



SITE MANAGEMENT PLAN

**NAVAL INDUSTRIAL RESERVE
ORDNANCE PLANT
FRIDLEY, MINNESOTA**

MARCH 1997



SOUTHERN DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
NORTH CHARLESTON, SOUTH CAROLINA
29419-9010

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FRIDLEY, MINNESOTA

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FOR CY 1997

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CY 1997 Site Management Plan
Naval Industrial Reserve Ordnance Plant
Fridley, Minnesota

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I. INTRODUCTION

This Site Management Plan (SMP) is prepared to promote the objectives expressed in the Federal Facility Agreement (FFA) between the Department of the Navy (Navy), the U.S. Environmental Protection Agency, Region V, (USEPA) and the Minnesota Pollution Control Agency (MPCA), dated 28 March, 1991. The basic intent of this plan is to provide:

1. An overall site environmental restoration management strategy for the Naval Industrial Reserve Ordnance Plant (NIROP);
2. A complete list and description of all designated Operable Units (OUs) at the NIROP;
3. A schedule of work to be accomplished and document deliverables (primary and other) to be prepared and submitted by the Navy to USEPA and MPCA in the upcoming Calendar Year (CY);
4. An extended work accomplishment and document deliverable (primary and other) schedule setting forth subsequent (i.e., second year) target completion dates.

It is not the intent of the Navy, USEPA, or the MPCA that this SMP modify or negate those legal rights and obligations acknowledged in or created by the NIROP Fridley FFA. The SMP is to serve as a management tool for optimizing effective implementation of the Installation Restoration Program (IRP) at the NIROP. Should any conflict arise between the terms of the SMP and the FFA, the terms of the FFA shall control.

II. SITE MANAGEMENT STRATEGY

This SMP sets forth a comprehensive schedule of those primary and other document deliverables and site response activities to be conducted in a CY. It also sets forth target work completion and document deliverables schedule for the following CY. This SMP is intended to be a tool for effective program management which is updatable on an annual basis or as may otherwise be warranted and mutually agreed upon by the Navy, USEPA and MPCA.

The overall site management strategy for the NIROP has recently been modified. Prior management strategy involved the hydraulic containment, on-site treatment, and off-site discharge of contaminated groundwater. The investigation and remediation of on-site subsurface source areas outside the NIROP manufacturing building (Navy property) (OU 2) was to be conducted separately from the investigation and remediation of on-site subsurface source areas beneath the NIROP manufacturing building (Navy property) (OU 3). Recently, however, it has been agreed to by the Navy, USEPA, and MPCA that combining the investigation and remediation of on-site source areas located both outside of and beneath the NIROP manufacturing building will be the most efficient overall management strategy for the NIROP. This change in management strategy was prompted by results obtained from preliminary on-site investigation of subsurface source areas beneath the NIROP manufacturing building. Preliminary on-site investigation results indicate that a potentially large on-site subsurface source area beneath the NIROP manufacturing building (OU 3) exists, and may be highly contaminated relative to smaller on-site subsurface source areas outside the NIROP manufacturing building (OU 2). A decision that it will be more effective to address remedy selection for both OU 2 and OU 3 concurrently was made. Therefore, modification of the site management strategy involves including the potential of combining the remedy selection for OU 2 with the remedy selection for OU 3.

III. OPERABLE UNITS

Three Operable Units (OUs) have been established at the NIROP in order to facilitate timely and effective investigation and clean-up of contaminated soils and groundwater at the site. OU 1 encompasses contaminated groundwater on-site. OU 2 encompasses on-site subsurface source areas, in the unsaturated zone, outside of the NIROP manufacturing building. OU 3 encompasses all on-site subsurface source areas beneath the NIROP manufacturing building and on-site subsurface source areas, in the saturated zone, outside the NIROP manufacturing building. Consistent with the recent change in overall site management strategy, if practicable, remedy selection for OU 2 and OU 3 will be addressed concurrently.

Prior investigations conducted at the site indicate that the subsurface source areas in both OU 2 and OU 3 are likely contributing to the groundwater contamination detected in OU 1. Table 1 below further describes each OU and indicates the present status of each in terms of those investigations/remedial efforts which have been undertaken to date:

Table 1
OU Description Chart

OU	Name	Waste Type	Sources of Contamination	Status of Investigative / Remedial Activities
1	Groundwater Contamination	Solvents	Industrial Operations.	Record of Decision (ROD) executed in 1990. Groundwater containment and recovery well system is currently in operation. Phase II of the remedy is in the design phase.
2	On-site subsurface source areas, (unsaturated zone) outside of the NIROP manufacturing building.	Solvents, Poly Aromatic Hydrocarbons (PAH)	Drum disposal areas.	Drum Interim Removal Action in complete. Draft Final Feasibility Study (FS) to agencies for completion. OU 2 remedy selection postponed until OU 3 RI/FS is complete.
3	On-site subsurface source areas, (saturated & unsaturated zone) beneath the NIROP manufacturing building and on-site subsurface source areas, (saturated zone) outside of the NIROP manufacturing building.	Solvents, metals, other unknowns	Industrial Operations.	OU 3 RI/FS Workplan currently being completed. RI field investigation scheduled for early CY 1997.

IV. CY 1997 PROGRAM OBJECTIVES AND DOCUMENT DELIVERABLES

The CY 1997 Program Objectives for the NIROP are as follows:

- Complete Remedial Design (RD) of Permanent Groundwater Treatment Plant (GWTP) for OU 1;
- Start Remedial Action (RA) Workplan for the GWTP for OU 1;
- Determine Status on Groundwater Containment for OU 1;
- Complete OU 2 Feasibility Study (FS);
- Complete the Remedial Investigation/Feasibility Study (RI/FS) Workplan for OU 3;
- Start and Complete Remedial Investigation (RI) Field Investigation for OU 3;
- Conduct and Report on Seismic Imaging at NIROP;
- Issue SMP for CY 1998;
- Issue 1996 Annual Monitoring Report.

The CY 1997 Document Deliverables for the NIROP are as follows:

Primary Documents:

Draft RD (30 %) - GWTP for OU 1	28 February 1997
Final FS Report for OU 2	31 March 1997
Draft Final RI/FS Workplan for OU 3	14 April 1996

Other Deliverables:

1996 Annual Groundwater Monitoring Report	31 March 1997
Seismic Imaging Report	11 February 1997
Site Management Plan for CY 1998	20 November 1997
Draft RA Workplan (revised) for OU 1	15 December

V. SCHEDULE

The SMP schedule reflects submission dates for both primary and other document deliverables. Consistent with FFA requirements, for primary deliverable submittals, review periods to final report issuance will be as follows:

USEPA and MPCA review draft - 30 days

Navy comment on responses to draft and delivery of draft final - 45 days

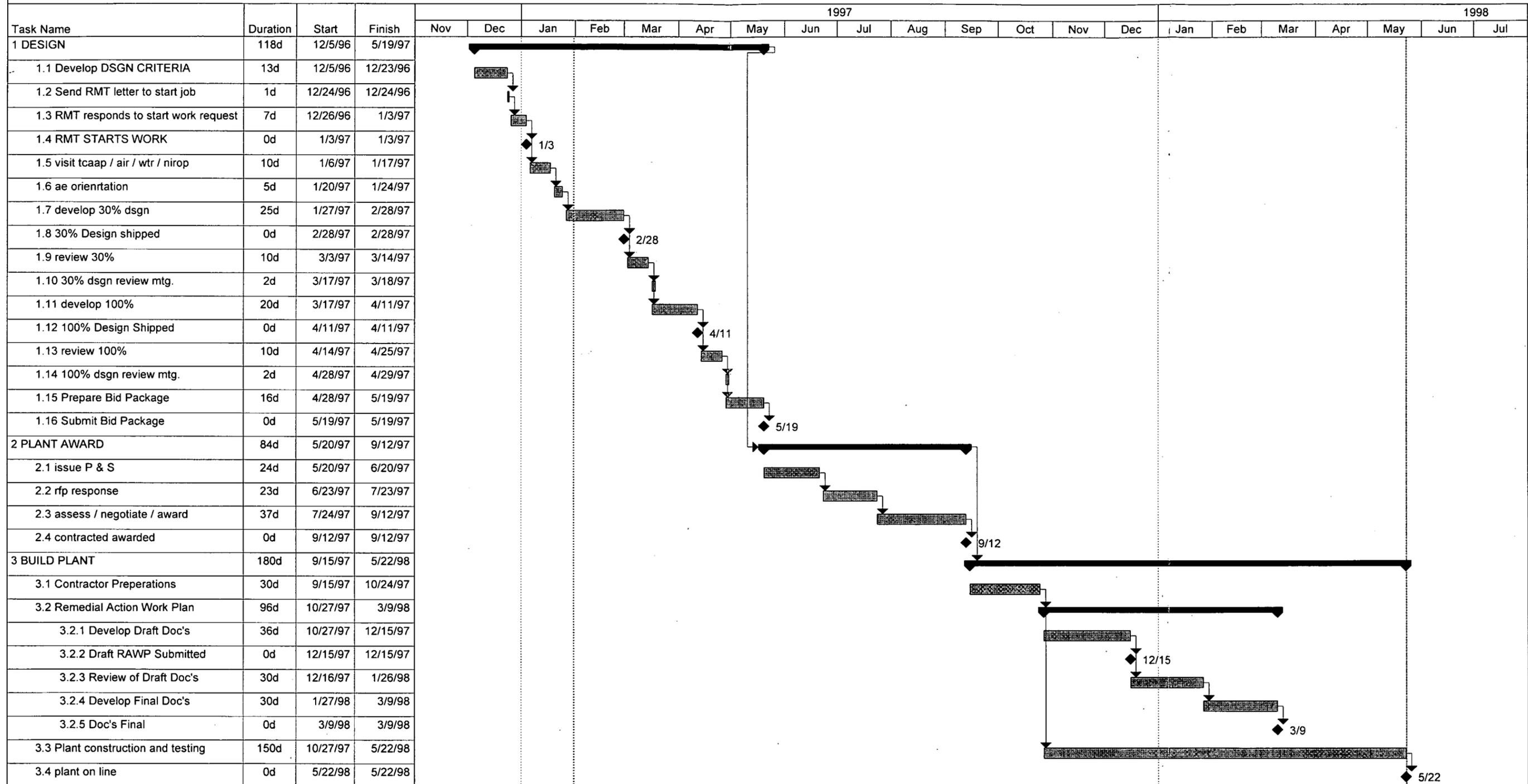
USEPA and MPCA review/approval of draft final - 30 days

Consistent with FFA requirements, those draft and draft final primary document deliverable deadlines set forth in the first CY of the SMP schedule (1 January to 31 December) as presented in Figures 1 - 3, are enforceable. Those document submittal dates reflected in the outyear schedules (1 January to 31 December) are target dates and thus are subject to change prior to finalization in the outyear schedules.

As part of the SMP, the Navy, USEPA, and MPCA will discuss Program Objectives and Document Deliverables at the quarterly Restoration Advisory Board (RAB) meetings to assess progress. Changes to the Program Objectives and the Document Deliverable schedule will be noted and discussed at the quarterly RAB meetings.

**NIROP FRIDLEY SITE MANAGEMENT SCHEDULE
OPERATIONAL UNIT # 1**

FIGURE 1



Project : Groundwater Treatment Plant Design And Construction
 Date : 1/31/97 jgm

Task Progress Summary Milestone Summary

Task
 Progress
 Milestone
 Summary
 Rolled Up Task
 Rolled Up Milestone
 Rolled Up Progress
 Rolled Up Milestone