SOIL EROSION CONTROL PLAN

WHITTAKER CORPORATION GREENVILLE, PA

Prepared for:

WHITTAKER CORPORATION 1955 NORTH SURVEYOR AVENUE SIMI VALLY, CA 93063

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REVISION LOG

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TABLE OF CONTENTS

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1.0	INTR	ODUCTION	4
2.0	SITE	CHARACTERISTICS	4
	2.1	Site Layout and Soil Type	4
	2.2	Topography	5
	2.3	Vegetative Cover	5
3.0	EROS	ION CONTROL MEASURES	5
4.0	INSPE	CTION PROCEDURES	5
	4.1	Periodic Inspections	;
	4.2	Field Reporting	1
	4.3	Preventative Maintenance	3

INTRODUCTION

1.

The following Soil Erosion Control Plan (the Plan) has been developed to set forth general guidelines and specific measures to be implemented in an effort to minimize soil erosion and slag migration from Whittaker Corporation's Greenville, Pennsylvania site. Specific and general erosion control techniques are outlined here for particular applications and guidelines to follow throughout the life of the project.

2. SITE CHARACTERISTICS

Certain site-specific characteristics must be addressed in the development of an effective erosion control plan. This site has several attributes that may be augmented to serve as effective steps in the control of erosion. The following site characteristics are addressed individually to achieve maximum erosion control.

2.1 Site Layout

The Whittaker site is located approximately 3.5 miles south of Greenville, Pennsylvania between the Greenville Metals Plant and the Shenango River. The site is an irregularly shaped parcel of about 6 acres bordering on the west side of the river. The site is broken up into three major areas (see Figure 1): the northern area, consisting of Section 3; the central area, consisting of Sections 2 and 4; and the southern area, consisting of Section 1.

The northern section contains a mound of slag mixed with other rubble and waste. The eastern portion of the northern area is more heavily vegetated with evidence of an area of spilled tar and the indication of asphalt paving having been present. There are three-sided bins located at the northern entrance which contain slag material covered with vegetation and small trees. These bins sit on a concrete pad which extends south. The concrete pad extends under the mound and is visible on all sides of the mound. To the south of this mound is an area with open-top, three-sided steel bins in two back-to-back rows which also sit on the concrete pad. The bins contain waste materials consisting of some low-level waste source material and ordinary non-toxic industrial waste packaged in old rusting drums. There are drums stored on the concrete pad just south of the storage bins which are in good condition. The northern area also houses numerous large metal objects which appear to be radiologically uncontaminated.

The central area is predominantly slag. The area is clearly defined by the presence of green and black glassy slag as well as a porous, rock-like slag. The central area is mainly flat and near the center is a mound that appears to contain the material that was removed from the industrial buildings on the adjacent property when they were decontaminated and released for unrestricted use in 1986. Slag extends over this area off the bank and into a ravine to the south of the area. The bank appears to have been built out over the years by the slag. The slag, however, has not been built up on the bank to the east of the

area extending down to the river. The bottom of the east ravine has a few scattered large pieces of slag at a good distance from the river.

The southern area consists of scattered pieces of slag and a gravel soil mixture which sits above a large ravine leading to the river. The northern side of the area contains scrap metal which appears to be clean. There is no evidence of any large pieces of slag nor of highly elevated readings in the southern area.

2.2 Topography

Site topography will be utilized to manage stormwater flow and dictate where specific control devices will be located relative to the disturbed area (i.e., diversion berms up gradient and swales, silt fence, and hay bales down gradient).

The proximity of the site to the Shenango River suggests that there may be tidal influences and heavy winds, as well as surface runoff, that could significantly increase erosion at the site.

2.3 Vegetative Cover

Existing vegetative cover consists of large trees and brush that has grown through the slag material.

Existing vegetation outside of the slag pile areas consists of large trees, grass, and low lying vegetation and will be maintained to the maximum extent possible to aid in erosion control.

3.0 EROSION CONTROL MEASURES

The following erosion control devices shall be implemented where shown on the Soil Erosion Control Plan and elsewhere as deemed necessary. Figure 1 depicts the locations of the erosion controls and details of the type that will be used.

Siltation barriers are used as a temporary defense against the release of sediments by trapping them prior to releasing site runoff to down gradient waters. Siltation barriers provide the necessary protection by reducing velocity up gradient and thus allowing the settlement of suspended solids and the filtration of the runoff waters as they pass through the barriers. Silt fencing will be the primary control device used to control sediments from runoff waters. This device shall be installed at the base of the slope. To prevent the slag material from damaging the silt fencing, the silt fencing will be placed against the new chain-link fencing fabric. The silt fencing will prevent material from migrating while the chain-link fencing fabric will provide strength.

Silt fencing shall be placed as shown in Figure 1. Silt fencing fabric shall be a minimum of two feet (2') in height with stakes three feet (3') in length provided at a maximum spacing of eight feet (8'). The bottom 3 to 6 inches of the silt fencing will be buried as illustrated in Figure 1. The burial of the silt fencing will ensure material does not migrate beneath the fencing.

The nominal dimensions of the stakes shall be two inches by 2 inches by 4 feet and made of wood or metal. They shall be driven approximately 1 foot into the soil and wire tied to the new chain-link fence.

Property	Units	Ave. Required Value	Test Method
Grab Elongation	%	15	ASTM D-4632
Mullen Burst Strength	psi	275	ASTM-3786
UV Resistance	% strength retained	70	ASTM D-4355
Apparent Opening Size	sieve #	20/30	CW02215
Permitivity	gal/min/ft ²	15	ASTM D-4491

All silt fencing shall be new material and have the following or similar properties:

4.0 INSPECTION PROCEDURES

Appropriate maintenance of erosion control devices is crucial to successful implementation of the Plan. This will be accomplished with the use of three major components which include periodic inspections, field reporting, and preventative maintenance.

4.1 Periodic Inspections

Inspection personnel must examine the existing erosion control devices. A complete site inspection will be performed at least once every calendar quarter so that all affected areas may be corrected within a reasonable period of time. Field reports shall be completed after each inspection and submitted for review to the United States Nuclear Regulatory Commission (USNRC). Emergency situations will be communicated immediately over the phone or via fax.

Quarterly inspections will include observation of the following specific items:

- sufficient amount of controls in place,
- conditions of controls,

proper installation of controls,

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- barriers which have been breached,
- additional areas where erosion is taking place,
- sediments collected behind the barrier requiring removal or causing need for relocation of the barrier,
- channeling of overland flow in exposed areas, and
- condition and productivity of existing vegetation establishment.

All of these items shall be observed and specific deficiencies should be noted on the report form by the inspector. If during the inspection there are significant signs of site erosion, the licensee shall sample the Shenango River (surface water and sediment) at points upstream, adjacent to, and downstream of the site, with analysis for gross alpha and beta activity. Sufficient maintenance personnel will be available for correction of problem areas within a reasonable time frame to minimize future down gradient discharge of suspended sediments. Inspectors should be aware that locations where failure down control devices could result in sediment discharges to the Shenango River are the most critical locations. These areas shall be prioritized in scheduling preventive maintenance activities so that failures in these locations do not occur.

It is important to keep accurate and comprehensive records while conducting periodic inspections. The records provide a basis for making operational decisions, indicating troubleshooting problem areas, planning future decisions, making modifications, justifying or adjusting schedules, budgets, and supplying evidence of compliance with regulations and objectives of the project.

Inspections of the areas mentioned will also be carried out during each scheduled annual water monitoring. Inspection reports will be maintained on file at the NES Danbury, Connecticut office.

4.2 Field Reporting

Emergency procedures are part of a response plan for assuring the effective, continued operation of the system under emergency conditions imposed by catastrophe or failure of process or equipment. It is necessary for all personnel to have an idea of what procedures should be followed in the event of an emergency. Emergency conditions are of varying degrees of seriousness.

In all cases, site personnel should be concerned with the following:

- safety of personnel,
- discharge to the Shenango River, and
- safety of equipment.

Notification to the Pennsylvania Department of Environmental Protection will be made within twenty-four (24) hours of any release. The following issues will be discussed:

nature of the release,

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- · measures taken to remediate the discharge, and
- measures taken to prevent future releases.

Pertinent notification information is as follows:

Pennsylvania Department of Environmental Protection

Bureau of Land and Water Conservation Division of Stormwater Management and Sediment Control PO Box 8555 Harrisburg, PA 17105-8555 717/783-7577

United States Nuclear Regulatory Commission, Region I 475 Allendale Road King of Prussia, PA 19406-1415 1-800-432-1156

4.3 Preventative Maintenance

Preventative maintenance will include removal of trapped material and replacement of damaged or ineffective erosion controls. During the inspection period, material which was trapped by the erosion controls will be removed and placed back onto the bank. Sections of the silt fencing that become ineffective by vandalism or any other means will be replaced.



