IRP sites also are being prepared. The purpose of the deep soil investigation, which will study below the surface from 10 feet to groundwater (350 to 400 feet), is to assess the potential for soil contamination to reach groundwater. Draft planning documents for these investigations were published in August 1998,

HOW ARE THE IRP SITES ORGANIZED AT AFP 42?

Each of the sites investigated during the RI, and subsequent IRP activities, are grouped (according to similar types of contamination) into Operable Units (OUs), which are defined as discrete response actions or steps toward comprehensive environmental cleanup. At AFP 42, 27 IRP sites have been identified from earlier investigations. The table below lists all IRP sites and their designated OUs. Also refer to the site map displayed on the adjacent page.

OPERABLE UNIT COMPOSITION
Air Force Plant 42

OU	SITES	BASIS FOR SELECTION
1	1, 7, 15, and 20	Fuel Run-Up and Disposal Areas, Plant Site 2
2	5, 6, and 17	Fire Fighting Training Areas
3	2, 9, 10, 11, 12, 13, 18, and 27	Disposal/Lockheed
4	3, 8, 14, 19, 21, and 22	Fuel Spills
5	4, 16, 23, 24, 25, and 26	Wastewater Run Off



followed by field investigations to be conducted this Fall.

One new groundwater monitoring well, which helps to determine if contamination is present, was installed in November 1997 at Plant Site 3. The new monitoring well was sampled twice since its construction. Four water supply production wells at Plant Sites 1 and 2 (operated by Boeing and Lockheed-Martin, respectively) also were sampled. Low levels of trichloroethylene (TCE), a cleaning solvent used primarily during the late 1950s and 1960s at AFP 42, were detected in two of the production wells. Planning is underway to further address this contamination during 1998. This issue will be the topic of the next fact sheet.

WHAT IS THE SCHEDULE FOR THE RI AT AFP 42?

A streamlined, risk-based investigation strategy will be used for AFP 42 IRP sites. Investigations at the IRP sites will proceed using a phased approach:

- Phase 1: Evaluate current and future health risks associated with shallow soil contamination
- Phase 2: Evaluate potential risks to groundwater from contamination in the vadose zone (shallow soil and deep soil)
- Phase 3: Evaluate potential groundwater contamination

Each of the phases generally has a scheduled duration of approximately one year. This investigation strategy will be implemented using a sequenced approach by OU, as illustrated in the figure below.

REMEDIAL INVESTIGATION TIMELINE

OUs	1997	1998	1999	2000	2001	2002	2003
	1997-1999						
1 and 2	Shallow Soil	Deep Soil	Ground water				
		1998-2000					
3		Shallow and Deep Soil	Ground water				
				2000-2002			
4				Shallow Soil	Deep Soil	Ground water	
					2000-2002		
5					Shallow Soil	Deep Soil	Ground water

WHO PROVIDES OVERSIGHT OF THE RI PROCESS?

The RI and all IRP activities at AFP 42 are being conducted with oversight by the California Environmental Protection Agency, Department of Toxic Substances Control (Cal-EPA, DTSC), and the California Regional Water Quality Control Board, Lahontan Region (RWQCB). DTSC oversees the environmental investigation and cleanup efforts to minimize potential risks posed to human health and the environment, and the RWQCB focuses on the protection of groundwater.

WHERE CAN I GET MORE INFORMATION?

In October 1996, an Environmental Restoration Advisory Board (ERAB) was established for AFP 42. The ERAB is comprised of community members, DTSC and RWQCB staff members, city and county environmental officials, and public representatives. The ERAB helps promote community awareness, involvement, and review of environmental restoration activities. The AFP 42 ERAB meets quarterly to discuss IRP progress, review reports, and comment on investigation activities. ERAB meetings are open to the public and are advertised in the Antelope Valley Press the Sunday before the scheduled quarterly meeting. The next ERAB meeting is tentatively scheduled for December 2, 1998.

Published data, studies and documents relating to the AFP 42 IRP are available for public review at two locations known as Information Repositories. These repositories are located in the Lancaster and Palmdale Public Libraries and are updated when new documents are released.

The complete Administrative Record, containing all environmental documents for the AFP 42 IRP, is located at ASC, Acquisition Environmental Management Directorate, in Building 8, Suite 2, 1801 Tenth Street, Wright-Patterson AFB, Ohio.

If you have any questions about information in the repositories, or comments regarding this fact sheet, please contact Larine Barr, ASC Public Affairs Specialist, at (800) 982-7248, extension 322, or via e-mail at larine.barr@wpafb.af.mil. For additional IRP contacts, please see key contact list below. In-depth information about the AFP 42 program also is available on the ASC Environmental Management home page on the Internet at http://www.ascem.wpafb.af.mil.

INFORMATION REPOSITORIES

Contact and Location	Days and Hours of Operation	
Ms. Diane Hanville Palmdale Library 700 E. Palmdale Blvd. 805/267-5600 Palmdale, CA 93550	Monday - Thursday Friday & Saturday Sunday	10:00 a.m. - 8:00 p.m. 12:00 p.m. - 5:00 p.m. Closed
Ms. Paula Hook Lancaster Public Library of LA County 601 W. Lancaster Blvd. Lancaster, CA 93534 805/948-5029	Monday - Wednesday Thursday & Friday Saturday Sunday	10:00 a.m. - 8:00 p.m. 10:00 p.m. - 5:00 p.m. 11:00 a.m. - 5:00 p.m. Closed

KEY CONTACTS FOR AFP 42

George Warner Air Force Plant 42 Remedial Project Manager	ASC/EMR, Building 8 1801 Tenth Street, Suite 2 WPAFB, Ohio 45433-7626	937/255-7716, ext. 414; or 1-800-982-7248, ext. 414
Larine Barr Air Force Public Affairs Specialist	ASC/SMR, Building 8 1801 Tenth Street, Suite 2 WPAFB, Ohio 45433-7626	1-800-982-7248, ext. 322
Diana Ventura California Regional Water Quality Control Board - Lahontan	15428 Civic Drive, Suite 100 Victorville, CA 92392-2359	760/241-7366
Tizita Bekele California EPA, Department of Toxic Substances Control	5796 Corporate Avenue Cypress, CA 90630	714/484-5450
Bill Albert California EPA, Department of Toxic Substances Control	P.O. Box 806 Sacramento, CA 95812-0806	916/445-9543

Matter of FACT

AERONAUTICAL SYSTEMS CENTER
WRIGHT-PATTERSON AFB, OHIO
PAM #97-025 FEBRUARY 1997

The U.S. Air Force is cleaning up contaminated sites at several industrial plants, located across the United States. Part of this comprehensive effort is providing community members with up-to-date information about installation cleanup programs — and notifying citizens where they can find detailed information within their own communities.

Who's responsible for cleanup?

Headquartered at Wright-Patterson Air Force Base in Dayton, Ohio, the Aeronautical Systems Center (ASC) is the landlord of 10 industrial plants owned by the Air Force. The mission of ASC spans all stages in the research, development, and acquisition of aircraft and their related equipment and technologies.

Part of this mission is the role played by ASC Acquisition Environmental Management. Operating within a dynamic environment, the organization supports Department of Defense (DoD) aircraft and missile production and conducts environmental cleanup, compliance, pollution prevention, and facility projects at each of the 10 industrial plants. The organization's core areas include the Pollution Prevention, Compliance, Facilities, and Restoration divisions — united to protect and enhance the environment.

POLLUTION PREVENTION DIVISION *Looks for new methods and technologies to minimize the use of hazardous materials or processes in weapons systems.*

COMPLIANCE DIVISION *Ensures that operators at each of the industrial plants comply with state and federal environmental laws, rules, and regulations.*

FACILITIES DIVISION *Manages facility contracts and/or leases at each of the industrial plants, including the divestiture program which minimizes Air Force ownership of plants to reduce Air Force ownership.*

RESTORATION DIVISION *Manages the environmental cleanup of past contamination at each of the industrial plants.*

SUPPORT STAFF *Includes experts in Contracting, Systems Engineering, Financial Management, and Public Affairs.*

Air Force Industrial Plants

The industrial plants where Air Force weapons systems are produced are known as Government-Owned, Contractor-Operated facilities — or GOCOs. Owned by the Air Force Materiel Command, these plants are a legacy of World War II. To support the war effort, over 100 plants, mostly former automotive factories, were acquired by the Army Air Corps and converted to aircraft industry facilities. Additional plants were procured during the Cold War era of the 1950s and 1960s. The early 1970s saw a shift in Air Force policy that would rely on the private sector to provide its own industrial facilities, which reduced Air Force

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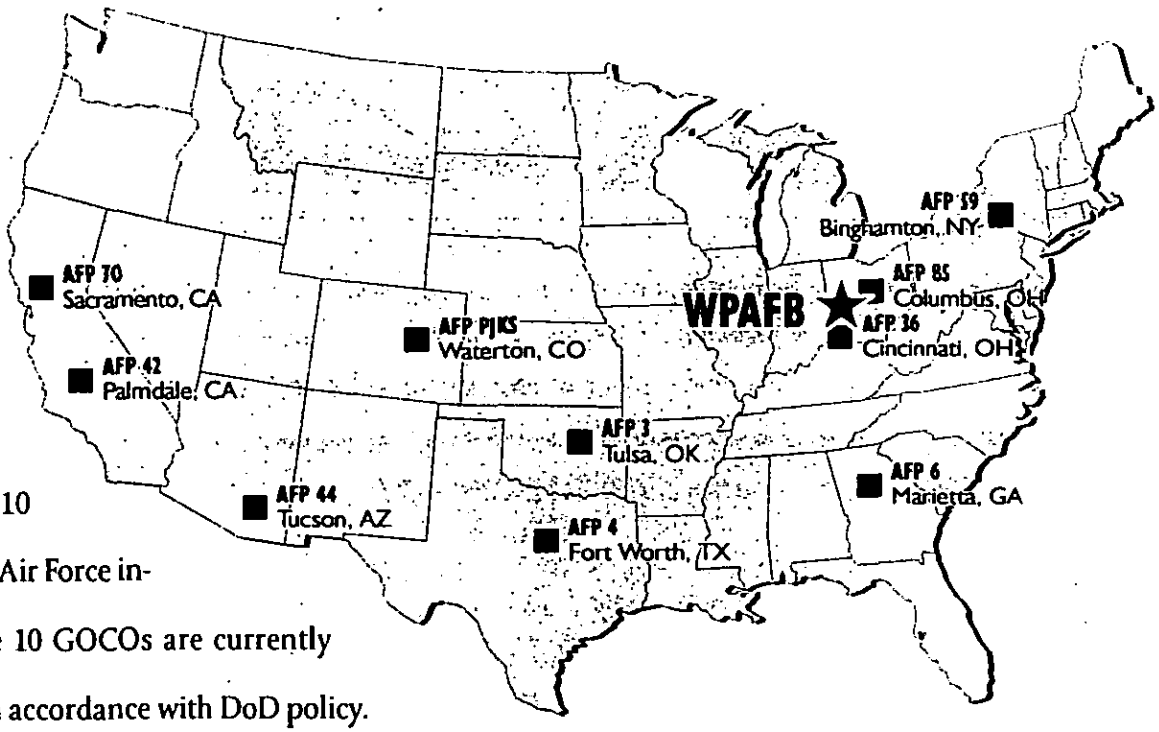


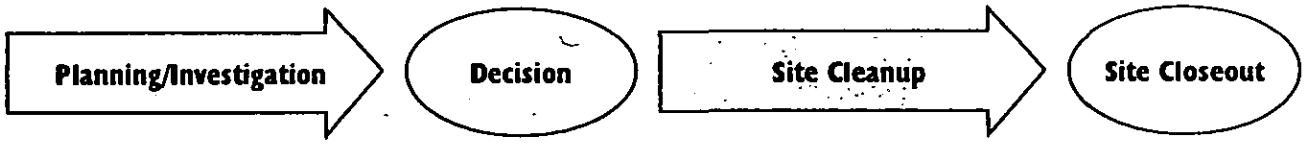
ownership. Today, 10 GOCOs remain in the Air Force inventory. Six of these 10 GOCOs are currently being sold or leased in accordance with DoD policy.

Phases of Environmental Cleanup

Environmental conditions resulting from accidental spills and past disposal created the need to clean up various sites at Air Force installations and industrial plants. The Installation Restoration Program (IRP) was created by the DoD in the early 1980s to guide the cleanup at Air Force bases and GOGOs. The IRP for Air Force GOCOs is managed by the Restoration Division of ASC Acquisition Environmental Management.

The IRP is not law, but rather a DoD regulation that requires adherence to guidelines, rules, regulations and criteria established by the U.S. Environmental Protection Agency under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). The Restoration Division also ensures that each GOCO meets state and federal permits required by the Resource Conservation and Recovery Act (RCRA). For more information on these regulations, see the blue column on the next page.

The IRP process is accomplished in four major stages:



Planning/Investigation: *Gather historical, analytical, geological, and other information about the site and its contamination*

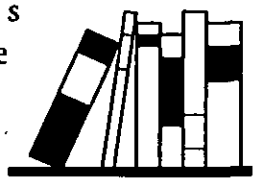
Decision: *Using this information, arrive at feasible solutions for cleaning up any site contamination problems*

Site Cleanup: *Supervise the design and implementation of the cleanup activities*

Site Closeout: *Remove site from the IRP program and monitor the cleaned up site, if necessary*

For The Record...

The EPA requires that citizens have access to all major documents and other types of information about environmental cleanup activities at DoD installations. There are two types of record management systems where in-depth information about cleanup is collected and filed. One of these bodies of information is the ADMINISTRATIVE RECORD. The record provides administrative guidance, is a legal source of information, and contains all documents used to select cleanup methods at a site.



The second type of record system is called an INFORMATION REPOSITORY. Developed for public review, this body of information holds technical reports and documents about cleanup activities as part of a military base's IRP. The repository must be accessible to local residents and is, therefore, maintained in a public building such as a library, school or city hall. A community may have more than one Information Repository, but there is only one Administrative Record compiled for a site.

Some of the documents contained in the Administrative Record and Information Repository are:

- *Guidance and Policy Documents*
- *Remedial Investigation/Feasibility Study*
- *Risk Assessment*
- *Proposed Remedial Action Plan*
- *Community Relations Plan*
- *Management Action Plan*
- *Public Meeting Transcripts and Summaries*
- *Record of Decisions for Site Cleanup*
- *Restoration Advisory Board Meeting Minutes*
- *Fact Sheets*
- *Maps*

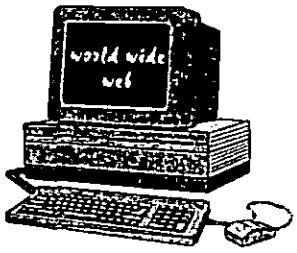
Join Us on the Web!

You are invited to visit the **Aeronautical Systems Center Home Page** *on the World Wide Web at:*

http://www.ascem.wpafb.af.mil

or send an email to:

Andrea Attaway-Young
attawaam@emsmtp.wpafb.af.mil
Larine Barr
barrlh@emsmtp.wpafb.af.mil
Kay Binzer
binzerkf@emsmtp.wpafb.af.mil



IRP

The Installation Restoration Program (IRP) is a DoD initiative that identifies, investigates, and cleans up former waste and disposal sites contaminated from accidental spills, runoff, and past waste disposal practices. The IRP guides the Air Force as it takes action to eliminate any possible hazards these sites might pose to the public health and environment.

CERCLA

A federal law, called the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), also known as Superfund, which requires responsible parties to investigate and clean up contaminated sites.

RCRA

A federal law that regulates the use, treatment, storage, and disposal of hazardous materials and hazardous waste. The Resource Conservation and Recovery Act (RCRA) requires facilities that use hazardous materials to have state and federal permits. RCRA established a formalized process to prevent future contaminant releases and the creation of new hazardous waste cleanup sites.

Where to Find...

Each Air Force Plant has its own Administrative Record and Information Repository. The Administrative Record/Information Repository for your community is located at:

Palmdale City Library
700 E Palmdale Blvd.
Palmdale, CA 93550

805-267-5600

The Air Force maintains a duplicate Administrative Record at:

ASC/EMR Building 8
1801 Tenth Street, Suite 2
Wright-Patterson AFB, OH 45433-7626

For more information on Air Force cleanup programs, please contact:

1-800-982-7248
Andrea Attaway-Young, ext. 301
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