WORK PLAN
FOR THE
WHITTAKER CORPORATION'S
GREENVILLE, PA SITE

K. Craig
D. Reisenweaver

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Prepared for:
Whittaker Corporation
10880 Wilshire Boulevard
Los Angeles, CA 90024

Prepared by:
NES, Inc.
44 Shelter Rock Road
Danbury, CT 06810

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Table of Contents

List of Figures

List of Tables

1.0 Introduction

The Whittaker Corporation's Greenville, PA Facility conducted the processing of ferro-columbium and ferro-nickel alloys using an aluminathermic melting process beginning in the 1960's. This material contained trace amounts of natural thorium. The slag resulting from the process was stored on-site. In addition, some of the feed-metal scrap containing low levels of uranium contamination is also present on the site. The slag is stored in four separate sections on the Whittaker site as seen in Figure 1. Remediation activities will be performed to relocate the slag from Sections 1, 3 and 4 to Section 2. This will consolidate and isolate the slag on-site and allow for the release of the areas where the slag has been removed. By isolating the slag, the area requiring physical control will be reduced.

2.0 Scope

The scope of this document is to provide safe and efficient procedures for the remediation of the Whittaker site. This document details the work activities to be performed on-site to relocate the slag and soil into one location.

3.0 Site Description

The Whittaker site is located approximately 6 km south of Greenville, PA on Crestview Drive as seen in Figure 2. The site is approximately 2.3 hectares and is located between the Greenville Metals Plant and the Shenango River as seen in Figure 3. The site is broken up into three areas: the northern, consisting of Section 3; central consisting of Section 2; and southern, consisting of Section 1 and 4. Figure 4 shows the location of Figure 5 - 11 which are pictures of the site.

The northern section contains 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 entrance way to the northern area which contain slag material with vegetation and small trees as seen in Figure 5. 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 as seen in Figure 6. The bins contain waste materials consisting of some low-level waste source material and ordinary non-toxic industrial waste packaged in old rusting drums. The storage drums in Figure 7 are in good condition, stored on the concrete pad just south of the storage bins. The northern area also houses numerous large metal objects which appear to be radiologically uncontaminated clean and can be used as clean scrap. These objects can also be seen behind the drums in Figure 7.

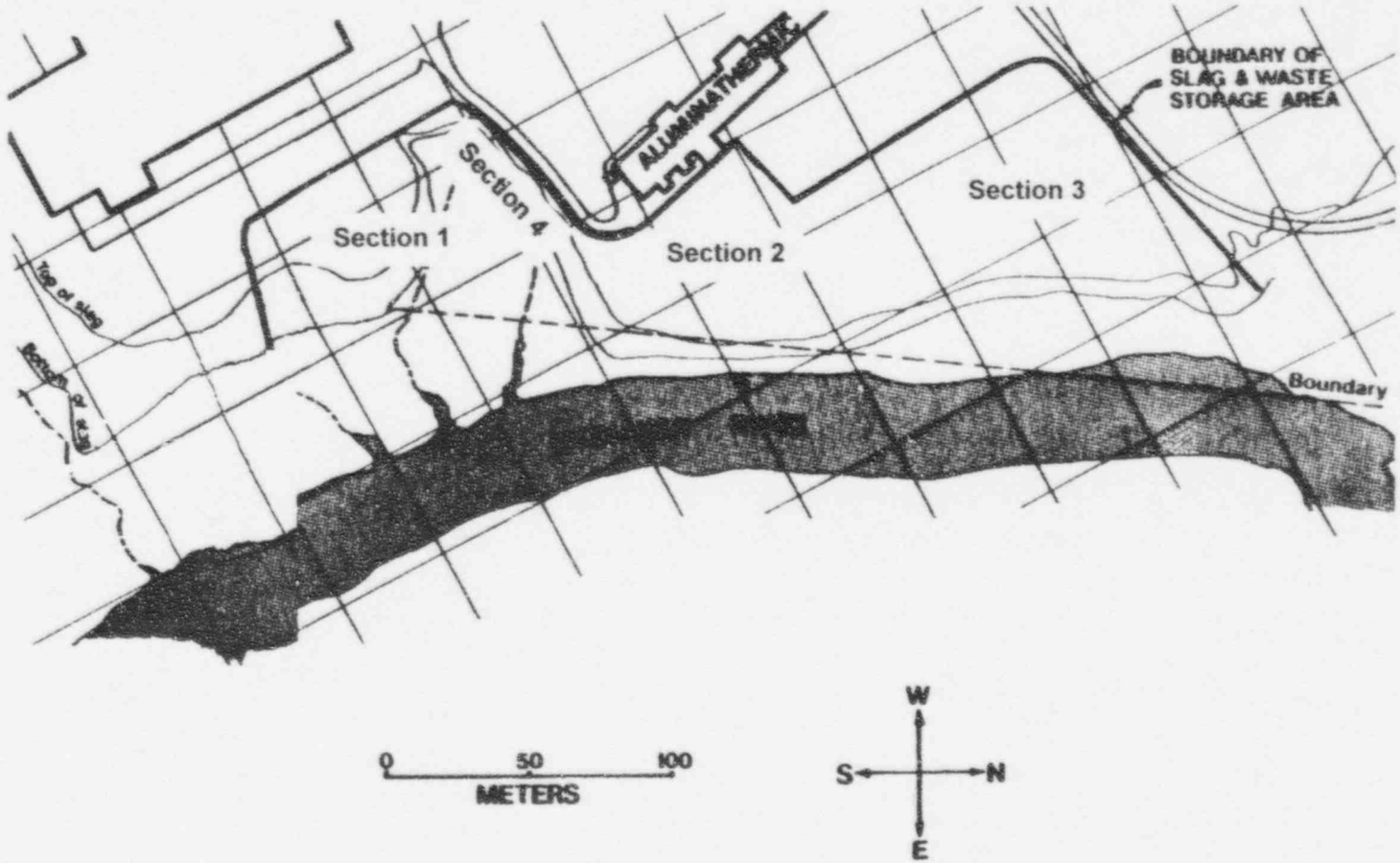

Figure 1 Location of Slag

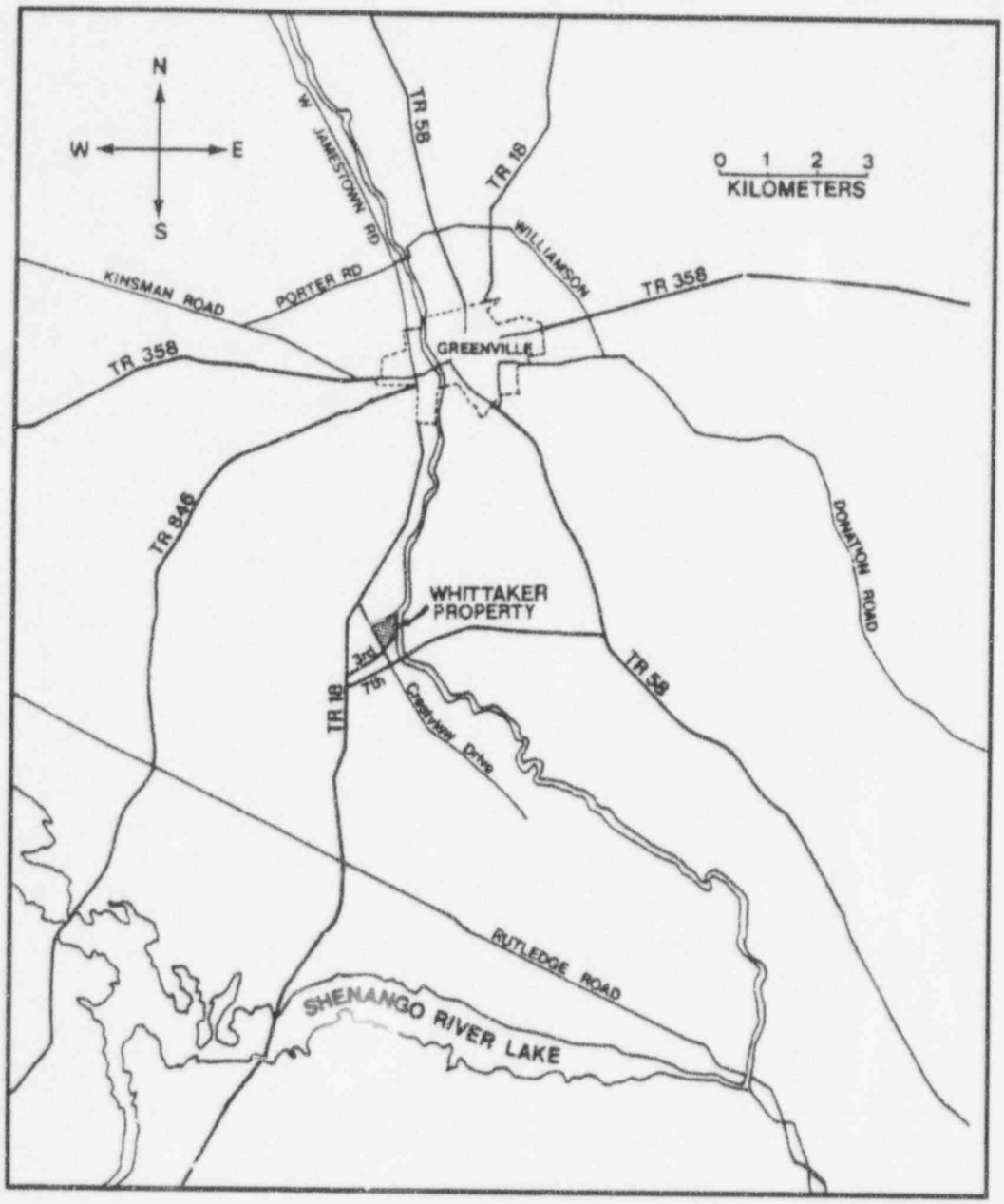

Figure 2 Map of Area

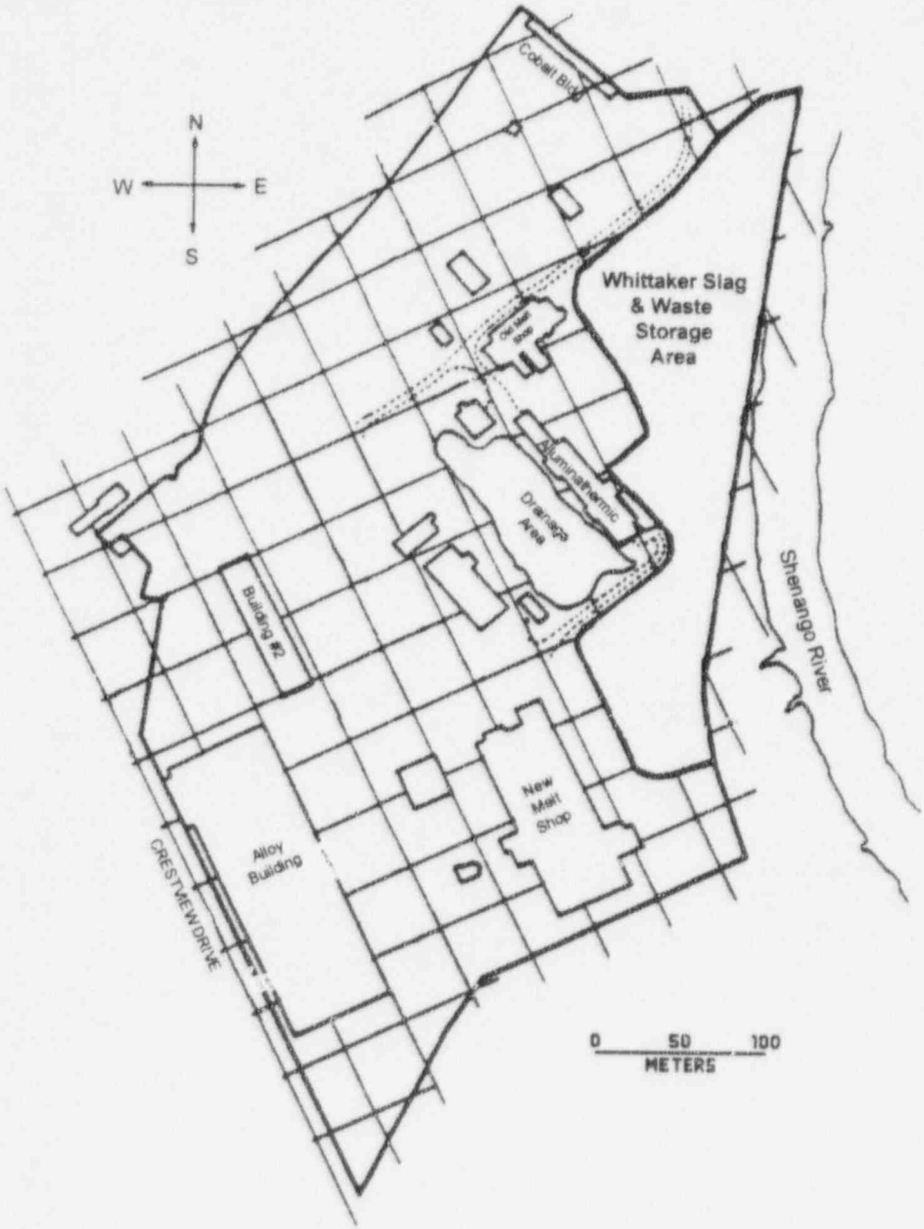

Figure 3 Location of Whittaker Site

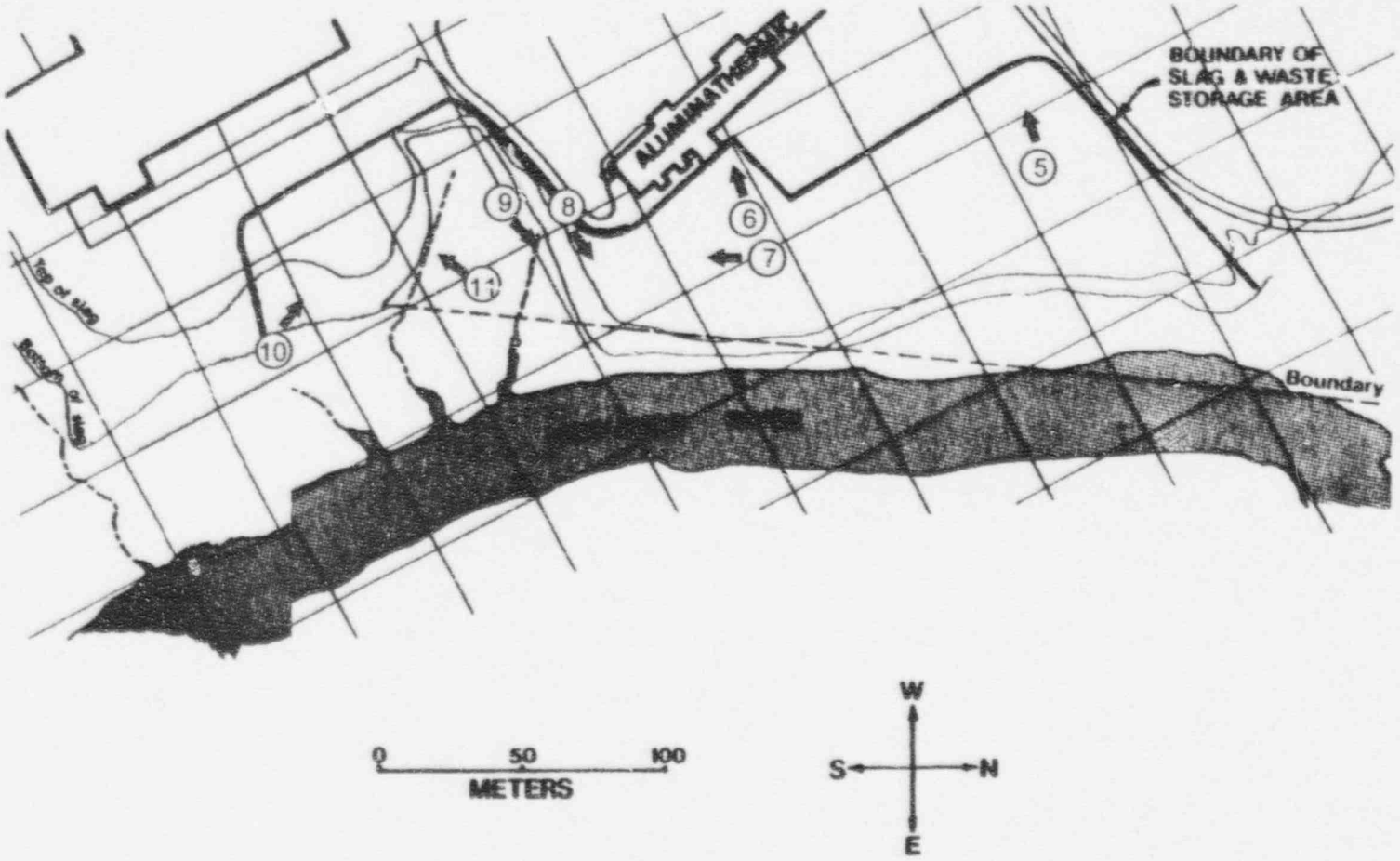

Figure 4 Location of Figure 5 - 11 Photographs

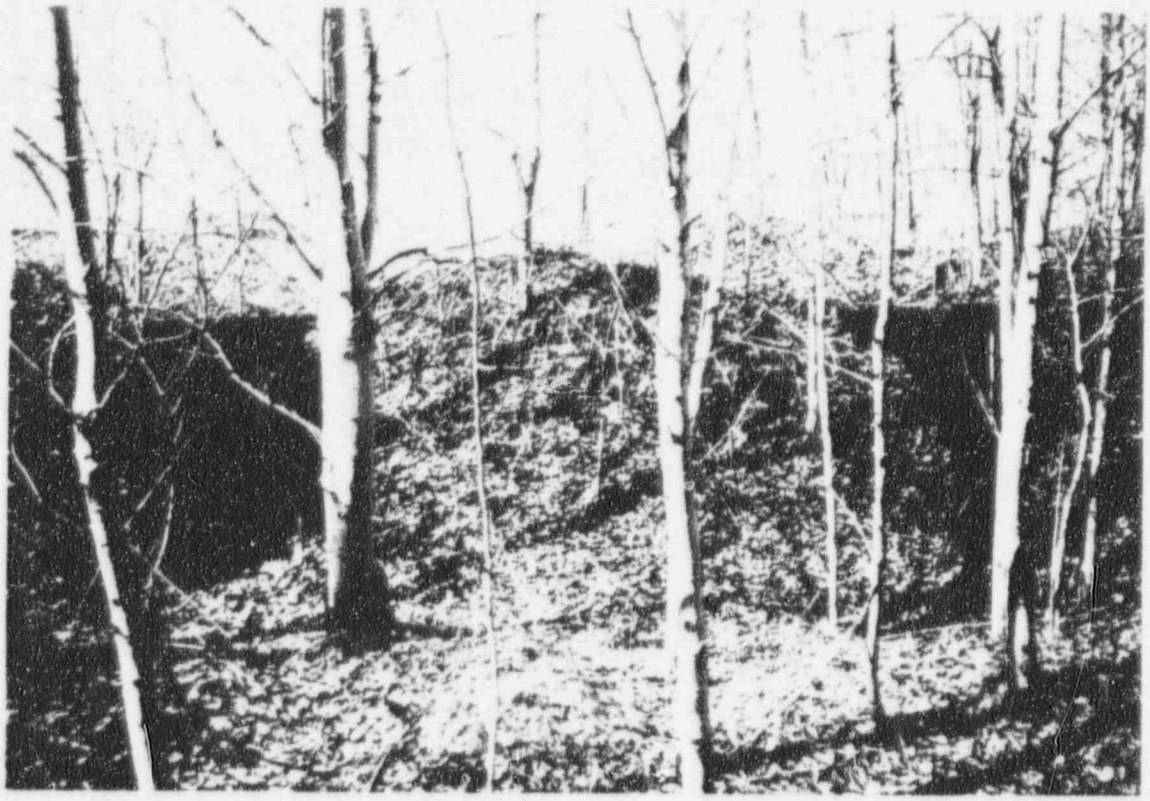

Figure 5 Three Sided Bins in the Northern Area

Figure 6 Steel Bins Containing Waste Material in Northern Area

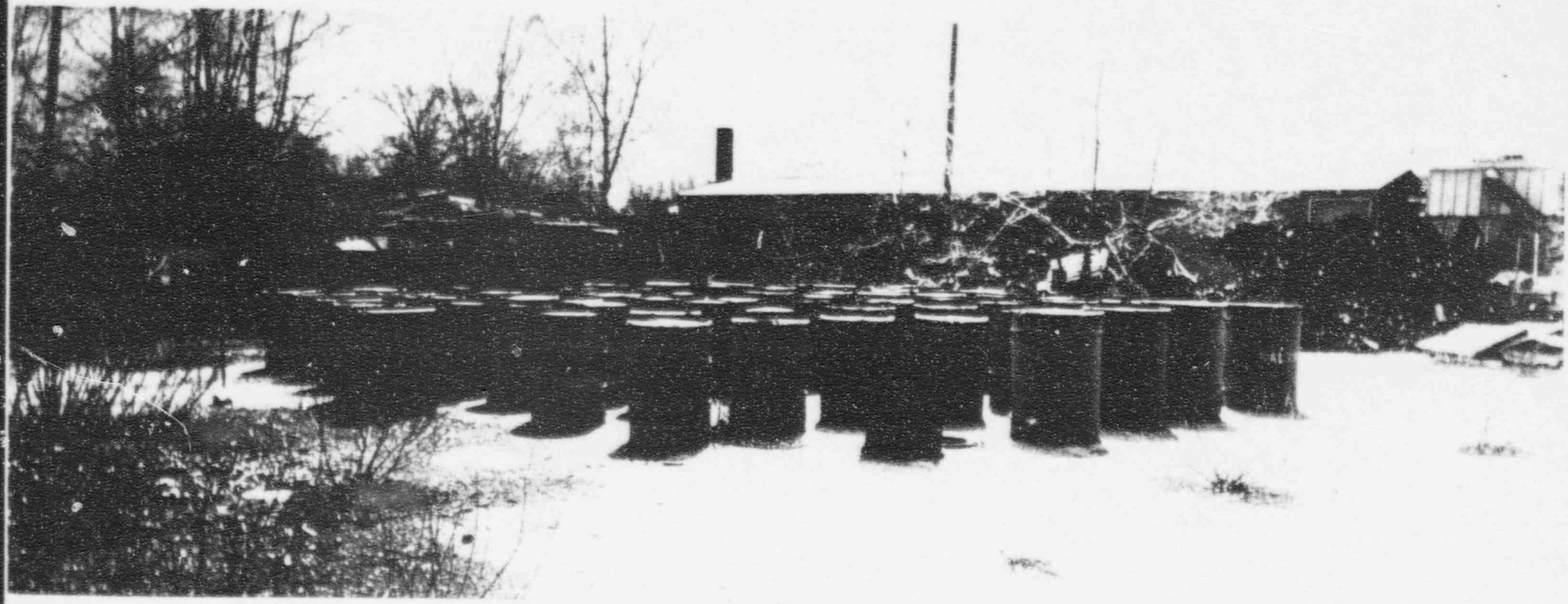

Figure 7 Northern Area Storage Drums

The central area is predominately slag. The area is clearly defined by the presence of green and black glassy slag as well as a porous rocklike slag as seen in Figure 8. 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. This slag extends over the area off the bank into a ravine to the south of the area as seen in Figure 9. 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. Figure 10 shows the top of the southern area and Figure 11 shows the side and ravine of the southern area. As seen in Figure 11, the side of the area contains scrap material which appears to be clean and can be used as scrap. There was no evidence of any large pieces of slag nor of highly elevated readings in the southern area.

4.0 Procedure

The objective of the remediation activities is to relocate the slag material into one area which will limit the area requiring security. This will allow over three quarters of the site to be released and will reduce, to approximately one acre, the area containing the contaminated slag material. The remediation activities shall be broken up into the following tasks:

- Mobilization
- Slag Remediation
- Final Survey
- Demobilization
- Preparation of Final Activities Report

All remediation activities and tasks shall be performed in accordance with site specific health physics procedures. All surveying procedures, techniques and documentation, instrumentation, and sample analysis will follow the guidelines established in NUREG/CR-5849, "Manual for Conducting Radiological Surveys in Support of License Termination."

All written procedures will be given a technical review, approved for safety and signed by the appropriate management. Any major changes which involve the deletion or addition of tasks, adverse impact on scheduling, or possible creation of new or greater potential hazards must be approved, in writing, by both the NES Project Manager and the Whittaker Corporation Program Manager and documented in the site procedures and

Figure 8 Central Area Slag

Figure 9 Central Area Slag Bank

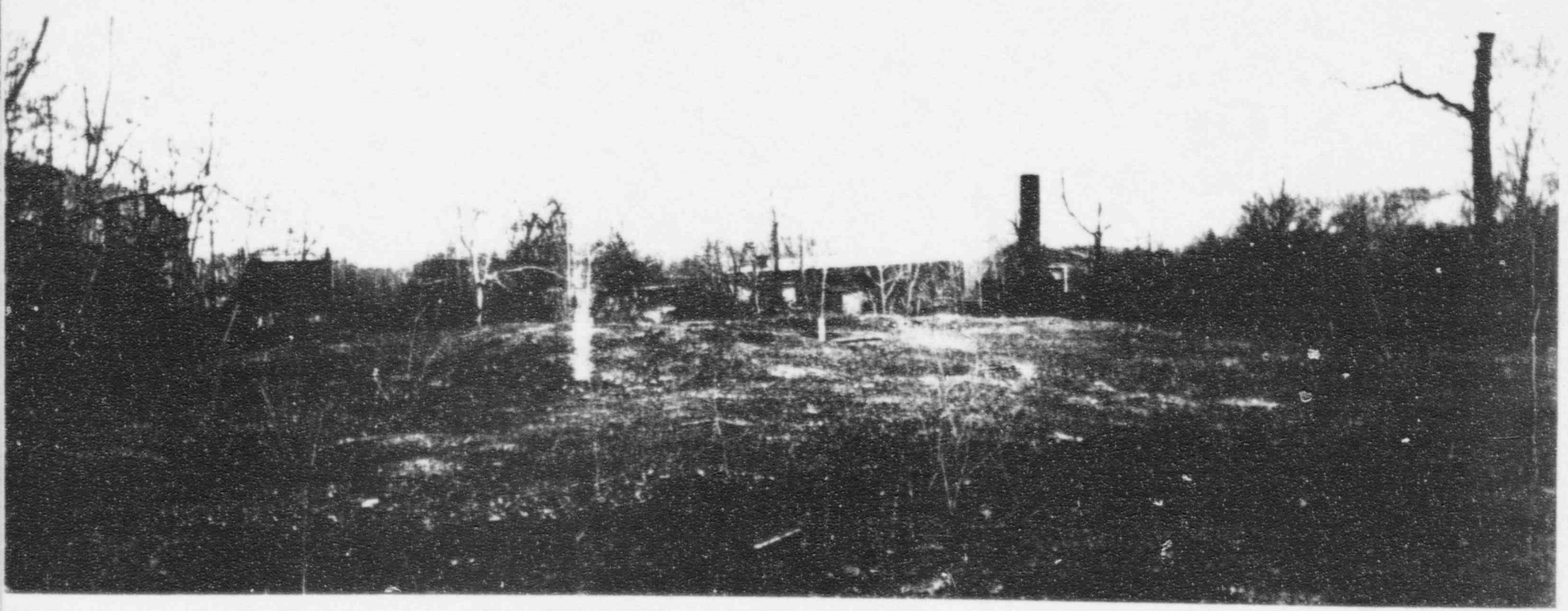

Figure 10 Top of Southern Area

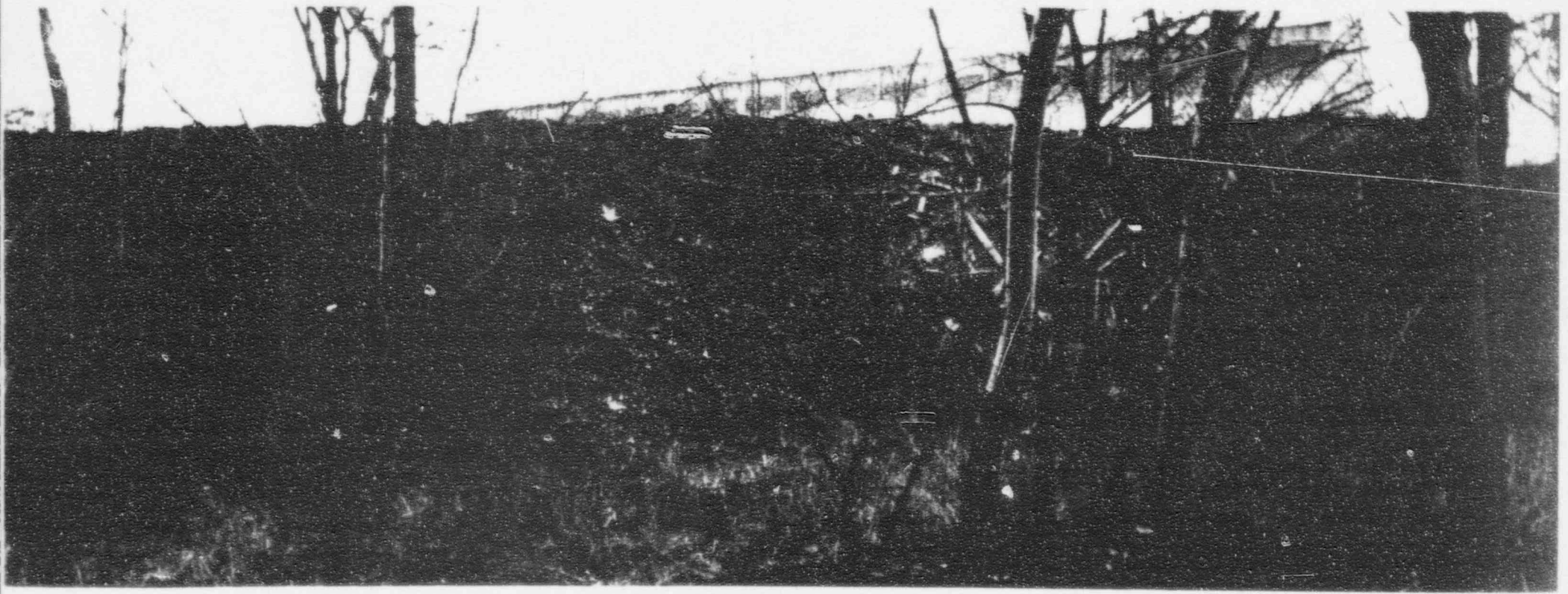

Figure 11 Southern Area Ravine

site log book. Minor changes to this work plan (i.e., reordering of specific steps, allowing simultaneous tasks to be performed) must be approved by the NES Site Supervisor and documented in the site log book.

Task 1 Mobilization

The purpose of the mobilization is to ensure the efficient and timely movement of personnel and equipment to the site. Mobilization activities shall include procurement of equipment. All instrumentation will be calibrated and prepared to be on-site by start of work. A Site Specific Health and Safety Plan shall be prepared to ensure the safety of all personnel on-site during remediation activities. After travel to the site, a counting area shall be established in a low background area for all samples. The counting area shall be used to perform gamma spectroscopy of soil samples. Site background levels will then be verified with the ORISE data to enable a comparison of site radiological conditions with the acceptable guideline values.

Training and familiarization of workers with the Whittaker site will be performed under the mobilization efforts. Workers will be acquainted with the site and any hazards associated with the site or site activities.

The following steps are to be performed to ensure proper mobilization:

1. Procure Equipment
   a. Order Necessary Consumables
   b. Calibrate Instrumentation
   c. Schedule Heavy Equipment Rental
2. Ship Equipment to Site
   a. Package Equipment
   b. Ship Equipment
3. Travel to Site
4. Perform Personnel Monitoring
   a. Collect Bioassay
   b. Assign TLDs
5. Establish Counting Laboratory
   a. Setup Gamma Spectroscopy System
   b. Response Check Hand Held Instrumentation
   c. Determine Site Background Values
6. Orient Workers
   a. Perform Necessary Radiation Worker Training
   b. Familiarize Personnel with Site
   c. Review Safety Concerns

HOLD

Site activities will not proceed until the bioassays are collected and all workers have reviewed and signed the Site Specific Health and Safety Plan.

Site Supervisor _____ Date _____

Task 2 Slag Remediation

The remediation activities will occur in Section 1, 3 and 4. The soil will be excavated from these areas using a front end loader and excavator and moved by dump trucks to Section 2. The following steps will be performed to ensure the safe and timely removal of the material:

1. Setup Air Monitoring
   a. Setup low volume air sampler in excavation area. Samplers will be established up wind and down wind of work activities.
   b. Perform representative lapel sampling on workers performing excavation activities. The lapel sampling schedule will be determined by the Site Health and Safety Officer.
   c. Change air filters daily. The Site Health and Safety Officer will be responsible for changing the air filters daily, counting them and recording the results in the site log book.

HOLD

Remediation activities will not proceed until the air monitoring is established in the excavation areas.

Site Supervisor _____ Date _____

2. Establish Travel Routes
   a. Setup cones to establish the travel area between the southern area and the center area. This area will be determined after negotiation with Greenville Metals.

CAUTION

Site workers exposed to noise at or above 85 dB on an 8 hour time-weighted average, are to wear hearing protection (ear plugs or muffs).

3. Excavate Soil and Slag
   a. Provide dust respirators for workers.
   b. Exhume soil and slag using a front end loader and an excavator.
   c. Scan soil every foot until virgin soil is reached.
4. Load Soil and Slag to Dump Trucks
   a. Mist dumping activities as necessary for dust mitigation. This will be determined by the Site Health and Safety Officer. Do not over spray soil.
   b. Transfer soil to dump trucks using the front end loader.
5. Move Soil and Slag to Section 2
   a. Transport soil and slag from sections 1, 3 and 4 to section 2.
   b. Dump soil and slag.
   c. Water spray dumping activities as necessary for dust mitigation.
   d. Level soil and slag using front end loader.
6. Decontaminate Paved and Concrete Surfaces
   a. Scan surfaces 100%.
   b. Decontaminate elevated areas. Decontamination will be accomplished using a chipping hammer to remove the elevated concrete. Any concrete removed will be disposed of in the center storage area.
   c. Perform coring at cracks and broken areas of paved surfaces.
   d. Sample soil from coring to determine if contamination has entered the soil.
   e. Remove paved surfaces and soil if contamination is present under the paved surfaces. The paved surfaces will be removed using a chipping hammer or the excavator bucket. The soil will be removed with a shovel or the excavator.

Task 3 Final Survey

Survey of the three areas will be performed in accordance with NUREG/CR-5849, "Manual for Conducting Radiological Surveys in Support of License Termination." The areas will be considered affected and will be gridded using 10 meter intervals. Each gridded area will be referenced using an alpha-numeric grid system to facilitate the referencing of survey locations.

The remediated areas will be scanned by keeping the detector as close as possible to the surface while moving it back and forth and walking at a speed of about .5 meters per second. Locations of elevated readings shall be marked with a stake for further remediation.

Direct measurements shall be obtained from all paved surfaces. One (1) one minute direct beta-gamma and one (1) one minute direct alpha surface contamination reading will be taken from areas of highest elevated activity identified during the surface scan. The Ludlum 2221 meter and 44-9 GM pancake probe or equivalent shall be used to perform the beta-gamma direct measurements, while the Ludlum 2221 meter and 43-5 alpha scintillation probe or equivalent will be used to perform the alpha direct measurements.

Soil samples shall be obtained to verify the contamination and counted using gamma spectroscopy. Surface samples shall be obtained from the top 15 cm of soil.

All unrestricted release criteria shall follow the specifications of the USNRC SECY-81-576, "Disposal or On-site Storage of Residual Thorium or Uranium From Past Operation." These radiological limits are given in Table 1. All contamination and exposure levels shall fall under these maximum detection limits in order to be released for unrestricted access.

Table 1 Maximum Concentrations Permitted Under Disposal Options

Kind of Material	Based on EPA Cleanup Standards
Natural Thorium (Th-232 + Th-228) with daughters present and in equilibrium	10 pCi/g
Natural Uranium (U-238 + U-234) with daughters present and in equilibrium	10 pCi/g

The following steps shall be performed to ensure the accuracy of the final survey:

1. Grid area in 10 m by 10 m grids.
2. Establish alpha-numeric reference system.
3. Perform 100% walk over scan.
4. Perform one direct reading in each affected paved grid.
5. Mark areas of elevated readings with stakes.
6. Collect a minimum of 4 soil samples from each grid to confirm clean.
7. Remediate remaining hot spots.

Task 4 Demobilization

Upon conclusion of the remediation activities and the final survey, the site will be cleaned of all rubbish generated by the work activities. Any materials used for contamination control will be decontaminated and disposed of as clean waste. All equipment will be surveyed and decontaminated, as required, prior to shipment off-site. The following steps are to be performed during demobilization:

1. Survey and decontaminate heavy equipment. This will be done by sweeping the trucks and equipment to remove the remaining soil and slag. If necessary, a decontamination solution and cloth will be used on the equipment.
2. Survey and decontaminate small tools. This will be done by brushing off the remaining soil. If necessary, a decontamination solution and cloth will be used on the equipment.
3. Break down gamma spectroscopy system.
4. Pack and ship equipment.
5. Clean area of refuse. Any clean garbage generated during the activities will be disposed of properly. Any contaminated waste such as cloths and dust masks will be disposed of in 55 gallon drums and stored on-site within the secured area.
6. Travel from site.

Task 5 Prepare Final Activities Report

After demobilization activities are completed, a final report will be prepared detailing the on-site activities. The report will contain the methods and procedures used to remediate the area and the results from the final survey of the remediated areas. Any deviations from this work plan will be provided as well as any unusual occurrences that took place on-site.

5.0 Schedules

The duration and number of man-hours for each work activity has been estimated based upon the work descriptions presented in Section 4.0. A NES Project Manager is included for the predeployment, work activity and post-deployment portions of the project.

An average crew of 1 Site Supervisor and 1 Project Engineer along with 4 Health Physics Technicians and 7 Equipment Operators would be required to complete the on-site activities in approximately 4 weeks. A project schedule can be seen in Table 2.

ID	Task Name	Duration
1	**Mobilization**	8d
2	Procure Equipment	4d
3	Ship Equipment	2d
4	Travel to Site	1d
5	Perform Personnel Monitoring	1d
6	Establish Counting Laboratory	0.5d
7	Orient Workers	0.5d
8	**Slag Remediation**	16.3d
9	Setup Air Monitoring	0.5d
10	Erect Retaining Walls	2d
11	Excavate Soil and Slag	148h
12	Load Dump Trucks	148h
13	Move Soil and Slag	148h
14	Decontaminate Paved Surfaces	2d
15	**Final Survey**	6.5d
16	Grid Area	1d
17	Establish Reference System	0.5d
18	Perform 100% Scan	3d
19	Mark Elevated Readings	3d
20	Collect Samples	4d
21	Remediate Hot Spots	2d
22	**Demobilization**	2d
23	Decontaminate Equipment	0.5d
24	Ship Equipment	0.5d
25	Travel Off-Site	1d

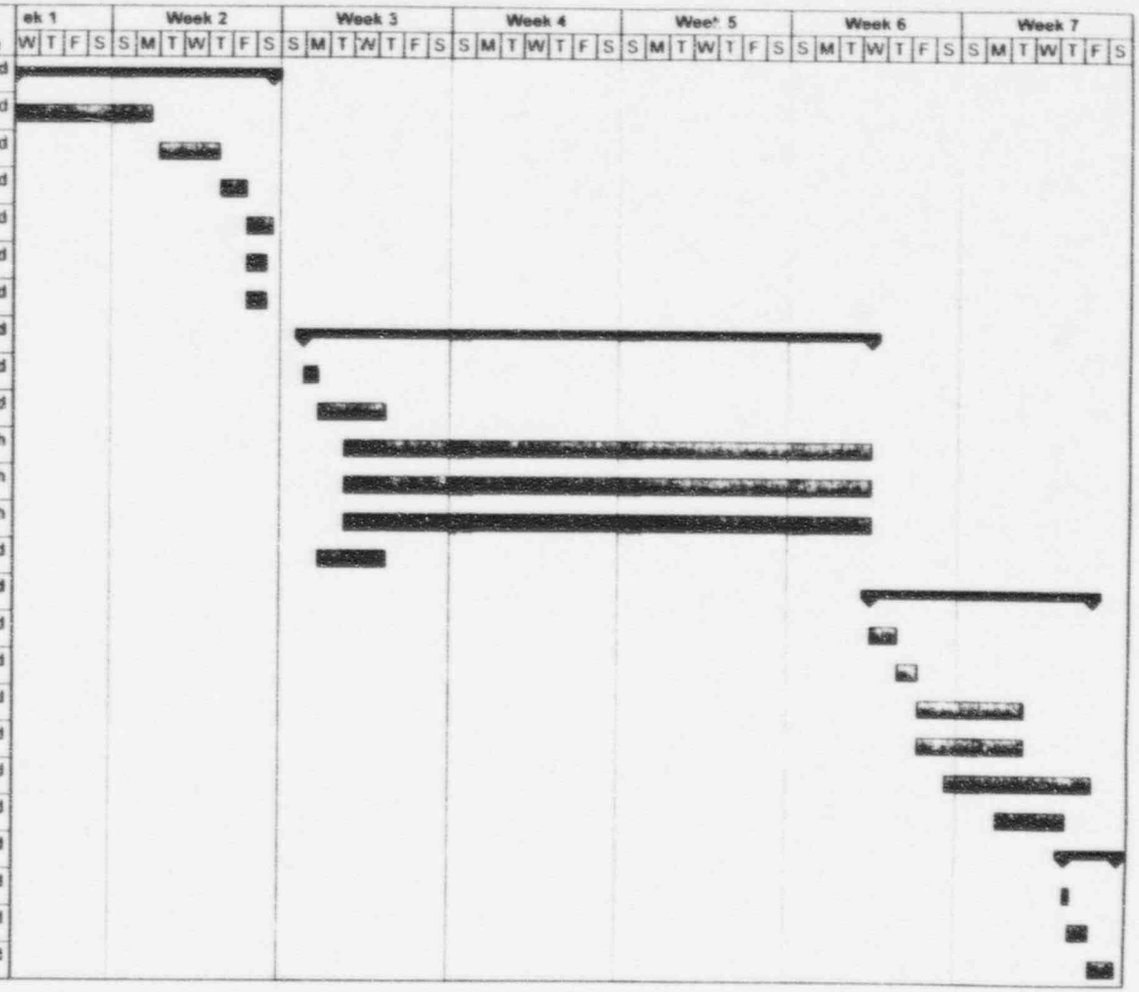

Table 2 Project Schedule

6.0 Organization and Responsibilities

The following is a list of the responsibilities associated with the site work:

Whittaker Program Manager - The Whittaker Chief Financial Officer and General Counsel will be the contact person within the Whittaker Corporation for this project. He is the person responsible for the selection and oversight of the contractors and their activities.

NES Project Manager - Maintains overall responsibility for ensuring that all quality assurance requirements are fulfilled and that the project is completed within schedule and budget. The Project Manager is responsible for the project records, for ensuring remediation techniques are performed in a proper and safe manner and for conveying the work package to the workers. The Project Manager reports directly to the Whittaker Corporation Program Manager.

NES Site Supervisor - Ensures the overall implementation of the work plan, that individuals are properly trained in ALARA procedures, that all records are maintained, and that persons whose job responsibilities include possible exposure to radioactive materials have participated in the training courses required to perform their work in a safe manner. The Site Supervisor shall ensure project tasks are completed in a safe and timely manner.

All Individuals - Maintain occupational exposure to radiation and contamination ALARA by following safe work practices; comply with radiation work permit requirements; immediately report to the supervisor any conditions that may lead to an incident causing an unusual exposure; and participate in training appropriate for job assignments.

NES Management Oversight - Provide quality assurance checks of operations and documentation during decommissioning and decontamination activities.

7.0 Training

All employees shall be thoroughly trained in radiation practices and for all hazardous or potentially dangerous situations that may arise. This training will reduce the chances of injury and allow work to progress smoothly and in a timely manner.

The Site Supervisor is responsible for job instruction with appropriate emphasis on the safety aspect of each task, and for determining when retraining/refresher is necessary. The Site Supervisor shall establish training programs for those personnel performing quality affecting activities to confirm their understanding of the quality assurance documents and requirements, and to verify they are proficient in implementing these requirements. These training programs shall ensure the following:

- Personnel responsible for performing quality affecting activities receive instruction on the purpose, scope, and implementation of applicable controlling procedures.
- Personnel performing such activities are trained and qualified, as appropriate, in principles and techniques of the activity being performed.
- The scope, the objective and the method of implementing the training programs are documented.
- Methods are provided for documenting training sessions, describing content, attendance, date of attendance, and the results of the training session, as appropriate.

Records of all training sessions shall be maintained which include the instructor's name, the training date and the person's names who attended the training sessions.

8.0 Equipment

All detection instruments used shall be certified as acceptable for detecting radiation levels appropriate to the Greenville site. Records of calibration and periodic operational checks of fixed and portable laboratory radiation measuring equipment shall be maintained. These records shall include frequencies, methods, dates, personnel training and traceability of calibration sources to the National Institute of Science and Technology or other acceptable standards. The following contains a list of equipment used for surveying activities:

Instrument	**Use**	**Radiation**
TLD	Daily personnel exposure	gamma
Ludlum 2221 with AC-3 probe	Fixed alpha release surveys	alpha
Ludlum 2221 w/44-9 GM probe	Fixed beta-gamma release surveys	beta/gamma
Bicron Micro-Rem meter	General area exposure rate measurement	gamma
Canberra Inspector	Spectroscopy for Soil Samples	gamma

Minimum Detectable Activities (MDAs) will be calculated for the survey instrumentation. Calculation of the MDAs determines the instrument detection sensitivity which gives the statistically determined quantity of radiation that can be detected at a preselected confidence level. The MDA is a deductive estimate of the minimum activity level which is practically measurable with a specific instrument. The MDA will be found by the following equation:

$$MDA = \frac{\frac{2.71}{T_s} + 3.29\sqrt{\frac{R_b}{T_b} + \frac{R_b}{T_s}}}{(efficiency)\ (\frac{probe\ area}{100\ cm^2})},$$

where,

R_b = background counting rate
T_b = background counting time
T_s = sample count time

9.0 Quality Assurance for the Remediation

To assure all final survey results are accurate and uncertainties have been considered, a Project Management Plan (PMP) will be developed which will contain the quality assurance requirements for the project.

10.0 Safety Procedures

All operations shall conform to the NES Health and Safety Plan and the Site Specific Health and Safety Plan. The following shall apply to all work performed at Whittaker:

- Hard hats shall be worn at all times.
- All holes shall be identified with caution tape.
- A portable phone will be available on-site in case of emergency.
- Caution shall be used during the operation of heavy equipment.

There will be a daily briefing by the Project Manager or Site Supervisor. The meeting shall be documented in the site log book and will discuss the following:

1. To review work that was performed the previous day, discuss potential problem areas, and ensure that everyone understands the tasks that are to be performed during the current day.

2. The briefing will be used to check the following:
   a. The necessary tools and equipment are available.
   b. Each worker knows how to perform their assigned tasks.

c. Each worker understands the radiological conditions of the area in which they will be working.

11.0 Health Physics Program

11.1 Air Monitoring

High volume and low volume air samples will be performed during excavation activities. Air monitoring shall also be established in the sample preparation area. Air concentration values in contaminated areas will be within the guidelines established in 10 CFR Part 20, App. B, "Standards for Protection Against Radiation." If the values exceed the guidelines the Site Health and Safety Officer will issue the appropriate respiratory protection the necessary personnel.

11.2 Personnel Monitoring and Protection

All personnel shall participate in a bioassay program before the commencement of work, including baseline in vitro examination (i.e., urine analysis) at the start of work and again upon completion of the project. Internal exposure shall be monitored by performing the in vitro counts.

An individual's annual effective dose equivalent is determined by summing the annual dose equivalents received from internally deposited radionuclides and external exposure to penetrating radiation (due to radioactive material) resulting from occupational exposure. Controls such as personnel monitoring, area radiation surveys, posting, shielding, training and control of work activities involving radioactive material will minimize external exposure and will be implemented as necessary.

11.3 Methods of Contamination Control

Entrance into the contaminated areas shall require a RWP and radiation worker training. Personnel who do not have the required training shall be escorted by a trained individual while in the area. Workers shall sign the RWP and be fitted with the required protective clothing and equipment. The RWP is an administrative mechanism used to establish radiological controls for intended work activities. The RWP informs workers of area radiological conditions and entry requirements, including pre-job briefing, training and protective clothing. All workers shall be required to sign the RWP. Workers shall also be briefed about the current facility conditions and wear personal dosimetry, as appropriate. Postings shall be used to alert personnel to the presence of radiation and radioactive materials. Postings shall follow established color schemes and verbiage. In areas of ongoing work activities, the dose rate and contamination

level, or range of each, shall be included with each posting as applicable. Area identification techniques, such as rope and tape, shall indicate the boundaries of the work area.

Control of radioactive contamination is achieved by using engineering controls and worker performance to contain contamination at the source, reduce areas of contamination and promptly decontaminate areas that have become contaminated. Examples of engineering controls to be utilized are the use of mist during excavation activities to mitigate the amount of airborne. The dump truck driving route will be designated by the use of cones to limit the area requiring surveying or decontamination. The implementation of a contaminated tool crib in the processing area shall minimize the use of radiologically clean tools or equipment.

Personal protective clothing will be worn only as necessary. This will ensure any waste generated by the remediation activities will be kept to a minimum. Gloves shall be worn during surveying and soil sampling procedures.

All material leaving the controlled area will be 100% scanned with the appropriate survey instrumentation and the results documented on the appropriate survey forms. This survey will ensure that the item is either not contaminated or properly handled for either decontamination or disposal as radioactive waste.

11.4 Quality Assurance in the Health Physics Program

The Whittaker Corporation's health physics program will provide an overall evaluation of the performance of the safety programs for the department having primary responsibility, down through the program implementation. The review includes quality assurance and identification of areas where safety performance objective reviews are scheduled to provide coverage of selected safety programs.

A radiological records management program will be established by the Site Supervisor. This program will ensure that the auditable records and reports are controlled through the stages of creation, distribution, use, arrangement, storage and retrieval. Radiation dose records will be maintained for all contractor and subcontractor employees. The Site Supervisor shall also maintain training records which summarize the scope of the training, the instructor's name, the training dates, and the names of the individuals who attended.

12.0 Radiological Work Permit

A Radiation Work Permit (RWP) will be issued for site activities. A RWP is a means of providing the radiological conditions under which work in a radiologically controlled area will be performed. The RWP provides controls to ensure the work is accomplished in a radiologically safe manner while maintaining personnel radiation exposure as low as reasonably achievable (ALARA). The RWP will be prepared by the Site Supervisor and will be approved by the Project Manager prior to the start of the task. A copy of the RWP to be used on-site can be found in Figure 12.

All personnel making an entry under an RWP shall comply with the requirements, instructions and precautions of the RWP. All full time personnel entering the controlled area will be monitored using a thermoluminescent dosimeter (TLD). Part-time personnel and visitors will be monitored using a self-reading dosimeter (SRD). A log of individual exposures will be maintained.

12.0 Ensuring that Occupational Radiation Exposures Are As Low As Reasonably Achievable (ALARA)

The Project Manager of the remediation activities shall be responsible for appropriating the necessary resources needed to establish ALARA goals, ensure all exposures fall within limits and are ALARA within these limits. The Site Supervisor shall ensure individuals under his supervision are properly trained in ALARA procedures and all records are maintained. The Site Supervisor will ensure persons whose job responsibilities include possible exposure to radioactive materials have participated in the training courses required to perform their work in a safe manner.

13.0 Radioactive Waste Management

Any radioactive waste generated as a result of the remediation activities will be packaged in 55 gallon drums and remain the property of Whittaker Corporation. In the event that liquids are generated, they will be sampled and analyzed to determine if they are contaminated above radiological release criteria. If the liquids are contaminated, they will be absorbed and stored on-site.

Figure 12 Radiological Work Permit

RADIATION WORK PERMIT

LOCATION			R.W.P. NO
EQUIPMENT NAME/NUMBER	INITIATED BY	ESTIMATED PERSON HOURS	DATE IN FORCE
			DATE EXPIRES
JOB DESCRIPTION (BE SPECIFIC)			EST PERSON-REM
			TOTAL EXPOSURE- REM

RADIOLOGICAL CONDITIONS

GEN. CONTAMINATION LEVEL dpm/100 cm²	MAX. CONTAMINATION LEVEL dpm/100 cm²	GEN. AREA RADIATION LEVEL MREM/hr	HOT SPOT RADIATION LEVEL REM/hr
AIRBORNE PARTICULATE ACT uCi/ml	GASEOUS ACTIVITY uCi/ml	RADIOIODINE ACTIVITY uCi/ml	TOTAL NO. of M.P.C.'s

SURVEYED BY _____ DATE _____

RADIOLOGICAL PROTECTION SUPPORT

☐ INITIAL ☐ ON CALL ☐ INTERMITTENT ☐ CONTINUOUS

PROTECTIVE CLOTHING			
LAB COAT		COTTON GLOVES	
COVERALLS	1 pr ☐ 2 pr ☐	RUBBER GLOVES - 1 pr ☐ 2 pr ☐	
PLASTIC SUIT TOP		SURGICAL GLOVES	
PLASTIC SUIT BOTTOM			
PAPER COVERALLS		RESPIRATORY GEAR	
HOOD		FULL MASK FILTER	
FACE SHIELD		SUPPLIED AIR MASK	
RUBBER OVERSHOES		SUPPLIED AIR HOOD	
PLASTIC SHOE COVERS	HIGH / LOW	PAPER	
		SCBA	

NON-PROTECTIVE CLOTHING			
COTTON LINERS		SURGEON CAP	

DOSIMETRY	
FILM BADGE	
LOW RANGE DOSIMETER	
HIGH RANGE DOSIMETER	
DOSE RATE METER	
TLD BADGE	
NEUTRON METER	
NEUTRON BADGE	
MULTI-BADGE	
EXTREMITY	
TLD/RING - Left Hand	
TLD/RING - Right Hand	
FILM BADGE/TLD - Left Foot	
FILM BADGE/TLD - Right Foot	

SPECIAL INSTRUCTIONS

- ☐ TAPE GLOVES AND FOOTWEAR TO COVERALLS
- ☐ WEAR DOSIMETER ON INNER COVERALLS
- ☐ SET UP LOCAL CONTROL ZONE (Radiation or Contamination)
- ☐ WEAR DOSIMETRY ON HEAD
- ☐ AIRBORNE SAMPLE TO BE TAKEN AS SPECIFIED
- ☐ FIRE WATCH REQUIRED
- ☐ CONFINED SPACE ENTRY CONTROLS
- ☐ HARD HATS REQUIRED
- ☐ INDUSTRIAL HAZARD MITIGATION (SPECIFY)
- ☐ HEARING PROTECTION REQUIRED
- ☐ EYE PROTECTION REQUIRED
- ☐ FILTERED EXHAUST VENTILATION REQUIRED
- ☐ JOB PLAN MEETING
- ☐ ENCLOSED CONTAINMENT REQUIRED
- ☐ OUTER PERSONAL CLOTHING NOT TO BE WORN
- ☐ EVALUATE LOCATION OF WHOLE BODY DOSIMETRY
- ☐ RADIOLOGICAL OR HAZARDOUS CONDITIONS TO BE RE-EVALUATED AFTER WORK COMMENCES
- ☐ CHEMICAL HAZARD
- ☐ SCAFFOLDING SAFETY

RWP APPROVED DATE RCS	RWP APPROVED DATE SS	RWP CLOSE DATE RCS

1. DEACTIVATION ☐	2. ROUTINE MAINTENANCE ☐	3. SPECIAL MAINTENANCE ☐	4. WASTE - PROCESSING ☐	5. REFUELING INSPECTION ☐	6. INSERVICE INSPECTION ☐

14.0 References

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4. USNRC NUREG/CR-5849, "Manual for Conducting Radiological Surveys in Support of License Termination;" December, 1993.

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