

United States Air Force

Environmental Restoration Program



Management Action Plan (MAP)

Air Force Plant 59

Johnson City, New York

December 1994

Table of Contents

	Page
List of Acronyms	v
Chapter	
1 Introduction and Summary	1-1
1.1 Environmental Response Objectives	1-2
1.2 MAP Purpose	1-2
1.3 AFP 59 Project Team	1-3
1.4 Environmental Setting	1-3
1.4.1 Location	1-3
1.4.2 Operations and Wastes Generated	1-9
1.5 Previous IRP Activities and Current Regulatory Status	1-9
2 Divestiture Strategy	2-1
2.1 History of Installation	2-1
2.2 Current Operations	2-1
2.3 Management Structure	2-2
2.4 Divestiture Strategy	2-2
3 Installation-Wide Environmental Program Status	3-1
3.1 IRP Status	3-1
3.1.1 IRP Sites	3-1
3.1.2 Installation-Wide Source Discovery/Assessment Status	3-6
3.1.3 Completed Environmental Response Actions	3-7
3.2 Compliance Program Status	3-9
3.2.1 Underground Storage Tanks	3-11
3.2.2 Asbestos, PCBs, NPDES Permit, or Other	3-11
3.3 Status of Community Involvement	3-14
3.4 Environmental Condition of Property	3-14
3.4.1 Areas of Known Contamination	3-15
3.4.2 Areas of No Suspected Contamination	3-17
3.4.3 Unevaluated Areas	3-17
3.4.4 Conceptual Site Model	3-17
4 Installation-Wide Strategy for Environmental Restoration	4-1
4.1 Zone/OU Designation and Strategy	4-1
4.1.1 Zone Designations	4-1
4.1.2 OU Designations	4-1
4.1.3 Sequence of OUs	4-3

Chapter		Page
	4.1.4 Removal Actions and Treatability Studies	4-3
	4.1.5 Remedy Selection Approach	4-3
4.2	Compliance Strategy	4-4
	4.2.1 Underground Storage Tanks	4-4
	4.2.2 Solid Waste, Asbestos, PCBs, Other	4-4
4.3	Community Relations Strategy	4-5
5	Environmental Restoration/Compliance Program Master Schedule	5-1
5.1	Installation Restoration Program	5-1
	5.1.1 Response Schedules	5-1
	5.1.2 Requirements by Fiscal Year	5-1
5.2	Compliance	5-1
	5.2.1 Compliance Schedule	5-1
	5.2.2 Requirements by Fiscal Year	5-4
5.3	Meeting Schedule	5-4
6	Technical and Other Issues to be Resolved	6-1
6.1	Data Usability	6-1
	6.1.1 Rationale	6-1
	6.1.2 Status/Strategy	6-2
6.2	Information Management at AFP 59	6-3
	6.2.1 Action Items	6-3
	6.2.2 Rationale	6-3
	6.2.3 Status/Strategy	6-4
6.3	Data Gaps	6-5
	6.3.1 Action Items	6-5
	6.3.2 Rationale	6-5
	6.3.3 Status/Strategy	6-6
6.4	Background Levels	6-6
	6.4.1 Action Items	6-6
	6.4.2 Rationale	6-6
	6.4.3 Status/Strategies	6-7
6.5	Risk Assessment	6-7
	6.5.1 Action Items	6-7
	6.5.2 Rationale	6-7
	6.5.3 Strategy	6-7
Appendix A	Funding Requirements	A-1
Appendix B	Environmental Restoration Documents	B-1
Appendix C	Decision Document/Record of Decision Summaries	C-1
Appendix D	No Further Response Action Planned Summaries	D-1
Appendix E	Conceptual Models	E-1

List of Figures

Figure	Page
1-1 Location of Air Force Plant 59	1-6
1-2 Air Force Plant 59 and Vicinity	1-8
1-3 Location of Historical Hazardous Substance Activities	1-12
3-1 IRP and AOC Sites	3-3
3-2 Schedule of Historical Assessment Activities	3-8
3-3 Environmental Condition of Property Map at Air Force Plant 59	3-16
4-1 Zones/Operable Unit Composition and Deliverable Dates at Air Force Plant 59 ..	4-2
5-1 Projected Restoration Master Schedule with Suggested Site Groups for Interim and Final Records of Decision at Air Force Plant 59	5-2
5-2 Project Schedule for Compliance Programs at Air Force Plant 59	5-3

List of Tables

Table	Page
1-1 Air Force Plant 59 Team Members	1-4
1-2 Air Force Plant 59 Additional Key Participants	1-5
1-3 Operations and Wastes Generated	1-11
3-1 Site Summary Table for Air Force Plant 59	3-2
3-2 Removal and Interim Action Status at Air Force Plant 59	3-9
3-3 Compliance and Closure-Related Projects at Air Force Plant 59	3-10

List of Acronyms

ACLs	Alternate Concentration Limits
ACM	Asbestos-Containing Materials
AFB	Air Force Base
AFCEE	Air Force Center for Environmental Excellence
AFP	Air Force Plant
ANSC	Area of No Suspected Contamination
AOC	Area of Concern
ARARs	Applicable or relevant and appropriate requirements
ASC	Aeronautical Systems Center
AST	Aboveground Storage Tank
BCRA	Base Closure and Realignment Act of 1988 and Defense Base Closure and Realignment Act of 1990, collectively
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act, as amended
CRP	Community Relations Plan
DERA	Defense Environmental Restoration Account
DERMIS	DERA Management Information System
DERP	Defense Environmental Restoration Program
DOD	Department of Defense
DOI	Department of the Interior
DQM	Data Quality Management
EIAP	Environmental Impact Analysis Process
EIS	Environmental Impact Statement
FAA	Federal Aviation Administration
FFA	Federal Facility Agreement
FFSRA	Federal Facility Site Remediation Agreement
FS	Feasibility Study
FY	Fiscal Year
GE	General Electric
GIS	Geographic Information System
GOCO	Government Owned-Contractor Operated
GSA	General Services Administration
HWSA	Hazardous and Solid Waste Amendments
IMI	Interim Measures Investigation
IPT	Integrated Product Team
IRP	Installation Restoration Program
IRPIMS	Installation Restoration Program Information Management System
MAP	Management Action Plan
MCL	Maximum Contaminant Level
MM	Martin Marietta
MOU	Memorandum of Understanding

NCP	National Oil and Hazardous Substances Pollution Contingency Plan
NEPA	National Environmental Policy Act
NFA	No Further Action
NFADD	No Further Action Decision Document
NFRAP	No Further Response Action Planned
NPDES	National Pollutant Discharge Elimination System
NPL	National Priorities List
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
O&M	Operation and Maintenance
OU	Operable Unit
PA/SI	Preliminary Assessment/Site Inspection
PCB	Polychlorinated Biphenyl
POC	Point of Contact
POIs	Points of Interests
POTW	Publicly-Owned Treatment Works
PP	Proposed Plan
QA/QC	Quality Assurance/Quality Control
RA	Remedial Action
RCRA	Resource Conservation and Recovery Act, as amended
RD	Remedial Design
RDBMS	Relational Database Management System
RFA	RCRA Facility Assessment
RFI	RCRA Facility Investigation
RI	Remedial Investigation
RI/FS	Remedial Investigation/Feasibility Study
ROD	Record of Decision
RPM	Remedial Project Manager
SAP	Sampling and Analysis Plan
SARA	Superfund Amendments and Reauthorization Act
SI	Site Investigation
SPDES	State Pollutant Discharge Elimination System
SSI	Supplemental Site Inspection
SWMU	Solid Waste Management Unit
TPM	Technical Project/Program Manager
TRC	Technical Review Committee
TSCA	Toxic Substances Control Act, as amended
USACE	United States Army Corps of Engineers
USAF	United State Air Force
USEPA	United States Environmental Protection Agency
USF&WS	United States Fish and Wildlife Service
UST	Underground Storage Tank

Chapter 1

Introduction and Summary

This Management Action Plan ("Action Plan" or "MAP") contains a status summary of the Air Force Plant 59 (AFP 59) environmental restoration and compliance program and presents the comprehensive strategy for implementing response actions necessary to protect human health and the environment. This strategy integrates and coordinates activities being performed under the Installation Restoration Program (IRP) and the environmental compliance programs to support full restoration of the plant. This Action Plan is a dynamic document that will be updated on a regular basis. The AFP 59 Action Plan does the following:

- Describes the objectives of the facility closure environmental restoration program, explains the purpose of this Action Plan, introduces the Integrated Product Team (IPT) formed for the facility, and provides a brief environmental history (Chapter 1).
- Provides a history of the installation and explains the facility management structure. This chapter also presents a status summary of the Divestiture Strategy Plan for AFP 59 and outlines the required environmental activities to be performed before divestiture of AFP 59 can be accomplished (Chapter 2).
- Summarizes the status of the AFP 59 IRP and environmental compliance programs, accounts for all contaminated sites, and clearly defines the regulatory programs under which each is being addressed (Chapter 3).
- Describes the installation-wide strategy for environmental restoration through definition of operable units (OUs) and the scope of removal and remedial activities associated with (or to be completed for) each; and summarizes plans for managing responses under compliance programs (Chapter 4).
- Provides a Master Schedule of planned and anticipated activities to be performed throughout the duration of the environmental restoration program, including restoration-related compliance activities (Chapter 5).
- Describes specific technical and/or administrative issues to be resolved by the AFP 59 Team, and a strategy and approximate schedule for their resolution (Chapter 6).

1.1 Environmental Response Objectives

The objectives of the facility closure environmental restoration program at AFP 59 are as follows:

- Protect human health and the environment.
- Comply with existing statutes and regulations.
- Conduct all IRP activities in a manner consistent with Section 120 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), as amended by the Superfund Amendments and Reauthorization Act (SARA).
- Continue efforts to identify all potential source areas.
- Establish priorities for environmental restoration and restoration-related compliance activities so that property disposal and reuse goals can be met.
- Initiate selected removal actions to control, eliminate, or reduce risks to manageable levels.
- Identify and map the environmental condition of the installation property, including areas of no suspected contamination (ANSCs) concurrent with remedial investigation (RI) efforts; characterize risks associated with releases of hazardous substances, pollutants, contaminants, or hazardous wastes.
- Complete RIs as soon as practicable.
- Develop, screen, and select remedial actions (RAs) that reduce risks in a manner consistent with statutory requirements.
- Commence RAs for environmental priority areas as soon as practicable.
- Conduct long-term RAs for groundwater and any necessary 5-year reviews for wastes left on site.

1.2 MAP Purpose

This Action Plan presents, in summary fashion, the status of AFP 59's environmental restoration and compliance programs and the comprehensive strategy for environmental

restoration and restoration-related compliance activities. In addition, it defines the status of efforts to resolve technical issues so that continued progress and implementation of scheduled activities can occur. The AFP 59 Team will use this MAP to direct and monitor environmental response actions and schedule activities needed to resolve technical, administrative, and operational issues.

1.3 AFP 59 Team

Restoration activities at AFP 59 are directed by the Air Force Integrated Product Team (IPT) and the Technical Review Committee (TRC). The IPT consists of representatives of each of the Air Force divisions that play an active role in the operations at AFP 59: Compliance, Pollution Prevention, Restoration, and Facilities Management. The IPT is led by Captain J. T. Allen. The IPT is supplemented by the TRC, which is led by the Air Force Remedial Project Manager (RPM), George Walters. The RPM functions as the primary liaison among TRC members. The solicitation of input and review from TRC members by the RPM is the primary means of resolving technical issues and reaching consensus on decisions with local, state and federal regulators. Tables 1-1 and 1-2 list the Team members and specify their roles and responsibilities.

Issues identified as requiring resolution by the Team members include data quality assurance/quality control (QA/QC), electronic data management and analysis, background levels of contaminants in environmental media, data gap analysis, and risk assessment protocols. The status and planned actions for each item are presented in Chapter 6.

1.4 Environmental Setting

1.4.1 Location

Air Force Plant 59 is located in Johnson City, Broome County, New York, about 3 miles west-northwest of the Central Business District of the city of Binghamton and about 4 miles east of the center of the Village of Endicott. The location of AFP 59 is shown in Figure 1-1.

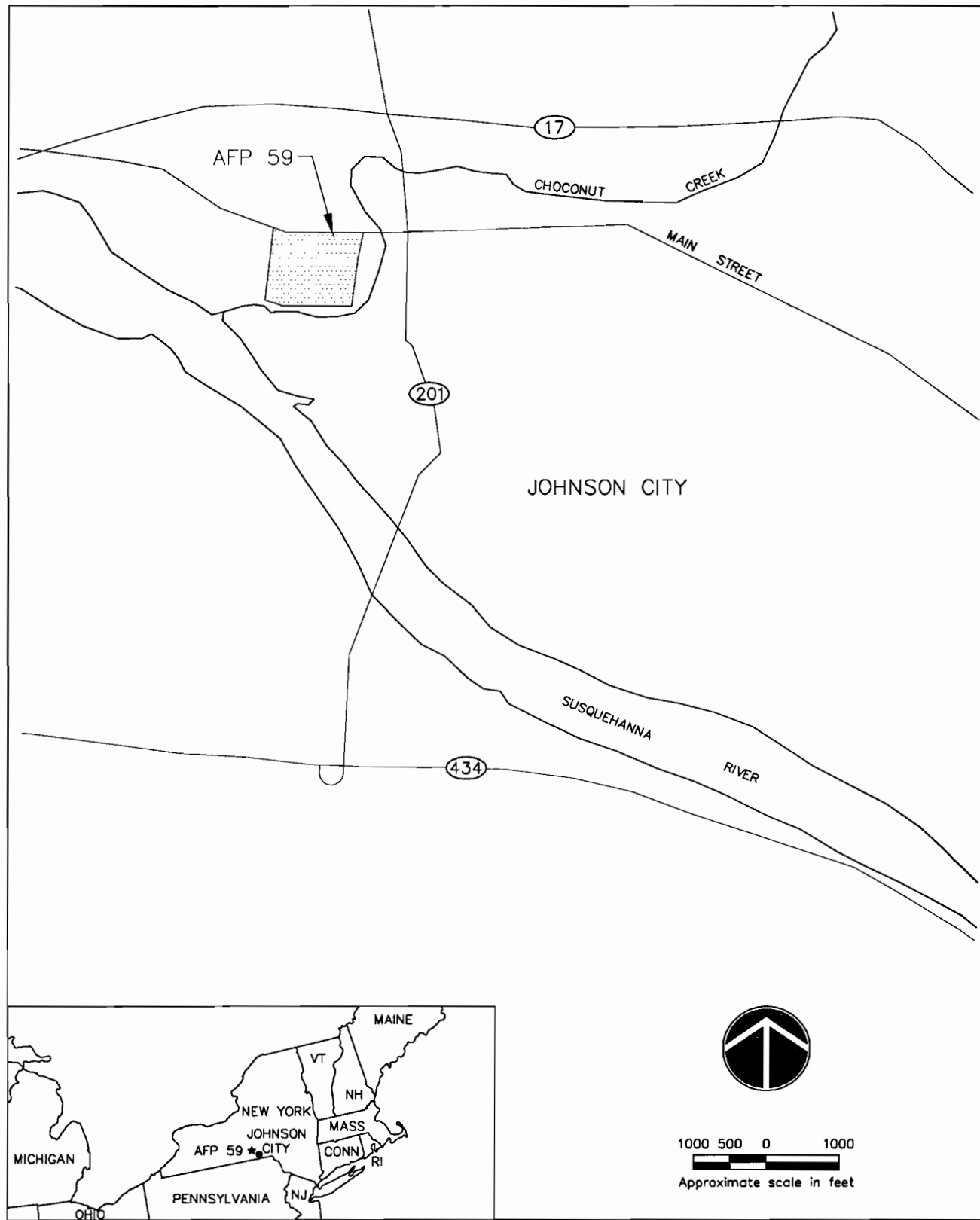
The total land area of AFP 59 is 29.6 acres situated in a highly urbanized area. The main plant entrance is off Main Street (State Route 17C), which marks the northern boundary of the installation. North of Main Street is a parking lot used by plant employees and a school. On the east and south, the plant is bounded by Little Choconut Creek. The plant and the creek are separated by a system of levees, flood gates, and flood walls. The creek joins the Susquehanna River about 1000 feet west of the southwest corner of the plant. South of AFP 59, beyond Little Choconut Creek, is a power plant owned by New York State Electric and Gas and a substation. The Camden Street Well Field, an important source of water for Johnson City, is southwest of the plant, between the plant and Little Choconut Creek. East of

TEAM MEMBERS			
Name	Organization	Phone	Role/Responsibility
Capt. J.T. Allen	ASC/EMR WPAFB, OH	(513) 255-4151	Integrated Product Team Leader
George Walters	ASC/EMR WPAFB, OH	(513) 255-4151	Air Force Remedial Project Manager
Melonie Sviatyla	Martin Marietta	(607) 770-2692	Environmental Health and Safety Leader
Chris Butterworth	ASC/EMF WPAFB, OH	(513) 255-2424	Program Manager Facilities Management
Ronald Deaver	ASC/EMR WPAFB, OH	(513) 255-7719 (800) 982-7248	Community Relations Specialist
Bill Herbort	ASC/EMF WPAFB, OH	(513) 255-2424	Facilities Management Supervising Engineer
Andy Jeffers	ASC/EMR WPAFB, OH	(513) 255-4151	Divestiture Manager
April Lewis	ASC/EMR WPAFB, OH	(513) 255-4151	Divestiture Program
Jim Lister	NYSDEC	(518) 457-3976	NYSDEC Project Manager
David Maddox	ASC/EMC WPAFB	(513) 255-4151	Compliance Program Manager
Gary Poling	U.S. Corps of Engineers Baltimore District	(301) 962-2702	Contract Management and Oversight
Frank Steele	AFMC/LC/JAV	(513) 255-5270	Legal Counsel
Vacant	U.S. Environmental Protection Agency		Project Manager

*Table 1-1
Air Force Plant 59 Team Members*

ADDITIONAL KEY PARTICIPANTS			
Name	Organization	Phone	Role/Responsibility
M. Reid Wellensiek	Earth Tech.	(703) 549-8728	IRP Contractor/Project Manager
Dick Yager	U.S. Geological Survey	(607) 266-0217	Hydrogeologist/IRP Technical Support
Dale Albeck, P.E.	County Health Dept.	(607) 778-2887	Broome County Health Department/Project Manager
Dan Bostwick	Earth Tech.	(703) 549-8728	IRP Contractor
Joe Hau	Hydro-Terra, Inc.	(301) 596-3160	Contractor/Hydrogeologist
Ronald Heerkens	NYSDOH	(315) 426-7613	NYSDOH Project Manager
Eric Labelle	Johnson City Water	(607) 797-2523	Director of Public Services Johnson City Water Representative
Mayor Harry G. Lewis	Mayor, Johnson City, NY	(607) 798-7861	Lead Community Representative
Janet Z. Lindstedt	IT Corporation	(513) 782-4700	MAP Coordinator
Barney Nashold	Argonne National Laboratories	(708) 972-7698	Contractor/Field Operations Supervisor
Steve Petty	OHM Corp.	(609) 987-0010	Operator Consultant
Scott Rodabaugh	NYSDEC Region 7	(607) 773-7763	NYSDEC Representative
Carol Rosignolo	Argonne National Lab.	(708) 982-8529	Contractor/Data Manager
Gale Sutton	Galson Laboratories	(315) 432-0506	Contractor/Analytical Chemist
Tom Sydelko	Argonne National Laboratories	(708) 252-3309	IRP Contractor
Dallas Wait	Gradient Corp.	(617) 576-1555	Contractor/QA/QC Manager

*Table 1-2
Air Force Plant 59 Additional Key Participants*



*Figure 1-1
Location of Air Force Plant 59*

AFP 59 is a residential area, including a church and a school. On the northwest is an auto painting shop and a real estate office. Other nonresidential land around the plant is used for transportation, commercial enterprises, forest land/recreation, and industrial activity. The configuration of AFP 59 and the use of circumjacent property are shown in Figure 1-2.

Nearly all of the land occupied by AFP 59 contains buildings or is paved. The primary building on site contains 621,500 square feet. No natural plant or animal communities are present on the site; however, small stands of second-growth hardwood forest are located adjacent to AFP 59 along Little Choconut Creek and the Susquehanna River.

Surface run-off from the plant drains to Little Choconut Creek. The storm-sewer system also empties into the creek, as do three outfalls which enter the creek south of the plant. A northern branch of the creek was dramatically altered when landfill areas located near the branch were developed as shopping malls. The creek was also altered (moved north) south of the facility, most likely to accommodate railroad-access trestle construction to AFP 59 in the 1940s.

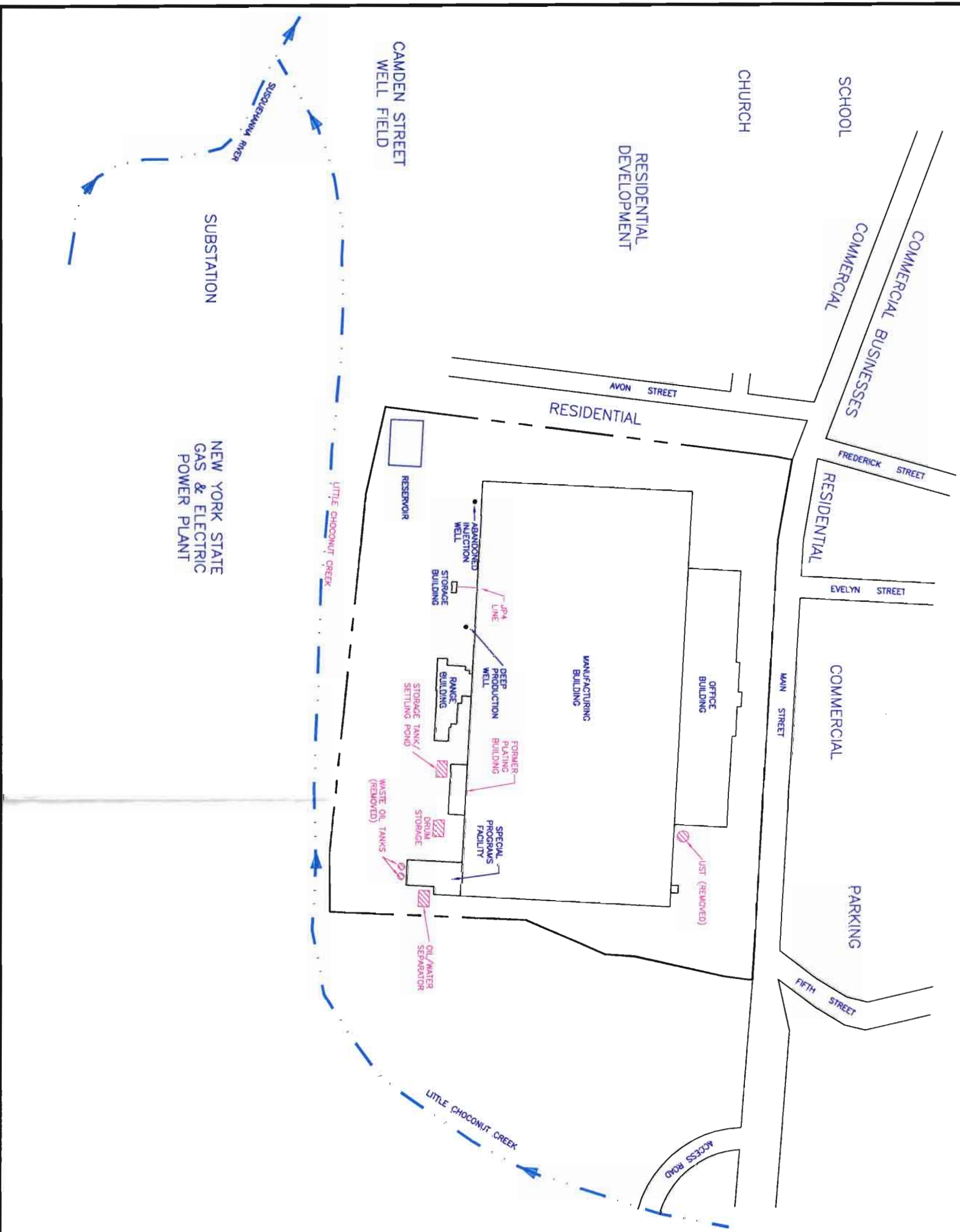
AFP 59 is constructed on the former flood plain for the Susquehanna River. In the mid-1960s, the state of New York built an earthen containment dike along the banks of Little Choconut Creek, south of the facility, as part of a flood control project.

The site topography is fairly flat, varying in elevation from 830 to 840 feet above mean sea level (MSL). The site lies within the Appalachian Plateau physiographic province, characterized by relatively undisturbed, nearly horizontal sedimentary rocks bisected by streams. The site surface consists of cut-and-fill soils, including silty soils of alluvial origin that do not support heavy loads well and are subject to erosion. The western edge is covered by loamy materials of glacial origin that have been disturbed or reworked.

The geology of the Susquehanna River Basin and vicinity consists of glacial valley Pleistocene sediments. These glacial deposits, commonly called Bright Gravel, contain clay, silt, sand, and gravel. They are underlain by coarse-grained deposits known as Drab Gravel. The bedrock underlying the glacial deposits is usually shale and siltstone. Bedrock is present at a depth of 94 feet.

A highly productive, regional aquifer has been delineated in the vicinity of Johnson City. The aquifer extends from Clinton Street in the northwest portion of Binghamton to a former baseball park in Johnson City. Thus, the aquifer has been named the Clinton Street-Ballpark Aquifer. In 1985 it was designated a sole-source aquifer for the area by the Environmental Protection Agency (EPA) because it supplies drinking water to 128,000 local residents. The Camden Street Wellfield, southwest of AFP 59, contains three wells owned by Johnson City. A seasonally used AFP 59 production well is the only private production well in the area.

Air Force Plant 59 Johnson City, New York



LEGEND

 IRP SITES AND AREAS OF CONCERN



APPROXIMATE SCALE: 1" = 200'

 0 200 400 FEET

Figure 1-2.
Air Force Plant 59
and Vicinity

In general, groundwater passes under AFP 59 from the eastern side and emerges on the western side. In some areas of the plant, the groundwater is relatively close to the ground surface and shallow sources of contaminants may migrate to the upper aquifer. A layer of fine-grained deposits between the upper and lower aquifers in the southern and northwestern portions of the site may prevent vertical migration in those areas. The layer might be missing or intermittent, however, in other areas at the site. Recharge to the aquifer occurs as infiltration from small streams in the Susquehanna River Basin and from precipitation. The buildings and asphalt that cover the site, however, minimize rain-water recharge through the AFP 59 property and, as a result, limit the amount of contamination carried by vertical migration from the ground surface to groundwater in the upper aquifer.

Mean annual precipitation is about 37 inches, somewhat evenly distributed throughout the year. The mean annual evapotranspiration rate is estimated to be 28 inches per year, so that the annual groundwater recharge rate is estimated at about 9 inches or less. In general the climate is humid, maritime with mild summers and long, cold winters. The prevailing wind direction is west-southwest.

1.4.2

Operations and Wastes Generated

Air Force Plant 59 is a government owned, contractor operated (GOCO) facility that manufactures highly sophisticated aircraft electro-mechanical systems, including laser systems, internal navigation and guidance systems, and weapons and flight control systems for military and commercial clients. It was operated by Remington Rand, Inc., from 1942 through 1945, and then closed for three years. General Electric Aerospace operated the facility from 1949 to April 1993. AFP 59 is currently operated by Martin Marietta Aircraft Controls.

Operations at AFP 59 have generated a variety of waste products including cutting, lubricating, and coolant oils; degreasing agents, plating acids, caustics, chromium, and cyanide solutions; and paint residues. In 1991, the metal plating operations were discontinued. Table 1-3 describes the various hazardous substance activities that have taken place at AFP 59 and the wastes that these activities generated. Figure 1-3 identifies the locations associated with these activities and the wastes generated. Current waste management practices are discussed in Chapter 3.

1.5

Previous IRP Activities and Current Regulatory Status

An Installation Restoration Program (IRP) Phase I records search of AFP 59 was completed in October 1984 by CH2M Hill. The contractor identified and prioritized sites posing a potential threat to public health or the environment through contaminant migration, and recommended that field sampling and laboratory analysis be performed to confirm or deny the presence of environmental contamination at AFP 59.

An IRP Phase II Stage 1 Confirmation/Quantification Study was completed in March 1988 by Fred C. Hart Associates, Inc. That study defined and quantified the presence of contamination at AFP 59 through preliminary sampling and recommended that additional studies be performed to further define the presence, evaluate potential sources, and determine the magnitude and extent of contamination at AFP 59.

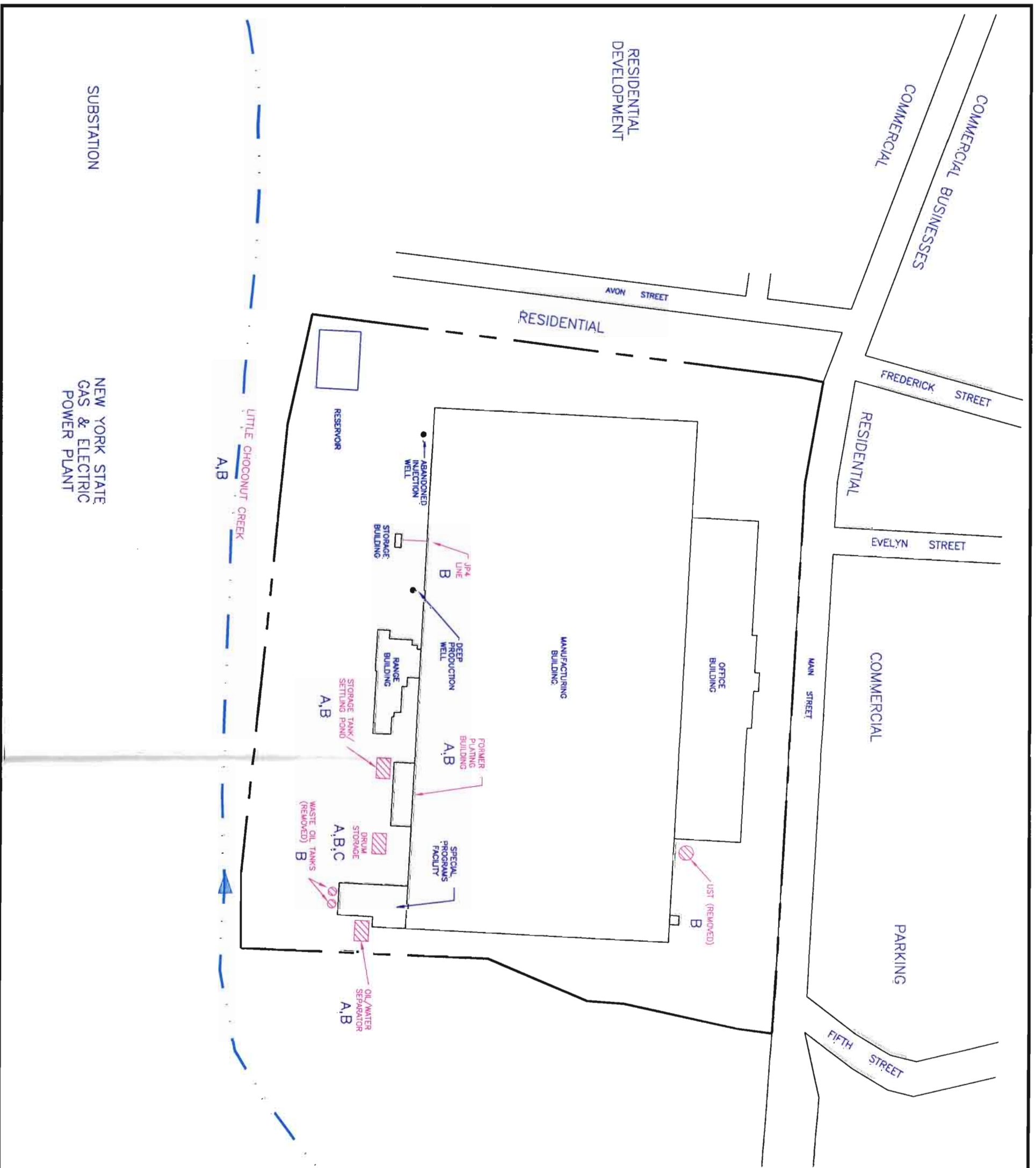
The IRP Phase II Stage 2 Confirmation/Quantification Study and Supplemental Site Inspection (SSI), conducted by Argonne National Laboratories, is expected to be finalized in January 1995. This study focused on expanding characterization of the geohydrological system underlying AFP 59, potential contaminant transport from groundwater flow, and a risk assessment for contaminants of concern discovered in the soil, surface water, and/or groundwater at the site.

The facility is not listed on the National Priorities List (NPL) and is not under a Federal Facilities Agreement (FFA). The site is listed on the New York State Department of Environmental Conservation (NYSDEC) List of Inactive Hazardous Waste Disposal Sites (Site Code 7-04-020).

Period	Operator	Type of Operation	Weapon System	Hazardous Substance Activities	Waste Generated	Key
pre 1942	N/A	Agricultural	N/A	N/A	N/A	-
1942	Plancor	Construction	N/A	Construction	Construction debris	-
1942-1945	Remington Rand, Inc.	Manufacturing	Aluminum aircraft propellers	Plating Painting, coating Testing Degreasing Production machines	Plating wastes, plating rinse water Paint wastes, solvents JP 4, gasoline Kerosene-based degreasers spent solvents, still bottoms Waste oil, waste hydraulic oil, PCBs	A
1945-1948	N/A	Closed	N/A	N/A	N/A	-
1948-1993	General Electric	Manufacturing	Aircraft controls	Testing Cleaning, degreasing Painting, coating Production machines Plating (chromium, cadmium, copper, tin) Rinsing of plated parts	Gasoline, JP-4 Trichloroethylene, kerosene, naphtha Paint wastes, miscellaneous solvents, naphtha Waste oil, waste hydraulic oil, PCBs Plating wastes, arsenic, barium, lead, chromium Rinse water, burnite, barium, tetrachloroethene, cadmium, chromium	B
1993-	Martin Marietta	Manufacturing	Aircraft controls	Testing Cleaning, degreasing Painting, coating Production machines	Gasoline, JP-4 Kerosene, naphtha Paint wastes, miscellaneous solvents Waste oil, waste hydraulic oil	C

*Table 1-3
Operations and Wastes Generated*

Air Force Plant 59 Johnson City, New York



LEGEND

- A 1942-1945
- B 1949-1993
- C 1993-



IRP SITES AND AREAS OF CONCERN

NOTE: See Table 1-3 for a description of operations conducted in these areas at the indicated times.



APPROXIMATE SCALE: 1" = 150'
 0 150 300 FEET

Figure 1-3.
 Location of Historical
 Hazardous Substance
 Activities

Chapter 2

Divestiture Strategy

2.1

History of Installation

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

The plant was designed and built in 1942 by PLANCOR, the Defense Plant Corporation. One of the largest wooden structures in the United States, the original building contained 621,500 square feet of floor space and has remained essentially unchanged. Remington Rand, Inc., the first contractor/operator of the facility, made aluminum aircraft propellers from 1942 to 1945. The plant was closed for 3 years, from 1945 to 1948, until it was refurbished and reactivated, with a limited work force, as an aircraft controls manufacturing facility operated by General Electric. From 1951 to 1958, the plant built up to a fully operational facility supporting the F-4 program. In 1993, Martin Marietta obtained the Johnson City plant as part of its acquisition of General Electric's Aerospace Division.

Several improvements have been made to the outdoor facilities at AFP 59 over the years. In 1959, the gravel and dirt parking lots surrounding the manufacturing building were paved. In the mid-1960s, the State of New York built an earthen containment dike along the banks of Little Choconut Creek behind the facility as part of a flood control project. In 1974, a water supply well was drilled immediately south of the manufacturing building to reduce the plant's demand on municipal water supplies. A water recharge well for noncontact cooling water was also drilled at this time, but was abandoned shortly after installation because of failure of geologic strata. General Electric discontinued use of a railroad spur into the facility in the early 1950s; the spur was paved over, and in 1980, the railroad trestle over Little Choconut Creek was removed.

2.2

Current Operations

Today, AFP 59 produces highly sophisticated avionic and electric controls such as fire/flight control systems, displays and simulators, propulsion controls and condition monitors, and spacecraft controls. Most production is done as subcontracts to prime aerospace and DOD contractors. Many spare parts are produced directly for government prime contracts.

2.3

Management Structure

The Aeronautical Systems Center, Acquisition Environmental Management Organization (ASC/EM) is responsible for all of the AF GOCO properties for Air Force Materiel Command. Martin Marietta provides the administrative, technical, and maintenance staff needed to support the daily factory operational requirements of AFP 59. ASC Industrial Facilities Division (ASC/EMF) provides facility management expertise for Martin Marietta. EMF has assigned a Project Specialist to supply administrative and project support and a Supervising Engineer to provide professional, technical assistance, and support.

An Air Force Engineer from each of the three Acquisition Environmental Management Divisions: EMR (restoration), EMC (compliance), and EMP (pollution prevention) is assigned to provide environmental support. A Public Affairs Expert is also assigned to the Team to support AF 59 public relations/community affairs requirements. All of these divisions (and personnel) work under the direction of ASC/EM.

2.4

Divestiture Strategy

It is Air Force policy to minimize reliance on government-owned, contractor operated industrial production facilities. Such facilities are maintained or acquired only when no domestic, nongovernment capability exists or where it is economically unrealistic to expect that such nongovernment capability can be made available.

Since World War II, divestiture actions have reduced the number of GOCO facilities still managed by the Air Force to only 11 plants. The Air Force is actively pursuing options to divest AFP 59 in accordance with Section 203(e)(3)(G) of the Federal Property and Administration Services Act of 1949 as amended. The General Services Administration (GSA) is serving as agent for the Air Force to appraise the property and negotiate the sale or transfer to interested parties. The GSA is currently determining if a satisfactory sale to Broome County Industrial Development Authority (BCIDA) can be negotiated. BCIDA has indicated an interest in acquiring AF Plant 59, and will agree to retain the capability of these facilities for government production requirements after the sale.

Environmental activities in support of the divestiture action are as follows:

- Environmental Baseline Survey

An Environmental Baseline Survey (EBS) is being performed to comply with the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) as amended by CERFA (Community Environmental Response Facilities Act). The EBS documents the environmental condition of the real property and adjacent properties resulting from the storage, use, and disposal of

hazardous substances and petroleum products. The EBS collects into a single document available information to establish a baseline to be utilized by the U.S. Air Force in making decisions concerning real property transactions. The EBS for AFP 59 began on April 7, 1994. The final document is due in February 1995.

- Environmental Assessment

The National Environmental Policy Act (NEPA) of 1969, 40 CFR 1500-1508, and AFR 19-2, Environmental Impact Analysis Process (EIAP) require the preparation of a detailed statement of environmental impacts for any major Federal action significantly affecting the quality of the human environment. The divestiture action of AFP 59 will require an environmental assessment (EA) to investigate the impacts of that action and its alternatives on the environment. The EA will result in a determination of either a Finding of No Significant Impact or the need for an Environmental Impact Statement. Actions are underway to begin an EA during FY95.

- Natural Resources Survey

The Endangered Species Act and the Clean Water Act provide the regulatory framework for the Natural Resources Survey. The survey will assist in the protection and conservation of federally listed endangered and threatened plants and wildlife, and also assist in adequate land management to conserve soil and water resources. Actions are underway to begin the Natural Resources Survey for AFP 59, with the support of the U.S. Fish and Wildlife Service during FY95.

- Wetlands Survey

The Clean Water Act provides the regulatory guidance for conducting the Wetlands survey. This survey will identify and help in protecting wetlands and flood plains in and around AFP 59. The U.S. Fish and Wildlife Service will assist the Air Force in conducting the Wetlands Survey, scheduled to begin during FY95.

- Historical and Cultural Survey

The National Historic Preservation Act (NHPA) and the Archaeological Resources Protection Act (ARPA) provide the regulatory framework for the Historical and Cultural Survey. The NHPA requires federal agencies to identify, inventory, and nominate properties that may qualify for listing on the national register of historic places. The ARPA requires the surveying of federal properties to determine the nature and extent of archaeological resources. The Historical and Cultural Survey will help to meet these requirements and assist in

preserving, restoring, and maintaining the historic and cultural environment that may be present at AFP 59. Plans are being developed for the National Parks Service to conduct the Historical and Cultural Survey for AFP 59 during FY95.

Chapter 3

Installation-Wide Environmental Program Status

This chapter provides a status summary of the current IRP and ongoing compliance activities at AFP 59. It also summarizes the status of community involvement to date and describes the environmental condition of the AFP 59 property.

3.1

IRP Status

AFP 59 is listed as a Class 2 Site on the New York State Department of Environmental Conservation (NYSDEC) List of Inactive Hazardous Waste Disposal Sites (Site Code 7-04-020). A Class 2 Site is a site that poses a "significant threat to the public health or environment - action required." AFP 59 is not under a Federal Facilities Agreement (FFA) and does not anticipate executing one in the future, nor is it an NPL site.

A Supplemental Site Inspection (SSI) recently completed final review by the USAF Aeronautical Systems Center (ASC), Wright-Patterson Air Force Base (AFB), Ohio. This work supplements an earlier IRP Phase II, Stage 1 investigation conducted in 1986 through 1988. The current investigation focused on expanding characterization of the geohydrological system underlying AFP 59 and determining the facility's potential contribution to groundwater contamination detected in two of Johnson City's municipal production wells. Concentrations of 1,1,1-trichloroethane (1,1,1-TCA) above the New York State Maximum Contaminant Level (MCL) were detected in the Johnson City wells in the summer of 1991. The NYSDEC has identified AFP 59 as a potential source of contamination.

3.1.1

IRP Sites

In October 1984, a Phase I records search of AFP 59 activities was completed. The search included a detailed review of pertinent installation records, contacts with 16 government organizations to obtain relevant documents, and an installation visit. Subsequent investigations, combined with analysis of soil borings and groundwater samples, identified six potential contaminant sources (IRP Sites) and three Areas of Concern (AOCs). One of the sites, known as the "Southside Z," was mistakenly placed on the list, but subsequently removed in June 1993. The eight remaining sites/areas are discussed in detail on the following pages and summarized in Table 3-1. Figure 3-1 identifies the location of the sites/areas.

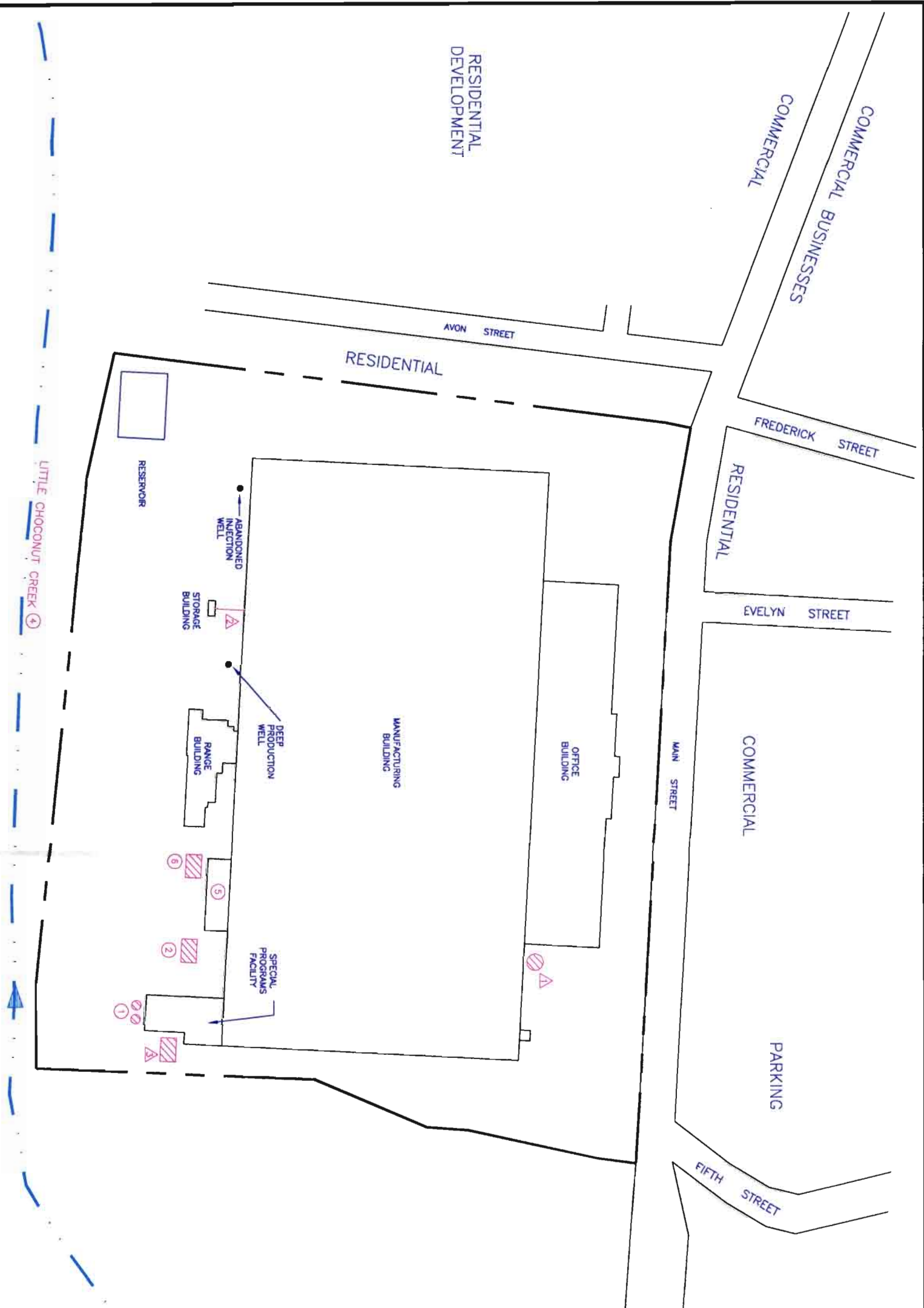
IRP Site 1 - Underground Waste Oil Storage Tanks

Site 1, located immediately south of the Special Programs Facility (Room 904), was formerly used for the temporary storage of waste cutting oils. Two interconnected, 1,000-gallon underground storage tanks were installed in 1953. The area surrounding the tanks was

Site No.	WIMS-ES Site ID	Alias	Site Class	Description	Material Disposed of	Date of Operation	Status	Regulatory Mechanism
1	ST001	Oil Storage Tanks	IRP Site	Two interconnected underground waste oil storage tanks	Waste hydraulic oil and (until 1969) non-chlorinated kerosene-based degreasers	1953-1985	Removed	IRP
2	SS002	Drum Storage Area	IRP Site	Drummed waste material storage area	Waste paint, oils, some spent kerosene-based degreasers	1942-present	Active	IRP
4	SS004	Chocconut Creek	IRP Site	Creek adjacent to southern border of facility property	Received cooling water discharges and stormwater run-off may be impacted by waste from spill areas	N/A	Currently receives non-contact cooling water only	SPDES
5	SS005	Plating Building	IRP Site	Building which housed electroplating operations	Plating metals	1942-1991	Operations ceased; currently in removal process	IRP
6	WP006	Storage Tank & Settling Pond (Frog Pond)	IRP Site	Concrete and brick lined in-ground settling and storage tanks for electroplating wastewater	Settling pond-waste water containing plating metals; storage tank-solvent-containing waste water held for off-site disposal	1941-1991	Operations ceased; currently in removal process	IRP
AOC1	N/A	Former gasoline storage tank	N/A	Underground storage tank	Gasoline	?-1975	Tank removed	UST Management
AOC2	N/A	Petroleum naphtha	N/A	Two 3,000-gallon above-ground tanks and associated piping	No disposal/spills reported	?-present	Active	Hazardous Materials Management
AOC3	N/A	Former Oil/Water Separator	N/A	Reportedly filled with sand and capped with concrete	POL	?-1970s	Abandoned	N/A
Site 3 was deleted from the IRP list in June 1993.								

*Table 3-1
Site Summary Table
For Air Force Plant 59*

Air Force Plant 59 Johnson City, New York



SITE NO.	NAME
①	WASTE OIL STORAGE TANKS (REMOVED)
②	DRUM STORAGE AREA
③	LITTLE CHOCONUT CREEK
④	FORMER PLATING BUILDING
⑤	STORAGE TANK AND SETTLING POND
⑥	

- AOC Δ UNDERGROUND STORAGE TANK (REMOVED)
- AOC Δ JP-4 PIPING
- AOC Δ OIL/WATER SEPARATOR

LEGEND

- ③ IRP SITE REQUIRING FURTHER ACTION
- Δ NON-IRP SITE, AREA OF CONCERN
- ZONE BOUNDARY

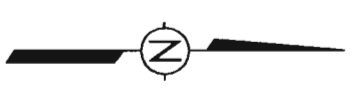


Figure 3-1.
IRP and AOC Sites at
Air Force Plant 59

backfilled with gravel. Although the tanks were inspected daily to prevent overtopping, spills occurred during the monthly removal of oils from the tanks.

In the course of removing the tanks in 1985, the gravel surrounding both tanks was found to be heavily stained. The stained gravel and soil was excavated to a depth of 12 feet (about 6 feet below the bottom of each tank) and was removed from the site. Soil beyond the removal zone was sampled and declared nonhazardous. The tanks were replaced by a single, double-walled, aboveground tank. This tank is also being removed.

Information was available on the waste types associated with Site 1, but no samples were collected that could attribute specific contaminants to the underground storage tank area. The tanks were used to store waste oils collected from a number of different areas of the plant. Prior to 1969, nonchlorinated, kerosene-based degreasers were stored in the underground tanks along with waste oils. It is not known whether groundwater has been impacted by contaminants at Site 1.

IRP Site 2 - Drum Storage Area

Since the plant was activated, the drum storage area has been located behind the main building, between the former plating building and Special Programs Facility. The Drum Storage Area was paved in approximately 1963 and later upgraded in late 1970. Prior to the paving of this area, an interviewee reported some spillage as a result of poor housekeeping. Prior to 1963, waste materials most likely stored in the area were waste paints, waste oils, and spent kerosene-based degreasers. The contract files indicate that the top 8 inches of soil was removed during the paving operation conducted in 1963.

IRP Site 3

Site 3, "Southside Z", has been deleted from the IRP site listings because no exact location or other document reference for this site has been located.

IRP Site 4 - Little Choconut Creek

Little Choconut Creek was listed as an IRP site based on potential contamination from the three stormwater outfalls that enter the creek south of the plant. Activities north of the plant (e.g., the former landfills) could also be a source of potential contamination. Continued sampling of the creek is planned.

IRP Site 5 - Plating Building

It has not been positively determined if past activities in the plating building have caused groundwater contamination. Former site operator personnel observed discolored soil while repairing a leak in the underground sprinkler main beneath the plating building. It was believed that heavy-metal contaminants from plating wastes may have been present and could

have migrated to the groundwater. Water from the leaking sprinkler main could have accelerated any such migration of potential contaminants.

Prior to the current SSI study, soil samples from test borings immediately south of the plating building and from beneath the plating building were submitted for laboratory analysis. Contaminants detected in these samples included arsenic, barium, lead, and total chromium. Concentrations of lead and total chromium were higher in the deeper of the two samples in each boring. The subfloor sample contained a higher concentration of detected metals (other than chromium) than the soil borings; however, no concentrations exceeded maximum allowable limits for Extraction Procedure Toxicity (EP-Tox). During 1992-93, the plating room was decommissioned and decontaminated, and the equipment was removed from the site. The plating building is currently undergoing a state (NYSDEC) coordinated closure.

Site 6 - Storage Tank and Settling Pond

The storage tank and settling pond are concrete- and brick-lined in-ground tanks located immediately south of the southwestern corner of the plating building. The settling pond is open-topped and located nearest the building; the storage tank is covered by a wooden structure. The tanks were used in the handling of plating room liquids. The storage tank previously held spent plating liquids awaiting removal as hazardous material by a contractor. From December 1990 until June 1991, Burnite was also placed in the tank for disposal as hazardous waste. Burnite has since been neutralized and discharged to the Publicly-Owned Treatment Works (POTW). The storage tank was pumped out in June 1991, and is no longer used to hold hazardous waste. Plating rinse water (and neutralized Burnite) was run through the settling pond and into the sanitary system until the plating operation was discontinued in 1991.

In May 1991, soil samples were recovered from immediately below each tank by means of angled boreholes. Barium and tetrachloroethene were detected in samples from beneath both tanks, and cadmium and chromium were found in soil from beneath the storage tank. All detections were reported to have been within appropriate guidelines and were well below RCRA Toxicity Characteristic Leaching Procedure (TCLP) regulatory levels. NYSDEC-coordinated removal of both tanks is underway.

AOC 1 - Former Gasoline Storage Tank

Information concerning the service history and the condition of the former gasoline storage tank at the time of removal is unavailable. The tank was reportedly removed in 1975. This site is being investigated as part of the SSI.

AOC 2 - JP-4 Piping Area

Site AOC 2 consists of the area through which JP-4 fluid was once piped underground from a storage building to the manufacturing building. Leakage was considered a possibility. The

ground surface is presently grass covered. The site is currently being investigated as part of the SSI.

AOC 3 - Oil/Water Separator

Waste oils were primarily recovered, but from 1942-1953 some were discharged to an oil/water separator. Kerosene-based degreasing solvents were disposed of with the waste oils. The separator was reportedly filled with sand and capped with concrete sometime in the 1970s. Interviews with site personnel indicated that the separator was located beneath the floor of the Special Programs Facility; however, it was subsequently learned that the separator was outdoors near the Programs Wing. Former site operator employees identified a concrete box, the lid of which is visible, as the separator. The site is being investigated as part of the SSI.

3.1.2

Installation-Wide Source Discovery/Assessment Status

Several IRP investigations have been performed at AFP 59 through the U.S. Air Force ASC, WPAFB, Ohio. These investigations are summarized below.

CH2M Hill was retained on March 1, 1984, to conduct the Plant 59 Phase I records search under Contract No. F08637-83-G007-5000. Sites were identified and prioritized based on their potential threat to public health or the environment through contaminant migration.

The Phase I study defined two sites, the Underground Waste Oil Storage Tanks (Site 1) and the Drum Storage Area (Site 2). A limited Phase II monitoring program was recommended for Site 1. The Phase I study also recommended that groundwater samples be collected from the on-site production wells and sediment samples be collected from the creek upstream and downstream of the facility's Outfall 001.

The Phase II Stage 1 Confirmation/Quantification study was performed by Fred C. Hart Associates, Inc. in 1986-1988. In addition to the sites identified in the Phase I study, the Phase II study identified the plating operations as a potential source of contamination. Test borings and monitoring wells were installed and sampled. All metals concentrations were below established maximum allowable values by the EP Toxicity analytical method. Two metals and two volatile organic compounds were detected above selected standards or guidance values. The study concluded that several of the same chemicals detected in the on-site production well were also detected in other off-site production wells, and the source of contamination could not be determined. The Stage 1 study recommended additional Phase II investigation including installing additional monitoring wells; groundwater, surface water, and sediment sampling; and conducting a pumping test.

In mid-1991, 1,1,1-trichloroethane (1,1,1-TCA) was detected in one of Johnson City's water supply wells in the vicinity of AFP 59. In June 1992, an air stripping operation was initiated by Johnson City to reduce the levels of TCA in the well water. At this time, the source or

sources of the TCA have not been identified. The Air Force has executed a Memorandum of Understanding (MOU) with the Village of Johnson City to provide for cooperative efforts between both parties to maintain the air stripping operations while investigations proceed to locate the source(s) of the TCA. The Air Force will provide partial financial support for the operation and maintenance (O&M) costs of the air stripper, subject to the availability of funds through September 30, 1995. The original agreement called for the provision of financial support from October 1, 1992, through September 30, 1994. However, the Pentagon (SAF/MIQ) agreed to extend the Memorandum of Understanding (MOU) for an additional year.

The Phase II Stage 2 (SSI) study was started in late 1991 by Argonne National Laboratories. Additional monitoring wells were installed, and groundwater, surface water, sediment, and soil samples were collected. The primary concern was whether and to what degree plant activities have contributed or might contribute to groundwater contamination. Groundwater flow from AFP 59 to the municipal wells was also of particular concern.

An Environmental Baseline Survey (EBS) was initiated at AFP 59 in April 1994. The purpose of the EBS is to document the plant's condition with respect to environmental contamination and associated liabilities, verify protection of human health and the environment, and assist in real property valuation.

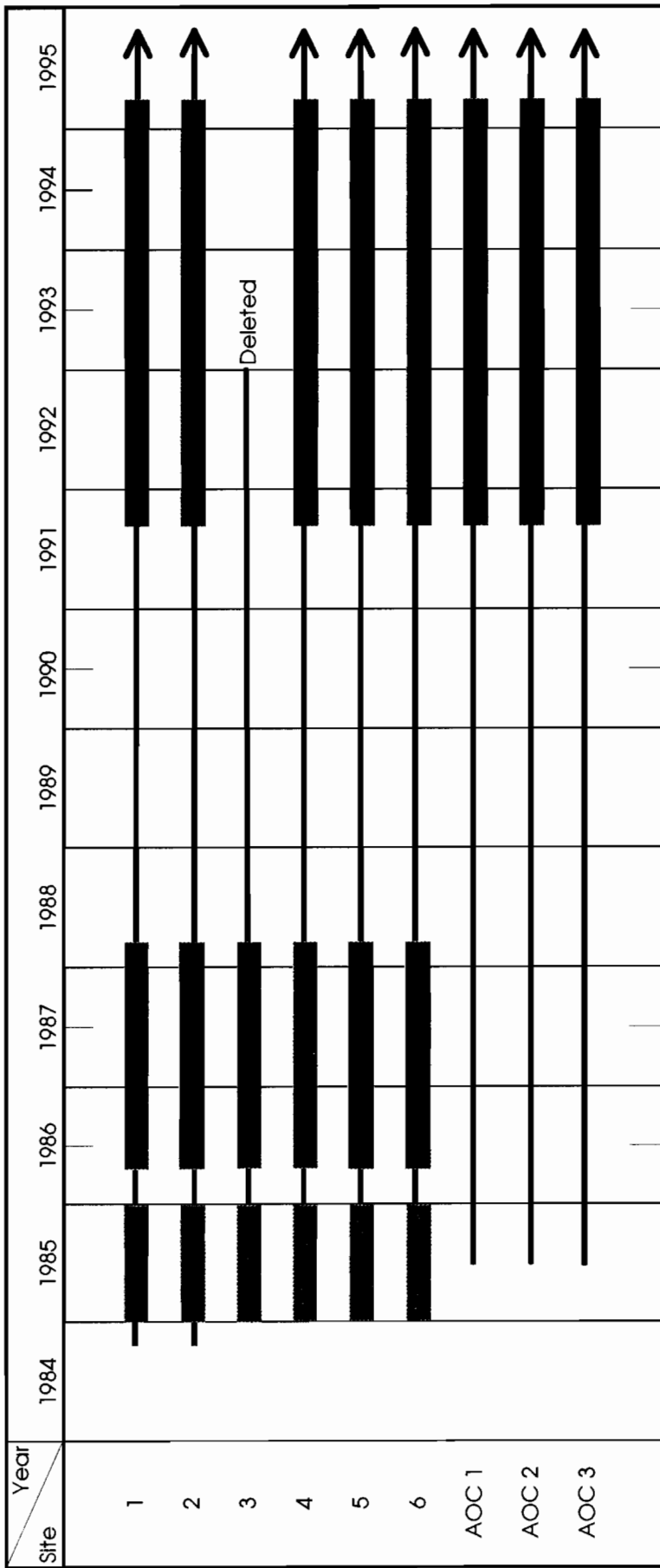
A Phase I hydrological study was conducted in the summer of 1994 to further examine the groundwater beneath AFP 59. The project used the direct-push technique to obtain water samples, which were analyzed for volatile organics in an on-site mobile laboratory. A Phase II hydrological study began in October 1994. The results from these studies will be used to determine the locations for installing monitoring wells.

The U.S. Geological Survey (USGS) conducted a regional groundwater survey in the summer of 1994. The project involved testing wells affected by the Camden Street Well Field located southwest of the plant (see Figure 1-2). The USGS will also be performing geophysical work on selected wells to further characterize the strata underlying the region.

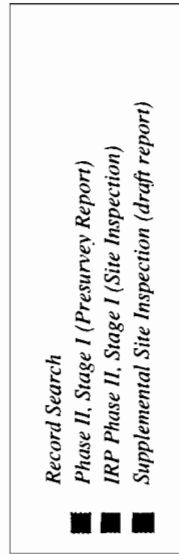
The historical assessment activities described above are depicted in Figure 3-2. Future assessment deliverables and their due dates are discussed in Chapters 4 and 5 and indicated in Figures 4-1 and 5-1.

3.1.3 Completed Environmental Response Actions

Soil investigations are currently being conducted inside the former plating building and near the storage tank and settling pond as part of the planned closure of this site. Other removal and interim actions completed at AFP 59 are identified in Table 3-2.



Legend



*Figure 3-2
Historical Assessment Activities
at Air Force Plant 59*

Site No.	Action	Purpose	Status
IRP 1	Tank Removal	Reduce potential contaminant source	<ul style="list-style-type: none"> Two interconnected 1,000-gallon underground tanks removed in 1985. Stained gravel removed to depth of 12 ft. Soil sampling conducted; soil determined to be nonhazardous.
IRP 5	Plating Room Remediation	Reduce potential contaminant source	Equipment removed; plating room decontaminated in 1992-93.
AOC1	Tank Removal	Reduce potential contaminant source	Tank removed in 1975. No additional details available.
AOC3	Separator Abandonment	Reduce potential contaminant source	Oil/water separator used during WWII filled with sand and capped with concrete in 1970s.
No Site Number	PCB Spill	Remove PCB-contaminated concrete	Concrete transformer pad was contaminated with PCB-containing oil. In 1990, contaminated concrete was removed by jackhammering successive layers of concrete into chips and collecting wipe samples. Removal ceased when wipe sample analyses were found to be lower than the allowable concentration.

*Table 3-2
Removal and Interim Action Status
at Air Force Plant 59*

Because of the small area covered by AFP 59 and the limited number of sites, only one zone has been established at the facility. The zone remediation strategy is further described in Chapter 4.

3.2 Compliance Program Status

Compliance programs at AFP 59 are being conducted in accordance with all applicable federal, state, and local regulations; Department of Defense requirements; and in accordance with Martin Marietta corporate environmental management practices. Compliance activities are coordinated with environmental restoration activities under the IRP. The following compliance programs (also shown in Table 3-3) are in effect at AFP 59:

- Hazardous Waste/Hazardous Materials Management and Storage Tanks
- Wastewater/Stormwater Discharge Monitoring

Project	Status	Regulatory Program
Underground Storage Tanks	<ul style="list-style-type: none"> • USTs in use: 0 • USTs removed: 3 	NYSDEC - Petroleum Bulk Storage regulations
Hazardous Materials/Waste Management	<ul style="list-style-type: none"> • 2 satellite accumulation areas; 4 storage areas. • Material in temporary storage with secondary containment. Hazardous waste handled by Laidlaw; spill response contractor-OHM Corp. Monitored by MM Environmental Health and Safety. 	NYSDEC-Hazardous Waste Management System regulations
Wastewater/Stormwater Management	<ul style="list-style-type: none"> • Monthly monitoring and reporting. • Discharge of noncontact cooling water and stormwater to 3 permitted outfalls. • Discharge to process and sanitary wastewater to POTW. 	<p>NYSDEC-State Pollution Discharge Elimination Systems (SPDES) Permit</p> <p>Municipal Joint Water Treatment Board (POTW discharges)</p>
Asbestos Management	<ul style="list-style-type: none"> • Facility-wide asbestos survey conducted in 1990. Asbestos will be contained and managed in place. 	USEPA Policy
Radon Testing	<ul style="list-style-type: none"> • Radon testing conducted at four basement locations in 1992 and on main floor in 1993. 	USEPA Policy
PCB Management	<ul style="list-style-type: none"> • 21 PCB-containing transformers were removed from the facility in 1988. Remaining 3 transformers removed in 1990. The transformers contained >500 ppm PCBs. All PCB-containing capacitors were removed in 1990 and 1992. The capacitors contained <50 ppm PCBs. Remediation of PCB-contaminated rafters is planned for completion in FY 95. 	Federal TSCA regulations
Air Emissions Compliance	<ul style="list-style-type: none"> • Freon air monitoring devices have been installed in the equipment room and freon lines are injected with dyes for leak detection. • 50 active units: 14 units permitted; 36 applications for CTOs submitted; 20 units discontinued in 1991-1992 	NYSDEC-Air emissions regulations
Solid Waste Management	<ul style="list-style-type: none"> • Solid waste transported off-site for landfilling, incineration, and reclamation/treatment/recycling (metals). Estimated 200 TPY of paper, scrap metal, and domestic garbage. • Recycling program added in late 1992. 	NYSDEC-Solid Waste Management Regulations
Aboveground Storage Tanks	<ul style="list-style-type: none"> • One 3,000-gallon aboveground storage tank with secondary containment for waste oil. • Two 3,000-gallon aboveground tanks with secondary containment for petroleum naphtha. • One 440-gallon tank for mineral spirits. • One 275-gallon diesel fuel tank with secondary containment. 	NYSDEC-Chemical Bulk Storage Regulations
Pesticide Management	<ul style="list-style-type: none"> • Biocides applied to cooling tower by licensed operator personnel. • Pesticides stored in Room 930. • All other pest control by licensed outside contractor. 	NYSDEC-Hazardous Substances Regulations

*Table 3-3
Compliance and Closure-Related Projects
at Air Force Plant 59*

- Asbestos Management
- Radon Testing
- PCB Management
- Air Emissions Compliance Management
- Solid Waste Management
- Pesticide Management

3.2.1

Underground Storage Tanks

All underground storage tanks (USTs) have been removed from service. One gasoline storage tank (AOC 1) was reportedly removed in approximately 1975. Two interconnected 1,000-gallon waste oil storage tanks (IRP 1) were removed in 1985. The IRPIMs database currently lists four original tanks. No information regarding the fourth UST has been found to date in the Operator's records.

3.2.2

Asbestos, PCBs, NPDES Permit, or Other

Compliance activities at AFP 59 include the following:

- **Hazardous Waste/Hazardous Materials Management and Aboveground Storage Tanks** - There are currently two satellite accumulation areas, each of which consists of one waste storage drum. Four 90-day (maximum) storage areas are located in the plant. Two to four different waste streams are stored in each area. Each waste stream is segregated into a separate 55-gallon drum, and the accumulation date is placed on the drum. The wastes are exempt from CERCLA/SARA reporting requirements because the hazardous waste is stored less than 90 days.

Storage areas for hazardous materials are the following:

- 90-Day Storage Area (locked) - Up to 48 drums/2,000 gallons with secondary containment skids to maintain separation of wastes.
- Flammable Storage Area (locked) - Concrete walled building with secondary containment; up to 45 drums with secondary containment skids for hazardous waste (flammable products and lab packs).
- Maintenance Dock - Up to 800 gallons of liquid corrosive product waste. Minimum of 10% of volume in secondary containment.

OHM Corporation is the spill response contractor for AFP 59.

The aboveground storage tanks consist of one 3,000-gallon waste oil tank with secondary containment; two 3,000-gallon tanks with secondary containment for petroleum naphtha; one 440-gallon tank for mineral spirits; and one 275-gallon diesel fuel tank with secondary containment.

- **Wastewater/Stormwater Management** - An estimated volume of 145,400 gallons per day (GPD) of process and sanitary wastewater is discharged to the Binghamton-Johnson City Joint Sewage Treatment Plant, a publically-owned treatment works (POTW). The sources of the discharge to the POTW are sanitary waste, kitchen wastewater, semiaqueous cleaners, photofinishing solutions, drinking fountains, lab sinks, and a car wash. As of May 4, 1992, the metalplating process lines and the sampling points were eliminated. The burnite discharge was also eliminated.

An additional volume of 171,000 GPD of noncontact cooling water and storm water is discharged to Little Choconut Creek via three permitted outfalls (001, 002, and 003). This is a permitted discharge (No. 0004073) under the NYSDEC State Pollution Discharge Elimination System (SPDES). The noncontact cooling water source is the on-site production well. Water from this well is only used for cooling. The outfalls are monitored monthly for flow, oil and grease, temperature, and pH. In addition, Outfall 003 is monitored quarterly for 1,1,1-TCA, 1,2-dichloroethene (1,2-DCE), and trichloroethene (TCE).

- **Asbestos Management** - Asbestos testing and an Asbestos Management Plan, based on the testing, was prepared by Industrial Asbestos Laboratories, East Syracuse, New York, in December 1990. The plan noted: (1) there was no record of any prior comprehensive asbestos inspection; (2) some localized abatement had been previously conducted as part of the renovations; and (3) some areas could not be inspected due to access problems; however, every accessible internal space in the building was toured and observed. Sixty-four areas with asbestos-containing material were identified. Of these 64 areas, 10 areas had a hazard rank of 3 (5 areas) or 4 (5 areas); 9 areas had a ranking of 5; 4 areas had a ranking of 6; 17 areas had a ranking of 7; and 24 areas had a ranking of 8. The lower the number, the greater the potential health hazard. The asbestos will be contained and managed in place.
- **Radon Testing** - Radon testing was conducted on June 29, 1992. Radon canisters were deployed in the north and south ends of the east and west basements. The canisters were collected, sealed, and shipped to Galson Laboratories, East Syracuse, New York, on July 3, 1992. Analyses were conducted according to the U.S. EPA Interim Radon and Radon Decay Products Measurement Protocols. The analyses were conducted by Teledyne Isotopes, Westwood, New Jersey. Samples collected from the north and south ends of the west basement were 3.8 and 4.3 picoCuries per liter (pCi/l), respectively. The samples from the north and south ends of the east basement were greater than 1.4 pCi/l and less than 1.3 pCi/l, respectively. The U.S. EPA recommended action level is 4 pCi/l. Additional long-term (3 months) testing was

conducted in the first and second quarters of 1993 on the main floor, and the reported results were nondetectable levels.

- PCB Inspection/Removal - In 1988, 21 of the 24 PCB-containing transformers were removed from AFP 59. The remaining three transformers were removed in 1990. In 1990, three capacitors containing less than 50 parts per million (ppm) PCBs were removed from the compressor room. In 1992, small and large capacitors (high and low voltage) were removed from the vibration laboratory and small capacitors were removed from the valve room. All known PCB-containing equipment has been eliminated from the facility.

In 1990, a PCB-contaminated concrete pad was successively jackhammered and tested using wipe samples until residual PCB concentration was below the NYSDEC action levels. All material was manifested and transported to a permitted disposal facility by a licensed hazardous waste hauler.

In 1993, PCB-stained building rafters were discovered in some locations where PCB-containing transformers had been removed. These areas were sampled and tested, and a contract for remediation was awarded in the fall of 1994. Completion is expected in FY 95.

- Air Emissions - AFP 59 has 50 active sources. Of these, 14 have NYSDEC certificates of operation (CTOs). Thirty-six applications for CTOs have been submitted to the NYSDEC. Twenty additional sources were deleted in 1992 (notice sent to NYSDEC on August 20, 1992). These sources were associated with discontinued metalplating and machining operations. Exempted systems include laboratory hoods with no carcinogenic or radiologic emissions; ventilation/exhaust systems for photographic process equipment that does not utilize ammonia; vents used for emergency relief for vapor degreasers, environmental test chambers, and flammable storage cabinets (because no ethylene dichloride, vinyl chloride or polyvinyl chloride is produced at the facility); and exhaust vents for heat or water vapor.
- Solid Waste Management - Solid waste is transported off site for landfilling, incineration, or reclamation/treatment/ recycling (metals). The waste volume is estimated to be 200 tons per year (TPY) of paper, scrap metal, and domestic garbage. A recycling program for glass, paper, plastic, and metal was implemented in late 1992. Recycling stations are located throughout the facility.
- Pesticide Management - Three operator personnel have applicator licenses for the addition of biocides to the cooling tower. All other pest management and pesticide application is performed by a licensed contractor.

3.3

Status of Community Involvement

The Air Force is actively working with local officials and state regulators to inform them of the progress of environmental investigations and to solicit their input. An Air Force Community Relations Specialist has been named to the project team and will be responsible for initiating a Community Relations Plan for AFP 59. The Community Relations Plan will ensure that members of the surrounding community are involved with and informed of the RCRA and corrective action programs on site. Other community programs include:

- A site visit conducted by the Air Force Community Relations Specialist to gather information on operable units at AFP 59 and to establish working relationships with AFP 59 Public Affairs representatives.
- A public information repository has been established at the public library in Johnson City (Your Home Public Library, 107 Main Street, Johnson City, New York 13790, Telephone: 607-797-4816). This collection of microfiche documents provides the history, plans, and any other public information related to the site. A microfiche reader is available at the library. The Administrative Record is located at Wright-Patterson Air Force Base and is maintained by ASC Public Affairs.

In addition, the Air Force has entered into a Memorandum of Understanding (MOU) with Johnson City to provide for cooperative efforts between both parties to maintain air stripping operations at one of the municipal supply wells in the vicinity of AFP 59. The organic compound 1,1,1-trichloroethane (1,1,1-TCA) has been detected in water from this well; however, the source(s) of the compound is not known. Under the terms of the MOU, the Air Force will provide financial support for the O&M costs associated with air stripping operations, subject to the availability of funds. Johnson City and the State of New York are investigating potential sources of the 1,1,1-TCA. The MOU is a voluntary undertaking by the Air Force and does not constitute any finding by Johnson City or the State of New York that AFP 59 is the source of the 1,1,1-TCA in the well water.

3.4

Environmental Condition of Property

AFP 59 has been categorized into three types of areas based on current knowledge of the environmental conditions:

- Areas of known contamination are subdivided into areas with contaminant concentrations above action levels (media-specific, risk-based, or standards-based benchmarks) and those with concentrations below action levels.
- Areas of no suspected contamination have been approximately defined during the IRP investigations.

- Unevaluated areas are those areas on the facility property that have not been fully investigated to date. These areas must undergo further evaluation to determine their appropriate category.

Figure 3-3 summarizes the status of the information regarding the environmental condition with respect to groundwater and soil.

3.4.1

Areas of Known Contamination

Areas of known contamination shown on Figure 3-3 are based on data from the analysis of groundwater and soil samples collected during the IRP Phase II Stage 1 investigation and the first phase of the IRP SSI.

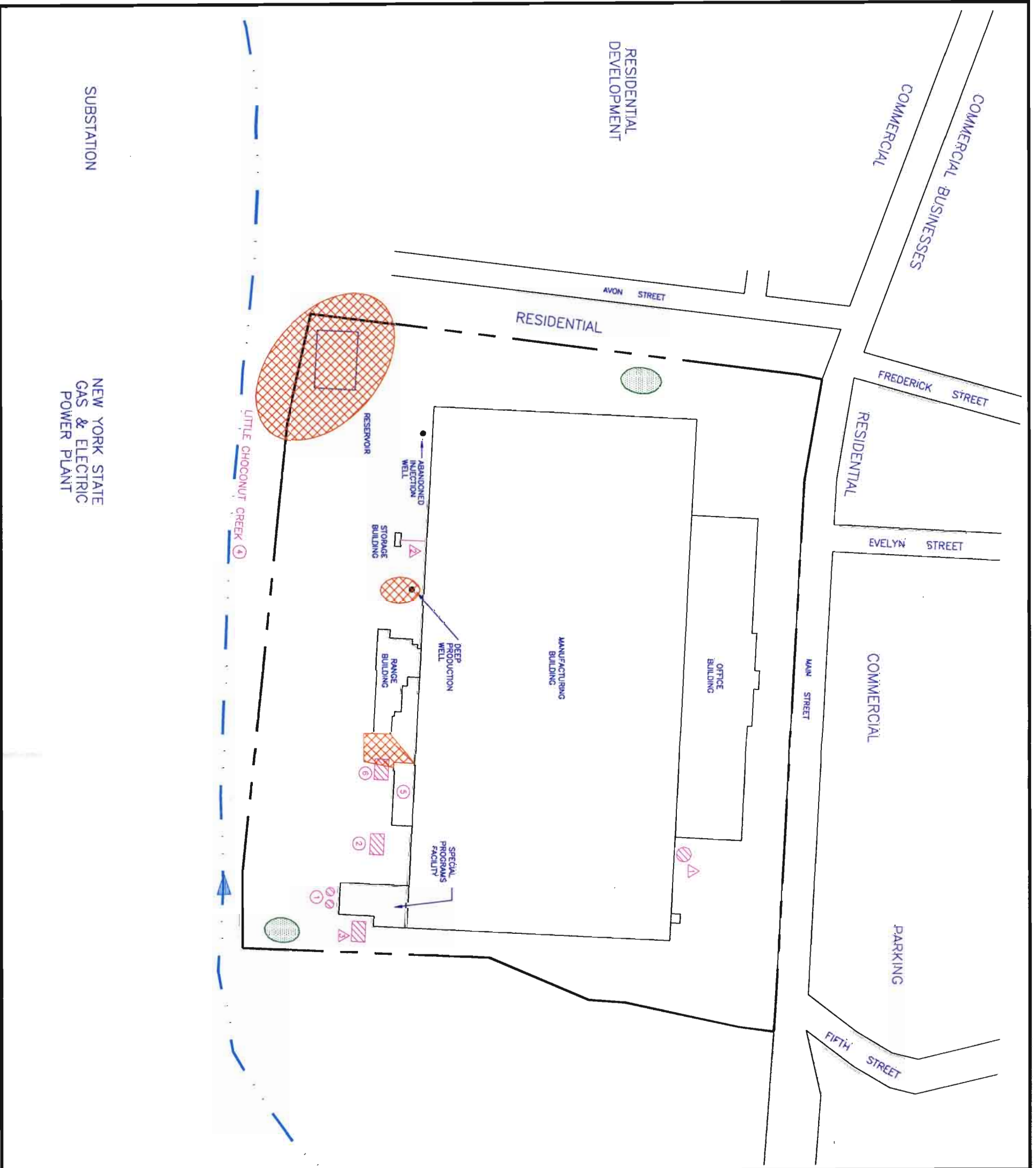
- Groundwater - Two separate water-bearing strata have been identified at the facility. These strata are separated by a low-permeability clay layer which may not extend across the property. The deeper stratum is part of the "Clinton Street - Ballpark Valley" aquifer, designated as a Sole Source Aquifer by the USEPA in 1985 (50 FR 2026, January 14, 1985). This aquifer serves as the principal source of drinking water for residents of Broome and Tioga Counties.

Chlorinated solvents have been detected in both strata in on-site monitoring wells, the facility's production well for non-contact cooling water, and in some of the Johnson City municipal wells. The source of contamination and degree of interconnection between the water-bearing strata has not been determined, and is one of the objectives of the IRP SSI.

- Soil - Soil testing conducted around IRP Sites 1 and 6 has not detected RCRA-hazardous concentrations of Extraction Procedure Toxicity (EP-Tox) or Toxicity Characteristic Leaching Procedure (TCLP) metals. No standards are currently in effect for most analytes in soils, except as defined by these two leaching procedure analyses. Preliminary total petroleum hydrocarbon and volatile organic carbon data from a recon survey at Site 1 indicates contamination. RI results are due in January 1995. The degree of remediation required is determined on a site-by-site consideration of the degree of risk to human health and the environment and other site-specific factors.

The areas of known contamination shown on Figure 3-3 are based on: (1) groundwater contamination detected above and below NYS Department of Health MCLs for drinking water; and (2) detection of elevated levels of organics or inorganics constituents in soils.

Air Force Plant 59 Johnson City, New York



SITE NO.	NAME
①	WASTE OIL STORAGE TANKS (REMOVED)
②	DRUM STORAGE AREA
④	LITTLE CHOCONUT CREEK
⑤	FORMER PLATING BUILDING
⑥	STORAGE TANK AND SETTLING POND
AOC	UNDERGROUND STORAGE TANK (REMOVED)
AOC	JP-4 PIPING
AOC	OIL/WATER SEPARATOR

LEGEND

- ③ IRP SITE REQUIRING FURTHER ACTION
- △ NON-IRP SITE, AREA OF CONCERN
- ZONE BOUNDARY

- [Blank Box] AREAS OF NO SUSPECTED CONTAMINATION
- [Dotted Box] AREAS OF NO SUSPECTED CONTAMINATION
- [Cross-hatched Box] AREAS OF CONTAMINATION ABOVE ACTION LEVELS
- [Stippled Box] AREAS OF CONTAMINATION BELOW ACTION LEVELS



APPROXIMATE SCALE: 1" = 150'
 0 150 300 FEET

Figure 3-3.
 Environmental Condition
 of Property at
 Air Force Plant 59

3.4.2

Areas of No Suspected Contamination

No areas of no suspected contamination (ANSC) can be identified at present due to the unknown extent of the groundwater contamination.

3.4.3

Unevaluated Areas

All zones that are not shown as areas of known contamination are presently designated as unevaluated. These areas may be reclassified on the basis of the SSI and closure investigation.

3.4.4

Conceptual Site Model

Information on waste sources, pathways, and receptors at AFP 59 has been used to develop a conceptual site model to evaluate potential risks to human health and the environment. The conceptual site model includes all known and suspected sources of contamination, types of contaminants and affected media, known and potential routes of migration, and all known or potential human and environmental receptors. The conceptual model is contained in Appendix E.

Chapter 4

Installation-Wide Strategy for Environmental Restoration

4.1

Zone/OU Designation and Strategy

4.1.1

Zone Designations

In response to Air Force environmental restoration goals, all sites which may receive further action at Air Force owned facilities are grouped into "zones," geographically contiguous investigative units. Conceptual models of sources, contaminant migration, and receptors developed for these zones provide the basis for developing a comprehensive remedial strategy.

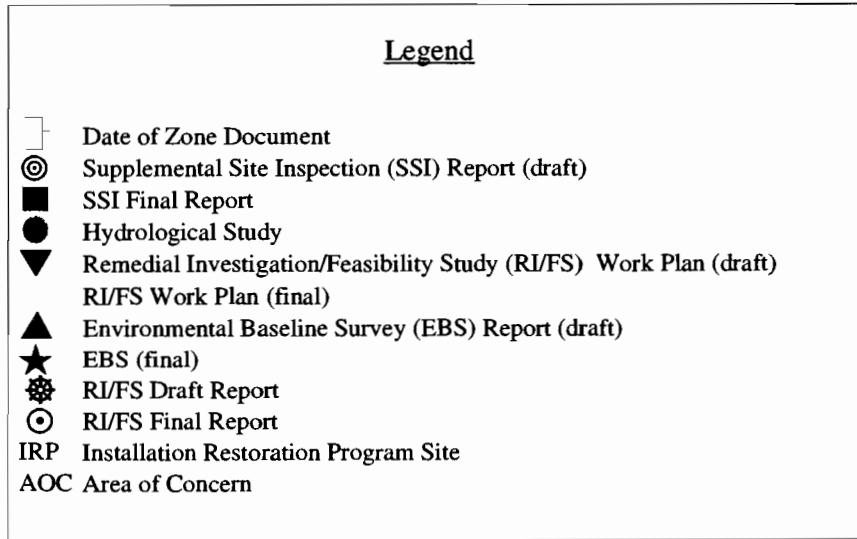
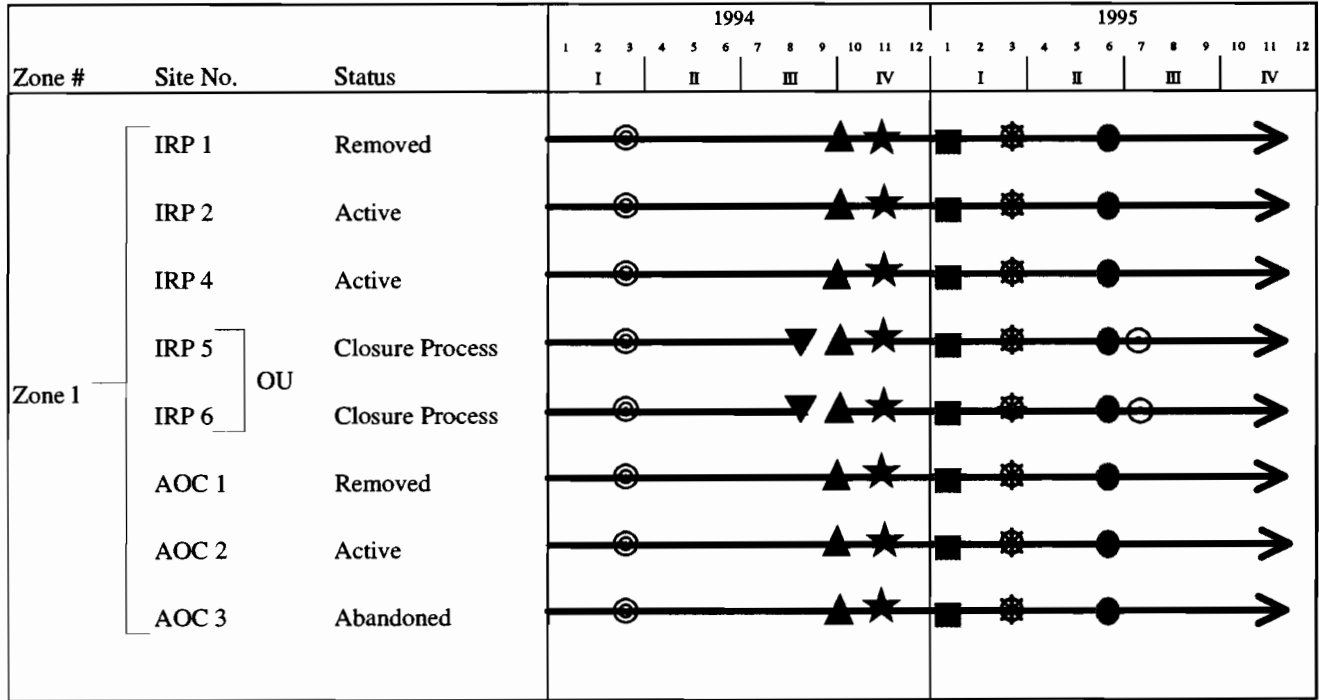
All sites requiring further action at AFP 59 have been retained in a single zone, as shown on Figure 4-1, due to the facility's small area and the small number of sites. Site investigations are currently being conducted to determine the nature and extent of: (1) chlorinated solvent contamination in the shallow groundwater zone and deep aquifer and its potential relationship to contamination detected at two municipal wells and (2) potential impacts of the metalplating operations on soils and groundwater.

These investigations are necessary prior to formulating a conceptual model of the site (including source identification, contaminant migration, and evaluation of potential receptors) that is refined enough to allow the evaluation of any necessary remedial alternatives. One major operable unit (OU) designation has been made for the former plating operations (Sites 5 and 6). Other sites are being evaluated as part of the SSI. Based on data gathered to date, a No Further Response Action Planned (NFRAP) recommendation is expected for IRP Sites 1, 2, and AOCs 1, 2, and 3. IRP Site 3 has been deleted, as noted on Table 3-1. A Remedial Investigation/Feasibility Study (RI/FS) is expected following the SSI for IRP Sites 5 and 6.

4.1.2

OU Designations

An OU is defined as a discrete response action within a comprehensive environmental restoration program. OUs are areas that have been shown by conceptual models of contaminant sources, migrations, and receptors to require specific source-control and/or groundwater response actions. Due to the preliminary nature of the site conceptual model, as discussed above, no comprehensive response plan has been formulated. This plan will be incorporated into this document when the site conceptual model is refined by further characterization and data validation.



*Figure 4-1
Zones/Operable Unit Composition
and Deliverable Dates
at Air Force Plant 59*

4.1.3

Sequence of OUs

The comprehensive OU strategy will be incorporated into this Action Plan when sufficient data is generated to refine the site conceptual model and allow the evaluation of remedial alternatives.

4.1.4

Removal Actions and Treatability Studies

No removal actions or treatability studies can be planned until ongoing investigations have been completed.

4.1.5

Remedy Selection Approach

Remedies will be selected in accordance with state and federal standards, criteria, guidance values, and other environmental and human health factors to be considered. Particular attention will be given to the following during the evaluation of alternatives:

- Applicable or relevant and appropriate requirements (ARARs). Applicable requirements for anticipated remedial actions will be fully identified through IPT meetings during the next 4 months to define restoration goals.
- ARAR waivers. The effectiveness of alternatives in reducing concentrations of contaminants to chemical-specific ARARs will be evaluated. Waivers will be considered where treatment to standards is technically impractical.
- Land use/risk assessment. Risk assessment protocols will incorporate future land use in exposure scenarios where future uses are known.
- Alternate concentration limits (ACLs). ACLs may be considered during the evaluation of remedial alternatives.
- Treatability studies. Treatability studies may be conducted as part of the environmental restoration effort. Studies which prove effective would be incorporated into the remediation plans as a foundation for performance-based remedial actions.

The Air Force RPM will meet with members of the Restoration Advisory Board, as necessary, and discuss conceptual remedies with regulatory agencies to focus the scope of the remedial alternative or alternatives selected.

4.2

Compliance Strategy

4.2.1

Underground Storage Tanks

All tanks have been removed. No further action required.

4.2.2

Solid Waste, Asbestos, PCBs, Other

Ongoing compliance activities at AFP 59 include:

- Hazardous Waste/Hazardous Materials Management and Aboveground Storage Tanks - The Martin Marietta Environmental, Health and Safety Department has responsibility for safe storage and disposal of all hazardous materials and wastes generated at AFP 59. These materials and wastes are managed in accordance with all applicable New York State and Federal hazardous material management regulations.
- Wastewater/Storm Water Management - Required sampling will be performed in accordance with requirements of the SPDES permit as discussed in Chapter 3. A project has been initiated to install an oil/water separator in the existing storm drain line of parking lot Number 5, located across Main Street from the plant. This action will reduce petroleum hydrocarbon discharge into the Little Choconut Creek. The project is scheduled to start and finish during the first quarter of CY95.
- Asbestos Management - The asbestos will be contained and managed in place.
- Radon Testing - No additional radon testing is scheduled.
- PCB Inspection/Removal - All PCB-containing capacitors, transformers and ballast have been removed from AFP 59. Remediation of the PCB-contaminated rafters is planned for completion during FY94.
- Air Emissions - No changes are anticipated in the modeling of emission sources discussed in Chapter 3.
- Solid Waste Management - No changes are anticipated in the solid waste management practices discussed in Chapter 3. An expanded recycling program is scheduled to address source reduction.

- Pesticide Management - No changes in the pesticide management practices discussed in Chapter 3 are anticipated.

4.3 Community Relations Strategy

A Public Participation Plan will be developed for Air Force Plant 59. The Air Force Community Relations Specialist will be responsible for ensuring that the Plan is carried out and that revisions to the Plan are made when stakeholder issues warrant a change in activity.

Chapter 5

Environmental Restoration/Compliance Program Master Schedule

This chapter presents the AFP 59 Master schedule of anticipated activities in the environmental restoration and compliance programs.

5.1

Installation Restoration Program

5.1.1

Response Schedules

The plant's ability to meet the milestones shown on the Master Schedule in Figure 5-1 hinges on: (1) the successful completion of conceptual models of sources, contaminant migration, and receptors in the area under investigation; and (2) the preparation of draft reports and baseline risk assessments. A response schedule will be formulated following the completion of the comprehensive site conceptual model and the evaluation of remedial alternatives, if necessary.

5.1.2

Requirements by Fiscal Year

DERA funding requests have been prepared for numerous projects, however, the level of effort and schedule will depend on the level of funding authorized for each of the projects.

The funding requested for the plating operations OU includes an RI/FS, interim groundwater monitoring, and a projected requirement for Remedial Design and Remedial Action (RD/RA). The funding request also incorporates data validation and evaluation, continuation of risk assessment, report preparation, assessment of remedial alternatives and the necessity for treatability studies, and an evaluation of additional data needs.

The requested funding also includes costs in support of the O&M for Johnson City's Camden Street well field air stripping system.

5.2

Compliance

5.2.1

Compliance Schedule

The compliance schedule for AFP 59 is shown in Figure 5-2. This schedule incorporates all facility environmental compliance programs and permit requirements.

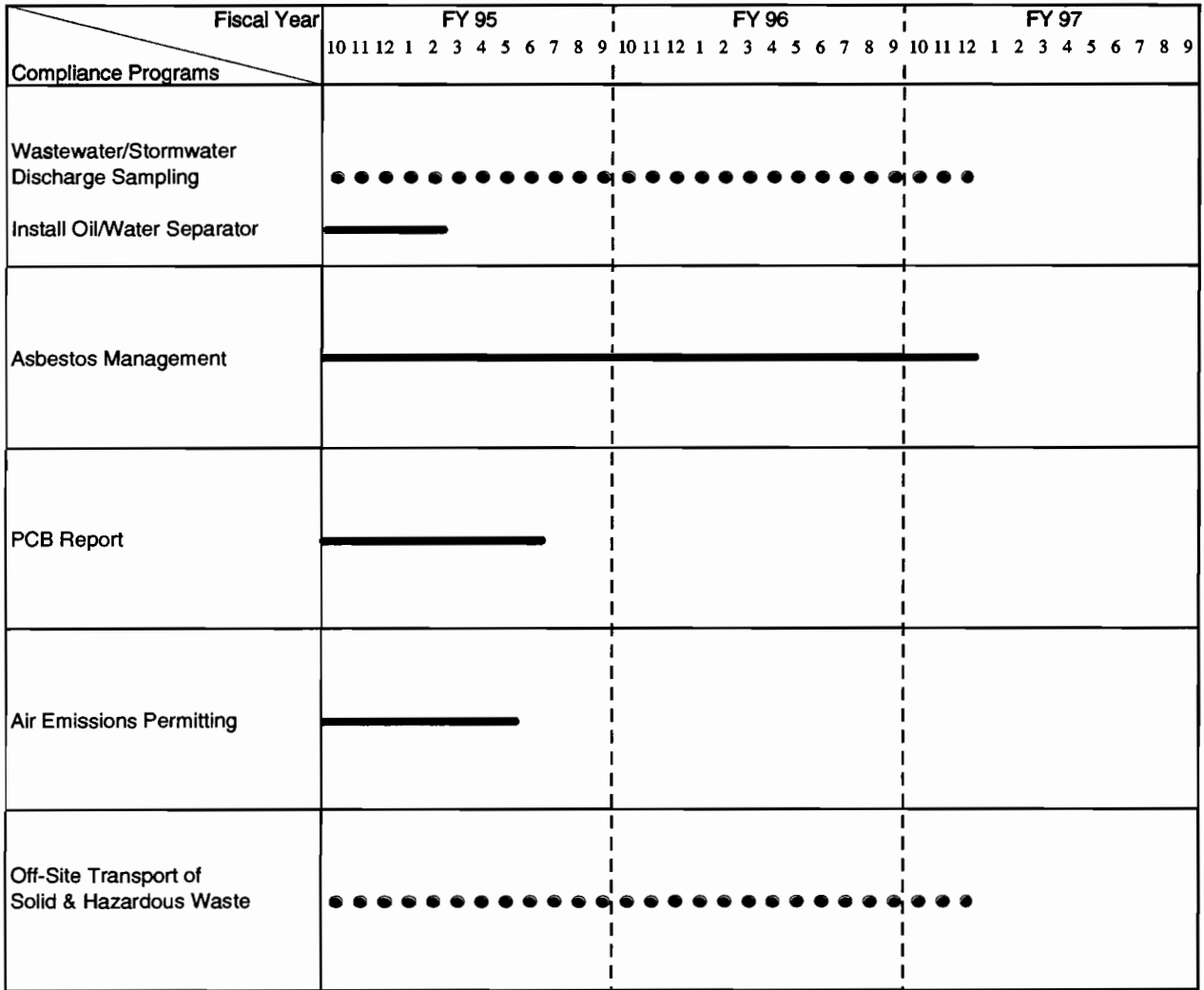
Site	1994												1995												1996											
	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
Plating Operations OU	[Timeline with SSI bars]																																			
IRP Sites 5 & 6	[Timeline with EBS, R/FS, ROD, RD, RA bars]																																			
Individual Site Investigations	[Timeline with SSI bars]																																			
IRP 1	[Timeline with SSI bars]																																			
IRP 2	[Timeline with SSI bars]																																			
IRP 4	[Timeline with SSI bars]																																			
AOC 1	[Timeline with SSI bars]																																			
AOC 2	[Timeline with SSI bars]																																			
AOC 3	[Timeline with SSI bars]																																			

Zone 1

Legend

- AOC - Area of Concern
- IRP - Installation Restoration Program Site
- OU - Operable Unit
- R/FS - Remedial Investigation/Feasibility Study
- SSI - Supplemental Site Inspection
- ROD - Record of Decision
- RD - Remedial Design
- RA - Remedial Action
- EBS - Environmental Baseline Survey

Figure 5-1
 Projected Restoration Master Schedule
 with Suggested Site Groupings for
 Interim and Final Records of Decisions
 at Air Force Plant 59



*Figure 5-2
Project Schedule for Compliance Programs
at Air Force Plant 59*

5.2.2

Requirements by Fiscal Year

There are no restoration-related compliance projects requiring funding beyond FY97.

5.3

Meeting Schedule

No formal AFP 59 Team meetings are scheduled. Input from team members and document reviews are solicited by the Air Force RPM.

Chapter 6

Technical and Other Issues to be Resolved

This chapter summarizes technical and other issues that are yet to be resolved. These issues include the usability of historical data; information management; data gaps; natural (background) levels of elements and compounds in soil, groundwater, surface water, and sediments; and risk assessment.

6.1

Data Usability

This section summarizes unresolved issues pertaining to the validity of using historical data sets in the AFP 59 environmental restoration program. Two main objectives for assessing data usability are:

- Evaluate data sets at AFP 59 against accepted validation procedures for usability in risk assessments and hydrogeologic characterizations of source and groundwater target areas.
- Ensure the usefulness of data collected during current and future project phases by continuing to implement and reformulate data quality management procedures.

Data usability for the ongoing IRP SSI is being evaluated as part of the project for ASC, Wright-Patterson AFB by Argonne National Laboratories. These data will be validated according to specific protocols for data to be used in human health and environmental risk assessments.

Data gathered in the previous IRP Phase II Stage 1 investigation will be used to fill data gaps and supply a basis for comparison of analytes concentrations for more recent samples.

6.1.1

Rationale

Historical analytical data can contribute to the completion of site characterizations and risk assessments by filling data gaps. Current and future data from each data collection system (e.g., field laboratories and field screening techniques) are critical to the completion of site characterization efforts, risk assessments and, ultimately, the selection of remedial measures to protect human health and the environment.

6.1.2

Status/Strategy

The Air Force is in the process of developing a list of documents and other data sources that do not meet Air Force Center for Environmental Excellence (AFCEE) or U.S. EPA criteria because of poor documentation and/or quality. The Air Force RPM, in conjunction with the representative and contractors, will ensure that historical analytical data are reviewed to determine whether:

- Technical specifications were followed.
- Accurate and precise data were collected.
- Both field and laboratory documentation were sufficient to document what is known about the data.

Current documents on the list of historical data sources are being used to fill data gaps, as discussed above. These consist of letter reports, draft work plans, site characterization summaries, remedial investigations, and informal technical information reports. The strategies for determining the usability of these data include the following:

- The outcome of this assessment will be used to determine the potential use of data or to identify sampling locations that are required to fill data gaps.
- For current and future field efforts, AFP 59 will continue to follow the structured data collection and documentation process (including electronic formats) in the AFCEE Handbook and IRPIMS Data Loading Handbook.
- AFP 59's RPM, in conjunction with the Technical Project Manager (TPM), will ensure that the field and laboratory audit process will continue to be implemented to allow for project compliance assessment, real-time project quality management, and problem solving through the use of corrective actions.
- The use of field/mobile laboratories, field screening techniques, and other special analytical techniques will be considered and evaluated to facilitate data collection. Each different data collection system shall be evaluated on a case-by-case basis, and an assessment made on the intended use of data and of the adequacy of both the field and laboratory QA/QC systems.

6.2

Information Management at Air Force Plant 59

This section summarizes issues that need to be resolved with regard to managing information gathered and used in the AFP 59 environmental restoration and compliance programs.

6.2.1

IPT Action Items

The following actions would be helpful to ensure that an effective information management system is in place for AFP 59 environmental restoration program.

- Improve access to, and management of, environmental restoration data generated at AFP 59. Ensure that Relational Database Management System (RDBMS) and Geographic Information Systems technologies are used to identify ANSCs, classify remaining areas of the plant, and assess data gaps.
- Establish a central clearinghouse for data. This clearinghouse should be a natural extension to the existing IRP Information Management System (IRPIMS) sampling and analysis database at the Service Center, and should also include spatial data (e.g., past and present land use, natural resources).
- Require all contractors working at AFP 59 to submit attribute and spatial data to the clearing house in electronic format. Be sure that all data generated are integrated into a single, coherent database.
- Use the clearinghouse to distribute quality-assured data in standard formats (ASCII files and standard spatial data exchange formats) to parties with the need for plant-wide perspective in activities at AFP 59, including contractors, Air Force decision makers, and regulators.
- Improve the spatial data analysis capabilities within the Air Force so that data can be analyzed as received. Thus, the results of recent field and laboratory work can be fed back into the planning loop more quickly, helping to redirect field efforts as they happen and determine when enough data is available to support a decision.

6.2.2

Rationale

It is important that all parties involved in the AFP 59 environmental restoration program be able to share data for decision making. The establishment and maintenance of an electronic database containing sampling, analytical, and spatial (e.g., real estate maps) data is the most efficient method of sharing data among parties.

6.2.3

Status/Strategy

To achieve effective information management, the ASC implemented a Technical Information System (TIS) in 1994. One of the principal components of the TIS is a geotechnical workstation. This workstation contains a suite of software that provides data access, Geographical Information System (GIS), modeling, and visualization capabilities to the ASC RPMs and their in-house technical support staff. The software tools on the geotechnical workstation utilize environmental data that are stored in a Distributed IRPIMS database; this database is resident at ASC. Other components of the TIS provide the RPMs with portable GIS capabilities, program management tools, and presentation tools. A Local Area Network (LAN) connects all of the TIS components. In addition, the network is connected to the INTERNET.

The TIS is currently supported in-house by a systems administrator and a U.S. Geological Survey hydrogeologist. A database administrator is to be added in the near future. Engineering-Science, Inc. also is providing TIS support.

Before the tools on the geotechnical workstation can be fully utilized, the Distributed IRPIMS database needs to undergo a thorough quality check to ensure that it functions as a coherent database. In addition, data gaps in the digital database need to be filled. Digital Air Force Plant maps also need to be incorporated into the GIS. Efforts are currently underway to complete these tasks for each Air Force Plant. Completion of these tasks will enable ASC to function as a central data clearinghouse.

All contractors are currently required to submit new environmental and spatial data to ASC in an electronic format. (The environmental data must be submitted according to guidelines in the IRPIMS Data Loading Handbook. Spatial data must be submitted as ARC/INFO export files or DXF files and must be in the State Plane Coordinate System.) These requirements are designed to ensure that all new data are compatible and that the database and spatial maps in the TIS remain current. This will enable all parties to have access to all information.

Of historical data documents, only one report has been submitted for loading into IRPIMS. The plant does not have an automated comprehensive planning system. To expedite site characterization tracking and data gap identification at AFP 59, the RPM and Service Center Technical Project Manager (TPM) will ensure that:

- The IRP documents referred to in Chapter 6.1 of this document are classified into three categories:
 - IRPIMS data loading complete
 - IRPIMS data loading required
 - IRPIMS data loading not required.

The TPM will ensure that an explanation is provided for data in the third category. Examples are "Preliminary screening data of insufficient quality to support a ROD" and "Superseded by more recent data of higher quality."

- Priorities and deadlines for loading historical data into IRPIMS are established, and contract modification needed to proceed with data loading are made.
- Necessary contract modifications are made to ensure that data from ongoing efforts is submitted electronically in accordance with the IRPIMS Data Loading handbook.
- Soil contamination data generated is reviewed by the Environmental Compliance Division to determine whether the data are of interest to the IRP and if it should be loaded into the IRPIMS.
- Standard procedures for reviewing electronic data submitted by the contractor are established. Preliminary procedures currently in effect include:
 - Review of the IRPIMS data quality reports within 2 weeks of submission by the RPM, TPM, and contractor.
 - Review of trends in contamination versus time for key contaminants within one month of receipt of the electronic submission.
 - Use of Relational Database Management System (RDBMS) and spatial analysis tools to rapidly create, maintain, and document conceptual models that illustrate target areas, sources, pathways, and receptors, within one month of receipt of the electronic submission.

6.3 Data Gaps

6.3.1 Project Team Action Items

Project Team meetings will be held to discuss November 1994 field work and December 1994 sampling of groundwater monitoring wells.

6.3.2 Rationale

Effective identification and filling of data gaps will permit the development of comprehensive conceptual zone or site models for risk assessment. Effective analysis of data gaps will also facilitate the completion of RI efforts so that ANSCs and target areas can be delineated.

6.3.3

Status/Strategy

The current status and strategies for identifying and filling data gaps are as follows:

- The TPM (or designee) will update and verify the current primary and secondary bibliography for completeness. A bibliography of all letter reports will be completed and copies of these reports will be made available when the technical information they contain needs to be reviewed.
- Historical hard-copy data to be delivered to the Air Force will be reviewed for completeness with oversight by the TPM, and the data loaded into the IRPIMS using the Historical Data Loading Tool.
- Data will be consolidated from all contractors from the 1994 field season.
- Team meetings will be used to resolve data gap issues. If data gaps are determined, a Team meeting with federal and state regulators will be scheduled to reach a consensus on a scope of work for filling the remaining data gaps.

6.4

Background Levels

This section summarizes issues pertaining to the determination of natural (background) concentrations of elements and compounds in the environment of AFP 59.

6.4.1

IPT Action Items

The AFP 59 Team is currently evaluating background concentrations of chemicals of interest as part of the Baseline Risk Assessment. The Team will decide how best to fill the data gaps after reviewing the conclusions of the Risk Assessment.

6.4.2

Rationale

Necessary background concentration values of elements in soil, groundwater, surface water, and sediments are being identified as the risk assessment is being conducted. The values must be concurred with by U.S. EPA and state regulators.

6.4.3 Status/Strategies

The current status and strategies for determining background concentration values are as follows:

- Background level determinations are being performed on a site-by-site basis.
- The Air Force, U.S. EPA, and the state held a Project Team meeting to review background determination procedures.
- The IRP contractor determined background values using samples that reflected naturally occurring levels of elements in various media. Field work is ongoing.

6.5 Risk Assessment

A draft preliminary risk assessment for AFP 59 is currently being reviewed by the project team. Following the review, additional data requirements will be established and incorporated into the RI/FS for AFP 59.

6.5.1 IPT Action Items

The AFP 59 Team will continue to evaluate the role of area land and groundwater use as criteria in selecting assumptions in the exposure assessment.

6.5.2 Rationale

Because land use affects the number and type of exposure pathways, anticipated or known land uses are being considered when assumptions are made about exposure in risk assessments.

6.5.3 Strategy

The preliminary risk assessment is being conducted by use of risk assessment protocols for AFP 59 following those established and recognized by the U.S. EPA and the NYSDEC.

**APPENDIX A
FUNDING REQUIREMENTS**

Appendix A is reserved for funding data for IRP and compliance program activities at the plant. This information is for programming purposes and has been deleted from this Action Plan. The information is available from the Headquarters, Aeronautical Systems Center, Wright-Patterson Air Force Base, Ohio.

FY	PA/SI	RI/FS	RD	RA	LTO	LTM	NFRAP
84-90	116,000						
91	850,000						
92	400,000						
93	125,000				105,000		
94		890,000			110,000	123,000	
95		200,000 (est)* 300,000**			120,000		

LTO: Johnson City Well Field Stripper AF Partially Funded.
LTM: USGS.

* USGS Hydro Study Aquifer

** Earth Technology Corporation

*Table A-1
Cost Summary by Phase for
Air Force Plant 59*

APPENDIX B
ENVIRONMENTAL RESTORATION DOCUMENTS

Date	Title	Sites	Contractor	Service Center	IRPIMS Status/ Other
10/84	Phase I Records Search	General Facility Property; IRP 1 & 2	CH ₂ M Hill	ASC ASD/PMDA Wright-Patterson AFB	Loading not required
12/85	Phase II Presurvey Report	IRP 1, 2, 4, 5, 6	Fred C. Hart Assoc., Inc.	ASC ASD/PMDA Wright-Patterson AFB	Loading not required
03/88	IRP-Phase II Confirmation/Quantification Stage 1	IRP 4, 5, & 6; General Facility Property	Fred C. Hart Assoc., Inc.	ASC ASD/PMDA Wright-Patterson AFB	Loaded AFCEE
(Ongoing)	IRP-Supplemental Site Inspection	IRP 1, 2, 4, 5 & 6; AOC 1, 2, & 3; General Facility Property	Argonne National Laboratories/ USACE Baltimore District (CENAB)	ASC/EMVR	Loading in Process

*Table B-1
Technical Documents/Data Loading
Status Summary For Air Force Plant 59*

Year	Phase	Project Title	Sites Examined (WIMS-ES ID)	Deliverables/Date/By Whom
1984	PA/SI	Record Search	ST001, SS002	Installation Restoration Program Records Search for AFP 59/ October 31, 1984/CH2M Hill
1985	PA/SI	Presurvey Report	ST001, SS002, SS004, SS005, WP006	IRP Phase II, Presurvey Report for AFP 59/December 31, 1985/Fred C. Hart Associates, Inc.
1988	PA/SI	Confirmation/ Quantification	ST001, SS002, SS004, SS005, WP006	Final Report, IRP Phase II, Confirmation/Quantification Stage 1 for AFP 59/March 31, 1988/Fred C. Hart Associates, Inc.
PA/SI = Preliminary Assessment/Site Inspection				

*Table B-2
Project Deliverables for AFP 59*

WIMS-ES ID	PA/SI	RI/FS	Other	Comments
ST001	1,2,3			
ST002	1,2,3			
SS004	2,3			
SS005	2,3			
WP006	2,3			
<ol style="list-style-type: none"> 1. Installation Restoration Program Records Search for AFP 59/October 31, 1984/CH2M Hill 2. IRP Phase II, Presurvey Report for AFP 59, December 31, 1985/Fred C. Hart Associates, Inc. 3. Final Report, IRP Phase II, Confirmation/Quantification Stage 1 for AFP 59/March 31, 1988/Fred C. Hart Associates, Inc. 				

Table B-3
Site Deliverables for AFP 59

APPENDIX C
DECISION DOCUMENT/RECORD OF DECISION SUMMARIES

Appendix C is not applicable because there are no Decision Documents or RODS for AFP 59.

APPENDIX D
NO FURTHER RESPONSE ACTION PLANNED SUMMARIES

There have not been any No Further Action Planned documents written for AFP 59.

**APPENDIX E
CONCEPTUAL MODELS**

Conceptual models will be provided by ASC/EMVR for the final report.