SITE WORK PLAN

Site 9 Soil Removal Action FFP
NAS Brunswick, ME
N62472-05-Q-SB22

Prepared for: James Toal
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Building 53
NAS Brunswick , ME 04011

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Date: July 6, 2005

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Project Contact List

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Lester, PA 19113-2090
Code EV4/CG
ATTN: Mr. Claude Graff, Contract Specialist
(610) 595-0631

Engineering Field Activity Northeast (EFANE)
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ATTN: Frank Cellucci, Project Lead (PL)
(610) 595-0567, x122

Engineering Field Activity Northeast
10 Industrial HWY., MSC #82
Lester, PA 19113-2090
Code 182/LM
ATTN: Mr. Lonnie J. Monaco, P.E., Remedial Project Manager (RPM)

Resident Officer in Charge of Construction (ROICC)
NAS, Brunswick, Maine
Joe Gallant
(207) 921-2325

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ATTN: Ms. Lisa Joy or Mr. Anthony Williams

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Federal Facilities Section,
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State House, Station #17 Augusta, ME 04333

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Auburn, ME 04210

P.O. Box 1195 (Regular Mail)
Auburn, ME 04211-1195

BACKGROUND

NAS Brunswick is an active base, owned and operated by the Federal government through the Department of the Navy. NAS Brunswick is located in Brunswick, Cumberland County, Maine, south of the Androscoggin River and south of Route 1 between Routes 24 and 123.

Site 9 is approximately 20 acres in area and is located in the central portion of the base. The CERCLA Information System operable unit number assigned to Site 9 is OU6. Records indicate that a former incinerator, ash landfill/dump area, and disposal area are located at Site 9. The incinerator was reportedly used from April 1943 until the fall of 1946, but may have been used as late as 1953 when the barracks buildings were constructed. Solid wastes were incinerated and the ash was disposed of in the dump (now referred to as the ash landfill/dump area), and other wastes disposed of into the dump reportedly included solvents which were burned on the ground, paint sludge, and possibly wastes from the metal shop (U.S. Navy 1994 [PRAP]).

Site 9 has been characterized in the Draft Final Direct-Push Groundwater and Ash Landfill/Dump Area Delineation Investigation Summary Report for Site 9, Naval Air Station Brunswick, Maine of November 2004.

Surrounding land use is residential/commercial; former barracks and related buildings adjacent to the area have been recently demolished. Site 9 is generally flat with two steep-sided stream channels in the southern portion of the site. Avenue C "Neptune Drive" divides the site on a west-east axis, and Orion Street borders the western edge of Site 9.

Impoundment ponds were constructed in 1997 and receive surface drainage from the majority of the operations (industrial) area of the base, including the flight line and hangar areas. The impoundment ponds are located to the south, southeast, and east of Building 201 (a dining facility).

STATEMENT OF WORK

This Work Plan outlines the procedures for excavation and off-site disposal of approximately 16,000 cubic yards of soil. Soil sampling shall be performed as required to satisfy all Base, Federal, state and local law, ordnances and environmental regulations and waste material receiving facilities. The removal area will be backfilled, graded and seeded. Erosion controls shall be designed and constructed to comply with MEDEP throughout the period of performance for this contract. In addition, concrete pads and utility lines in the area of the project will be removed and/or capped as part of the excavation activities.

All work will be conducted in accordance with all pertinent NAS, state, local and federal regulations and this Work Plan. This Site 9 cleanup will be performed while providing adequate protection of underground and overhead utilities including storm drains that transect the site underground.

PROJECT SUPERVISION

Mr. Bruce Newman (OAK PM) will serve as the project manager for this project and serve as the single Point of Contact (POC) for the project to communicate and interact with Navy personnel and their representatives. Mr. Michael Rose will serve as the full-time site superintendent and will be on-site during normal working hours, and be available to attend scheduled meetings as necessary. A brief overview of the qualifications of Mssrs. Newman and Rose are provided as Attachment A.

OAK anticipates attending a pre -construction meeting to be held at the NAS Brunswick prior to initiation of field activities to facilitate project execution in a manner consistent with the procedures of the base and foster appropriate communication throughout the project duration. It is anticipated that the meeting shall be one working day in length.

WORK PLAN CONTENTS

Per the project specifications, the Work Plan includes the following elements.

- Laboratory(ies) proposed to be used for waste characterization and clean fill certification, required detection limits, and the contracted turnaround time for sample analysis.
- Method to stockpile material in a manner that will prevent wind and water erosion of soil away from the work area.
- Method to document sample collection and analytical records such that analysis can be tracked back to each stockpile or container prior to disposal.
- Method to handle items not anticipated (tanks, compressed gas cylinders, asbestos materials and drums) if encountered.
- Method for erosion control from work areas, particularly protection of the adjacent water bodies during all site activities.
- A detailed schedule for completion of the work described in this SOW.
- Method for spill prevention and spill response.
- Method of decontamination for vehicles and recycling, where feasible, materials exiting the site.
- Method to direct transportation activities within an acceptable timeframe, to control site working hours, to comply with security inspection requirements and to minimize disturbance to local residents.
- Site drawing(s), illustrating proposed work areas, including loading areas,

decon areas, staging areas, site traffic patterns, and equipment lay down areas.

- A Site Health and Safety Plan (SHSP) that conforms to the requirements set forth by OSHA and 29 CFR1910.120 (HAZWOPER), US Army Corps of Engineers (USACE) Safety and Health Requirements Manual (EM 385-1-1), and other pertinent OSHA requirements specific to the anticipated site activities, approved by a Certified Industrial Hygienist.

In addition, information is provided on the proposed Transporters and Disposal Facilities for off-site transportation and disposal of soils and/or waste from the site. Contingencies may arise such that additional transporters and disposal facilities may be required. In these instances, OAK will provide the required information to the Navy for approval prior to using them for either transportation or disposal services.

LABORATORIES

Three laboratories are identified for performing chemical analyses of samples, as follows:

Katahdin Analytical Services
340 Country Road No. 5
P.O. Box 720, Westbrook, ME 04098
(207) 874-2400

Alpha Analytical Labs
8 Walkup Drive
Westborough, MA 01581
(508) 898-9193

ESS Laboratory
185 Frances Avenue
Cranston, RI 02910
(401) 461-4486

All three laboratories are certified by the Naval Facilities Engineering Service Center and have done work at Brunswick, NAS. The NFESC certifications are provided in Attachment B. Note: ESS is currently undergoing NFESC re-certification and will only be maintained as part of the laboratory pool for this project pending a successful outcome of this re-certification.

Contracted Turnaround Time
The laboratories will be contracted to meet the project specified turnaround time of providing a hardcopy of results to the contracting officer within 5 days of sample collection. OAK anticipates using only one laboratory for the duration of the project. However, the project turnaround time of 5 days can be challenging for the types of

analyses specified. Accordingly, backup laboratories will be in place should the primary laboratory anticipate and/or encounter difficulties at any point in the project in meeting project specifications.

Laboratory Detection Limits
Three types of chemical analyses will be performed for this project: (1) chemical analyses of waste piles; (2) confirmatory sampling of excavation; and (3) sampling of backfill materials. The required detection limits for each sample type is identified below.

Types of Samples	Required Detection Limits
Waste Pile Samples	Limits for defining characteristic hazardous wastes under RCRA Disposal facility permit limits
Confirmatory Samples	MEDEP Soil Cleanup Limits
Backfill Samples	MEDEP Soil Criteria for Direct Contact

The proposed method detection limits are provided in Attachment C. These detection limits meet and exceed the necessary detection limits for the regulatory requirements applicable to this project.

METHOD TO STOCKPILE SOIL

Soil will be stockpiled using practices and procedures standard to the handling and management of contaminated soils, including the following:

- An erosion control barrier will be placed around the work area, which includes the soil stockpile area, to prevent water erosion of soils away from the project site. The erosion control barrier will be constructed using silt fencing per Maine Erosion and Sediment Control BMP (Attachment D).
- There are no drainage ditches, culverts, or other surface drainage features currently identified in the area. Should such features be present, additional erosion control features will be placed per Maine best management practices.
- Soil stockpiles will be underlain by 10 mil poly sheeting. Further, each stockpile will be covered at the end of each day with 10 mil poly sheeting, or sooner if a rain event is anticipated. Once a soil stockpile has reached 500 cubic yards and is covered, it will remain covered until loadout and off-site disposal of the stockpile is initiated.
- Soil stockpiles will be inspected daily to ensure that the covering remains in place and is properly anchored.

The procedures identified above are anticipated to prevent both wind and water erosion of the soil stockpiles. Similar procedures will be used for materials brought to the site for backfill and restoration. However, OAK anticipates that the majority of these restoration materials will be used immediately upon their delivery to the site such that there will be minimal stockpiling of them.

METHOD TO DOCUMENT SAMPLE COLLECTION

Accurate tracking of sample collection and correlation of analytical data with soil stockpiles is critical for the execution of this project. Sample tracking and documentation will include the following:

- A systematic numbering methodology (with the prefix S9 to refer to this project) where each sample has a unique identification number (ID),
- Recording of all samples collected in the field notebook.
- Completion of a chain-of-custody for each sample set (and maintenance of sample chain-of-custody).
- Preparation of a site sketch, in the field, on the day of sample collection, annotated with sample locations and identification numbers.

Specific aspects of our sample tracking and documentation for the different types of samples are discussed below.

Soil Stockpile Samples

Soil stockpiles will be numbered sequentially (P1 through P32). Further, upon completion of a 500 cubic yard stockpile, water resistant placards will be placed at two locations along the slopes of the soil pile, underneath the poly sheeting used to cover the pile. In addition, a placard with the pile ID will be staked into the ground adjacent to the soil pile, outside the poly covering. The location of the soil stockpile and associated ID will be annotated on a site sketch maintained in the field.

Per the project specification, OAK will collect a minimum of one 4-point composite per 500 cubic yard stockpile. Each soil stockpile will be divided into four quadrants, as if the soil pile was divided from above into north-south halves and then east-west halves. Within each quadrant, multiple locations may be used to generate a composite sample for the quadrant, which in turn is used to develop a composite sample for the pile. The approximate location of each sample used to generate a composite will be recorded in the field notebook. More than one composite sample per stockpile may be needed to meet disposal facility permit requirements. Each separate composite sample from a stockpile will be created from different sample locations on and within the pile. An example of the sample ID is as follows: S9-P1-1 (site ID – pile ID – sample number). The sample ID along with the field notes, annotated site sketches and pile placards will allow for accurate tracking of sample results with individual soil piles.

Backfill Samples

Each source of backfill materials will be given a unique ID, which will be recorded in the field notebook. Samples collected at each source of backfill materials will be numbered sequentially. If more than one type of material is sampled at a given source, then the sample ID will reflect the material sampled (e.g., S9-Source1-sand1, S9-Source1-gravel1). A description of the sample location and/or a field sketch will be recorded in the field notebook.

Confirmatory Samples
Three types of information will be tracked for each confirmatory sample location: horizontal position, sample type (sidewall vs. bottom), and sample depth.

- To track horizontal position, a 25-foot grid will be established in the field. One axis will be parallel to Wyman Park and Avenue C and be given an alpha character, beginning with A. The second axis will be perpendicular to the first axis and be numbered, beginning with 1. The horizontal location will be then be assigned in the field based on this grid, using both an alpha and numeric character to identify a specific grid area (e.g., A5, D2). In addition, it is likely that there will be more than one sample per sample grid (at different depths). So, samples from the same sample grid will also be assigned a sequential number.
- The type of sample will be either an SW for sidewall or B for bottom sample.
- The approximate depth of the sample, in feet, will be recorded and used in the sample ID, immediately following the sample type. For example, the sample ID of S9-D2-SW4-1 will be the first sample from grid D2, from the sidewall at a depth of 4 feet.

The above information will be recorded in the field notebook, will be annotated on site sketches, and will be used throughout the sample labeling and chain-of-custody process.

UNANTICIPATED WASTE

A variety of waste materials can be encountered when excavating in a disposal area. Because the project is expected to consist primarily of the excavation of soil and/or ash, any non-soil/ash materials will be inspected visually. Non-hazardous materials that may be encountered, including concrete, brick, wood and metal, will be segregated and disposed of separately, as necessary to accommodate the disposal facility requirements. Potentially hazardous materials include asbestos-containing materials (ACM), objects that may include liquids and gases, and unexploded ordnance. These materials are presented in the order of greater likelihood to lesser likelihood. The Site Health and Safety Plan provides procedures for addressing each of these material types. A summary of key items is presented below. In all cases, the Navy will be notified immediately of the presence of potentially hazardous materials and the procedures being used to address their presence.

ACM

The potential presence of ACM will be based on visual evidence. Mr. Rose, the on-site superintendent, has many years of experience in excavation and segregation of debris from waste areas and old landfills, including materials with ACM. Further, all on-site workers will be reminded to be alert for the possible presence of ACM materials. This will be particularly important for the portion of the project involving abandonment of utility lines since older utility materials have a greater potential for containing ACM.

Where visual inspection identifies a material considered suspect ACM, a Maine licensed

asbestos inspector will be used to formally evaluate and test the material. Further handling of the materials will be based on the findings of the asbestos inspector. As required, procedures specific for the continued excavation, handling and disposal of ACM will be provided as an amendment to this Work Plan and SHSP.

Liquid and Gas Containers

Excavation activities in and around any containers identified as potentially containing liquids or gases will be immediately terminated. Mr. Rose, the on-site supervisor will direct specific actions to be taken based on the following types of information:

- Condition of the container (and its likelihood of being intact)
- Presence of labels or markings
- Evidence of environmental release (including results of air monitoring instruments)
- Potential for environmental release
- For gas cylinders, the apparent condition of the valve

Following this initial assessment, the Navy will be alerted to the presence of the container(s) and the procedures for addressing removal and continued excavation.

Unexploded Ordnance

As part of the on-site health and safety briefings, the project team will be reminded of the potential for encountering unexploded ordnance (UXO) whenever working at military installations. Mr. Rose, the on-site supervisor, has extensive experience working at military installations and a working awareness of the hazards of UXO. While the potential for encountering UXO is considered very low, the potential hazards presented by UXO are very high. Thus, any metallic objects of unrecognizeable shape will be brought to the attention of Mr. Rose, and will not be disturbed further pending further on-site evaluation. As warranted, the Navy will be alerted to the potential presence of UXO, and certified EOD technicians will be used to mitigate the potential impacts of UXO on the project.

EROSION CONTROL

Erosion control for the project will be per Maine Erosion and Sediment Control BMP. Erosion controls will be used around the soil stockpiles and the work area, as described above under management of the soil stockpiles. The emplacement of the silt fencing around the work area will be the first field activity conducted at the site. The erosion controls will be periodically inspected and maintained throughout the project to ensure that storm water is not washing soils away from the work area. In addition, existing storm drains in Wyman Park or along Avenue C (or any other nearby areas) will be protected from soil runoff by use of hay bales around the storm drain should they have the potential to be impacted by site activities.

DETAILED SCHEDULE

A detailed project schedule is included as Figure 1 to this Work Plan.

SPILL PREVENTION AND RESPONSE

The SHSP includes specific procedures for addressing spills. In general, there are few liquids that will be stored on-site or are anticipated. A fuel truck will be contracted locally for periodic fueling of on-site equipment. OAK will ensure that the fuel truck is fully equipped with spill response equipment. In addition, a spill kit will be maintained on-site consisting of a 55-gallon drum, absorbent pads, absorbent granular material and a shovel. All spills will be reported to the Navy and addressed as required by Maine DEP requirements.

DECONTAMINATION

An equipment and personnel decontamination station will be established adjacent to the work area. The decontamination pad will be located such that contaminated materials will be prevented from leaving the work zone. A drawing showing the design of the decontamination pad is provided in Figure 2. The decontamination pad will be large enough to accommodate individual pieces of equipment (e.g., excavator) while providing room to contain overspray (approximately 15 feet by 30 feet). As shown on Figure 2, the decontamination pad will contain a water tank to hold the decon water, a pressure washer/sprayer for equipment decon, a trash receptacle for waste PPE, a pump to collect decon water (as needed), and a personnel washing station. A liquid detergent (e.g., Liquinox) will be used, as needed, to ensure adequate decontamination of equipment.

Decontamination fluids and solids shall be captured daily, and stored on site then characterized and disposed of as appropriate in accordance with Base, Federal, state and local environmental regulations.

TRANSPORTATION MANAGEMENT

Transportation management will be a key element of this project because of the volume of materials to be transported off-site as well as the restoration materials required to be shipped on-site. Transportation management will include the following:

- Use of established traffic patterns,
- Scheduling,
- Prevention of dust tracking, and
- Waste documentation.

Established Traffic Patterns

Dyer's Gate off of Route 123 (Harpswell Road) will be used for access to the base. This gate will also be used for vehicles departing from the base. On-base, trucks will take the direct route from Dyer's Gate to the work area and enter the work area via Avenue C, and use the same route for departure from the site. A figure showing the anticipated traffic patterns is provided under the following Section.

Scheduling of Transportation

Transportation of soils for off-site disposal will only be scheduled once all proper documentation is available. The hours for loading and off-site transportation are limited by the operational hours of the disposal facilities, typically 7:30 AM to 4:30 PM. Accordingly, loading of trucks for off-site disposal will be conducted between 6:30 AM and 4:00 PM. The number of trucks will be established to match the loading capacity of the on-site equipment and the ability of the disposal facility to receive the waste. Four to six trucks per day are anticipated (with each truck making multiple trips throughout the day). Further, the arrival of the trucks will be staggered throughout the day to minimize on-site waiting/parking of trucks. Shipment of wastes on weekends is not anticipated.

Materials being delivered to the site will be scheduled to arrive during normal working hours (6 AM to 4 PM). The number of truck deliveries will be matched to the crew capacity for using the delivered materials. Truck deliveries may occur at the rate of two to six trucks per day during the restoration stages of the project, with each truck making multiple deliveries per day.

Prevention of Soil Tracking

OAK will ensure that there is no visible material on the sides or tires of any vehicle leaving the site, or leaving the staging area. A truck tracking pad will be placed before the exit from the work area. OAK will use mechanical means such as a pressure washer to ensure that soil is not tracked beyond designated work areas onto surrounding roadways. Note: the work area includes the area of contamination as well as the surrounding areas for staging of equipment and other related activities. Trucks are NOT anticipated to be entering into any contaminated areas, thus, any dust or soil removed from the trucks is expected to be uncontaminated.

OAK will ensure that all vehicles used for T&D are equipped with appropriate appurtenances (e.g. tarps) in acceptable working condition. All loads must be covered prior to departure. Liners will be used if vehicle beds do not properly seal when closed.

Waste Documentation

Materials being disposed of from the site will be accompanied by either a Bill of Lading or a Waste Manifest. In some instances, other forms of documentation can be used. Miscellaneous trash generated at the site by the workers will not be subject to this Material Tracking Plan.

OAK will generate waste manifest for the soils and/or debris generated from the work area. A field review will be performed of the documentation provided for transport of wastes to ensure completeness. The waste manifest will be presented to the Navy for approval and signoff. A completed, signed waste manifest will then initiate the off-site disposal process.

OAK will maintain a project log which documents the waste disposal process. The log will include information such as date, vehicle ID, type of waste, disposal facility, and a confirmation that the driver has received appropriate paperwork. OAK will ensure that

each truck driver has a copy of the waste manifest. OAK will also confirm with each driver, prior to departure, the shipment destination. OAK will provide written directions to drivers, as needed.

Each day, OAK will be in communication with the vehicle drivers and the disposal facilities to verify that waste shipments have been delivered and received. The disposal facilities will provide weight slips for trucks at certified scales located at the disposal facilities. The weight slips will document the total weight of the truck including waste as well as the tare weight of the vehicle following dumping of the waste at the site. Quantities of decontamination water will be documented via flow meter to the nearest gallon.

OAK will compile all completed waste manifests, including signatures by the receiving facilities, and provide copies to the Navy within required timeframes. OAK will also maintain and provide a summary of all waste shipments. OAK will also submit Certificates of Treatment/Disposal from the final disposal facility. Certificates of Treatment/Disposal will include the number of the manifest, date when the waste was transported off-site, and a description of the waste as reported on the manifest. Certificates will be submitted within 10 days of final waste disposal. These Certificates will be received separately and prior to invoicing.

SITE DRAWINGS

Figures 3 through 5 show the following:

- general area of the site,
- proposed work areas,
- decontamination areas,
- staging areas,
- equipment lay down areas, and
- proposed traffic patterns.

Some adjustments to these areas/items may be necessary throughout the duration of the project. As necessary (e.g., traffic patterns), OAK will coordinate with the Navy prior to implementing any changes to these areas/items.

SITE HEALTH AND SAFETY PLAN

A Site Health and Safety Plan (SHSP) is provided under separate cover as a stand-alone document to ensure that work is conducted safely, in accordance with OSHA requirements at 29 CFR 1910.120. A copy of the SHSP will be kept on-site at all times during the time that work is being performed. The project team will be fully briefed on the procedures in the SHSP, and daily health and safety briefings will be held to highlight key topics and procedures. The project team is very experienced in working at sites with a SHSP and executing projects in a manner safe to on-site workers, visitors, and the surrounding community.

TRANSPORTER INFORMATION

	CPCRS	Wastewater	Pine Tree	Waste Management
USDOT Safety Rating				
Notices of Violations (past 3 years)				
DOT Permits	061504			
Overweight Permits				

DISPOSAL FACILITY INFORMATION

Facility	CPRC	Brunswick	Pine Tree	
Type of Waste	Soil and ash	Soil/solid waste	ACM/soil/solid waste	Water/liquids
Type of Facility				
Location				
EPA ID #				
Facility POC				
Hours				
Regulatory POC				
Date of Last Inspection				
List of NOVs				
Environmental Permits				
Weight Scale Certificate				
Analytical Requirements				

HEALTH AND SAFETY PLAN (HASP)

Work Plan

Site 9 Soil Removal Action FFP
NAS Brunswick, ME

N62472-05-Q-SB22

Submitted to:
NAVAL FACILITIES ENGINEERING COMMAND
EFA NORTHEAST
10 INDUSTRIAL HIGHWAY

Submitted By:
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Reviewed By: Edward J. Ficher
CIH

Date: 30 June, 2005

Project Contact List

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Resident Officer in Charge of Construction (ROICC)
NAS, Brunswick, Maine
Joe Gallant
(207) 921-2325

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ATTN: Ms. Lisa Joy or Mr. Anthony Williams

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Boston, MA 02114-2023

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Lepage Environmental Services, Inc.
731 Hotel Road (FedEx)
Auburn, ME 04210

P.O. Box 1195 (Regular Mail)
Auburn, ME 04211-1195

SITE EMERGENCY FORM

Contaminants of Concern: **Petroleum, Heavy Metals, PAHs, Potential VOCs**
Minimum Level of Protection: **Level D**

Do not endanger your own life. Survey the situation before taking any action.

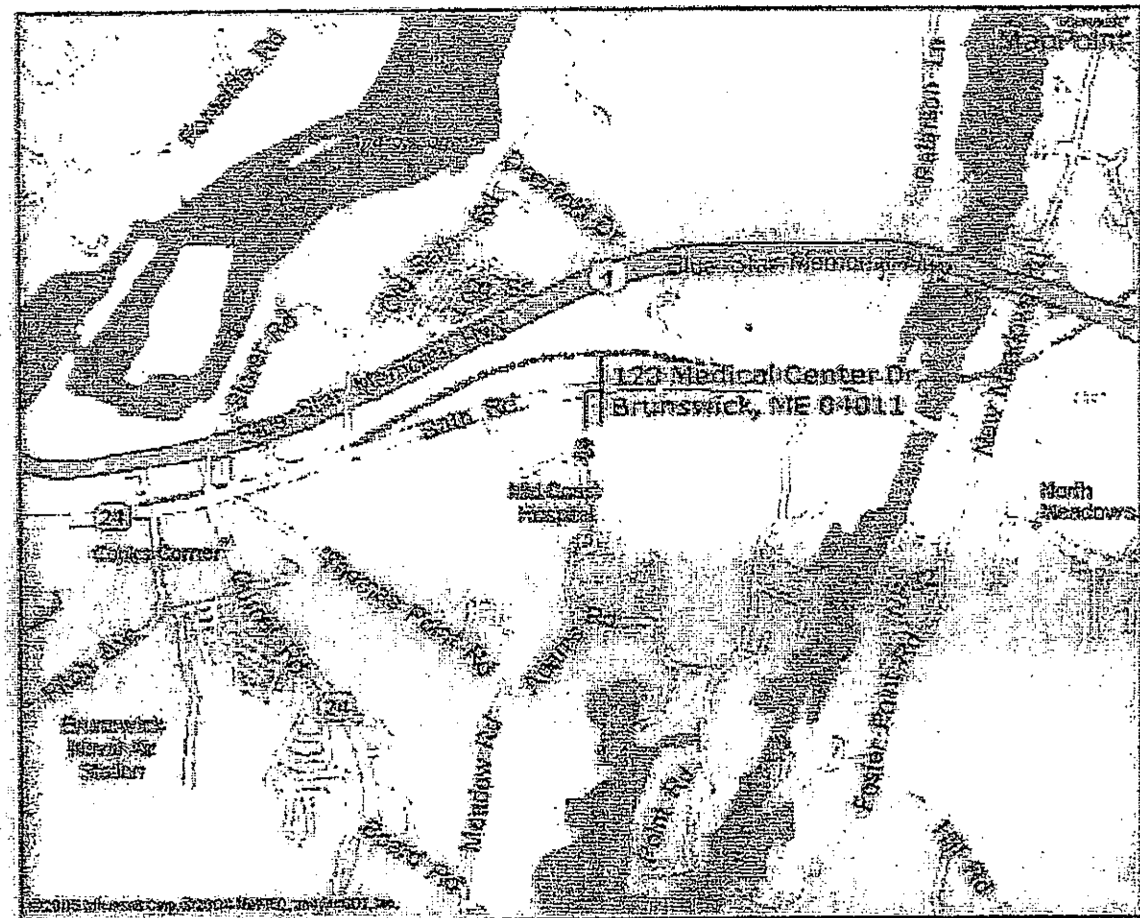
Oak Team Field Mobile Telephone	(401) 230-8718
Site Location Address	Wyman Park/Avenue C Brunswick NAS, Brunswick, ME
Telephones Located On-Site	Superintendent Mobile Telephone

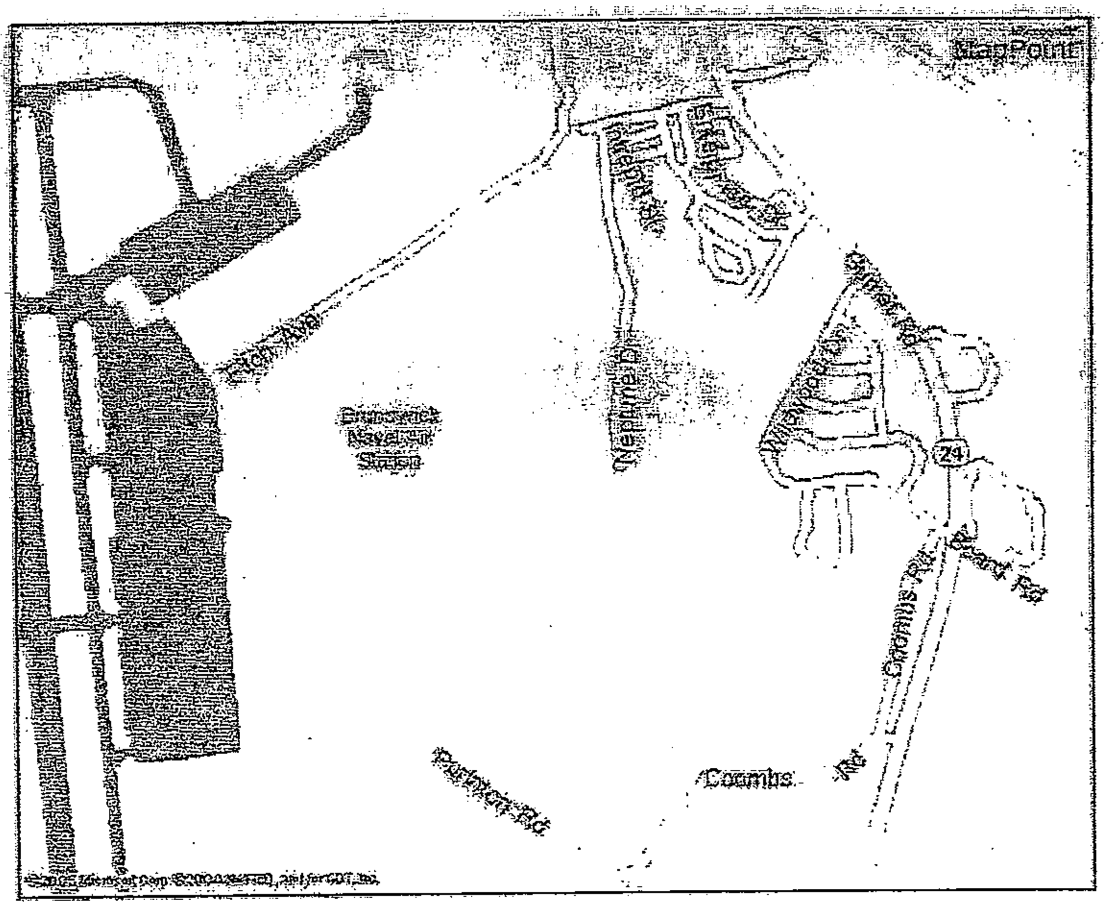
EMERGENCY PHONE NUMBERS *(Contact project manager following any emergency)*

Rescue	BNAS Emergency Dispatch (207) 921-2309
Fire	
Police	
Hospital Name	Mid Coast Hospital
Hospital Phone Number	(207) 729-0181
Project Manager (PM)	Bruce Newman (856) 988-9553
Site Safety and Health Officer (SSHO)	Mike Rose (401) 230-8718
Navy PM	James Toal – (207) 921-2315
Navy ROICC	Robert Gersh – (207) 921-2309

UTILITY MARKER EMERGENCY TELEPHONE NUMBERS

Utility	Color Code	Telephone Number
Water Gas Electric Telephone/Cable Sewer	Blue Yellow Red Orange Green	Dig Safe Telephone Number 1-888-344-7233 BNAS Utilities – James Toal (207) 921-2315 BNAS Utilities Foreman – Ron Coculo (207) 921-1706


MapPoint
123 Medical Center Dr
Brunswick, ME 04011
Bath Rd
Coles Corner
North Meadows
Meadow Rd
Adams Rd
Foster Point Rd
21
1


MapPoint
Fitch Ave
Neptune Dr
Coombs Rd
Coombs
Purinton Rd
24

AGREEMENT AND ACKNOWLEDEMENT SHEET

The Oak Project Team has the authority to stop field activities at this site if any activity is not performed in accordance with the requirements of the HASP. All project personnel, subcontractor personnel, and personnel in the work area are required to sign the Agreement and Acknowledgment Sheet **prior** to conducting field activities at this site.

AGREEMENT AND ACKNOWLEDGMENT STATEMENT		
1. I have read and fully understand this HASP and my responsibilities. **2. I agree to abide by the provisions of this HASP.**		
Name and Company	Signature	Date

VISITOR GUIDELINES

The Oak Project Team is committed to providing a safe environment on all work sites for visitors, trainees, employees and/or passersby. In order to accomplish this, the following guidelines must be followed. **Infractions of the listed requirements agreement will be viewed as extremely serious and will be subject to discipline up to and including termination for either the trainee and/or supervisor.**

Any person not actively participating in the work at the site is regarded as a "visitor" and must follow the visitor/trainee guidelines while on-site. Visitors must be accompanied by a representative at all times.

Visitors will attend and sign-off on a site orientation. The orientation will cover specific areas that visitors will not be allowed to access during certain work activity. Visitors are required to wear appropriate PPE on-site. Required PPE for visitors include:

- closed toed shoes,
- hard hat,
- safety glasses with side shields,
- proper footwear, and
- other as required by SHSO (i.e., gloves, hearing protection, etc.)

I agree to adhere to the above conditions in all instances while on-site as a trainee/observer.

Visitor Signature	Visitor Name (Print)	Date	On-Site Escort

HASP AMENDMENT SHEET

Project Name: Site 9 Removal Action, Brunswick NAS, Brunswick, ME

Project Number: N62472-05-Q-SB22

PM:

Location:

Changes in field activities or hazards:

Approved by:_____ _____
Project Manager Date

Approved by:_____ _____
Health and Safety Representative Date

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APPENDIX A – SOIL AND GROUNDWATER DATA, SITE 9 DELINEATION REPORT

APPENDIX B – MATERIAL SAFETY DATA SHEETS

APPENDIX C – ON-SITE WORKER OSHA CERTIFICATIONS (to be augmented as workers are assigned to the project)

LIST OF ACRONYNMS

ACGIH	American Conference of Governmental Industrial Hygienists
CFR	Code of Federal Regulations
CGI	Combustible gas indicator
HASP	Health and Safety Plan
IDLH	Immediately dangerous to life or health
LEL	Lower explosive limit
Mg/kg	Milligrams per kilogram
mg/M_3	Milligrams per cubic meter
MSDS	Material Safety Data Sheet
O_2	Oxygen
OSHA	Occupational Safety and Health Administration
PEL	Permissible exposure limit
PID	Photoionization detector
PM	Project Manager
PPE	Personal protective equipment
ppm	Parts per million
SHSO	Site Health and Safety Officer
TLV	Threshold limit value

1.0 SITE DESCRIPTION

NAS Brunswick is an active base, owned and operated by the Federal government through the Department of the Navy. NAS Brunswick is located in Brunswick, Cumberland County, Maine, south of the Androscoggin River and south of Route 1 between Routes 24 and 123.

Site 9 is approximately 20 acres in area and is located in the central portion of the base. The CERCLA Information System operable unit number assigned to Site 9 is OU6. Records indicate that a former incinerator, ash landfill/dump area, and disposal area are located at Site 9. The incinerator was reportedly used from April 1943 until the Fall of 1946, but may have been used as late as 1953 when the barracks buildings were constructed. Solid wastes were incinerated and the ash was disposed of in the dump (now referred to as the ash landfill/dump area), and other wastes disposed of into the dump reportedly included solvents which were burned on the ground, paint sludge, and possibly wastes from the metal shop (U.S. Navy 1994 [PRAP]).

Site 9 has been characterized in the Draft Final Direct-Push Groundwater and Ash Landfill/Dump Area Delineation Investigation Summary Report For Site 9, Naval Air Station Brunswick, Maine of November 2004. Tables 2 and 3 of the Delineation report are provided as Attachment A. The results of the chemical analyses indicated the following:

Soils

- There were few VOCs detected.
- The following petroleum compound was detected: naphthalene at 1.6 mg/kg.
- A variety of PAHs were detected; the maximum concentration was pyrene at 7.3 mg/kg.
- Metals were detected; notable concentrations include chromium at 87 mg/kg, lead at 1,440 mg/kg, mercury at 0.17 mg/kg and zinc at 3,500 mg/kg.

Groundwater

- Vinyl chloride and trichloroethene (TCE) were the only VOCs detected above regulatory standards at a concentrations of 7.1 and 7.3 ug/L, respectively.

1.1 Location

Brunswick NAS is located south of Route 1 and is bounded approximately by Bath Road to the north, Harpswell Road to the west, and Gurnet Road to the east. The Site 9 project area is located in the east central part of the base along Orion Street, between Avenue C and Wyman Park. The location of the site is shown in the emergency information at the beginning of this HASP.

1.2 Surrounding Population

The nearest regularly occupied buildings are north of Wyman Park and south of Avenue C. Both of these areas are within several hundred feet of the project area. A parking area is adjacent to the site to the east, and Orion Street borders the site to the west.

1.3 Topography and Accessibility

The site is a flat, open area. Accessibility to Brunswick NAS is controlled by the Navy via security gates. Once on base, the project area is accessible via the adjacent streets.

1.4 Site History

A former incinerator was located near the project site. Ash from that incinerator was buried; this ash constitutes the material targeted for the removal action.

1.5 Planned Duration of Site Activity

The site work will be completed within a 90-day period, as part of a single mobilization. A schedule for site activities is included in the Work Plan. The excavation of soils and ash is expected to take place over a four to five week period.

1.6 Anticipated Weather Conditions During Site Activity

Work will be completed in the months of July through October. Summer weather is expected which could mean high heat and humidity. Also, sudden thunderstorms are a possibility.

1.7 Will this Job Involve "Confined Space" Work ?

Yes____ No __X__

If Yes, explain_____

_____

1.8 Are Utility Notifications Needed for Subsurface Work? Yes X No

DIGSAFE will be contacted prior to beginning any subsurface excavations. In addition, BNAS utility personnel will be contacted regarding the presence of utilities in the work area. The demolition activities call for removal of water and sewer lines. These lines should already by disabled. This will be confirmed prior to the start of demolition activities.

Utility clearances provided by DIGSAFE and BNAS will be recorded in the field notes and presented in the daily reports.

2.0 PROJECT OBJECTIVES

The specific tasks to be completed by this project and to be covered by this HASP are as follows:

- Establish erosion controls for the site
- Clear vegetation from the work area
- Removal of concrete slabs and foundations
- Removal of water and sewer utilities and capping of lines
- Setup of decontamination area and soil staging area
- Stripping of topsoil
- Excavation of soil and screening of any debris
- Air monitoring
- Placement of soils in staging area
- Collection of waste characterization samples
- Loading of soil and debris for off-site disposal
- Equipment decontamination
- Backfilling
- Site restoration

3.0 ON-SITE ORGANIZATION

Team Leader and Site Safety Officer – Mike Rose.

Mr. Rose is responsible for all aspects of implementing this HASP, including compliance by all on-site personnel and subcontractors. Mr. Rose may designate an appropriately trained and qualified person to assume SSHO responsibilities on a day-to-day basis.

All on-site personnel have authority to stop work should unsafe conditions arise. Personnel identifying unsafe or potentially unsafe conditions have a responsibility to report those conditions to the SSHO immediately.

All Oak team personnel as well as subcontractor personnel present on-site during excavation of the debris and/or involved in handling of the debris will have appropriate and current 40-hour OSHA training per 29 CFR 1910.120. The SSHO will attach to the back of this HASP the training certificates for on-site personnel collected either prior to their mobilization to the site or upon arrival at the site.

Should site conditions arise requiring a modification to the HASP, Mr. Rose will coordinate with Dave Egan, Safety Officer, to ensure that any modifications are fully protective of worker health and safety.

4.0 HAZARD ANALYSES

4.1 Potential Chemical Hazards Present at the Site

Chemicals of concern that are known to be present in the soil at the Site and their potential health effects are summarized below. Note that the average concentrations of these substances detected at the site are low relative to MCP soils standards for soils at industrial sites.

In the event that elevated VOC's, or other chemical contaminant levels are suspected, Industrial Hygiene sampling will be conducted to assess the potential need for appropriate PPE or Engineering Controls.

4.2 Chemical Hazards Associated with Equipment/Tools

This project requires motorized equipment that uses gasoline, diesel, oil and hydraulic fluids. Material Safety Data Sheets for these substances are provided in Attachment B. Spill control equipment will be present at the site should any of these materials leak or be released to the ground. There are no other chemicals that will be needed to complete this project.

4.3 Identify Unique Chemical Characteristics (e.g. odor, warning properties):

The ash is expected to have a distinctive color and texture from the surrounding soils and be identifiable based on visual evidence. The presence of petroleum hydrocarbons may be evident visually through the appearance of sheens on oils or on water in the excavation. Petroleum odors may also appear, although petroleum odors from the equipment on-site may mask odors from petroleum in the soils.

4.4 List of Potential Physical Hazards and Controls

- Underground Utilities – A utility clearance via DigSafe and BNAS personnel will be conducted prior to initiating site activities. Site personnel will be alerted to the possible presence of unmarked underground utilities and will stay alert for their possible presence when disturbing the upper few feet of soils. Overhead utilities are not an issue at the site.
- Heat Stress – The SSHO will ensure that appropriate breaks are taken throughout the workday to avoid heat exhaustion. Water will be provided for all on-site workers including electrolyte-based drink mixes.
- Noise – On-site workers will wear hearing protection when on-site equipment is in operation. Hearing protection will be provided on-site.
- Heavy Equipment – Trucks, excavators, loaders and related heavy equipment will be used. All equipment will be equipped with appropriate alarms and warning lights. All equipment will be operated by experienced, licensed operators. The site superintendent will coordinate

workers so that on-site personnel are not endangered by the movement of equipment around the site. Daily tailgate meetings will

- *Excavation – Soil excavation along the embankment may result in temporary slope failures.* Personnel will not be allowed to stand or work in areas of potential slope collapse. OSHA standards for temporary excavations will be used to ensure a safe work area. The excavation will be backfilled as quickly as possible to minimize the potential for slope failures.
- Power Tools – Hand tools such as power saws may be used during utility line demolition and capping. Each worker assigned to use a power tool will be familiar with the operation of the equipment, as verified by the SSHO, prior to starting an assigned task.

5.0 AIR MONITORING

The SSHO will direct periodic monitoring at the site when the following occurs:

1. It is possible that an immediately dangerous to life or health (IDLH) conditions or a flammable atmosphere has developed, or
2. There is an indication that exposures may have risen over established action levels, permissible exposure limits or published exposure levels since the last monitoring. Look for a possible rise in exposures associated with these situations:
   - Change in site area - work begins on a different section of the site.
   - Change in contaminants - handling contaminants other than those first identified.
   - Visible signs of particulate exposure from intrusive activities such as excavation.
   - Perceptible chemical odors or symptoms of exposure.
   - Change in on-site activity - one operation ends and another begins.
   - Handling contaminated materials.
   - Working with obvious liquid contamination (e.g., a spill or lagoon).

Air Monitoring Action Levels

Instrument*	Function	Measurement	Action
Photo-ionization Detector (PID)- Measures Total Organic Vapors (TOC)			
Conduct air monitoring for		Background	Modified Level D.

volatile organic compounds during activities where contaminated media are present.	>Background - 5 ppm	Modified Level D. Continue monitoring – check worker breathing zones.
	>5 ppm - 20 ppm	Modified Level D. Check worker breathing zones and identify source of vapors, if possible.
	>20 ppm	Stop work and contact the PM for guidance. Prepare to upgrade to Level C/B protection.
	LEL > 10%	Leave area immediately. Contact PM for guidance on venting and other safety measures.
Dust		
Conduct monitoring for dust during any earth moving activity. Visible dusts will require dust suppression methods, such as water spray to reduce emissions.	Background to 0.5 mg/m	Modified Level D required.
	> 0.5 mg/m (i.e. visible levels)	Stop work and wet down source of dust emissions. Contact the PM for guidance if high dust levels persist. Prepare to upgrade to Level C protection.

6.0 PERSONAL PROTECTIVE EQUIPMENT

This section lists the minimum requirements for each protection level. All work at the site is expected to be completed in Level D or modified Level D. Should air monitoring results indicate that Level C protection is required, work will be halted at the site until the specific nature of the hazard is determined. Further, this HASP will be augmented with information regarding the conditions requiring an upgrade in personal protection and associated procedures for working in Level C.

Level D consists of the following:

- Safety glasses with side shields
- Hard hat
- Steel-toed work boots
- Work clothing as prescribed by weather
- Leather work gloves when handling materials or hand tools

Modified Level D consists of one or more of the following in addition to Level D:

- Hearing protection
- Nitrile, neoprene, PVC, or latex booties
- Outer nitrile, neoprene, or PVC gloves over latex sample gloves
- Face shield (when projectiles or splashes pose a hazard)
- Tyvek coverall [poly-coated tyvek for handling liquids and exposure to splashes.]

Level C consists of the following:

- Full-face, air-purifying respirator with appropriate cartridges
- Hooded Tyvek coveralls [poly-coated tyvek for handling liquids and exposure to splashes.]
- Hard hat
- Steel-toed work boots
- Nitrile, neoprene, or latex over-boots
- Nitrile, neoprene, or PVC gloves over latex sample gloves
- Face shield (when projectiles or splashes pose a hazard)

7.0 SITE CONTROLS

7.1 Work Zones

The primary work zone will be delineated by the erosion controls put in place at the beginning of the project around the debris area. Orange fencing will be used to augment the erosion controls to create a visual barrier around the work area, as needed.. The decontamination pad will be set up adjacent to and on the northern boundary of the work zone. The soil stockpile area will be established in close proximity to the excavation area, to the west. The only activities associated with the soil stockpile area will be creating the stockpiles and covering them with plastic, stockpile sampling, and material load-out for off-site disposal.

Procedures will be used to prevent vehicle tracking of potentially contaminated materials away from the work zone. Equipment leaving the work zone will be decontaminated. Personnel washing stations will also be established in the decontamination zone. Visitors will not be allowed in the work zone unless accompanied by project personnel and it is determined to be safe by the SSHO.

The erosion controls around the work area are expected to provide adequate warning to passersby of the potential areas of excavation left open at the end of a work day. As necessary, the Oak project team can upgrade the markings at the site to include orange snow fencing to alert passersby to the potential hazard and/or place flashing lights.

7.2 Site Communications

Mobile telephones will be the primary means of communication at the site. Based on site reconnaissance, mobile telephone reception and transmission is adequate in the area of the site. The project manager, site superintendent and SSHO, at a minimum, will have mobile telephones. Their contact numbers are provided on the emergency contact cover sheet to this HASP.

7.3 Work Practices

The site superintendent will establish safe work practices throughout the project. As necessary, the project manager will provide written standard operating procedures to address recurring safety concerns. The site superintendent will conduct daily tailgate briefings prior to the beginning of work each day to emphasize SAFETY FIRST.

8.0 TRAINING

Site personnel entering work zones during soil excavation and material handling activities must have current 40-hour OSHA training per 29 CFR 1910.120. Copies of certificates showing proof of training must be provided to the SSHO prior to personnel initiating work at the site. In addition,

Mike Rose, the site superintendent, has completed the OSHA 8-hour supervisory training. Mr. Rose's certificates of OSHA training are attached to this HASP.

9.0 DECONTAMINATION

Decontamination will be performed with soap and water. Equipment will be cleaned with a pressure washer / steam cleaner. A detergent will be added to the equipment decontamination process if there is visible evidence of staining or discoloration of the equipment from site contaminants.

Personnel decontamination will include a variety of steps. Disposal boots and gloves will be used. These materials will be doffed by site personnel in the decontamination area; trash receptacles will be designated for disposal of PPE. Personnel with clothing or equipment that can be decontaminated will undergo a wash and rinse in the decontamination area until there are no visible signs of contamination. Skin surfaces, including hands and faces, will be washed in the decontamination area with soap and water.

All decontamination water will be containerized for off-site disposal. The Work Plan presents more detailed information on the decontamination pad for the site.

10.0 MEDICAL MONITORING PROGRAM

RC&D employees performing field activities participate in the corporate medical monitoring program. This program includes periodic medical exams by an Occupational Physician, per OSHA guidelines for workers at hazardous waste sites. The program includes a baseline exam, periodic exams (up to annually for personnel regularly in the field), and a final physical upon leaving the relevant employment.

The medical monitoring program includes a determination that workers are in satisfactory physical health to wear respiratory protection.

APPENDIX A
SOIL AND GROUNDWATER DATA
SITE 9 DELINEATION REPORT

TABLE 3 SUMMARY OF ANALYTICAL RESULTS FOR SOIL SAMPLES COLLECTED FROM 27 TO 30 MAY 2003 AT THE ASH LANDFILL/DUMP AREA ASSOCIATED BARRACKS BUILDINGS 218 AND 219

Analyte	Sample ID													
	S9-ASH-SB-2 8-16 ft bgs		S9-ASH-SB-2 8-16 ft bgs Duplicate		S9-ASH-SB-5 10-11 bgs		S9-ASH-SB-5 14-15 bgs		S9-ASH-SB-16 15-16 bgs		S9-ASH-SB 22 16-17 bgs		S9-ASH-SB 26 10-11 bgs	
	Preservative		Preservative		Preservative		Preservative		Preservative		Preservative		Preservative	
	DI	Na $(SO_4)_2$	DI	Na $(SO_4)_2$	DI	Na $(SO_4)_2$	DI	Na $(SO_4)_2$	DI	Na $(SO_4)_2$	DI	Na $(SO_4)_2$	DI	Na $(SO_4)_2$
VOLATILE ORGANIC COMPOUNDS BY U.S. ENVIRONMENTAL PROTECTION AGENCY METHOD 5035/8260B (µg/Kg)														
Vinyl Chloride	15	NA	4J	NA	(<12U)	(<13U)	(<12U)	(<10U)	(<10U)	(<10U)	(<10U)	(<10U)	(<11U)	(<11U)
Carbon Disulfide	(<5U)	NA	(<5U)	NA	(<6U)	(<6U)	3J	12	(<5U)	(<5U)	(<5U)	3J	(<5U)	(<5U)
Methylene Chloride	15B	NA	13B	NA	11	(<6U)	7	(<5U)	6	(<5U)	5B	(<5U)	(<5U)	(<5U)
Acetone	67B	NA	68B	NA	31	28	160	19J	53	(<20U)	67B	(<20U)	(<22U)	(<21U)
cis-1,2-Dichloroethene	4J	NA	(<5U)	NA	(<6U)	(<6U)	(<6U)	(<5U)	(<5U)	(<5U)	(<5U)	(<5U)	(<5U)	(<5U)
1,2-Dichloroethene (total)	4J	NA	(<10U)	NA	(<12U)	(<13U)	(<12U)	(<10U)	(<10U)	(<10U)	(<10U)	(<10U)	(<11U)	(<11U)
Toluene	(<5U)	NA	(<5U)	NA	(<6U)	(<6U)	(<6U)	4J	(<5U)	(<5U)	(<5U)	(<5U)	(<5U)	(<5U)
SEMIVOLATILE ORGANIC COMPOUNDS BY U.S. ENVIRONMENTAL PROTECTION AGENCY METHOD 8270C (µg/Kg)														
Naphthalene	40J	NR	(<810U)	NR	160J	NR	(<410U)	NR	1,600	NR	330J	NR	(<400U)	NR
2-Methylnaphthalene	36J	NR	(<810U)	NR	110J	NR	(<410U)	NR	140J	NR	100J	NR	(<400U)	NR
Acenaphthylene	72J	NR	77J	NR	(<490U)	NR	(<410U)	NR	(<410U)	NR	(<400U)	NR	(<400U)	NR

NOTE: DI = De-ionized water used as control for sample preservative.
$Na(SO_4)_2$ = Sodium bi-sulfate used as sample preservative.
NA = Not analyzed. Sample not analyzed due to laboratory error.
J = Estimated concentration below quantitation limits.
U = Not detected. Sample quantitation limits are shown as (<__U).
B = Compound detected in associated method blank.
NR = Not required.
Only those analytes detected in at least one of the samples are shown on this table.
Sample results were collected to assess potential removal options in the future, therefore, results were not compared to state or federal soil standards.
Soil samples collected for volatile organic compound analyses were split for preservation with de-ionized water (EPA Method 5035) and sodium bi-sulfate (EPA Method 8260B) to distinguish between analytical variances associated with laboratory preservation methods.

Analyte	Sample ID													
	S9-ASH-SB-2 8-16 ft bgs		S9-ASH-SB-2 8-16 ft bgs Duplicate		S9-ASH-SB-5 10-11 bgs		S9-ASH-SB-5 14-15 bgs		S9-ASH-SB-16 15-16 bgs		S9-ASH-SB 22 16-17 bgs		S9-ASH-SB 26 10-11 bgs	
	Preservative		Preservative		Preservative		Preservative		Preservative		Preservative		Preservative	
	DI	Na $(SO_4)_2$	DI	Na $(SO_4)_2$	DI	Na $(SO_4)_2$	DI	Na $(SO_4)_2$	DI	Na $(SO_4)_2$	DI	Na $(SO_4)_2$	DI	Na $(SO_4)_2$
SEMIVOLATILE ORGANIC COMPOUNDS BY EPA METHOD 8270C (µg/Kg) *(Continued)*														
Acenaphthene	140J	NR	93J	NR	340	NR	(<410U)	NR	790	NR	1,500	NR	(<400U)	NR
Dibenzofuran	90J	NR	100J	NR	310J	NR	(<410U)	NR	200J	NR	760	NR	(<400U)	NR
Fluorene	210J	NR	160J	NR	720	NR	(<410U)	NR	400J	NR	1,300	NR	(<400U)	NR
Phenanthrene	2,200	NR	1,600	NR	5,000	NR	200J	NR	1,700	NR	4,900	NR	50J	NR
Anthracene	620	NR	470J	NR	1,700	NR	51J	NR	510	NR	1,000	NR	(<400U)	NR
Carbazole	220J	NR	260J	NR	450J	NR	(<410U)	NR	230J	NR	440	NR	(<400U)	NR
Fluoranthene	4,100	NR	2,900	NR	6,100	NR	300J	NR	2,100	NR	2,500	NR	120J	NR
Pyrene	4,800	NR	3,500	NR	7,300	NR	420	NR	1,400	NR	2,700	NR	140J	NR
Butylbenzylphthalate	(<440U)	NR	(<810U)	NR	(<490U)	NR	(<410U)	NR	(<410U)	NR	72J	NR	(<400U)	NR
Benzo(a)anthracene	2,500	NR	1,800	NR	3,200	NR	160J	NR	780	NR	1,500	NR	66J	NR
Chrysene	2,100	NR	1,800	NR	3,000	NR	170J	NR	760	NR	1,300	NR	92J	NR
Bis(2-Ethylhexyl) phthalate	(<440U)	NR	(<810U)	NR	(<490U)	NR	(<410U)	NR	55J	NR	(<400U)	NR	36J	NR
Benzo(b)fluoranthene	2,700	NR	2,100	NR	1,900	NR	170J	NR	810	NR	1,400	NR	88J	NR
Benzo(k)fluoranthene	1,400	NR	1,700	NR	2,500	NR	150J	NR	570	NR	860	NR	63J	NR
Benzo(a)pyrene	2,200	NR	1,800	NR	2,700	NR	130J	NR	780	NR	1,300	NR	57J	NR
Indeno(1,2,3-cd)pyrene	1,400	NR	980	NR	1,500	NR	82J	NR	490	NR	950	NR	57J	NR
Dibenzo(a,h)anthracene	390J	NR	(<810U)	NR	440J	NR	(<410U)	NR	160J	NR	(<400U)	NR	(<400U)	NR
Benzo(g,h,i)perylene	1,100	NR	980	NR	1,400	NR	70J	NR	430	NR	830	NR	(<400U)	NR
TARGET ANALYTE LIST METALS BY EPA METHOD SERIES 6010/7000 (mg/Kg)														
Aluminum	8,100	NR	7,550	NR	50,000	NR	4,000	NR	10,800	NR	9,180	NR	7,880	NR
Antimony	5.8	NR	12.2	NR	175	NR	2,050	NR	(<0.12U)	NR	0.48B*	NR	0.13B*	NR
Arsenic	8.5	NR	10.1	NR	15.9	NR	19.5	NR	2.5	NR	3.1	NR	2.2	NR
Barium	185	NR	450	NR	520	NR	458	NR	21.7	NR	54.8	NR	15.2	NR
Beryllium	0.15B*	NR	0.25B*	NR	0.34B*	NR	0.41B*	NR	0.39B*	NR	0.49	NR	0.31B*	NR
Cadmium	7.2	NR	20.5	NR	35	NR	2.7B*	NR	(<0.32U)	NR	(<0.35U)	NR	(<0.32U)	NR
Calcium	6,050	NR	6,050	NR	8,480	NR	15,400	NR	1,190	NR	1,100	NR	1,000	NR
Chromium	26.5	NR	34.6	NR	87.9	NR	47.5	NR	12.7	NR	14.8	NR	9.8	NR
Cobalt	5.8B*	NR	6.9B*	NR	13.7B*	NR	16.4B*	NR	3.9	NR	4.1	NR	3.6	NR
Copper	509	NR	192	NR	3,040	NR	196	NR	7.2	NR	12	NR	6.3	NR

NOTE: B* = Analyte concentration is greater than the instrument detection limit, but less than the contract required detection limit.

Analyte	Sample ID													
	S9-ASH-SB-2 8-16 ft bgs		S9-ASH-SB-2 8-16 ft bgs Duplicate		S9-ASH-SB-5 10-11 bgs		S9-ASH-SB-5 14-15 bgs		S9-ASH-SB-16 15-16 bgs		S9-ASH-SD 22 16-17 bgs		S9-ASH-SB 26 10-11 bgs	
	Preservative		Preservative		Preservative		Preservative		Preservative		Preservative		Preservative	
	DI	Na $(SO_4)_2$	DI	Na $(SO_4)_2$	DI	Na $(SO_4)_2$	DI	Na $(SO_4)_2$	DI	Na $(SO_4)_2$	DI	Na $(SO_4)_2$	DI	Na $(SO_4)_2$
TARGET ANALYTE LIST METALS BY EPA METHOD SERIES 6010/7000 (mg/Kg) *(Continued)*														
Iron	44,400	NR	51,100	NR	104,000	NR	167,000	NR	10,700	NR	13,200	NR	9,290	NR
Lead	400	NR	490	NR	1,340	NR	1,440	NR	6.5	NR	29.4	NR	4	NR
Magnesium	1,150	NR	2,280	NR	1,860	NR	1,420	NR	2,220	NR	3,030	NR	1,820	NR
Manganese	308	NR	322	NR	870	NR	766	NR	105	NR	130	NR	101	NR
Mercury	0.1	NR	0.06	NR	0.17	NR	0.12	NR	0.02B*	NR	0.08	NR	0.01B*	NR
Nickel	29.1	NR	31.1	NR	83.6	NR	29.6B*	NR	11.8	NR	12.1	NR	10.1	NR
Potassium	538	NR	926	NR	757	NR	751	NR	690	NR	1,130	NR	702	NR
Selenium	1B*	NR	1.8B*	NR	(<1.29U)	NR	(<2.08U)	NR	0.19B*	NR	0.30B*	NR	0.20B*	NR
Silver	55.2	NR	9.9	NR	3.9B*	NR	1.7B*	NR	(<0.42U)	NR	0.68B*	NR	(<0.42U)	NR
Sodium	139	NR	189	NR	424	NR	98B*	NR	49.2B*	NR	65.7B*	NR	56.7B*	NR
Thallium	0.85B*	NR	0.79B*	NR	2.1B*	NR	(<2.95U)	NR	0.62B*	NR	0.69B*	NR	0.62B*	NR
Vanadium	8.1	NR	12.1	NR	21.2	NR	8.8B*	NR	18.2	NR	19.7	NR	15.9	NR
Zinc	714	NR	681	NR	3,500	NR	3,130	NR	22.2	NR	50.6	NR	18.0	NR

TABLE 2 SUMMARY OF ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES COLLECTED FROM 31 MAY THROUGH 7 JUNE 2003

Analyte	MEG[a]	MCL[b]	S9-B1-6-8	S9-B1-8-12	S9-B2-10-14	S9-B2-16-18	S9-B2-20-24	S9-B3-10-14	S9-B3-20-24	S9-B3-30-34	S9-B3-39.5-43.5
VOLATILE ORGANIC COMPOUNDS BY U.S. ENVIRONMENTAL PROTECTION AGENCY METHOD 8260B (µg/L)											
Total Volatile Organic Compound	NC	NC	ND	7.61	ND	ND	25.64	12.36	94.6	4.4	ND
Total Chlorinated Volatile Organic Compound	NC	NC	ND	ND	ND	ND	ND	0.64	ND	ND	ND
Vinyl Chloride	0.15	0.15	(≤2U)	(≤2U)	(≤2U)	(≤2U)	(≤2U)	(≤2U)	(≤2U)	(≤2U)	(≤2U)
Chloroethane	NC	NC	(≤5U)	(≤5U)	(≤5U)	(≤5U)	(≤5U)	(≤5U)	(≤5U)	(≤5U)	(≤5U)
Trichlorofluoromethane	NC	NC	(≤2U)	(≤2U)	(≤2U)	(≤2U)	(≤2U)	(≤2U)	(≤2U)	(≤2U)	(≤2U)
Acetone	NC	NC	(≤10U)	(≤10U)	(≤10U)	(≤10U)	3.9J	4.9J	86	4.0J	(≤10U)
Methylene Chloride	NC	NC	(≤5U)	(≤5U)	(≤5U)	(≤5U)	(≤5U)	(≤5U)	(≤5U)	(≤5U)	(≤5U)
Methyl tert-butyl ether	NC	NC	(≤2U)	(≤2U)	(≤2U)	(≤2U)	3.2	(≤2U)	(≤2U)	(≤2U)	(≤2U)
1,1-Dichloroethane	70	70	(≤2U)	(≤2U)	(≤2U)	(≤2U)	(≤2U)	(≤2U)	(≤2U)	(≤2U)	(≤2U)
2-Butanone	NC	NC	(≤10U)	3.5J	(≤10U)	(≤10U)	5.8J	3.7J	8.6J	(≤10U)	(≤10U)
cis-1,2-Dichloroethene	NC	NC	(≤2U)	(≤2U)	(≤2U)	(≤2U)	(≤2U)	(≤2U)	(≤2U)	(≤2U)	(≤2U)
Chloroform	NC	NC	(≤2U)	(≤2U)	(≤2U)	(≤2U)	(≤2U)	0.64J	(≤2U)	(≤2U)	(≤2U)
Tetrahydrofuran	NC	NC	(≤10U)	(≤10U)	(≤10U)	(≤10U)	12	(≤10U)	(≤10U)	(≤10U)	(≤10U)
Trichloroethene	5	5	(≤2U)	(≤2U)	(≤2U)	(≤2U)	(≤2U)	(≤2U)	(≤2U)	(≤2U)	(≤2U)
Toluene	1,400	1,400	(≤2U)	(≤2U)	(≤2U)	(≤2U)	(≤2U)	(≤2U)	(≤2U)	(≤2U)	(≤2U)
Tetrachloroethene	3	3	(≤2U)	(≤2U)	(≤2U)	(≤2U)	(≤2U)	(≤2U)	(≤2U)	(≤2U)	(≤2U)
Ethylbenzene	700	700	(≤2U)	(≤2U)	(≤2U)	(≤2U)	(≤2U)	(≤2U)	(≤2U)	(≤2U)	(≤2U)
Xylenes, total	600	600	(≤2U)	3.2J	(≤2U)	(≤2U)	0.74J	2.58J	(≤2U)	(≤2U)	(≤2U)
1,3,5-Trimethylbenzene	NC	NC	(≤2U)	(≤2U)	(≤2U)	(≤2U)	(≤2U)	(≤2U)	(≤2U)	(≤2U)	(≤2U)
1,2,4-Trimethylbenzene	NC	NC	(≤2U)	0.90J	(≤2U)	(≤2U)	(≤2U)	0.54J	(≤2U)	(≤2U)	(≤2U)
n-Butylbenzene	NC	NC	(≤2U)	(≤2U)	(≤2U)	(≤2U)	(≤2U)	(≤2U)	(≤2U)	(≤2U)	(≤2U)
Naphthalene	NC	NC	(≤5U)	(≤5U)	(≤5U)	(≤5U)	(≤5U)	(≤5U)	(≤5U)	(≤5U)	(≤5U)

(a) MEG (Maximum Exposure Guideline) obtained from State of Maine Department of Human Services Maximum Exposure Guidelines, memorandum dated 23 October 1992.
(b) MCL (Maximum contaminant Level) obtained from 40 CFR Parts 141 and 142 (U.S. EPA 1998).

NOTE: NC = No criteria.
ND = Not detected.
U = Not detected. Sample quantitation limits are shown as (≤__U).
J = Estimated concentration below quantitation limits.
Only those analytes detected in at least one of the samples, and chemicals of concern listed in the Final Long-Term Monitoring Plan (EA 1999), are shown on this table.

Analyte	MEG[a]	MCL[b]	S9-B4-12-16	S9-B4-20-24	S9-B4-20-24 Duplicate	S9-B4-36-40	S9-B5-12-16	S9-B5-32-36	S9-B5-41-45	S9-B6-14-18	S9-B6-30-34
VOLATILE ORGANIC COMPOUNDS BY U.S. ENVIRONMENTAL PROTECTION AGENCY METHOD 8260B (µg/L)											
Total Volatile Organic Compound	NC	NC	7.7	17.3	15.82	3.07	10.87	4.59	1.64	10.41	4.86
Total Chlorinated Volatile Organic Compound	NC	NC	ND	2.48	2.44	1.97	ND	3.7	1.64	ND	3.1
Vinyl Chloride	0.15	2	(≤2U)	(≤2U)	(≤2U)	(≤2U)	(≤2U)	(≤2U)	(≤2U)	(≤2U)	(≤2U)
Chloroethane	NC	NC	(≤5U)	(≤5U)	(≤5U)	(≤5U)	(≤5U)	1.8J	(≤5U)	(≤5U)	(≤5U)
Trichlorofluoromethane	NC	NC	(≤2U)	(≤2U)	(≤2U)	(≤2U)	(≤2U)	1.9J	(≤2U)	(≤2U)	(≤2U)
Acetone	NC	NC	3.3J	(≤10U)	(≤10U)	(≤10U)	4.4J	(≤10U)	(≤10U)	5.5J	(≤10U)
Methylene Chloride	NC	5	(≤5U)	(≤5U)	(≤5U)	(≤5U)	(≤5U)	(≤5U)	(≤5U)	(≤5U)	(≤5U)
Methyl tert-butyl ether	NC	NC	(≤2U)	(≤2U)	(≤2U)	(≤2U)	(≤2U)	(≤2U)	(≤2U)	(≤2U)	(≤2U)
1,1-Dichloroethane	70	NC	(≤2U)	(≤2U)	(≤2U)	(≤2U)	(≤2U)	(≤2U)	(≤2U)	(≤2U)	(≤2U)
2-Butanone	NC	NC	(≤10U)	5.8J	5J	(≤10U)	3.6J	(≤10U)	(≤10U)	3J	(≤10U)
cis-1,2-Dichloroethene	NC	NC	(≤2U)	0.64J	0.66J	1.2J	(≤2U)	(≤2U)	0.85J	(≤2U)	1.6J
Chloroform	26	29	(≤2U)	(≤2U)	(≤2U)	(≤2U)	(≤2U)	(≤2U)	(≤2U)	(≤2U)	(≤2U)
Tetrahydrofuran	NC	NC	(≤10U)	(≤10U)	(≤10U)	(≤10U)	(≤10U)	(≤10U)	(≤10U)	(≤10U)	(≤10U)
Trichloroethene	5	5	(≤2U)	1.2J	1.2J	0.77J	(≤2U)	(≤2U)	0.79J	(≤2U)	1.5J
Toluene	1,400	1,000	(≤2U)	(≤2U)	(≤2U)	(≤2U)	(≤2U)	(≤2U)	(≤2U)	(≤2U)	(≤2U)
Tetrachloroethene	3	5	(≤2U)	0.64J	0.58J	(≤2U)	(≤2U)	(≤2U)	(≤2U)	(≤2U)	(≤2U)
Ethylbenzene	700	700	(≤2U)	0.72J	0.68J	(≤2U)	(≤2U)	(≤2U)	(≤2U)	(≤2U)	0.66J
Xylenes, total	600	10,000	(≤2U)	5.4J	5.1J	1.1J	2.32J	0.89J	(≤2U)	1.91J	1.1J
1,3,5-Trimethylbenzene	NC	NC	(≤2U)	(≤2U)	(≤2U)	(≤2U)	(≤2U)	(≤2U)	(≤2U)	(≤2U)	(≤2U)
1,2,4-Trimethylbenzene	NC	NC	(≤2U)	1.5J	1.4J	(≤2U)	0.55J	(≤2U)	(≤2U)	(≤2U)	(≤2U)
n-Butylbenzene	NC	NC	(≤2U)	(≤2U)	(≤2U)	(≤2U)	(≤2U)	(≤2U)	(≤2U)	(≤2U)	(≤2U)
Naphthalene	NC	NC	4.4J	1.4J	1.2J	(≤2U)	(≤2U)	(≤2U)	(≤2U)	(≤2U)	(≤2U)

Analyte	MEG[a]	MCL[b]	S9-B6-47-51	S9-B7-12-16	S9-B7-24-28	S9-B7-32-36	S9-B7 48-52	S9-B8 14-18	S9-B8 22-26	S9-B8 28-32
VOLATILE ORGANIC COMPOUNDS BY U.S. ENVIRONMENTAL PROTECTION AGENCY METHOD 8260B (µg/L)										
Total Volatile Organic Compound	NC	NC	15.82	ND	ND	ND	5.69	10.67	8.05	4.25
Total Chlorinated Volatile Organic Compound	NC	NC	15.82	ND	ND	ND	4.9	10.67	7.1	3.15
Vinyl Chloride	0.15	2	(<2U)	(<2U)	(<2U)	(<2U)	(<2U)	7.1	7.1	(<2U)
Chloroethane	NC	NC	(<5U)	(<5U)	(<5U)	(<5U)	(<5U)	(<5U)	(<5U)	(<5U)
Trichlorofluoromethane	NC	NC	(<2U)	(<2U)	(<2U)	(<2U)	(<2U)	(<2U)	(<2U)	(<2U)
Acetone	NC	NC	(<10U)	(<10U)	(<10U)	(<10U)	(<10U)	(<10U)	(<10U)	(<10U)
Methylene Chloride	NC	5	(<5U)	(<5U)	(<5U)	(<5U)	(<5U)	(<5U)	(<5U)	(<5U)
Methyl tert-butyl ether	NC	NC	(<2U)	(<2U)	(<2U)	(<2U)	(<2U)	(<2U)	(<2U)	(<2U)
1,1-Dichloroethane	70	NC	(<2U)	(<2U)	(<2U)	(<2U)	(<2U)	0.97J	(<2U)	(<2U)
2-Butanone	NC	NC	(<10U)	(<10U)	(<10U)	(<10U)	(<10U)	(<10U)	(<10U)	(<10U)
cis-1,2-Dichloroethene	NC	NC	6.8	(<2U)	(<2U)	(<2U)	2.9	2.6	(<2U)	2.3
Chloroform	26	29	0.72J	(<2U)	(<2U)	(<2U)	(<2U)	(<2U)	(<2U)	(<2U)
Tetrahydrofuran	NC	NC	(<10U)	(<10U)	(<10U)	(<10U)	(<10U)	(<10U)	(<10U)	(<10U)
Trichloroethene	5	5	7.3	(<2U)	(<2U)	(<2U)	2	(<2U)	(<2U)	0.85J
Toluene	1,400	1,000	(<2U)	(<2U)	(<2U)	(<2U)	(<2U)	(<2U)	(<2U)	(<2U)
Tetrachloroethene	3	5	1J	(<2U)	(<2U)	(<2U)	(<2U)	(<2U)	(<2U)	(<2U)
Ethylbenzene	700	700	(<2U)	(<2U)	(<2U)	(<2U)	(<2U)	(<2U)	(<2U)	(<2U)
Xylenes, total	600	10,000	(<2U)	(<2U)	(<2U)	(<2U)	0.79J	(<2U)	0.95J	1.1J
1,3,5-Trimethylbenzene	NC	NC	(<2U)	(<2U)	(<2U)	(<2U)	(<2U)	(<2U)	(<2U)	(<2U)
1,2,4-Trimethylbenzene	NC	NC	(<2U)	(<2U)	(<2U)	(<2U)	(<2U)	(<2U)	(<2U)	(<2U)
n-Butylbenzene	NC	NC	(<2U)	(<2U)	(<2U)	(<2U)	(<2U)	(<2U)	(<2U)	(<2U)
Naphthalene	NC	NC	(<2U)	(<2U)	(<2U)	(<2U)	(<2U)	(<2U)	(<2U)	(<2U)

NOTE: Results in bold indicate exceedance of MEG or MCL.

Analyte	MEG[a]	MCL[b]	S9-B9-10-14	S9-B9-14-18	S9-B9-14-18 Duplicate	S9-B9-20-24	Trip Blank	Rinsate Blank	Source Water Blank
VOLATILE ORGANIC COMPOUNDS BY EPA U.S. ENVIRONMENTAL PROTECTION AGENCY 8260B (µg/L)									
Total Volatile Organic Compound	NC	NC	75.18	8.15	9.12	3.94	ND	26.69	15.2
Total Chlorinated Volatile Organic Compound	NC	NC	ND	6.24	6.29	3.1	ND	11.7	6
Vinyl Chloride	0.15	2	(<2U)	(<2U)	(<2U)	(<2U)	(<2U)	(<2U)	(<2U)
Chloroethane	NC	NC	(<5U)	(<5U)	(<5U)	(<5U)	(<5U)	(<5U)	(<5U)
Trichlorofluoromethane	NC	NC	(<2U)	(<2U)	(<2U)	(<2U)	(<2U)	(<2U)	(<2U)
Acetone	NC	NC	11	(<10U)	(<10U)	(<10U)	(<10U)	3.9J	(<10U)
Methylene Chloride	NC	5	(<5U)	(<5U)	(<5U)	(<5U)	(<5U)	7.1	9.2
Methyl tert-butyl ether	NC	NC	0.54J	(<2U)	(<2U)	(<2U)	(<2U)	(<2U)	(<2U)
1,1-Dichloroethane	70	NC	(<2U)	(<2U)	(<2U)	(<2U)	(<2U)	(<2U)	(<2U)
2-Butanone	NC	NC	37	(<10U)	(<10U)	(<10U)	(<10U)	6.7J	(<10U)
cis-1,2-Dichloroethene	NC	NC	(<2U)	2.4	2.5	1.4J	(<2U)	(<2U)	(<2U)
Chloroform	26	29	(<2U)	0.63J	0.74J	(<2U)	(<2U)	4.6	6
Tetrahydrofuran	NC	NC	(<10U)	(<10U)	(<10U)	(<10U)	(<10U)	(<10U)	(<10U)
Trichloroethene	5	5	(<2U)	2.5	2.4	1.7J	(<2U)	(<2U)	(<2U)
Toluene	1,400	1,000	(<2U)	(<2U)	(<2U)	(<2U)	(<2U)	(<2U)	(<2U)
Tetrachloroethene	3	5	(<2U)	0.71J	0.65J	(<2U)	(<2U)	(<2U)	(<2U)
Ethylbenzene	700	700	1.5J	(<2U)	(<2U)	(<2U)	(<2U)	(<2U)	(<2U)
Xylenes, total	600	10,000	12.7	1.9IJ	2.3J	0.84J	(<2U)	2.29J	(<2U)
1,3,5-Trimethylbenzene	NC	NC	1.2J	(<2U)	(<2U)	(<2U)	(<2U)	(<2U)	(<2U)
1,2,4-Trimethylbenzene	NC	NC	5.1	(<2U)	0.53J	(<2U)	(<2U)	0.70J	(<2U)
n-Butylbenzene	NC	NC	0.64J	(<2U)	(<2U)	(<2U)	(<2U)	(<2U)	(<2U)
Naphthalene	NC	NC	5.5	(<2U)	(<2U)	(<2U)	(<2U)	1.4J	(<2U)

APPENDIX B
MATERIAL SAFETY DATA SHEETS (MSDS)

CORNELL

Material Safety Data Sheets

Division of Facilities Services

DOD Hazardous Material Information (ANSI Format)
For Cornell University Convenience Only

GASOLINE

Section 1 - Product and Company Identification	Section 9 - Physical & Chemical Properties
Section 2 - Compositon/Information on Ingredients	Section 10 - Stability & Reactivity Data
Section 3 - Hazards Identification Including Emergency Overview	Section 11 - Toxicological Information
Section 4 - First Aid Measures	Section 12 - Ecological Information
Section 5 - Fire Fighting Measures	Section 13 - Disposal Considerations
Section 6 - Accidental Release Measures	Section 14 - MSDS Transport Information
Section 7 - Handling and Storage	Section 15 - Regulatory Information
Section 8 - Exposure Controls & Personal Protection	Section 16 - Other Information

Section 1 - Product and Company Identification
GASOLINE

Product Identification: GASOLINE
Date of MSDS: 01/01/1987 **Technical Review Date:** 07/17/1999
FSC: 9130 **NIIN:** 00-148-7102
Submitter: D DG
Status Code: C
MFN: 01
Article: N
Kit Part: N

Manufacturer's Information

Manufacturer's Name: FRONTIER OIL AND REFINING COMPANY
Manufacturer's Address1: 1600 BROADWAY
Manufacturer's Address2: DENVER, CO 80202
Manufacturer's Country: US
General Information Telephone: 307-634-3551
Emergency Telephone: 307-634-3551 CHEMTREC 800-424-9300
Emergency Telephone: 307-634-3551 CHEMTREC 800-424-9300
MSDS Preparer's Name: N/P
Proprietary: N
Reviewed: Y
Published: Y
CAGE: 0A0Y5
Special Project Code: N

Item Description

Item Name: GASOLINE,AUTOMOTIVE
Item Manager:
Specification Number: ASTM D4814
Type/Grade/Class: CL A,B,C,D,E,SPEC GR
Unit of Issue: GL
Unit of Issue Quantity: X
Type of Container: UNKNOWN

Contractor Information

Contractor's Name: FRONTIER OIL AND REFINING COMPANY
Contractor's Address1: 1600 BROADWAY
Contractor's Address2: DENVER, CO 80202
Contractor's Telephone: 307-634-3551 CHEMTREC 800-424-9300
Contractor's CAGE: 0A0Y5

Section 2 - Composition/Information on Ingredients
GASOLINE

Ingredient Name: BENZENE (SARA III)
Ingredient CAS Number: 71-43-2 **Ingredient CAS Code:** M
RTECS Number: CY1400000 **RTECS Code:** M
=WT: **=WT Code:**
=Volume: **=Volume Code:**
>WT: **>WT Code:**
>Volume: **>Volume Code:**
<WT: **<WT Code:**
<Volume: **<Volume Code:**
% Low WT: **% Low WT Code:**
% High WT: **% High WT Code:**
% Low Volume: **% Low Volume Code:**
% High Volume: **% High Volume Code:**
% Text: N/K

% Enviromental Weight:
Other REC Limits: NONE RECOMMENDED
OSHA PEL: 1PPM/5STEL;1910.1028 OSHA PEL Code: M
OSHA STEL: OSHA STEL Code:
ACGIH TLV: 10 PPM; A2; 9293 ACGIH TLV Code: M
ACGIH STEL: N/P ACGIH STEL Code:
EPA Reporting Quantity: 10 LBS
DOT Reporting Quantity: 10 LBS
Ozone Depleting Chemical: N

Ingredient Name: MIXTURE OF PETROLEUM HYDROCARBONS (AROMATIC AND PARAFFINIC HYDROCARBONS)
Ingredient CAS Number: Ingredient CAS Code: X
RTECS Number: RTECS Code: X
=WT: =WT Code:
=Volume: =Volume Code:
>WT: >WT Code:
>Volume: >Volume Code:
<WT: <WT Code:
<Volume: <Volume Code:
% Low WT: % Low WT Code:
% High WT: % High WT Code:
% Low Volume: % Low Volume Code:
% High Volume: % High Volume Code:
% Text: N/K
% Enviromental Weight:
Other REC Limits: NONE RECOMMENDED
OSHA PEL: 300 PPM TWA GASOLINE OSHA PEL Code: M
OSHA STEL: OSHA STEL Code:
ACGIH TLV: 300 PPM TWA GASOLINE ACGIH TLV Code: M
ACGIH STEL: N/P ACGIH STEL Code:
EPA Reporting Quantity:
DOT Reporting Quantity:
Ozone Depleting Chemical:

Section 3 - Hazards Identification, Including Emergency Overview
GASOLINE

Health Hazards Acute & Chronic: ACUTE-INHALATION:CENTRAL NERVOUS SYSTEM DEPRESSION, NARCOSIS, UNCONSCIOUSNESS, ASPHYXIATION. EYE:IRRITATION. SKIN:DEFATING, IRRITATION. INGESTION: GI DISTURBANCES, ASPIRATION PNEUMONITIS. CHRONIC: DER MATITIS, ANEMIA, PULMONARY EDEMA, LIVERAND KIDNEY DAMAGE.

Signs & Symptoms of Overexposure:
RESPIRATORY IRRITATION, COUGHING, DIFFICULTY IN BREATHING, NAUSEA, VOMITING, FATIGUE, BLURRED VISION, DIZZINESS, HEADACHES, UNCONSCIOUSNESS, EYE IRRITATION, REDNESS, DRY SKIN.

Medical Conditions Aggravated by Exposure:

SKIN AND RESPIRATORY DISORDERS.

LD50 LC50 Mixture: ORAL LD50 (RAT) IS UNKNOWN

Route of Entry Indicators:
Inhalation: YES
Skin: YES
Ingestion: NO

Carcenogenicity Indicators
NTP: YES
IARC: YES
OSHA: YES

Carcinogenicity Explanation: CONTAINS B [71-43-2] WHICH IS LISTED BY NTP AND IARC AND REGULATED BY OSHA AS A CARCINOGEN.

Section 4 - First Aid Measures
GASOLINE

First Aid:
SKIN: REMOVE CONTAMINATED CLOTHING. WASH WITH SOAP AND WATER. GET MEDICAL ATTENTION IF IRRITATION PERSISTS. INHALATION: REMOVE TO FRESH AIR & RESTORE BREATHING IF NECESSARY. GET MEDICAL ATTENTION. EYE : IMMEDIATELY FLUSH WITH WATER FOR 15 MINUTES WHILE HOLDING EYELIDS OPEN. GET MEDICAL ATTENTION. INGESTION: GET IMMEDIATE MEDICAL ATTENTION. DO NOT INDUCE VOMITING. NOTHING BY MOUTH IF UNCONSCIOUS.

Section 5 - Fire Fighting Measures
GASOLINE

Fire Fighting Procedures:
WEAR FIRE FIGHTING PROTECTIVE EQUIPMENT AND A FULL FACED SELF CONTAINED BREATHING APPARATUS. EVACUATE AREA. COOL FIRE EXPOSED CONTAINERS WITH WATER SPRAY.
Unusual Fire or Explosion Hazard:
VAPORS ARE HEAVIER THAN AIR AND MAY TRAVEL A CONSIDERABLE DISTANCE TO SOURCE OF IGNITION AND FLASH BACK.
Extinguishing Media:
USE CARBON DIOXIDE, FOAM, HALON OR DRY CHEMICAL. USE WATER FOG TO COOL SRROUNDING CONTAINERS.
Flash Point: Flash Point Text: -50F,-46C

Autoignition Temperature:
Autoignition Temperature Text: N/A
Lower Limit(s): <1%
Upper Limit(s): 8%

Section 6 - Accidental Release Measures
GASOLINE

Spill Release Procedures:
MINOR: ABSORB MATERIAL WITH CLAY, VERMICULITE, OR SIMILAR ABSORBENT MATERIAL. PLACE IN DISPOSAL CONTAINERS. MAJOR: DIKE & CONTAIN SPILL. ELIMINATE SOURCES OF IGNITION. SHUT OFF LEAKS. REMOVE LIQUID BY VACUUM OR ABSORBENT.

Section 7 - Handling and Storage
GASOLINE

Handling and Storage Precautions:

Other Precautions:

Section 8 - Exposure Controls & Personal Protection
GASOLINE

Repiratory Protection:
USE NIOSH APPROVED RESPIRATOR. AIR-SUPPLIED OR FILTERING TYPE WITH ORGANIC VAPOR CARTRIDGES ARE RECOMMENDED.
Ventilation:
LOCAL AND MECHANICAL EXHAUST RECOMMENDED. AVOID OPEN ELECTRICAL SOURCES NEAR PRODUCT VAPOR AREAS.
Protective Gloves:
NEOPRENE, NITRILE, OR POLYVINYL ALCOHOL
Eye Protection: USE CHEMICAL SAFETY GOGGLES & FACESHIELD
Other Protective Equipment: EYE WASH STATION & SAFETY SHOWER.
Work Hygenic Practices: DO NOT TAKE INTERNALLY. AVOID SKIN CONTACT. WASH SKIN AFTER USING PRODUCT. DO NOT EAT, DRINK OR SMOKE IN WORK AREA.
Supplemental Health & Safety Information: NONE

Section 9 - Physical & Chemical Properties
GASOLINE

HCC: F1
NRC/State License Number: N/R
Net Property Weight for Ammo: N/R
Boiling Point: Boiling Point Text: 85.0F,29.4C
Melting/Freezing Point: Melting/Freezing Text: <-76F,<-60C
Decomposition Point: Decomposition Text: UNKNOWN
Vapor Pressure: 275-475MMH Vapor Density: >1
Percent Volatile Organic Content:
Specific Gravity: 0.70-0.77
Volatile Organic Content Pounds per Gallon:
pH: N/R
Volatile Organic Content Grams per Liter:
Viscosity: N/P
Evaporation Weight and Reference: <1 (ETHER=1)
Solubility in Water: INCOLUBLE
Appearance and Odor: WATER WHITE TO STRAW YELLOW LIQUID, GASOLINE ODOR.
Percent Volatiles by Volume: 100

Corrosion Rate: UNKNOWN

Section 10 - Stability & Reactivity Data
GASOLINE

Stability Indicator: YES
Materials to Avoid:
STRONG OXIDIZING AGENTS, STRRONG ACIDS & ALKALIS, AND HALOGENS.
Stability Condition to Avoid:
HIGH HEAT, OPEN FLAMES AND OTHER SOURCES OF IGNITION
Hazardous Decomposition Products:
CARBON MONOXIDE, CARBON DIOXIDE AND OTHER HYDROCARBON COMPOUNDS DURING COMBUSTION.
Hazardous Polymerization Indicator: NO
Conditions to Avoid Polymerization:
NOT APPLICABLE

Section 11 - Toxicological Information
GASOLINE

Toxicological Information:
N/P

Section 12 - Ecological Information
GASOLINE

Ecological Information:
N/P

Section 13 - Disposal Considerations
GASOLINE

Waste Disposal Methods:
WASTE MAY BE BURNED IN AN APPROVED INCINERATOR OR DISPOSED OF IN ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE AND FEDERAL LAWS AND REGULATIONS.

Section 14 - MSDS Transport Information
GASOLINE

Transport Information:
N/P

Section 15 - Regulatory Information
GASOLINE

SARA Title III Information:
N/P
Federal Regulatory Information:
N/P
State Regulatory Information:
N/P

Section 16 - Other Information
GASOLINE

Other Information:
N/P

HMIS Transportation Information

Product Identification: GASOLINE
Transporation ID Number: 50955
Responsible Party CAGE: 0A0Y5
Date MSDS Prepared: 01/01/1987
Date MSDS Reviewed: 06/23/1993
MFN: 06/23/1993
Submitter: D DG
Status Code: C

Container Information
- **Unit of Issue:** GL
- **Container Quantity:** X
- **Type of Container:** UNKNOWN
- **Net Unit Weight:**

Article without MSDS: N
Technical Entry NOS Shipping Number:
Radioactivity:
Form:
Net Explosive Weight:
Coast Guard Ammunition Code:
Magnetism: N/P
AF MMAC Code:
DOD Exemption Number:
Limited Quantity Indicator:
Multiple Kit Number: 0
Kit Indicator: N
Kit Part Indicator: N
Review Indicator: Y
Additional Data:

Department of Transportation Information

DOT Proper Shipping Name: GASOLINE
DOT PSN Code: GTN
Symbols:
DOT PSN Modifier:
Hazard Class: 3
UN ID Number: UN1203
DOT Packaging Group: II
Label: FLAMMABLE LIQUID
Special Provision(s): B33,B101,T8
Packaging Exception:
Non Bulk Packaging: 202

Bulk Packaging: 242
Maximimum Quanity in Passenger Area: 5 L
Maximimum Quanity in Cargo Area: 60 L
Stow in Vessel Requirements: E
Requirements Water/Sp/Other:

IMO Detail Information

IMO Proper Shipping Name: GASOLINE
IMO PSN Code: HRV
IMO PSN Modifier:
IMDG Page Number: 3141
UN Number: 1203
UN Hazard Class: 3.1
IMO Packaging Group: II
Subsidiary Risk Label: -
EMS Number: 3-07
Medical First Aid Guide Number: 311

IATA Detail Information

IATA Proper Shipping Name: GASOLINE
IATA PSN Code: MUC
IATA PSN Modifier:
IATA UN Id Number: 1203
IATA UN Class: 3
Subsidiary Risk Class:
UN Packaging Group: II
IATA Label: FLAMMABLE LIQUID
Packaging Note for Passengers: 305
Maximum Quantity for Passengers: 5L
Packaging Note for Cargo: 307
Maximum Quantity for Cargo: 60L
Exceptions: A100

AFI Detail Information

AFI Proper Shipping Name: GASOLINE
AFI Symbols:
AFI PSN Code: MUC
AFI PSN Modifier:
AFI UN Id Number: UN1203
AFI Hazard Class: 3
AFI Packing Group: II
AFI Label:
Special Provisions: P5
Back Pack Reference: A73

HAZCOM Label Information

Product Identification: GASOLINE
CAGE: 0A0Y5
Assigned Individual: N
Company Name: FRONTIER OIL AND REFINING COMPANY
Company PO Box:
Company Street Address1: 1600 BROADWAY
Company Street Address2: DENVER, CO 80202 US
Health Emergency Telephone: 307-634-3551 CHEMTREC 800-424-9300
Label Required Indicator: Y

Date Label Reviewed: 06/23/1993
Status Code: C
Manufacturer's Label Number: N/K
Date of Label: 06/23/1993
Year Procured: N/K
Organization Code: F
Chronic Hazard Indicator: Y
Eye Protection Indicator: YES
Skin Protection Indicator: YES
Respiratory Protection Indicator: YES
Signal Word: DANGER
Health Hazard: Moderate
Contact Hazard: Moderate
Fire Hazard: Severe
Reactivity Hazard: None

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CORNELL

Material Safety Data Sheets

Division of Facilities Services

DOD Hazardous Material Information (ANSI Format)
For Cornell University Convenience Only

DIESEL FUEL;NO. 2 DIESEL FUEL;NO. 2 OIL;NO.

Section 1 - Product and Company Identification	Section 9 - Physical & Chemical Properties
Section 2 - Compositon/Information on Ingredients	Section 10 - Stability & Reactivity Data
Section 3 - Hazards Identification Including Emergency Overview	Section 11 - Toxicological Information
Section 4 - First Aid Measures	Section 12 - Ecological Information
Section 5 - Fire Fighting Measures	Section 13 - Disposal Considerations
Section 6 - Accidental Release Measures	Section 14 - MSDS Transport Information
Section 7 - Handling and Storage	Section 15 - Regulatory Information
Section 8 - Exposure Controls & Personal Protection	Section 16 - Other Information

Section 1 - Product and Company Identification
DIESEL FUEL;NO. 2 DIESEL FUEL;NO. 2 OIL;NO.

Product Identification: DIESEL FUEL;NO. 2 DIESEL FUEL;NO. 2 OIL;NO.
Date of MSDS: 01/01/1987 **Technical Review Date:** 12/11/1992
FSC: 9140 **NIIN:** 00-286-5294
Submitter: D DG
Status Code: C
MFN: 01
Article: N
Kit Part: N

Manufacturer's Information

Manufacturer's Name: PRIMARY CORPORATION
Manufacturer's Address1: 5601 IRONBRIDGE PARKWAY, SUITE 100
Manufacturer's Address2: CHESTER, VA 23831
Manufacturer's Country: US
General Information Telephone: 804-230-1747
Emergency Telephone: 804-230-1747
Emergency Telephone: 804-230-1747
MSDS Preparer's Name: N/P
Proprietary: N
Reviewed: Y
Published: Y
CAGE: PRIMA
Special Project Code: N

Item Description

Item Name: DIESEL FUEL
Item Manager:
Specification Number: VV-F-800
Type/Grade/Class: GRADE DF-2
Unit of Issue: GL
Unit of Issue Quantity: X
Type of Container: BULK

Contractor Information

Contractor's Name: PRIMARY CORPORATION
Contractor's Address1: 5601 IRONBRIDGE PARKWAY, SUITE 100
Contractor's Address2: CHESTER, VA 23831
Contractor's Telephone: 804-230-1747
Contractor's CAGE: PRIMA

Section 2 - Compositon/Information on Ingredients
DIESEL FUEL;NO. 2 DIESEL FUEL;NO. 2 OIL;NO.

Ingredient Name: AROMATIC HYDROCARBONS
Ingredient CAS Number: 70995-17-8 **Ingredient CAS Code:** M
RTECS Number: **RTECS Code:** X
=WT: **=WT Code:**
=Volume: **=Volume Code:**
>WT: **>WT Code:**
>Volume: **>Volume Code:**
<WT: **<WT Code:**
<Volume: **<Volume Code:**
% Low WT: **% Low WT Code:**
% High WT: **% High WT Code:**
% Low Volume: **% Low Volume Code:**
% High Volume: **% High Volume Code:**
% Text: 15-45

% Enviromental Weight:
Other REC Limits: NONE RECOMMENDED
OSHA PEL: NOT ESTABLISHED OSHA PEL Code: M
OSHA STEL: OSHA STEL Code:
ACGIH TLV: NOT ESTABLISHED ACGIH TLV Code: M
ACGIH STEL: N/P ACGIH STEL Code:
EPA Reporting Quantity:
DOT Reporting Quantity:
Ozone Depleting Chemical:

Ingredient Name: DISTILLATES,STREIGHT RUN MIDDLE
Ingredient CAS Number: 64741-44-2 Ingredient CAS Code: M
RTECS Number: LX3296000 RTECS Code: M
=WT: =WT Code:
=Volume: =Volume Code:
>WT: >WT Code:
>Volume: >Volume Code:
<WT: <WT Code:
<Volume: <Volume Code:
% Low WT: % Low WT Code:
% High WT: % High WT Code:
% Low Volume: % Low Volume Code:
% High Volume: % High Volume Code:
% Text: N/K
% Enviromental Weight:
Other REC Limits: NONE RECOMMENDED
OSHA PEL: NOT ESTABLISHED OSHA PEL Code: M
OSHA STEL: OSHA STEL Code:
ACGIH TLV: NOT ESTABLISHED ACGIH TLV Code: M
ACGIH STEL: N/P ACGIH STEL Code:
EPA Reporting Quantity:
DOT Reporting Quantity:
Ozone Depleting Chemical: N

Ingredient Name: SATURATED HYDROCARBONS
Ingredient CAS Number: Ingredient CAS Code: X
RTECS Number: RTECS Code: X
=WT: =WT Code:
=Volume: =Volume Code:
>WT: >WT Code:
>Volume: >Volume Code:
<WT: <WT Code:
<Volume: <Volume Code:
% Low WT: % Low WT Code:
% High WT: % High WT Code:
% Low Volume: % Low Volume Code:
% High Volume: % High Volume Code:
% Text: 54-85
% Enviromental Weight:
Other REC Limits: NONE RECOMMENDED
OSHA PEL: NOT ESTABLISHED OSHA PEL Code: M

OSHA STEL: OSHA STEL Code:
ACGIH TLV: NOT ESTABLISHED ACGIH TLV Code: M
ACGIH STEL: N/P ACGIH STEL Code:
EPA Reporting Quantity:
DOT Reporting Quantity:
Ozone Depleting Chemical:

Ingredient Name: UNSATURATED HYDROCARBONS
Ingredient CAS Number; Ingredient CAS Code: X
RTECS Number: RTECS Code: X
=WT: =WT Code:
=Volume: =Volume Code:
>WT: >WT Code:
>Volume: >Volume Code:
<WT: <WT Code:
<Volume: <Volume Code:
% Low WT: % Low WT Code:
% High WT: % High WT Code:
% Low Volume: % Low Volume Code:
% High Volume: % High Volume Code:
% Text: 1-6
% Enviromental Weight:
Other REC Limits: NONE RECOMMENDED
OSHA PEL: NOT ESTABLISHED OSHA PEL Code: M
OSHA STEL: OSHA STEL Code:
ACGIH TLV: NOT ESTABLISHED ACGIH TLV Code: M
ACGIH STEL: N/P ACGIH STEL Code:
EPA Reporting Quantity:
DOT Reporting Quantity:
Ozone Depleting Chemical:

Section 3 - Hazards Identification, Including Emergency Overview
DIESEL FUEL;NO. 2 DIESEL FUEL;NO. 2 OIL;NO.

Health Hazards Acute & Chronic: EYES:IRRITATION. SKIN:SKIN IRRITANT. INHALATION:LUNG IRRITATION, CNS EFFECTS. INGESTION:PRACTICALLY NON-TOXIC TO INTERNAL ORGANS. HOWEVER, IF ASPIRATED INTO LUNGS IT MAY CAUSE CHEMICAL PNEUMONITIS WHI CH CAN BE FATAL. CHRONIC:MIDDLE DISTILLATE HAS CAUSED SKIN CANCER WHEN REPEATEDLY APPLIED TO MICE OVER LIFETIME,KIDNEY.

Signs & Symptoms of Overexposure:
SKIN:IRRITAION, DRYING EFFECT. INHALATION: HEADACHE, DIZZINESS, LOSS OF APPETITE, WEAKNESS AND LOSS OF COORDINATION.

Medical Conditions Aggravated by Exposure:
NONE SPECIFIED BY MANUFACTURER.

LD50 LC50 Mixture: UNKNOWN

Route of Entry Indicators:

Inhalation: YES
Skin: YES
Ingestion: YES

Carcenogenicity Indicators
NTP: NO
IARC: NO
OSHA: NO

Carcinogenicity Explanation: WHOLE DIESEL ENGINE EXHAUST IS LISTED AS A PROBABLE CARCINOGEN BY IARC AND NIOSH.

Section 4 - First Aid Measures
DIESEL FUEL;NO. 2 DIESEL FUEL;NO. 2 OIL;NO.

First Aid:
EYES:FLUSH WITH FRESH WATER FOR 15 MINUTES. SKIN: REMOVE CONTAMINATED CLOTHING. WASH SKIN THOROUGHLY WITH SOAP AND WATER. SEE A DOCTOR IF SYMPTOMS DEVELOP. INHALATION: REMOVE TO FRESH AIR. INGESTION: GIVE WATER OR MILK TO DRINK AND GET IMMEDIATE MEDICAL ATTENTION. DO NOT MAKE PERSON VOMIT UNLESS DIRECTED TO DO SO BY MEDICAL PERSONNEL.

Section 5 - Fire Fighting Measures
DIESEL FUEL;NO. 2 DIESEL FUEL;NO. 2 OIL;NO.

Fire Fighting Procedures:
WEAR FIRE FIGHTING PROTECTIVE EQUIPMENT AND A FULL FACED SELF CONTAINED BREATHING APPARATUS. EVACUATE AREA. COOL FIRE EXPOSED CONTAINERS WITH WATER SPRAY.
Unusual Fire or Explosion Hazard:
COMBUSTION OR HEAT OF FIRE MAY PRODUCE HAZARDOUS DECOMPOSITION PRODUCTS AND VAPORS. LIQUID EVAPORATES AND FORMS VAPORS WHICH CAN CATCH FIRE WITH VIOLENT BURNING
Extinguishing Media:
USE WATER FOG, CARBON DIOXIDE, FOAM, OR DRY CHEMICAL.
Flash Point: Flash Point Text: 130F,54C

Autoignition Temperature:
Autoignition Temperature Text: N/K
Lower Limit(s): 0.7
Upper Limit(s): 5.0

Section 6 - Accidental Release Measures
DIESEL FUEL;NO. 2 DIESEL FUEL;NO. 2 OIL;NO.

Spill Release Procedures:
THIS MATERIAL IS CONSIDERED TO BE A WATER POLLUTANT AND RELEASES OF THIS PRODUCT SHOULD BE PREVENTED. ELIMINATE ALL OPEN FLAMES. STOP SOURCE OF THE LEAK. CONTAIN LIQUID. CLEAN UP SPILL USING APPROPRIA TE TECHNIQUES SUCH AS ABSORBENT MATERIALS.

Section 7 - Handling and Storage
DIESEL FUEL;NO. 2 DIESEL FUEL;NO. 2 OIL;NO.

Handling and Storage Precautions:

Other Precautions:

Section 8 - Exposure Controls & Personal Protection
DIESEL FUEL;NO. 2 DIESEL FUEL;NO. 2 OIL;NO.

Repiratory Protection:
NONE NORMALLY REQUIRED. USE NIOSH APPROVED SELF-CONTAINED BREATHING APPARATUS IF TLV IS EXCEEDED OR WHEN SPRAYING OR USING IN CONFINED SPACES.
Ventilation:
USE THIS MATERIAL ONLY IN WELL VENTILATED AREAS.
Protective Gloves:
PVC
Eye Protection: GOGGLES
Other Protective Equipment: WEAR PROTECTIVE CLOTHINGS.
Work Hygenic Practices: WASH HANDS THOROUGHLY AFTER HANDLING THIS PRODUCT.
Supplemental Health & Safety Information: NONE

Section 9 - Physical & Chemical Properties
DIESEL FUEL;NO. 2 DIESEL FUEL;NO. 2 OIL;NO.

HCC: F4
NRC/State License Number:
Net Property Weight for Ammo:
Boiling Point: **Boiling Point Text:** 320F,160C
Melting/Freezing Point: **Melting/Freezing Text:** N/A
Decomposition Point: **Decomposition Text:** UNKNOWN
Vapor Pressure: 1 **Vapor Density:** 4-5
Percent Volatile Organic Content:
Specific Gravity: 0.8
Volatile Organic Content Pounds per Gallon:
pH: N/A
Volatile Organic Content Grams per Liter:
Viscosity: 1.9 CST
Evaporation Weight and Reference: N/K
Solubility in Water: NEGLIGIBLE
Appearance and Odor: CLEAR LIGHT AMBER LIQUID, FUEL OIL ODOR
Percent Volatiles by Volume: NIL
Corrosion Rate: UNKNOWN

Section 10 - Stability & Reactivity Data
DIESEL FUEL;NO. 2 DIESEL FUEL;NO. 2 OIL;NO.

Stability Indicator: YES
Materials to Avoid:
STRONG OXIDIZING AGENTS

Stability Condition to Avoid:
HIGH HEAT, OPEN FLAMES AND OTHER SOURCES OF IGNITION
Hazardous Decomposition Products:
TOXIC CARBON MONOXIDE AND CARBON DIOXIDE, AND SULFUR DIOXIDE.
Hazardous Polymerization Indicator: NO
Conditions to Avoid Polymerization:
NOT APPLICABLE

Section 11 - Toxicological Information
DIESEL FUEL;NO. 2 DIESEL FUEL;NO. 2 OIL;NO.

Toxicological Information:
N/P

Section 12 - Ecological Information
DIESEL FUEL;NO. 2 DIESEL FUEL;NO. 2 OIL;NO.

Ecological Information:
N/P

Section 13 - Disposal Considerations
DIESEL FUEL;NO. 2 DIESEL FUEL;NO. 2 OIL;NO.

Waste Disposal Methods:
PLACE CONTAMINATED MATERIALS IN DISPOSABLE CONTAINERS AND DISPOSE OF IN A MANNER CONSISTENT WITH APPLICABLE REGULATIONS. CANTACT LOCAL ENVIRONMENTAL OR HEALTH AUTHORITIES FOR APPROVED DISPOSAL OF THIS MATERIAL.

Section 14 - MSDS Transport Information
DIESEL FUEL;NO. 2 DIESEL FUEL;NO. 2 OIL;NO.

Transport Information:
N/P

Section 15 - Regulatory Information
DIESEL FUEL;NO. 2 DIESEL FUEL;NO. 2 OIL;NO.

SARA Title III Information:
N/P
Federal Regulatory Information:
N/P
State Regulatory Information:
N/P

Section 16 - Other Information
DIESEL FUEL;NO. 2 DIESEL FUEL;NO. 2 OIL;NO.

Other Information:
N/P

HMIS Transportation Information
Product Identification: DIESEL FUEL;NO. 2 DIESEL FUEL;NO. 2 OIL;NO.

Transporation ID Number: 66799
Responsible Party CAGE: PRIMA
Date MSDS Prepared: 01/01/1987
Date MSDS Reviewed: 12/11/1992
MFN: 12/11/1992
Submitter: D DG
Status Code: C

Container Information
- Unit of Issue: GL
- Container Quantity: X
- Type of Container: BULK
- Net Unit Weight:

Article without MSDS: N
Technical Entry NOS Shipping Number: MIDDLE DISTILLATE, HYDROCARBONS(MIXTURE OF SATURATED,UNSATURATED AND AROMATIC).
Radioactivity:
Form:
Net Explosive Weight:
Coast Guard Ammunition Code:
Magnetism: N/P
AF MMAC Code:
DOD Exemption Number:
Limited Quantity Indicator:
Multiple Kit Number: 0
Kit Indicator: N
Kit Part Indicator: N
Review Indicator: Y
Additional Data:
NONE

Department of Transportation Information
DOT Proper Shipping Name: GAS OIL OR DIESEL FUEL OR HEATING OIL, LIGHT
DOT PSN Code: GTF
Symbols:
DOT PSN Modifier:
Hazard Class: 3
UN ID Number: UN1202
DOT Packaging Group: III
Label: FLAMMABLE LIQUID
Special Provision(s): B1,T7,T30
Packaging Exception: 150
Non Bulk Packaging: 203
Bulk Packaging: 242
Maximimum Quanity in Passenger Area: 60 L
Maximimum Quanity in Cargo Area: 220 L
Stow in Vessel Requirements: A
Requirements Water/Sp/Other:

IMO Detail Information
IMO Proper Shipping Name: GAS OIL

IMO PSN Code: HRR
IMO PSN Modifier:
IMDG Page Number: 3375
UN Number: 1202
UN Hazard Class: 3.3
IMO Packaging Group: III
Subsidiary Risk Label: -
EMS Number: 3-07
Medical First Aid Guide Number: 311

IATA Detail Information

IATA Proper Shipping Name: GAS OIL
IATA PSN Code: MTX
IATA PSN Modifier:
IATA UN Id Number: 1202
IATA UN Class: 3
Subsidiary Risk Class:
UN Packaging Group: III
IATA Label: FLAMMABLE LIQUID
Packaging Note for Passengers: 309
Maximum Quantity for Passengers: 60L
Packaging Note for Cargo: 310
Maximum Quantity for Cargo: 220L
Exceptions: A3

AFI Detail Information

AFI Proper Shipping Name: GAS OIL OR DIESEL FUEL OR HEATING OIL, LIGHT
AFI Symbols:
AFI PSN Code: MTX
AFI PSN Modifier:
AFI UN Id Number: UN1202
AFI Hazard Class: 3
AFI Packing Group: III
AFI Label:
Special Provisions: P5
Back Pack Reference: A7.3

HAZCOM Label Information

Product Identification: DIESEL FUEL;NO. 2 DIESEL FUEL;NO. 2 OIL;NO.
CAGE: PRIMA
Assigned Individual: N
Company Name: PRIMARY CORPORATION
Company PO Box:
Company Street Address1: 5601 IRONBRIDGE PARKWAY, SUITE 100
Company Street Address2: CHESTER, VA 23831 US
Health Emergency Telephone: 804-230-1747
Label Required Indicator: Y
Date Label Reviewed: 12/11/1992
Status Code: C
Manufacturer's Label Number: NONE
Date of Label: 12/11/1992
Year Procured: 1992
Organization Code: F
Chronic Hazard Indicator: Y

Eye Protection Indicator: YES
Skin Protection Indicator: YES
Respiratory Protection Indicator: YES
Signal Word: WARNING
Health Hazard: Slight
Contact Hazard: Slight
Fire Hazard: Moderate
Reactivity Hazard: None

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APPENDIX C
OSHA CERTIFICATIONS

PERSONNEL RESUME FORM

NAME OF OFFEROR OR SUBCONTRACTOR:

Oak Environmental Consultants, Inc.

1. NAME OF EMPLOYEE: **BRUCE P. NEWMAN**

2. PROPOSED JOB CLASSIFICATION/TITLE FOR THIS CONTRACT:

Project Manager

3. PROFESSIONAL REGISTRATION(S):
DISCIPLINE:
OSHA 40 hour HAZWOPER Certification
USACE Quality Control Management for Contractors (CQM)
City of Philadelphia Asbestos Project Inspector/Asbestos Investigator
NJ State Department of Health Lead Inspector/Risk Assessor Certification (License No. 001556)
NJ State Department of Health Lead-based Paint Supervisor Certification (License No. 001556)
Pennsylvania Dept. of Labor Lead Inspector/Risk Assessor Certification (License No. 001556)
Pennsylvania Dept. of Labor Lead-based Paint Supervisor Certification (License No. 001556)
Pennsylvania Asbestos Building Inspector
Delaware Asbestos Building Inspector
Maryland Asbestos Building Inspector

4. EDUCATION BACKGROUND: Florida State University
M.S. Marine and Environmental Sciences
West Chester State University
B.S. Comprehensive Science and Education

5. TECHNICAL EXPERIENCE:

Mr. Newman has over 20 years experience in all aspects of HTRW including lead-based paint, asbestos (AHERA) and environmental/industrial hygiene consulting fields, covering a broad range of disciplines and project types. Mr. Newman has designed and implemented a number of operations and management programs for various public and private clients throughout the country.

Mr. Newman has also completed a number of projects involving OSHA compliance monitoring and OSHA hazard remediation project designs with cost estimates, construction management and third party monitoring. Mr. Newman has performed industrial hygiene sampling for stressors including, but not limited to lead, silica and noise.

As Project Leader for the Three Mile Island Nuclear Station Offsite Environmental Monitoring Program, during the accident at TMI, he was able to hone his expertise in HTRW sampling,

remediation and emergency response actions.

Mr. Newman has provided Lead Risk Assessment and Surveys for multiple housing authorities and private clients. These duties included risk assessments and surveys and corrective actions under current Housing and Urban Development (HUD) protocols for family housing projects. Mr. Newman has performed sampling and testing of suspect lead-based paint, dust, soil and Toxic Characteristic Leaching Procedure (TCLP) testing by established protocols. Mr. Newman is a multi-state certified instructor for asbestos, lead and HazMat. He recently completed drafting federal lead legislation, with New Jersey Congressmen Robert Andrews, and served on multiple State task forces developing environmental regulations. Mr. Newman recently completed filming of a television special on lead-based paint for the Public Broadcasting Company (PBS).

Mr. Newman maintains numerous state and local certifications in the areas of environmental management and remediation.

1999- Present
OAK Environmental Consultants, Inc.
Program Manager
Program Manager for all Demolition, Renovation and Environmental Remediation Operations. Performs, as necessary, as on site CQC Manger for Demolition, Renovation and Remediation Actions. Front-end capabilities include construction oversight, inspections, risk assessments, abatement design, abatement/ personal air monitoring, clearance sampling, abatement supervision and regulatory compliance. Mr. Newman has implemented new organizational protocols for project coordination and is key in coordinating multiple projects for specific timetables. Mr. Newman acts as a primary OAK contact for client liaisons. Other functions include over sight on PA-1, Phase I Environmental Audits and Industrial Hygiene Investigations. Mr. Newman is also a nationally recognized Environmental Instructor.

1997 - 1999
Certified Environmental Group, Turnersville, NJ
Vice President
Responsibilities included program management, corporate sales and marketing, proposal generation, client consultation, and lead abatement planning and execution, technical report writing, and environmental training, lead inspections and risk assessments.

1988 - 1997
TEAM Environmental Supply and Lead Test, Inc., Pennsauken, NJ
President/CEO
Responsibilities included all phases of operations for these two environmental companies including sales and marketing, personnel, profit and loss, inventory, client consultations, and environmental inspections, risk assessments and training.

1984 - 1988
Asbestos Control Technology, Pennsauken, NJ

Senior Vice President
This $25mil/yr firm specialized in asbestos abatement and supplying contractors involved in asbestos clean up. Responsibilities centered around abatement planning and implementation, sales and marketing, personnel, new product development and training on a national scale.

1979 - 1984
Porter-Gertz Consultants, Ardmore, PA
Senior Consultant
Senior consultant for a team that designed and managed radiological environmental monitoring programs for numerous nuclear power stations including Three Mile Island. Mr. Newman assisted in the development of the Standard Operating Procedures for the remediation of ionizing radiation in soil, water, air and building interiors.

6. WHAT PAST EXPERIENCE DOES THIS INDIVIDUAL POSSESS THAT WILL BE OF MOST VALUE IN THIS POSITION:

Mr. Newman's experience includes certification by NJ State Dept. of Health as Multi-discipline Lead Instructor and certification by PA Dept. of Labor as Multi-discipline Lead and Asbestos Instructor. Mr. Newman has trained over 3,000 students in lead and asbestos abatement over a 10-year period and is a member of the National Lead Abatement Council. And as a frequently appointee to the State of New Jersey Lead Task forces, Mr. Newman was instrumental in shaping and developing lead certification laws and exams for the State.

7. MANAGERIAL EXPERIENCE

Company	Years	Description of Work	No. of Persons Supervised
Oak Environmental Consultants, Inc.	1	Project Manager Remediation Operations	35
Team Environmental Supply and Lead Test, Inc.	9	President/CEO	25
Asbestos Control Technology	5	Senior Vice President Asbestos Abatement	30

8. REFERENCES

Point of Contact	Company/Title	Telephone Number
1. Vic Vittorino	TTI Environmental Training Director	609-985-8800
2. Jim McCabe	Leadtec Services Vice President	410-321-7663

3. Jim Proctor	Health & Safety Services President	609-704-8850

Michael F. Rose
Site Superintendent
Professional Qualifications

Mr. Rose oversees the field construction components of all RC&D projects. As an engineer, he has extensive real-world experience in overseeing and implementing large-scale construction projects and environmental remediation projects.

Overview of Qualifications

- Eight (8) years direct on-scene experience in hazardous waste site cleanup and waste disposal activities and over seven (7) years of supervisory experience in environmental remediation.
- Over ten (10) years of response manager/site superintendent experience. He is an approved Emergency Response Manager in EPA Regions I, II, and III. He has seven (7) years of experience in EPA Region I.
- Directs chemical and hazardous substance site cleanup and disposal activities, heavy equipment operation, and field construction on emergency activities. Experience coordinating hazardous waste transportation and disposal and enforces QA/QC, DOT, and RCRA/CERCLA requirements.
- Experience preparing written reports including site-specific work plans, daily work reports, and site progress reports.
- Procures, directs, and manages up to 40 on-scene multi-disciplinary personnel/subcontractors.
- Prepares all required financial documentation and cost tracking reports.

EDUCATION B.S., Marine Engineering, Massachusetts Maritime Academy, 1990

SPECIALIZED TRAINING

8-Hour Supervisory Training, 1995 & 2005

OSHA (29 CFR 1910.120) 40-Hour Safety Training, 1995

Licensed Construction Supervisor: Massachusetts

U.S. Coast Guard Second Assistant Engineer License: Unlimited Steam and Diesel

ON-SITE EXPERIENCE

Mr. Rose has extensive experience in the construction field as it relates to environmental remediation, contaminated material excavation, and emergency response projects. He has performed facility decontamination and demolition projects, drum removal projects, soil excavation projects, and underground and aboveground storage tank removal projects.

Mr. Rose directs chemical and hazardous substance site cleanup and disposal activities, heavy equipment operation, and field construction on emergency and planned remedial activities. He prepares and ensures adherence to all plans including work plans, spill prevention plans, and health and safety plans. Mr. Rose enforces all OSHA regulations; coordinates hazardous waste transportation and disposal; acts as the Site Safety Officer as required; and enforces QA/QC, DOT, and RCRA/CERCLA requirements.

General Construction Superintendent, Devens Landfill Remediation Project, USACE-NARAC.

- Supervise the excavating of 375,000 cy of demolition debris
- Supervise the installation of 1,200 lf of force main and pump station.
- Oversee the Construction of an 8-acre lined-landfill to hold the construction debris.
- Provide Technical Input for dewatering, sheeting and excavating of debris under ground water.
- Oversee and design dewatering construction operations.
- Oversee operation and debris placement 8-acre on-site landfill.

Construction Superintendent, Nyanza Superfund Remediation Project, Ashland, MA.

- Supervise the excavating mercury-contaminated sediments
- Supervise the installation of 1,800 linear feet of water main and services

- Coordinate Construction activities between project and subcontractors.
- Provide Technical Input for dewatering and excavating contaminated sediments.
- Walk Down heavy civil work to Verify Design Conformance
- Oversee construction of opening of 3 acre portion of a 14 acre on-site landfill and removing of 19,000 cubic yards of clean fill.

Related Positions:

Operations Engineer-Mechanical/Civil Systems, Massachusetts Turnpike Authority (MTA) Central Artery Project, Boston, MA.

- Review Project Design Specifications for all of the pump stations constructed for the Central Artery Project
- Review and Approve Contractor Submittals
- Coordinate Construction activities between project, construction, Contractor, and Outside Agency personnel
- Review and Approve Contractor As-Built Drawing Submittals
- Provide Technical Input to Owner's for interface of mechanical, electrical, and civil systems
- Walk Down Systems to Verify Design Conformance
- Oversee construction of pump stations from start to finish
- Develop System Maintenance and Test requirements for turnover requirements and Oversee Turnover Process
- Provide Input to the Construction Cost Analysis/Savings Program

Lead Maintenance Engineer – Mechanical Systems, Parsons Brinckerhoff (PB), Central Artery Project, Boston, MA.

- Develop Preventive Maintenance, Corrective Maintenance, and Energy
- Control Procedures (Lockout/Tagout)
- Implementation of Maintenance Management Integrated
- Computer System (MMIS)
- Review Project Design Specifications
- Review and Approve Contractor Maintenance Submittals
- Review and Approve Contractor As-Built Drawing Submittals
- Provide Technical Input to Owner's Maintenance Department
- Walk Down Systems to Verify Design Conformance
- Review and Approve Contractor Training Submittals
- Coordinate and Conduct Training

Owner, Operating Manager, Tri-Star Construction Company, Taunton, MA.

- Responsible for managing several construction contracts simultaneously
- Estimate contract costs and develop bids
- Negotiate contracts with owners/primary contractors
- Manage contract financing
- Schedule all contract activities
- Responsible for project staffing
- Manage and supervise project personnel including Engineers,
- Superintendents, Union Trades

Second Assistant Engineer, Maintenance/Mechanical Systems, Interlake Steamship Company, Cleveland, OH.

- Manage daily operations of a high pressure steam plant
- Supervise Operations and Maintenance Engineers.
- Responsible for preventive and corrective maintenance - systems include marine boilers, boiler/burner controls, turbos, HP turbines, diesel/turbine generators, and miscellaneous support systems
- Maintain and operate various propulsion and power plants
- Schedule and supervise the overhaul and retrofit of the various systems
- Responsible for inventory control for all systems/equipment
- Accountable for refueling, fuel testing, and fuel/lube oil disposal

Chief Engineer (suction hopper dredge unlimited horsepower), Price Brothers, Toledo, OH.

- Responsible as master of hopper dredging projects
- Responsible for ship's business, deck gear operation and maintenance and miscellaneous support systems
- Maintain and operate dredge gear & dredge pump operation
- Schedule and supervise the overhaul and retrofit hydraulic, electrical and dredging systems
- Responsible for inventory control for all systems/equipment

INSTITUTE FOR ENVIRONMENTAL EDUCATION, INC.

86 Cummings Park, Woburn, MA 01801
(781)935-7370

IEE IEE

This is to certify that

Michael F Rose Jr

has attended the 40-hour course

Hazardous Waste Operations

pursuant to OSHA 29 CFR Part 1910.120(e)(3)I

ENTERED

April 10-14, 2000
Course Dates

April 14, 2000
Examination Date

April 14, 2001
Expiration Date

00245918020805
Certificate Number

President/Director of Training

Association of
Bay Area Governments

ABAG Training Center
www.hazmatschool.com

CERTIFICATE OF COMPLETION

Michael Rose

has successfully completed the course titled

OSHA 8-hr Annual HAZWOPER Refresher

Satisfies 29 CFR 1910.120(e)(8)
on
October 12, 2004

and has earned
IACET authorized 0.8 CEUs (Continuing Education Units) from the program

Certificate No. 39611
(verify at www.hazmatschool.com)

Terry Bursztynsky, Training Director
Sharon McCreadie, Training Coordinator
www.abag.ca.gov; (510) 464-7964

Paul W. Gantt, REA
Safety Compliance Management, Inc.

Association of
Bay Area Governments

ABAG Training Center
www.hazmatschool.com

CERTIFICATE OF COMPLETION

Michael Rose

has successfully completed the course titled

OSHA 8-hr Training for Supervisors

Satisfies 29 CFR 1910.120(e)(4)

on

June 20, 2005

and has earned

IACET authorized 0.8 CEUs (Continuing Education Units) from the program

Certificate No: 43867
(verify at www.hazmatschool.com)

Terry Bursztynsky, Training Director
Sharon McCreadie, Training Coordinator
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Paul W. Gantt, REA
Safety Compliance Management, Inc.

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SERVICE CENTER
1100 23RD AVE
PORT HUENEME CA 93043-4370
IN REPLY REFER TO:

NFESC 413
May 5, 2005

Ms. Ellen Collins
Quality Assurance Officer
Alpha Analytical Labs
8 Walkup Drive
Westboro, MA 01581

Dear Ms. Collins,

This correspondence addresses the status of Alpha Analytical Labs Westboro, Massachusetts in the Navy Installation Restoration (IR) Quality Assurance (QA) Program as administered by the Naval Facilities Engineering Service Center (NFESC).

Your laboratory is accepted to perform sample analysis for the methods listed in Table 1. The period of acceptance expires July 30, 2005. This acceptance does not guarantee the delivery of any analytical samples. Acceptance is facility specific and can not be transferred to an affiliated or subcontract laboratory.

Acceptance is based on a review of laboratory supplied documentation, including that associated with the latest assessment executed by the State of New York, for the National Environmental Laboratory Accreditation Program (NELAP). The NELAP assessment included an onsite inspection performed on January 7-9, 2003. The Navy's assessment included a review of the laboratory's QA manual, selected standard operating procedures (SOPs) and SOP master list, list of major analytical instrumentation, performance test (PT) results, and NELAP(NY)/U.S. Army Corps of Engineers onsite audit documentation.

The Navy reserves the right to conduct additional laboratory assessments or to suspend or revoke acceptance status for any or all of the listed parameters if deemed necessary.

Table 1

Method	Parameter	Matrix
9010B/9012A	Cyanide	Water
9013/9012A	Cyanide	Solid
8081A	Organochlorine Pesticides	Water/ Solid
8082	Polychlorinated Biphenyls	Water/ Solid
8270C	Semivolatile Organics	Water/Solid

NFESC 413
May 5, 2005

6010B/7000A	TAL Metals: Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Vanadium, and Zinc	Water/ Solid
8015B Modified	TPH-DRO/GRO	Water/Solid
8260B	Volatile Organics	Water/Solid

Acceptance for use for parameters not identified on the table will be determined by Navy project personnel.

The laboratory should notify NFESC if there are parameters not presented on Table I that the laboratory expects to run on a routine basis in support of Navy installation restoration projects. In these circumstances the laboratory's capability to run the tests will be reviewed and the table will be modified accordingly.

Questions concerning the information provided should be directed to the NFESC IR QA Program coordinator, Ms. Patricia Moreno at (805) 982-1659, or via email at morenop@nfesc.navy.mil.

Sincerely,

Robert J. Kratzke
Supervisor, Consultation/Information
Management Branch

DEPARTMENT OF THE NAVY

NAVAL FACILITIES ENGINEERING SERVICE CENTER
1100 23RD AVE
PORT HUENEME CA 93043-4370

IN REPLY REFER TO:

NFESC 413
January 19, 2005

Ms. Leslie Diamond
Quality Assurance Officer
Katahdin Analytical Services
340 Country Road No. 5
Westbrook, ME 04098

Dear Ms. Diamond,

This correspondence addresses the status of Katahdin Analytical Services of Westbrook, Maine in the Navy Installation Restoration (IR) Quality Assurance (QA) Program as administered by the Naval Facilities Engineering Service Center (NFESC).

Your laboratory is accepted to perform sample analysis for the methods listed in Table 1. The period of acceptance expires July 30, 2006. This acceptance does not guarantee the delivery of any analytical samples. Acceptance is facility specific and can not be transferred to an affiliated or subcontract laboratory.

The Navy's assessment included a review of the laboratory's QA manual, selected standard operating procedures (SOPs) and SOP master list, list of major analytical instrumentation, performance test (PT) results and onsite assessment documentation[1].

The Navy reserves the right to conduct additional laboratory assessments or to suspend or revoke acceptance status for any or all of the listed parameters if deemed necessary.

Table 1

METHOD	PARAMETER	MATRIX
300 Series/9056	Anions: Bromide, Chloride, Fluoride, Nitrate, Nitrite, Orthophosphate, Phosphorus, Sulfate, Sulfide, Sulfite	Water/Solid
8260B	Volatile Organic Compounds	Water/Solid
8270C	Semivolatile Organic Compounds	Water/Solid
8011	Volatile Organics	Water/Solid
8021B	Volatile Organic Compounds	Water/Solid

[1] The State of Florida conducted the onsite on July 28-30 2004 to assess laboratory conformance with National Environmental Laboratory Accreditation Conference (NELAC) requirements.

NFESC 413
January 19, 2005

8081A	Organochlorine Pesticides	Water/Solid
8082	Polychlorinated Biphenyls (PCBs)	Water/Solid
6010B/6020/7000A	TAL Metals: Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Vanadium, and Zinc	Water/Solid
6020	TAL Metals: Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Vanadium, and Zinc	Water/Solid
7196	Chromium VI	Water/Solid
1664	Total Petroleum Hydrocarbons (TPH)	Water/Solid
8015M	Total Petroleum Hydrocarbons – Gasoline Range Organics (GRO) Diesel Range Organics (DRO)	Water/Solid
9012	Cyanide	Water/Solid

Acceptance for use for parameters not identified on the table will be determined by Navy project personnel.

The laboratory should notify NFESC if there are parameters not presented on Table 1 that the laboratory expects to run on a routine basis in support of Navy installation restoration projects. In these circumstances the laboratory's capability to run the tests will be reviewed and the table will be modified accordingly.

Questions concerning the information provided should be directed to the NFESC IR QA Program coordinator, Ms. Patricia Moreno at (805) 982-1659, or via email at pati.moreno@navy.mil.

Sincerely,

FOR Robert J. Kratzke
Supervisor, Consultation/Information
Management Branch

Sample Results Comparison with Maine Criteria.					
			Method		
			Detection		
	Maine		Limit		
	Health	Units		Qual	
Cyanide, Total		ug/l	5	U	
Cyanide, Reactive		ug/l	50	U	
Sulfide, Reactive		ug/l	100	U	
Total Metals					
Antimony, Total		ug/l	50	U	
Arsenic, Total		ug/l	5	U	
Barium, Total	2000	ug/l	10	U	
Beryllium, Total		ug/l	5	U	
Cadmium, Total		ug/l	5	U	
Chromium, Total		ug/l	2000		
Copper, Total		ug/l	10	U	
Lead, Total		ug/l	50	U	
Mercury, Total		ug/l	0.5	U	
Nickel, Total	100	ug/l	25	U	
Selenium, Total		ug/l	5	U	
Silver, Total	100	ug/l	7	U	
Thallium, Total		ug/l	5	U	
Zinc, Total	2000	ug/l	50	U	
Chlorinated Herbicides by GC 8150					
MCPP		ug/l	250	U	
MCPA	10	ug/l	250	U	
Dalapon	200	ug/l	10	U	
Dicamba	200	ug/l	0.5	U	
Dichloroprop		ug/l	5	U	
2,4-D	70	ug/l	5	U	
2,4-D	70	ug/l	5	U	
2,4-DB		ug/l	5	U	
2,4,5-T		ug/l	0.5	U	
2,4-DB		ug/l	5	U	
2,4,5-T		ug/l	0.5	U	
2,4,5-TP (Silvex)		ug/l	0.5	U	
2,4,5-TP (Silvex)		ug/l	0.5	U	
Dinoseb	7	ug/l	2.5	U	
Dinoseb	7	ug/l	2.5	U	
Volatile Organics by GC/MS 8260					
Methylene chloride		ug/l	5	U	
1,1-Dichloroethane		ug/l	0.75	U	
Chloroform		ug/l	0.75	U	
Carbon tetrachloride		ug/l	0.5	U	
1,2-Dichloropropane		ug/l	1.8	U	
Dibromochloromethane	60	ug/l	0.5	U	

1,1,2-Trichloroethane		ug/l	0.75	U	
Tetrachloroethene		ug/l	0.5	U	
Chlorobenzene		ug/l	0.5	U	
Trichlorofluoromethane		ug/l	2.5	U	
1,2-Dichloroethane		ug/l	0.5	U	
1,1,1-Trichloroethane		ug/l	0.5	U	
Bromodichloromethane		ug/l	0.5	U	
trans-1,3-Dichloropropene		ug/l	0.5	U	
cis-1,3-Dichloropropene		ug/l	0.5	U	
1,1-Dichloropropene		ug/l	2.5	U	
Bromoform		ug/l	0.5	U	
1,1,2,2-Tetrachloroethane		ug/l	0.5	U	
Benzene		ug/l	0.5	U	
Toluene		ug/l	0.75	U	
Ethylbenzene	700	ug/l	0.5	U	
Chloromethane	3	ug/l	2.5	U	
Bromomethane	10	ug/l	1	U	
Vinyl chloride		ug/l	1	U	
Chloroethane		ug/l	1	U	
1,1-Dichloroethene	7	ug/l	0.5	U	
trans-1,2-Dichloroethene	100	ug/l	0.75	U	
Trichloroethene		ug/l	0.5	U	
1,2-Dichlorobenzene	600	ug/l	2.5	U	
1,3-Dichlorobenzene	600	ug/l	2.5	U	
1,4-Dichlorobenzene	75	ug/l	2.5	U	
Methyl tert butyl ether		ug/l	1	U	
p/m-Xylene		ug/l	0.5	U	
o-Xylene		ug/l	0.5	U	
cis-1,2-Dichloroethene	70	ug/l	0.5	U	
Dibromomethane		ug/l	5	U	
1,4-Dichlorobutane		ug/l	5	U	
Iodomethane		ug/l	5	U	
1,2,3-Trichloropropane		ug/l	5	U	
Styrene		ug/l	0.5	U	
Dichlorodifluoromethane	1000	ug/l	5	U	
Acetone		ug/l	5	U	
Carbon disulfide		ug/l	5	U	
2-Butanone		ug/l	5	U	
Vinyl acetate		ug/l	5	U	
4-Methyl-2-pentanone		ug/l	5	U	
2-Hexanone		ug/l	5	U	
Ethyl methacrylate		ug/l	5	U	
Acrolein		ug/l	12	U	
Acrylonitrile		ug/l	5	U	
Bromochloromethane	10	ug/l	2.5	U	
Tetrahydrofuran		ug/l	10	U	
2,2-Dichloropropane		ug/l	2.5	U	
1,2-Dibromoethane		ug/l	2.5	U	
1,3-Dichloropropane		ug/l	2.5	U	
1,1,1,2-Tetrachloroethane		ug/l	0.5	U	
Bromobenzene		ug/l	2.5	U	
n-Butylbenzene		ug/l	0.5	U	

sec-Butylbenzene		ug/l	0.5	U	
tert-Butylbenzene		ug/l	2.5	U	
o-Chlorotoluene	100	ug/l	2.5	U	
p-Chlorotoluene	100	ug/l	2.5	U	
1,2-Dibromo-3-chloropropane		ug/l	2.5	U	
Hexachlorobutadiene	1	ug/l	2.5	U	
Isopropylbenzene		ug/l	0.5	U	
p-Isopropyltoluene		ug/l	0.5	U	
Naphthalene		ug/l	2.5	U	
n-Propylbenzene		ug/l	0.5	U	
1,2,3-Trichlorobenzene		ug/l	2.5	U	
1,2,4-Trichlorobenzene		ug/l	2.5	U	
1,3,5-Trimethylbenzene		ug/l	2.5	U	
1,2,4-Trimethylbenzene		ug/l	2.5	U	
trans-1,4-Dichloro-2-butene		ug/l	2.5	U	
Ethyl ether		ug/l	2.5	U	
SVOC's by GC/MS 8270					
Acenaphthene		ug/l	5	U	
Benzidine		ug/l	50	U	
1,2,4-Trichlorobenzene		ug/l	5	U	
Hexachlorobenzene		ug/l	5	U	
Bis(2-chloroethyl)ether		ug/l	5	U	
1-Chloronaphthalene		ug/l	5	U	
2-Chloronaphthalene		ug/l	6	U	
1,2-Dichlorobenzene	600	ug/l	5	U	
1,3-Dichlorobenzene	600	ug/l	5	U	
1,4-Dichlorobenzene	75	ug/l	5	U	
3,3'-Dichlorobenzidine		ug/l	50	U	
2,4-Dinitrotoluene		ug/l	6	U	
2,6-Dinitrotoluene		ug/l	5	U	
Azobenzene		ug/l	5	U	
Fluoranthene		ug/l	5	U	
4-Chlorophenyl phenyl ether		ug/l	5	U	
4-Bromophenyl phenyl ether		ug/l	5	U	
Bis(2-chloroisopropyl)ether	300	ug/l	5	U	
Bis(2-chloroethoxy)methane		ug/l	5	U	
Hexachlorobutadiene	1	ug/l	10	U	
Hexachlorocyclopentadiene		ug/l	10	U	
Hexachloroethane	1	ug/l	5	U	
Isophorone	100	ug/l	5	U	
Naphthalene		ug/l	5	U	
Nitrobenzene		ug/l	5	U	
NDPA/DPA		ug/l	15	U	
n-Nitrosodi-n-propylamine		ug/l	5	U	
Bis(2-ethylhexyl)phthalate		ug/l	10	U	
Butyl benzyl phthalate		ug/l	5	U	
Di-n-butylphthalate		ug/l	5	U	
Di-n-octylphthalate		ug/l	5	U	
Diethyl phthalate	5000	ug/l	5	U	
Dimethyl phthalate		ug/l	5	U	
Benzo(a)anthracene		ug/l	5	U	

Benzo(a)pyrene		ug/l	5	U	
Benzo(b)fluoranthene		ug/l	5	U	
Benzo(k)fluoranthene		ug/l	5	U	
Chrysene		ug/l	5	U	
Acenaphthylene		ug/l	5	U	
Anthracene		ug/l	5	U	
Benzo(ghi)perylene		ug/l	5	U	
Fluorene		ug/l	5	U	
Phenanthrene		ug/l	5	U	
Dibenzo(a,h)anthracene		ug/l	5	U	
Indeno(1,2,3-cd)pyrene		ug/l	7	U	
Pyrene		ug/l	5	U	
Benzo(e)pyrene		ug/l	5	U	
Biphenyl		ug/l	5	U	
Perylene		ug/l	5	U	
Aniline		ug/l	10	U	
4-Chloroaniline		ug/l	5	U	
1-Methylnaphthalene		ug/l	5	U	
2-Nitroaniline		ug/l	5	U	
3-Nitroaniline		ug/l	5	U	
4-Nitroaniline		ug/l	7	U	
Dibenzofuran		ug/l	5	U	
a,a-Dimethylphenethylamine		ug/l	50	U	
Hexachloropropene		ug/l	50	U	
Nitrosodi-n-butylamine		ug/l	10	U	
2-Methylnaphthalene		ug/l	8	U	
1,2,4,5-Tetrachlorobenzene		ug/l	20	U	
Pentachlorobenzene		ug/l	20	U	
a-Naphthylamine		ug/l	20	U	
b-Naphthylamine		ug/l	20	U	
Phenacetin		ug/l	10	U	
Dimethoate		ug/l	20	U	
4-Aminobiphenyl		ug/l	10	U	
Pentachloronitrobenzene		ug/l	10	U	
Isodrin		ug/l	10	U	
p-Dimethylaminoazobenzene		ug/l	10	U	
Chlorobenzilate		ug/l	20	U	
3-Methylcholanthrene		ug/l	20	U	
Ethyl Methanesulfonate		ug/l	15	U	
Acetophenone		ug/l	20	U	
Nitrosodipiperidine		ug/l	20	U	
7,12-Dimethylbenz(a)anthracene		ug/l	10	U	
n-Nitrosodimethylamine		ug/l	50	U	
2,4,6-Trichlorophenol		ug/l	5	U	
p-Chloro-m-cresol		ug/l	5	U	
2-Chlorophenol	40	ug/l	6	U	
2,4-Dichlorophenol	20	ug/l	10	U	
2,4-Dimethylphenol		ug/l	10	U	
2-Nitrophenol		ug/l	20	U	
4-Nitrophenol		ug/l	10	U	
2,4-Dinitrophenol		ug/l	20	U	
4,6-Dinitro-o-cresol		ug/l	20	U	

Pentachlorophenol		ug/l	20	U	
Phenol		ug/l	7	U	
2-Methylphenol		ug/l	6	U	
3-Methylphenol/4-Methylphenol		ug/l	6	U	
2,4,5-Trichlorophenol		ug/l	5	U	
2,6-Dichlorophenol		ug/l	10	U	
Benzoic Acid		ug/l	50	U	
Benzyl Alcohol		ug/l	10	U	
Carbazole		ug/l	5	U	
Pyridine		ug/l	50	U	
2-Picoline		ug/l	20	U	
Pronamide		ug/l	20	U	
Methyl methanesulfonate		ug/l	20	U	
PAH by GC/MS SIM 8270M					
Acenaphthene		ug/l	0.2	U	
2-Chloronaphthalene		ug/l	0.2	U	
Fluoranthene		ug/l	0.2	U	
Naphthalene		ug/l	0.2	U	
Benzo(a)anthracene		ug/l	0.2	U	
Benzo(a)pyrene		ug/l	0.2	U	
Benzo(b)fluoranthene		ug/l	0.2	U	
Benzo(k)fluoranthene		ug/l	0.2	U	
Chrysene		ug/l	0.2	U	
Acenaphthylene		ug/l	0.2	U	
Anthracene		ug/l	0.2	U	
Benzo(ghi)perylene		ug/l	0.2	U	
Fluorene		ug/l	0.2	U	
Phenanthrene		ug/l	0.2	U	
Dibenzo(a,h)anthracene		ug/l	0.2	U	
Indeno(1,2,3-cd)Pyrene		ug/l	0.2	U	
Pyrene		ug/l	0.2	U	
1-Methylnaphthalene		ug/l	0.2	U	
2-Methylnaphthalene		ug/l	0.2	U	
Perylene		ug/l	0.2	U	
Biphenyl		ug/l	0.2	U	
Benzo(e)Pyrene		ug/l	0.2	U	
PCB/Pesticides					
Delta-BHC		ug/l	0.08	U	
Lindane	0.2	ug/l	0.08	U	
Alpha-BHC		ug/l	0.08	U	
Beta-BHC		ug/l	0.08	U	
Heptachlor		ug/l	0.08	U	
Aldrin		ug/l	0.08	U	
Heptachlor epoxide		ug/l	0.08	U	
Endrin	2	ug/l	0.16	U	
Endrin aldehyde		ug/l	0.16	U	
Endrin ketone		ug/l	0.16	U	
Dieldrin		ug/l	0.16	U	
4,4'-DDE		ug/l	0.16	U	
4,4'-DDD		ug/l	0.16	U	

4,4'-DDT		ug/l	0.16	U	
Endosulfan I		ug/l	0.08	U	
Endosulfan II		ug/l	0.16	U	
Endosulfan sulfate		ug/l	0.16	U	
Methoxychlor	40	ug/l	0.8	U	
Toxaphene		ug/l	0.8	U	
Chlordane		ug/l	0.8	U	
cis-Chlordane		ug/l	0.08	U	
trans-Chlordane		ug/l	0.08	U	
Aroclor 1221		ug/l	2	U	
Aroclor 1232		ug/l	2	U	
Aroclor 1242/1016		ug/l	2	U	
Aroclor 1248		ug/l	2	U	
Aroclor 1254		ug/l	2	U	
Aroclor 1260		ug/l	2	U	
Hydrocarbon Scan by GC 8100M					
Mineral Spirits		ug/l	100	U	
Gasoline		ug/l	100	U	
Fuel Oil #2/Diesel		ug/l	100	U	
Fuel Oil #4		ug/l	100	U	
Fuel Oil #6		ug/l	100	U	
Motor Oil		ug/l	0		
Kerosene		ug/l	100	U	
Transformer Oil		ug/l	100	U	
Unknown Hydrocarbon		ug/l	26		
Volatile Petroleum Hydrocarbons					
C5-C8 Aliphatics, Unadjusted		ug/l	40	U	
C9-C12 Aliphatics, Unadjusted		ug/l	40	U	
C9-C10 Aromatics, Unadjusted		ug/l	40	U	
C5-C8 Aliphatics, Adjusted		ug/l	40	U	
C9-C12 Aliphatics, Adjusted		ug/l	40	U	
Benzene		ug/l	2	U	
Toluene		ug/l	2	U	
Ethylbenzene	700	ug/l	2	U	
p/m-Xylene		ug/l	2	U	
o-Xylene		ug/l	2	U	
Methyl tert butyl ether		ug/l	4	U	
Naphthalene		ug/l	20	U	
Extractable Petroleum Hydrocarbons					
C9-C18 Aliphatics, Unadjusted		ug/l	100	U	
C19-C36 Aliphatics, Unadjusted		ug/l	100	U	
C11-C22 Aromatics, Unadjusted		ug/l	100	U	
C11-C22 Aromatics, Adjusted		ug/l	100	U	
C11-C22 Aromatics, Adjusted		ug/l	100	U	
Naphthalene		ug/l	20	U	
2-Methylnaphthalene		ug/l	20	U	
Acenaphthylene		ug/l	20	U	
Acenaphthene		ug/l	20	U	
Fluorene		ug/l	20	U	

Naphthalene		ug/l	20	U	
Phenanthrene		ug/l	20	U	
2-Methylnaphthalene		ug/l	20	U	
Anthracene		ug/l	20	U	
Acenaphthylene		ug/l	20	U	
Acenaphthene		ug/l	20	U	
Fluoranthene		ug/l	20	U	
Fluorene		ug/l	20	U	
Pyrene		ug/l	20	U	
Benzo(a)anthracene		ug/l	20	U	
Phenanthrene		ug/l	20	U	
Anthracene		ug/l	20	U	
Chrysene		ug/l	20	U	
Benzo(b)fluoranthene		ug/l	20	U	
Fluoranthene		ug/l	20	U	
Benzo(k)fluoranthene		ug/l	20	U	
Pyrene		ug/l	20	U	
Benzo(a)anthracene		ug/l	20	U	
Benzo(a)pyrene		ug/l	20	U	
Chrysene		ug/l	20	U	
Indeno(1,2,3-cd)Pyrene		ug/l	20	U	
Benzo(b)fluoranthene		ug/l	20	U	
Dibenzo(a,h)anthracene		ug/l	20	U	
Benzo(g,h,i)perylene		ug/l	20	U	
Benzo(k)fluoranthene		ug/l	20	U	
Benzo(a)pyrene		ug/l	20	U	
Indeno(1,2,3-cd)Pyrene		ug/l	20	U	
Dibenzo(a,h)anthracene		ug/l	20	U	
Benzo(g,h,i)perylene		ug/l	20	U	
Extractable Total Petroleum Hydrocarbons					
ETPH-CT		ug/l	50	U	

Sample Results Comparison with MCP S1/GW-1 Criteria.				
LOCATION		Method		
SAMPLING DATE		Detection		
LAB SAMPLE ID		Limits		
	Units		Qual	
Cyanide, Total	mg/kg	0.13	U	
Cyanide, Reactive	mg/kg	0.25	U	
Sulfide, Reactive	mg/kg	2.5	U	
Total Metals				
Antimony, Total	mg/kg	2	U	
Arsenic, Total	mg/kg	0.4	U	
Barium, Total	mg/kg	0.4	U	
Beryllium, Total	mg/kg	0.2	U	
Cadmium, Total	mg/kg	0.4	U	
Chromium, Total	mg/kg	0.4	U	
Copper, Total	mg/kg	0.4	U	
Lead, Total	mg/kg	2	U	
Mercury, Total	mg/kg	0.082	U	
Nickel, Total	mg/kg	1	U	
Selenium, Total	mg/kg	0.8	U	
Silver, Total	mg/kg	0.4	U	
Thallium, Total	mg/kg	0.4	U	
Zinc, Total	mg/kg	2	U	
TCLP Metals				
Arsenic, TCLP	mg/l	1	U	
Barium, TCLP	mg/l	0.5	U	
Cadmium, TCLP	mg/l	0.1	U	
Chromium, TCLP	mg/l	0.2	U	
Lead, TCLP	mg/l	0.5	U	
Mercury, TCLP	mg/l	0.005	U	
Selenium, TCLP	mg/l	0.5	U	
Silver, TCLP	mg/l	0.1	U	
TCLP Semi-Volatile Organics				
Hexachlorobenzene	ug/l	25	U	
2,4-Dinitrotoluene	ug/l	30	U	
Hexachlorobutadiene	ug/l	50	U	
Hexachloroethane	ug/l	25	U	
Nitrobenzene	ug/l	25	U	
2,4,6-Trichlorophenol	ug/l	25	U	
Pentachlorophenol	ug/l	100	U	
2-Methylphenol	ug/l	30	U	
3-Methylphenol/4-Methylphenol	ug/l	30	U	
2,4,5-Trichlorophenol	ug/l	25	U	
Pyridine	ug/l	250	U	
TCLP Pesticides by GC				

Lindane	ug/l	0.4	U	
Heptachlor	ug/l	0.4	U	
Heptachlor epoxide	ug/l	0.4	U	
Endrin	ug/l	0.8	U	
Methoxychlor	ug/l	4	U	
Toxaphene	ug/l	4	U	
Chlordane	ug/l	4	U	
TCLP Herbicides by GC				
2,4-D	mg/l	0.025	U	
2,4,5-TP (Silvex)	mg/l	0.0025	U	
TCLP Volatile Organics				
Chloroform	ug/l	7.5	U	
Carbon tetrachloride	ug/l	5	U	
Tetrachloroethene	ug/l	5	U	
Chlorobenzene	ug/l	5	U	
1,2-Dichloroethane	ug/l	5	U	
Benzene	ug/l	5	U	
Vinyl chloride	ug/l	10	U	
1,1-Dichloroethene	ug/l	5	U	
Trichloroethene	ug/l	5	U	
1,4-Dichlorobenzene	ug/l	25	U	
2-Butanone	ug/l	50	U	
Chlorinated Herbicides by GC 8150				
MCPP	mg/kg	0.025	U	
MCPA	mg/kg	0.025	U	
Dalapon	mg/kg	0.001	U	
Dicamba	mg/kg	0.00005	U	
Dichloroprop	mg/kg	0.0005	U	
2,4-D	mg/kg	0.0005	U	
2,4-D	mg/kg	0.0005	U	
2,4-DB	mg/kg	0.0005	U	
2,4,5-T	mg/kg	0.00005	U	
2,4-DB	mg/kg	0.0005	U	
2,4,5-T	mg/kg	0.00005	U	
2,4,5-TP (Silvex)	mg/kg	0.00005	U	
2,4,5-TP (Silvex)	mg/kg	0.00005	U	
Dinoseb	mg/kg	0.00025	U	
Dinoseb	mg/kg	0.00025	U	
Volatile Organics 8260 via Low 5035				
Methylene chloride	mg/kg	0.01	U	
1,1-Dichloroethane	mg/kg	0.0015	U	
Chloroform	mg/kg	0.0015	U	
Carbon tetrachloride	mg/kg	0.001	U	
1,2-Dichloropropane	mg/kg	0.0035	U	
Dibromochloromethane	mg/kg	0.001	U	
1,1,2-Trichloroethane	mg/kg	0.0015	U	
Tetrachloroethene	mg/kg	0.001	U	
Chlorobenzene	mg/kg	0.001	U	

Trichlorofluoromethane	mg/kg	0.005	U	
1,2-Dichloroethane	mg/kg	0.001	U	
1,1,1-Trichloroethane	mg/kg	0.001	U	
Bromodichloromethane	mg/kg	0.001	U	
trans-1,3-Dichloropropene	mg/kg	0.001	U	
cis-1,3-Dichloropropene	mg/kg	0.001	U	
1,1-Dichloropropene	mg/kg	0.005	U	
Bromoform	mg/kg	0.019	U	
1,1,2,2-Tetrachloroethane	mg/kg	0.001	U	
Benzene	mg/kg	0.001	U	
Toluene	mg/kg	0.0015	U	
Ethylbenzene	mg/kg	0.001	U	
Chloromethane	mg/kg	0.005	U	
Bromomethane	mg/kg	0.002	U	
Vinyl chloride	mg/kg	0.002	U	
Chloroethane	mg/kg	0.002	U	
1,1-Dichloroethene	mg/kg	0.001	U	
trans-1,2-Dichloroethene	mg/kg	0.0015	U	
Trichloroethene	mg/kg	0.001	U	
1,2-Dichlorobenzene	mg/kg	0.005	U	
1,3-Dichlorobenzene	mg/kg	0.005	U	
1,4-Dichlorobenzene	mg/kg	0.005	U	
Methyl tert butyl ether	mg/kg	0.002	U	
p/m-Xylene	mg/kg	0.001	U	
o-Xylene	mg/kg	0.001	U	
cis-1,2-Dichloroethene	mg/kg	0.001	U	
Dibromomethane	mg/kg	0.01	U	
1,4-Dichlorobutane	mg/kg	0.01	U	
Iodomethane	mg/kg	0.01	U	
1,2,3-Trichloropropane	mg/kg	0.01	U	
Styrene	mg/kg	0.001	U	
Dichlorodifluoromethane	mg/kg	0.01	U	
Acetone	mg/kg	0.01	U	
Carbon disulfide	mg/kg	0.01	U	
2-Butanone	mg/kg	0.01	U	
Vinyl acetate	mg/kg	0.01	U	
4-Methyl-2-pentanone	mg/kg	0.01	U	
2-Hexanone	mg/kg	0.01	U	
Ethyl methacrylate	mg/kg	0.01	U	
Acrolein	mg/kg	0.025	U	
Acrylonitrile	mg/kg	0.01	U	
Bromochloromethane	mg/kg	0.005	U	
Tetrahydrofuran	mg/kg	0.02	U	
2,2-Dichloropropane	mg/kg	0.005	U	
1,2-Dibromoethane	mg/kg	0.005	U	
1,3-Dichloropropane	mg/kg	0.005	U	
1,1,1,2-Tetrachloroethane	mg/kg	0.001	U	
Bromobenzene	mg/kg	0.005	U	
n-Butylbenzene	mg/kg	0.001	U	
sec-Butylbenzene	mg/kg	0.001	U	
tert-Butylbenzene	mg/kg	0.005	U	
o-Chlorotoluene	mg/kg	0.005	U	

p-Chlorotoluene	mg/kg	0.005	U	
1,2-Dibromo-3-chloropropane	mg/kg	0.005	U	
Hexachlorobutadiene	mg/kg	0.005	U	
Isopropylbenzene	mg/kg	0.001	U	
p-Isopropyltoluene	mg/kg	0.001	U	
Naphthalene	mg/kg	0.005	U	
n-Propylbenzene	mg/kg	0.001	U	
1,2,3-Trichlorobenzene	mg/kg	0.005	U	
1,2,4-Trichlorobenzene	mg/kg	0.005	U	
1,3,5-Trimethylbenzene	mg/kg	0.005	U	
1,2,4-Trimethylbenzene	mg/kg	0.005	U	
trans-1,4-Dichloro-2-butene	mg/kg	0.005	U	
Ethyl ether	mg/kg	0.005	U	
Volatile Organics 8260 via High 5035				
Methylene chloride	mg/kg	0.5	U	
1,1-Dichloroethane	mg/kg	0.075	U	
Chloroform	mg/kg	0.075	U	
Carbon tetrachloride	mg/kg	0.05	U	
1,2-Dichloropropane	mg/kg	0.18	U	
Dibromochloromethane	mg/kg	0.05	U	
1,1,2-Trichloroethane	mg/kg	0.075	U	
Tetrachloroethene	mg/kg	0.05	U	
Chlorobenzene	mg/kg	0.05	U	
Trichlorofluoromethane	mg/kg	0.25	U	
1,2-Dichloroethane	mg/kg	0.05	U	
1,1,1-Trichloroethane	mg/kg	0.05	U	
Bromodichloromethane	mg/kg	0.05	U	
trans-1,3-Dichloropropene	mg/kg	0.05	U	
cis-1,3-Dichloropropene	mg/kg	0.05	U	
1,1-Dichloropropene	mg/kg	0.25	U	
Bromoform	mg/kg	0.05	U	
1,1,2,2-Tetrachloroethane	mg/kg	0.05	U	
Benzene	mg/kg	0.05	U	
Toluene	mg/kg	0.075	U	
Ethylbenzene	mg/kg	0.05	U	
Chloromethane	mg/kg	0.25	U	
Bromomethane	mg/kg	0.1	U	
Vinyl chloride	mg/kg	0.1	U	
Chloroethane	mg/kg	0.1	U	
1,1-Dichloroethene	mg/kg	0.05	U	
trans-1,2-Dichloroethene	mg/kg	0.075	U	
Trichloroethene	mg/kg	0.05	U	
1,2-Dichlorobenzene	mg/kg	0.25	U	
1,3-Dichlorobenzene	mg/kg	0.25	U	
1,4-Dichlorobenzene	mg/kg	0.25	U	
Methyl tert butyl ether	mg/kg	0.1	U	
p/m-Xylene	mg/kg	0.05	U	
o-Xylene	mg/kg	0.05	U	
cis-1,2-Dichloroethene	mg/kg	0.05	U	
Dibromomethane	mg/kg	0.5	U	
1,4-Dichlorobutane	mg/kg	0.5	U	

Iodomethane	mg/kg	0.5	U	
1,2,3-Trichloropropane	mg/kg	0.5	U	
Styrene	mg/kg	0.05	U	
Dichlorodifluoromethane	mg/kg	0.5	U	
Acetone	mg/kg	0.5	U	
Carbon disulfide	mg/kg	0.5	U	
2-Butanone	mg/kg	0.5	U	
Vinyl acetate	mg/kg	0.5	U	
4-Methyl-2-pentanone	mg/kg	0.5	U	
2-Hexanone	mg/kg	0.5	U	
Ethyl methacrylate	mg/kg	0.5	U	
Acrolein	mg/kg	1.2	U	
Acrylonitrile	mg/kg	0.5	U	
Bromochloromethane	mg/kg	0.25	U	
Tetrahydrofuran	mg/kg	1	U	
2,2-Dichloropropane	mg/kg	0.25	U	
1,2-Dibromoethane	mg/kg	0.25	U	
1,3-Dichloropropane	mg/kg	0.25	U	
1,1,1,2-Tetrachloroethane	mg/kg	0.05	U	
Bromobenzene	mg/kg	0.25	U	
n-Butylbenzene	mg/kg	0.05	U	
sec-Butylbenzene	mg/kg	0.05	U	
tert-Butylbenzene	mg/kg	0.25	U	
o-Chlorotoluene	mg/kg	0.25	U	
p-Chlorotoluene	mg/kg	0.25	U	
1,2-Dibromo-3-chloropropane	mg/kg	0.25	U	
Hexachlorobutadiene	mg/kg	0.25	U	
Isopropylbenzene	mg/kg	0.05	U	
p-Isopropyltoluene	mg/kg	0.05	U	
Naphthalene	mg/kg	0.25	U	
n-Propylbenzene	mg/kg	0.05	U	
1,2,3-Trichlorobenzene	mg/kg	0.25	U	
1,2,4-Trichlorobenzene	mg/kg	0.25	U	
1,3,5-Trimethylbenzene	mg/kg	0.25	U	
1,2,4-Trimethylbenzene	mg/kg	0.25	U	
trans-1,4-Dichloro-2-butene	mg/kg	0.25	U	
Ethyl ether	mg/kg	0.25	U	
SVOCS by GC/MS 8270				
Acenaphthene	mg/kg	0.5	U	
Benzidine	mg/kg	5	U	
1,2,4-Trichlorobenzene	mg/kg	0.5	U	
Hexachlorobenzene	mg/kg	0.5	U	
Bis(2-chloroethyl)ether	mg/kg	0.5	U	
1-Chloronaphthalene	mg/kg	0.5	U	
2-Chloronaphthalene	mg/kg	0.6	U	
1,2-Dichlorobenzene	mg/kg	0.5	U	
1,3-Dichlorobenzene	mg/kg	0.5	U	
1,4-Dichlorobenzene	mg/kg	0.5	U	
3,3'-Dichlorobenzidine	mg/kg	5	U	
2,4-Dinitrotoluene	mg/kg	0.6	U	
2,6-Dinitrotoluene	mg/kg	0.5	U	

Azobenzene	mg/kg	0.5	U	
Fluoranthene	mg/kg	0.5	U	
4-Chlorophenyl phenyl ether	mg/kg	0.5	U	
4-Bromophenyl phenyl ether	mg/kg	0.5	U	
Bis(2-chloroisopropyl)ether	mg/kg	0.5	U	
Bis(2-chloroethoxy)methane	mg/kg	0.5	U	
Hexachlorobutadiene	mg/kg	1	U	
Hexachlorocyclopentadiene	mg/kg	1	U	
Hexachloroethane	mg/kg	0.5	U	
Isophorone	mg/kg	0.5	U	
Naphthalene	mg/kg	0.5	U	
Nitrobenzene	mg/kg	0.5	U	
NDPA/DPA	mg/kg	1.5	U	
n-Nitrosodi-n-propylamine	mg/kg	0.5	U	
Bis(2-ethylhexyl)phthalate	mg/kg	1	U	
Butyl benzyl phthalate	mg/kg	0.5	U	
Di-n-butylphthalate	mg/kg	0.5	U	
Di-n-octylphthalate	mg/kg	0.5	U	
Diethyl phthalate	mg/kg	0.5	U	
Dimethyl phthalate	mg/kg	0.5	U	
Benzo(a)anthracene	mg/kg	0.5	U	
Benzo(a)pyrene	mg/kg	0.5	U	
Benzo(b)fluoranthene	mg/kg	0.5	U	
Benzo(k)fluoranthene	mg/kg	0.5	U	
Chrysene	mg/kg	0.5	U	
Acenaphthylene	mg/kg	0.5	U	
Anthracene	mg/kg	0.5	U	
Benzo(ghi)perylene	mg/kg	0.5	U	
Fluorene	mg/kg	0.5	U	
Phenanthrene	mg/kg	0.5	U	
Dibenzo(a,h)anthracene	mg/kg	0.5	U	
Indeno(1,2,3-cd)pyrene	mg/kg	0.7	U	
Pyrene	mg/kg	0.5	U	
Benzo(e)pyrene	mg/kg	0.5	U	
Biphenyl	mg/kg	0.5	U	
Perylene	mg/kg	0.5	U	
Aniline	mg/kg	1	U	
4-Chloroaniline	mg/kg	0.5	U	
1-Methylnaphthalene	mg/kg	0.5	U	
2-Nitroaniline	mg/kg	0.5	U	
3-Nitroaniline	mg/kg	0.5	U	
4-Nitroaniline	mg/kg	0.7	U	
Dibenzofuran	mg/kg	0.5	U	
a,a-Dimethylphenethylamine	mg/kg	5	U	
Hexachloropropene	mg/kg	5	U	
Nitrosodi-n-butylamine	mg/kg	1	U	
2-Methylnaphthalene	mg/kg	0.8	U	
1,2,4,5-Tetrachlorobenzene	mg/kg	2	U	
Pentachlorobenzene	mg/kg	2	U	
a-Naphthylamine	mg/kg	2	U	
b-Naphthylamine	mg/kg	2	U	
Phenacetin	mg/kg	1	U	

Dimethoate	mg/kg	2	U	
4-Aminobiphenyl	mg/kg	1	U	
Pentachloronitrobenzene	mg/kg	1	U	
Isodrin	mg/kg	1	U	
p-Dimethylaminoazobenzene	mg/kg	1	U	
Chlorobenzilate	mg/kg	2	U	
3-Methylcholanthrene	mg/kg	2	U	
Ethyl Methanesulfonate	mg/kg	1.5	U	
Acetophenone	mg/kg	2	U	
Nitrosodipiperidine	mg/kg	2	U	
7,12-Dimethylbenz(a)anthracene	mg/kg	1	U	
n-Nitrosodimethylamine	mg/kg	5	U	
2,4,6-Trichlorophenol	mg/kg	0.5	U	
p-Chloro-m-cresol	mg/kg	0.5	U	
2-Chlorophenol	mg/kg	0.6	U	
2,4-Dichlorophenol	mg/kg	1	U	
2,4-Dimethylphenol	mg/kg	1	U	
2-Nitrophenol	mg/kg	2	U	
4-Nitrophenol	mg/kg	1	U	
2,4-Dinitrophenol	mg/kg	2	U	
4,6-Dinitro-o-cresol	mg/kg	2	U	
Pentachlorophenol	mg/kg	2	U	
Phenol	mg/kg	0.7	U	
2-Methylphenol	mg/kg	0.6	U	
3-Methylphenol/4-Methylphenol	mg/kg	0.6	U	
2,4,5-Trichlorophenol	mg/kg	0.5	U	
2,6-Dichlorophenol	mg/kg	1	U	
Benzoic Acid	mg/kg	5	U	
Benzyl Alcohol	mg/kg	1	U	
Carbazole	mg/kg	0.5	U	
Pyridine	mg/kg	5	U	
2-Picoline	mg/kg	2	U	
Pronamide	mg/kg	2	U	
Methyl methanesulfonate	mg/kg	2	U	
PAH by GC/MS SIM 8270M				
Acenaphthene	mg/kg	0.02	U	
Fluoranthene	mg/kg	0.02	U	
Naphthalene	mg/kg	0.02	U	
Benzo(a)anthracene	mg/kg	0.02	U	
Benzo(a)pyrene	mg/kg	0.02	U	
Benzo(b)fluoranthene	mg/kg	0.02	U	
Benzo(k)fluoranthene	mg/kg	0.02	U	
Chrysene	mg/kg	0.02	U	
Anthracene	mg/kg	0.02	U	
Benzo(ghi)perylene	mg/kg	0.02	U	
Fluorene	mg/kg	0.02	U	
Phenanthrene	mg/kg	0.02	U	
Dibenzo(a,h)anthracene	mg/kg	0.02	U	
Indeno(1,2,3-cd)Pyrene	mg/kg	0.02	U	
Pyrene	mg/kg	0.02	U	
PCB/Pesticides				

Delta-BHC	mg/kg	0.02	U	
Lindane	mg/kg	0.02	U	
Alpha-BHC	mg/kg	0.02	U	
Beta-BHC	mg/kg	0.02	U	
Heptachlor	mg/kg	0.02	U	
Aldrin	mg/kg	0.02	U	
Heptachlor epoxide	mg/kg	0.02	U	
Endrin	mg/kg	0.02	U	
Endrin aldehyde	mg/kg	0.02	U	
Endrin ketone	mg/kg	0.02	U	
Dieldrin	mg/kg	0.02	U	
4,4'-DDE	mg/kg	0.02	U	
4,4'-DDD	mg/kg	0.02	U	
4,4'-DDT	mg/kg	0.02	U	
Endosulfan I	mg/kg	0.02	U	
Endosulfan II	mg/kg	0.02	U	
Endosulfan sulfate	mg/kg	0.02	U	
Methoxychlor	mg/kg	0.02	U	
Toxaphene	mg/kg	0.08	U	
Chlordane	mg/kg	0.08	U	
cis-Chlordane	mg/kg	0.02	U	
trans-Chlordane	mg/kg	0.02	U	
Aroclor 1221	mg/kg	0.2	U	
Aroclor 1232	mg/kg	0.2	U	
Aroclor 1242/1016	mg/kg	0.2	U	
Aroclor 1248	mg/kg	0.2	U	
Aroclor 1254	mg/kg	0.2	U	
Aroclor 1260	mg/kg	0.2	U	
Hydrocarbon Scan by GC 8100M				
Mineral Spirits	mg/kg	100	U	
Gasoline	mg/kg	100	U	
Fuel Oil #2/Diesel	mg/kg	100	U	
Fuel Oil #4	mg/kg	100	U	
Fuel Oil #6	mg/kg	100	U	
Motor Oil	mg/kg	100	U	
Kerosene	mg/kg	100	U	
Transformer Oil	mg/kg	100	U	
Unknown Hydrocarbon	mg/kg	100	U	
Volatile Petroleum Hydrocarbons				
C5-C8 Aliphatics, Unadjusted	mg/kg	2	U	
C9-C12 Aliphatics, Unadjusted	mg/kg	2	U	
C9-C10 Aromatics, Unadjusted	mg/kg	2	U	
C5-C8 Aliphatics, Adjusted	mg/kg	2	U	
C9-C12 Aliphatics, Adjusted	mg/kg	2	U	
Benzene	mg/kg	0.1	U	
Toluene	mg/kg	0.1	U	
Ethylbenzene	mg/kg	0.1	U	
p/m-Xylene	mg/kg	0.1	U	
o-Xylene	mg/kg	0.1	U	

Methyl tert butyl ether	mg/kg	0.2	U	
Naphthalene	mg/kg	1	U	
Extractable Petroleum Hydrocarbons				
C9-C18 Aliphatics, Unadjusted	mg/kg	10	U	
C19-C36 Aliphatics, Unadjusted	mg/kg	10	U	
C11-C22 Aromatics, Unadjusted	mg/kg	10	U	
C11-C22 Aromatics, Adjusted	mg/kg	10	U	
C11-C22 Aromatics, Adjusted	mg/kg	10	U	
Naphthalene	mg/kg	0.5	U	
2-Methylnaphthalene	mg/kg	0.5	U	
Acenaphthylene	mg/kg	0.5	U	
Acenaphthene	mg/kg	0.5	U	
Fluorene	mg/kg	0.5	U	
Naphthalene	mg/kg	0.5	U	
Phenanthrene	mg/kg	0.5	U	
2-Methylnaphthalene	mg/kg	0.5	U	
Anthracene	mg/kg	0.5	U	
Acenaphthylene	mg/kg	0.5	U	
Acenaphthene	mg/kg	0.5	U	
Fluoranthene	mg/kg	0.5	U	
Fluorene	mg/kg	0.5	U	
Pyrene	mg/kg	0.5	U	
Benzo(a)anthracene	mg/kg	0.5	U	
Phenanthrene	mg/kg	0.5	U	
Anthracene	mg/kg	0.5	U	
Chrysene	mg/kg	0.5	U	
Benzo(b)fluoranthene	mg/kg	0.5	U	
Fluoranthene	mg/kg	0.5	U	
Benzo(k)fluoranthene	mg/kg	0.5	U	
Pyrene	mg/kg	0.5	U	
Benzo(a)anthracene	mg/kg	0.5	U	
Benzo(a)pyrene	mg/kg	0.5	U	
Chrysene	mg/kg	0.5	U	
Indeno(1,2,3-cd)Pyrene	mg/kg	0.5	U	
Benzo(b)fluoranthene	mg/kg	0.5	U	
Dibenzo(a,h)anthracene	mg/kg	0.5	U	
Benzo(g,h,i)perylene	mg/kg	0.5	U	
Benzo(k)fluoranthene	mg/kg	0.5	U	
Benzo(a)pyrene	mg/kg	0.5	U	
Indeno(1,2,3-cd)Pyrene	mg/kg	0.5	U	
Dibenzo(a,h)anthracene	mg/kg	0.5	U	
Benzo(g,h,i)perylene	mg/kg	0.5	U	
Extractable Total Petroleum Hydrocarbons				
ETPH-CT	mg/kg	5	U	

B-1 SEDIMENT BARRIERS

PURPOSE & APPLICATIONS

A sediment barrier is a temporary barrier installed across or at the toe of a slope. Sediment barriers may consist of filter fence, straw or hay bales, a berm of erosion control mix, or other filter materials. Its purpose is to intercept and retain small amounts of sediment from disturbed or unprotected areas.

The sediment barrier is used where:

- Sedimentation can pollute or degrade adjacent wetland and/or watercourses.
- Sedimentation will reduce the capacity of storm drainage systems or adversely affect adjacent areas.
- The contributing drainage area is less than 1/4 acre per 100 ft of barrier length, the maximum length of slope above the barrier is 100 feet, and the maximum gradient behind the barrier is 50 percent (2:1). If the slope length is greater, other measures such as diversions may be necessary to reduce the slope length.
- Sediment barriers shall not be used in areas of concentrated flows. Under no circumstances should hay bale or erosion control mix barriers be constructed in live streams or in swales where there is the possibility of a washout.

CONSIDERATIONS

- Sediment barriers are effective only if installed and maintained properly.
- Silt fencing generally is a better filter than hay bale barriers.
- If there is evidence of end flow on properly installed barriers, extend barriers uphill or consider replacing them with temporary check dams.
- Straw or hay bales should only be used as a temporary barrier for no longer than 60 days.
- Silt fences (synthetic filter) can be used for 60 days or longer depending on ultraviolet stability and manufacturer's recommendations.
- Sediment barriers should be installed prior to any soil disturbance of the contributing drainage area above them.

SPECIFICATIONS

Filter Fences

This sediment barrier utilizes synthetic filter fabrics. It is designed for situations in which only sheet or overland flows are expected. Generally pre-manufactured synthetic silt fencing with posts attached is used. See the detail drawing located at the back of this section for the proper installation of silt fences.

- The filter fabric shall be a pervious sheet of propylene, nylon, polyester or ethylene yarn and shall be certified by the manufacturer or supplier.
- The filter fabric shall contain ultraviolet ray inhibitors and stabilizers to provide a minimum of 6 months of expected usable construction life at a temperature range of 0 degrees F to 120 degrees F.
- Posts for silt fences shall be either 4-inch diameter wood or 1.33 pounds per linear foot steel with a minimum length of 5 feet. Steel posts shall have projections for fastening wire to them.
- The height of a silt fence should not exceed 36 inches as higher fences may impound volumes of water sufficient to cause failure of the structure.
- The filter fabric shall be purchased in a continuous roll cut to the length of the barrier to avoid the use of joints. When joints are necessary, filter cloth shall be spliced together only at support post, with a minimum 6-inch overlap, and securely sealed.
- Post spacing shall not exceed 6 feet.

- A trench shall be excavated approximately 4 inches wide and 4 inches deep along the line of posts and upgradient from the barrier.
- The standard strength of filter fabric shall be stapled or wired to the post, and 8 inches of the fabric shall be extended into the trench. The fabric shall not extend more than 36 inches above the original ground surface. Filter fabric shall not be stapled to existing trees.
- The trench shall be backfilled and the soil compacted over the filter fabric.
- Silt fences shall be removed when they have served their useful purpose, but not before the upslope areas have been permanently stabilized.

Straw/Hay Bales

See the detail drawing located at the back of this section for the proper installation of hay bales.

- Bales shall be placed in a single row, lengthwise on the contour, with ends of adjacent bales tightly abutting one another.
- All bales shall be either wire-bound or string-tied. Bales shall be installed so that bindings are oriented around the sides, parallel to the ground surface to prevent deterioration of the bindings.
- The barrier shall be entrenched and backfilled. A trench shall be excavated the width of a bale and the length of the proposed barrier to a minimum depth of 4 inches.
- After the bales are staked and chinked, the excavated soil shall be backfilled against the barrier. Backfill soil shall conform to the ground level on the downhill side and shall be build up to 4 inches against the uphill side of the barrier. Ideally, bales should be placed 10 feet away from the toe of slope.
- At least two stakes or rebars driven through the bale shall securely anchor each bale. The first stake in each bale shall be driven toward the previously laid bale to force the bales together. Stakes or re-bars shall be driven deep enough into the ground to securely anchor the bales.
- The gaps between bales shall be chinked (filled by wedging) with hay to prevent water from escaping between the bales.

Problems with Straw or Hay Bale Barriers

There are three major reasons why straw bale barriers are not as effective as hoped they would be.

- When improperly placed and installed (such as staking the bales directly to the ground with no soil seal or entrenchment), hay bales allow undercutting and end flow.
- Inadequate maintenance.
- Inspection shall be frequent and repair or replacement shall be made promptly as needed. Bale barriers shall be removed when they have served their usefulness, but not before the up-slope areas have been permanently stabilized.

Erosion Control Mix Berms

Erosion control mix can be manufactured on or off the project site. It must consist primarily of organic material, separated at the point of generation, and may include: shredded bark, stump grindings, composted bark, or acceptable manufactured products. Wood and bark chips, ground construction debris or reprocessed wood products will not be acceptable as the organic component of the mix.

Composition

Erosion control mix shall contain a well-graded mixture of particle sizes and may contain rocks less than 4" in diameter. Erosion control mix must be free of refuse, physical contaminants, and material toxic to plant growth. The mix composition shall meet the following standards:

- The organic matter content shall be between 80 and 100%, dry weight basis.
- Particle size by weight shall be 100 % passing a 6" screen and a minimum of 70 %, maximum of 85%, passing a 0.75" screen.
- The organic portion needs to be fibrous and elongated.
- Large portions of silts, clays or fine sands are not acceptable in the mix.
- Soluble salts content shall be < 4.0 mmhos/cm.

- The pH should fall between 5.0 and 8.0.

Installation

- The barrier must be placed along a relatively level contour. It may be necessary to cut tall grasses or woody vegetation to avoid creating voids and bridges that would enable fines to wash under the barrier through the grass blades or plant stems.
- On slopes less than 5 % or at the bottom of steeper slopes (<2:1) up to 20 feet long, the barrier must be *a minimum of* 12" high, as measured on the uphill side of the barrier, *and a minimum* of two feet wide. *On longer or steeper slopes,* the barrier should be wider to accommodate the additional runoff.
- Frozen ground, outcrops of bedrock and very rooted forested areas are locations where berms of erosion control mix are most practical and effective.
- Other BMPs should be used at low points of concentrated runoff, below culvert outlet aprons, around catch basins and closed storm systems, and at the bottom of steep perimeter slopes that are more than 50 feet from top to bottom (i.e., a large up gradient contributing watershed).

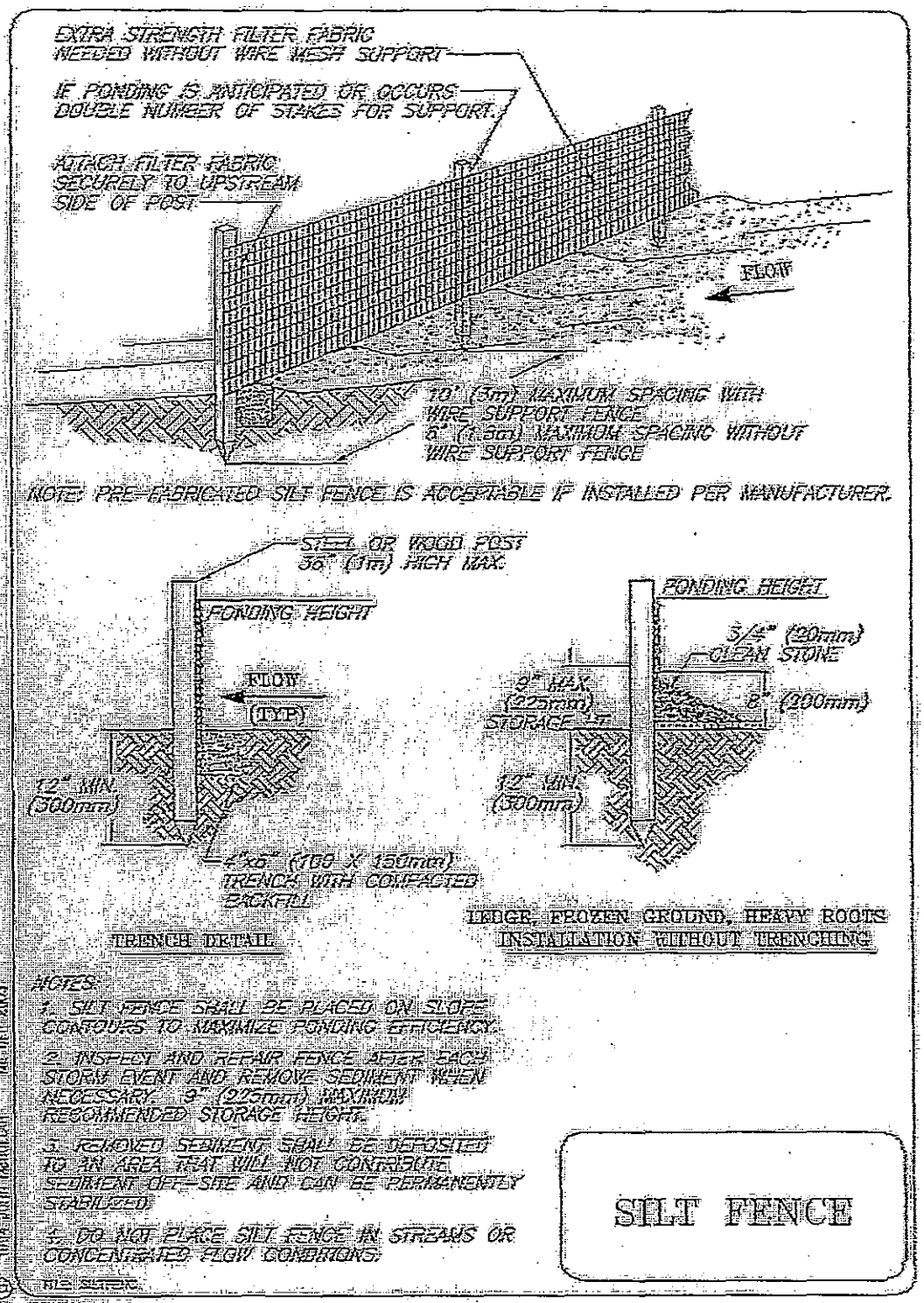
Continuous Contained Berms

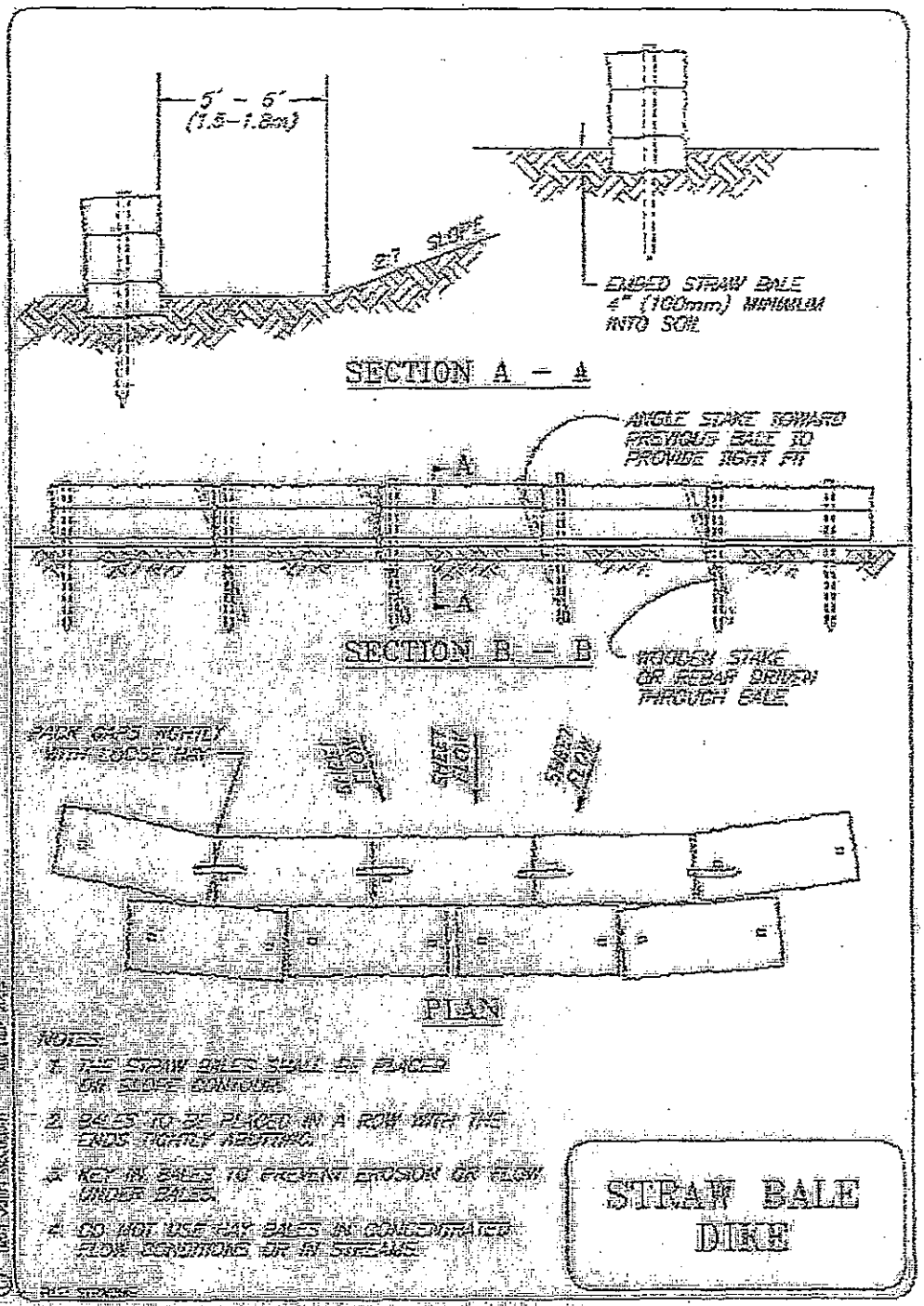
A new product, the filter sock can be an effective sediment barriers as it adds containment and stability to a berm of erosion control mix. The organic mix is placed in the synthetic tubular netting and performs as a sturdy sediment barrier (a vehicle may drive over it without ill effect). It works well in areas where trenching is not feasible such as over frozen ground or over pavement. A continuous contained berm of erosion control mix may be effective when placed in waterways such as ditches and swales or in area of concentrated water flow as the netting prevents the movement and displacement of the organic material. See the detail drawing located at the back of this section for the proper installation of continuous contained berms.

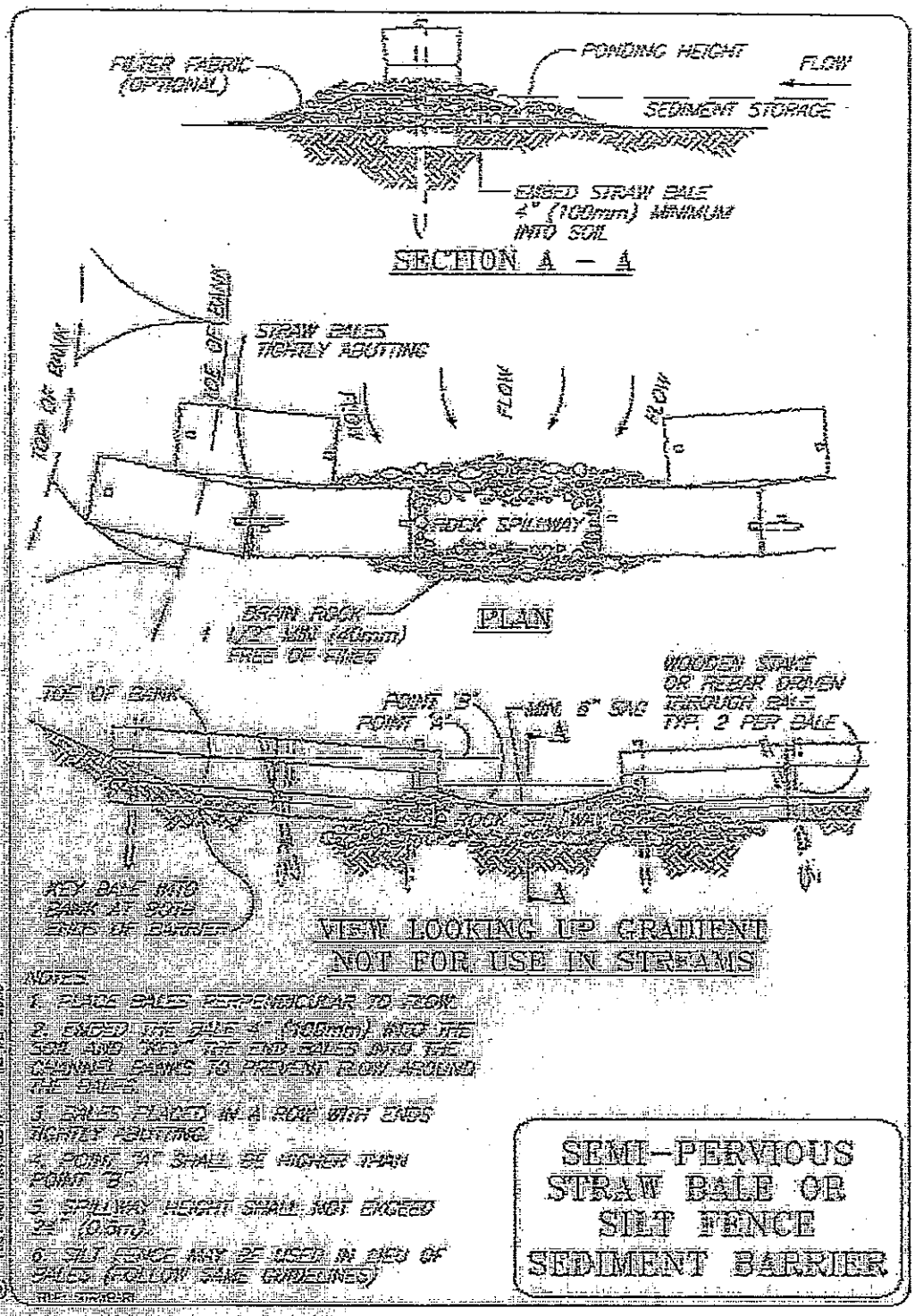
Seeds may be added to the organic filler material and can permanently stabilize a shallow slope. The containment will provide stability while vegetation is rooting through the netting.

MAINTENANCE

- Hay bale barriers, silt fences and filter berms shall be inspected immediately after each rainfall and at least daily during prolonged rainfall. They shall be repaired immediately if there are any signs of erosion or sedimentation below them. If there are signs of undercutting at the center or the edges of the barrier, or impounding of large volumes of water behind them, sediment barriers shall be replaced with a temporary check dam.
- Should the fabric on a silt fence or filter barrier decompose or become ineffective prior to the end of the expected usable life and the barrier still is necessary, the fabric shall be replaced promptly.
- Sediment deposits should be removed after each storm event. They must be removed when deposits reach approximately one-half the height of the barrier.
- Filter berms should be reshaped as needed.
- Any sediment deposits remaining in place after the silt fence or filter barrier is no longer required should be dressed to conform to the existing grade, prepared and seeded.


EXTRA STRENGTH FILTER FABRIC NEEDED WITHOUT WIRE MESH SUPPORT
IF PONDING IS ANTICIPATED OR OCCURS DOUBLE NUMBER OF STAKES FOR SUPPORT.
ATTACH FILTER FABRIC SECURELY TO UPSTREAM SIDE OF POST
FLOW
10' (3m) MAXIMUM SPACING WITH WIRE SUPPORT FENCE
6' (1.8m) MAXIMUM SPACING WITHOUT WIRE SUPPORT FENCE
NOTE: PRE-FABRICATED SILT FENCE IS ACCEPTABLE IF INSTALLED PER MANUFACTURER.
STEEL OR WOOD POST 36" (1m) HIGH MAX.
PONDING HEIGHT
FLOW (TYP)
12" MIN. (300mm)
4"x6" (100 X 150mm) TRENCH WITH COMPACTED BACKFILL
TRENCH DETAIL
PONDING HEIGHT
5/4" (20mm) CLEAN STONE
8" (200mm)
9" MAX. (225mm) STORAGE
12" MIN. (300mm)
LEDGE, FROZEN GROUND, HEAVY ROCKS INSTALLATION WITHOUT TRENCHING
NOTES:
1. SILT FENCE SHALL BE PLACED ON SLOPE CONTOURS TO MAXIMIZE PONDING EFFICIENCY.
2. INSPECT AND REPAIR FENCE AFTER EACH STORM EVENT AND REMOVE SEDIMENT WHEN NECESSARY. 9" (225mm) MAXIMUM RECOMMENDED STORAGE HEIGHT.
3. REMOVED SEDIMENT SHALL BE DEPOSITED TO AN AREA THAT WILL NOT CONTRIBUTE SEDIMENT OFF-SITE AND CAN BE PERMANENTLY STABILIZED.
4. DO NOT PLACE SILT FENCE IN STREAMS OR CONCENTRATED FLOW CONDITIONS.
SILT FENCE


5' - 5'
(1.5-1.8m)
SLOPE
2:1
EMBED STRAW BALE
4" (100mm) MINIMUM
INTO SOIL
SECTION A - A
ANGLE STAKE TOWARD
PREVIOUS BALE TO
PROVIDE TIGHT FIT
A
A
SECTION B - B
WOODEN STAKE
OR REBAR DRIVEN
THROUGH BALE
PACK GAPS TIGHTLY
WITH LOOSE HAY
SHEET FLOW
SHEET FLOW
PLAN
NOTES:
1. THE STRAW BALES SHALL BE PLACED ON SLOPE CONTOUR.
2. BALES TO BE PLACED IN A ROW WITH THE ENDS TIGHTLY ABUTTING.
3. KEY IN BALES TO PREVENT EROSION OR FLOW UNDER BALES.
4. DO NOT USE HAY BALES IN CONCENTRATED FLOW CONDITIONS OR IN STREAMS.
STRAW BALE
DIKE


FILTER FABRIC (OPTIONAL)
PONDING HEIGHT
FLOW
SEDIMENT STORAGE
EMBED STRAW BALE 4" (100mm) MINIMUM INTO SOIL
SECTION A – A
TOP OF BANK
STRAW BALES TIGHTLY ABUTTING
TOE OF SLOPE
FLOW
ROCK SPILLWAY
STRAW ROCK 1/2" MIN (40mm) FREE OF FINES
PLAN
TOE OF BANK
POINT "B"
POINT "A"
MIN 6" SAG
WOODEN STAKE OR REBAR DRIVEN THROUGH BALE TYP. 2 PER BALE
KEY BALE INTO BANK AT BOTH ENDS OF BARRIER
VIEW LOOKING UP GRADIENT
NOT FOR USE IN STREAMS
NOTES:
1. PLACE BALES PERPENDICULAR TO FLOW.
2. EMBED THE BALE 4" (100mm) INTO THE SOIL AND KEY THE END BALES INTO THE CHANNEL BANKS TO PREVENT FLOW AROUND THE BALES.
3. BALES PLACED IN A ROW WITH ENDS TIGHTLY ABUTTING.
4. POINT "A" SHALL BE HIGHER THAN POINT "B".
5. SPILLWAY HEIGHT SHALL NOT EXCEED 24" (0.6m).
6. SILT FENCE MAY BE USED IN LIEU OF BALES (FOLLOW SAME GUIDELINES)
SEMI-PERVIOUS STRAW BALE OR SILT FENCE SEDIMENT BARRIER

the Secretary of State

Bureau of Motor Vehicles

Matthew Dunlap
Secretary of State

Garry R. Hinkley
Chief of Motor Carrier Services

[redacted]
Catherine Curtis
Director of Vehicle Services

EFFECTIVE DATE: 05/01/2005
EXPIRATION DATE: 04/30/2006

MAINE IRP
INTERNATIONAL REGISTRATION PLAN

REGISTRANT INFORMATION
ACCT/FLEET/SUPP: 15433-01-000
USDOT: 1240815
LEGAL NAME: COMMERCIAL PAVING & RECYCLI
DBA NAME: COMMERCIAL PAVING & RECYCLE

COMMERCIAL PAVING & RECYCLIN
2 GIBSON ROAD
SCARBOROUGH ME 04074

VEHICLE INFORMATION
EQUIP #: 56
MAKE: MACK
YEAR: 2002
USAGE: Truck Tractor
FUEL: Diesel

VIN: 1M2AA18Y92W148631
PLATE: 917376
YEAR DECAL: 7731160
MONTH DECAL: 0029367

STATE	WEIGHT	STATE	WEIGHT	STATE	WEIGHT	STATE	WEIGHT	STATE	WEIGHT
MA	099000	ME	100000	NH	080000	RI	080000	VT	090000
**	******	**	******	**	******	**	******	**	******
**	******	**	******	**	******	**	******	**	******
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VALID ONLY WITH OFFICAL STATE SEAL
ORIGINAL MUST BE CARRIED IN VEHICLE
COPIES MAY BE MADE FOR OFFICE USE ONLY

29 State House Station; 101 Hospital Street, Augusta, ME 04333-0029
(207) 624-9000 x52135
(TDD) (207) 624-9105

UNITED STATES OF AMERICA
DEPARTMENT OF TRANSPORTATION
RESEARCH AND SPECIAL PROGRAMS ADMINISTRATION

HAZARDOUS MATERIALS
CERTIFICATE OF REGISTRATION
FOR REGISTRATION YEAR 2004-2005

Registrant: COMMERCIAL PAVING & RECYCLING
REG SAUNDERS
2 GIBSON RD
SCARBOROUGH, ME 04074-0000

This certifies that the registrant is registered with the U.S. Department of Transportation as required by 49 CRF Part 107, Subpart G.

This certificate is issued under the authority of 49 U.S. C. 5108. It is unlawful to alter or falsify this document.

Reg. No: 061504 007 030M Issued: 06/15/04 Expires: 06/30/05

Record Keeping Requirements for the Registration Program

The following must be maintained at the principal place of business for a period of three years from the date of issuance of this Certificate of Registration:

(1) A copy of the registration statement filed with RSPA; and
(2) This Certificate of Registration

Each person subject to the registration requirement must furnish that person's Certificate of Registration (or a copy) and all other records and information pertaining to the information contained in the registration statement to an authorized representative or special agent of the U. S. Department of Transportation upon request.

Each motor carrier (private or for-hire) and each vessel operator subject to the registration requirement must keep a copy of the current Certificate of Registration or another document bearing the registration number identified as the "U.S. DOT Hazmat Reg. No." in each truck and truck tractor or vessel (trailers and semi-trailers not included) used to transport hazardous materials subject to the registration requirement. The Certificate of Registration or document bearing the registration number must be made available, upon request, to enforcement personnel.

For information, contact the Hazardous Materials Registration Manager, DHM-60 Research and Special Programs Administration, U.S. Department of Transportation, 400 Seventh Street, SW, Washington, DC 20590, telephone (202) 366-4109.

DEPARTMENT OF PUBLIC SAFETY
MAINE STATE POLICE
STATE HOUSE STATION # 20
AUGUSTA, MAINE 04333
Tel 207 624 8939 Fax 207 624 8945

DRIVER/VEHICLE EXAMINATION REPORT

Report Number: ME3587000915
Inspection Date: 02/23/2005
Start Time: 11:16 AM End Time: 11:19 AM
Insp. Level: 3-Driver Only.

COMMERCIAL PAVING & RECYCLING CO LLC
2 GIBSON RD
SCARBOROUGH, ME 04074
Phone#: Fax#:
USDOT#: 01240815 ICC#:
State#:

Driver: MERRYMAN, THOMAS D
License#: 1945267 State: ME
Date of Birth: 12/03/1983
CoDriver:
License#: State:
Date of Birth:

Location: YORK
Highway: INTERSATE 95
County: YORK

MilePost: 5 Shipper:
Origin: PORTSMOUTH, NH Bill of Lading:
Destination: SCARBOROUGH, ME Cargo: ASH

VEHICLE IDENTIFICATION

Unit	Type	Make	Year	State	License #	Company #	Vin #	GVWR	CVSA #	OOS#
1	TT	MACK	2002	ME	917382	69	1M2AA18Y02W148629	100,000		
2	ST	UNK		ME	A733187					

BRAKE ADJUSTMENTS: No Brake Measurements Required For Level 3

VIOLATIONS

Section Code	St	Unit	OOS	Citation #	Verify	Crash	Violations Discovered
393.47		2	N	Y	N	N	Inadequate brake lining for safe stopping

Haz Mat: No HM Transported. Placard: No Cargo Tank:

Special Checks: Size & Weight; Traffic Enforcement

NOTE TO DRIVER: This report must be furnished to the motor carrier whose name COMMERCIAL PAVING & RECYCLING CO LLC appears at the top of this report. NOTE TO MOTOR CARRIERS: Please sign the below certification and return this report to the address which appears on the top of this report within fifteen days. Failure to return this report with the required certification can result in penalties up to $500.

Signature Of Repairer X: [signature] Facility: CPRC/Scarborough Date: 3/2/05

* The undersigned certifies that all violations noted on this report have been corrected and action has been taken to assure compliance with the Federal Motor Carrier Safety and Hazardous Materials Regulations insofar as they are applicable to motor carriers and drivers. False certifications of the required repairs are required to be prosecuted with penalties up to $10,000.

Signature Of Motor Carrier X: [signature] Dispatch-ess Date: 3-3-05

Report Prepared By: TROOPER R. NICHOLS Badge #: 009587
X

Copy Received By: MERRYMAN, THOMAS D
X

ASPEN v2.5 2/23/05 11:23 AM

DEPARTMENT OF PUBLIC SAFETY
MAINE STATE POLICE
STATE HOUSE STATION # 20
AUGUSTA, MAINE 04333
Tel 207 624 8939 Fax 207 6245 8945

DRIVER/VEHICLE EXAMINATION REPORT

Report Number: ME2480000133
Inspection Date: 12/01/2004
Start Time: 11:56 AM End Time: 12:04 PM
Insp. Level: 2-Walk-Around,

COMMERCIAL PAVING & RECYCLING CO LLC
2 GIBSON RD
SCARBOROUGH, ME 04074
Phone#: Fax#:
USDOT#: 01240815 ICC#:
State#:

Driver: RAPP, PAUL D
License#: 1651188 State: ME
Date of Birth: 04/21/1965
CoDriver:
License#: State:
Date of Birth:

Location: OLD TOWN
Highway: I 95
County: PENOBSCOT

MilePost: Shipper:
Origin: LINCOLN, ME Bill of Lading:
Destination: SCARBOROUGH, ME Cargo: Empty

VEHICLE IDENTIFICATION

Unit	Type	Make	Year	State	License #	Company #	Vin #	GVWR	CVSA #	OOS#
1	TT	MACK	1999	ME		67		90,000		
2	ST	MCKT	2003	ME	A733187	T157				

BRAKE ADJUSTMENTS: No Brake Measurements Required For Level 2

VIOLATIONS

Section Code	St	Unit	OOS	Citation #	Verify	Crash	Violations Discovered
395.8(k)(2)		D	Y	182547	N	N	Driver failing to retain previous 7 days logs

Haz Mat: No HM Transported. Placard: No Cargo Tank:

Special Checks: Traffic Enforcement

* Pursuant to authority contained in Title 49, Code of Federal Regulations, Section 395.13, I hereby notify and declare @Dr named on this report OUT OF SERVICE. No Motor carrier shall permit or require PAUL RAPP to drive or operate any motor vehicle until: For 10 Hours Following this Inspection. Penalties up to $10,000 are prescribed for violating this out-of-se order. (49CFR 386.82)

NOTE TO DRIVER: This report must be furnished to the motor carrier whose name COMMERCIAL PAVING & RECYCLING CO LLC appears at the top of this report. NOTE TO MOTOR CARRIERS: Please sign the below certification and return this report to the address which appears on the top of this report within fifteen days. Failure to return this report with the required certification can result in penalties up to $500.

Signature Of Repairer X:_____ Facility:_____ Date:_____

* The undersigned certifies that all violations noted on this report have been corrected and action has been taken to assure compliance with the Federal Motor Carrier Safety and Hazardous Materials Regulations insofar as they are applicable to motor carriers and drivers. False certifications of the required repairs are required to be prosecuted with penalties up to $10,000.

Signature Of Motor Carrier X: [signature] Date: 12-2-04

Sent 12/2/04

Report Prepared By: TR.STANLEY D. JANDREAU Badge #: 002480
X [signature]

Copy Received By: RAPP, PAUL D
X_____

ME2480000133

U.S. Department of
Transportation
Federal Motor Carrier
Safety
Administration

400 Seventh St., S.W.
Washington, D.C. 20590

April 27, 2005

In reply refer to:
Your USDOT No.: 1240815

REGGIE SAUNDERS
SAFETY AND COMPLIANCE MANAGER
COMMERCIAL PAVING & RECYCLING CO LLC
2 GIBSON RD
SCARBOROUGH ME 04074

Dear REGGIE SAUNDERS:

This letter is to inform you that, based on the results of the Safety Audit conducted on your company on March 4, 2005, the Federal Motor Carrier Safety Administration (FMCSA) has determined that you may continue to operate within the United States.

You are reminded that as a "New Entrant," the FMCSA will continue to evaluate your safety management practices and monitor your on-road performance prior to granting you permanent USDOT registration. You must maintain minimum safety standards in order to continue operating in interstate commerce during and after the 18-month period. Failure to comply with Federal Motor Carrier Safety Regulations (FMCSRs) and applicable Hazardous Materials Regulations (HMRs) may result in the revocation of your USDOT registration.

If you have any questions concerning your New Entrant Status, please call the FMCSA Information Systems Division at (202) 366-4023.

Sincerely,

Charles A. Horan, III
Director, Office of Enforcement and
Compliance

US DOT #	Legal: COMMERCIAL PAVING & RECYCLING CO LLC
1240815	Operating (DBA):

MC/MX #: Federal Tax ID: 20-0891985 (EIN)

Review Type: Safety Audit - New Entrant

Scope: Entire Operation Location of Review/Audit: Company facility in the U. S. Territory:

Operation Types	Interstate	Intrastate
Carrier:	HM	N/A
Shipper:	N/A	N/A
Cargo Tank:	N/A	

Business: Corporation

Gross Revenue: for year ending: 12/31/2004

Company Physical Address:

2 GIBSON RD
SCARBOROUGH, ME 04074

Contact Name: Reggie Saunders
Phone numbers: (1) 207- 883-3325 (2) Fax 2078831121
E-Mail Address: rsaunders@cpcrs.com

Company Mailing Address:

2 GIBSON RD
SCARBOROUGH, ME 04074

Carrier Classification

Private Property

Cargo Classification

Machinery, Large Objects Liquids / Gases in Cargo Tanks Garbage, Refuse, Trash

Hazardous Materials

9 (Elev temp material) Carried Bulk

Does carrier transport placardable quantities of HM? Yes
Is an HM Permit required? N/A

Driver Information

	Inter	Intra
< 100 Miles:		
>= 100 Miles:	5	

Average trip leased drivers/month: 0
Total Drivers: 5
CDL Drivers: 5

Equipment

	Owned	Term Leased	Trip Leased		Owned	Term Leased	Trip Leased
Truck	11	0	0	Truck Tractor	9	0	0
Trailer	22	0	0				

U.S. DOT #: 1240815

03/04/2005

Part A

QUESTIONS regarding this report or the Federal Motor Carrier Safety or Hazardous Materials rules may be addressed to the Office of Motor Carriers at:

This SAFETY AUDIT will be used to assess your safety compliance.

Person(s) Interviewed

Name: Reggie Saunders Title: Safety and Compliance Manager

Name: Title:

Reported By: William KEene Title: SA Code:XX0008 Date:3/4/2005

Received By: Title:

COMMERCIAL PAVING & RECYCLING CO LLC

U.S. DOT #: 1240815

03/04/2005

Part B - Questions and Answers

Question	Answer
General # 1 - Section # 387.7(a) Acute Does the carrier have the required minimum level of financial responsibility in effect? Comments	N/A
General # 2 - Section # 387.7(d) Critical Does the carrier have evidence of financial responsibility? Comments	N/A
General # 3 - Section # 390.15(b)(1) Can the carrier provide a complete accident register of recordable accidents? Comments	N/A
General # 4 - Section # 390.15(b)(2) Critical Does the carrier have copies of all accident reports for crashes that occurred where the State or another governmental entity required it be maintained? Comments	N/A
General # 5 - Section # 390.3(e) Can the carrier access a current copy of the FMCSRs/HMRs? Comments	Yes
General # 6 - Section # 390.21 Does the carrier know the commercial motor vehicles marking requirements? Comments	Yes
Driver # 1 - Section # 391.51(b)(2) Critical Does the carrier maintain driving and employment history inquiry data in driver qualification files? Comments	Yes
Driver # 2 - Section # 391.11(b)(4) Acute Is the carrier using physically qualified drivers? Comments	Yes
Driver # 3 - Section # 391.45(a), 391.45(b) Critical Does available evidence indicate the motor carrier has used a driver without a medical certificate or with an expired medical certificate? Comments	No
Driver # 4 - Section # 391.15(a) Acute Is the carrier using any disqualified drivers? Comments	No

Verified by _____ Title _____ Date _____

U.S. DOT #: 1240815

03/04/2005

Part B - Questions and Answers

Question	Answer
Question Driver # 5 - Section # 391.51(a) Critical Does the carrier maintain complete driver qualification files? Comments	Answer Yes
Question Driver # 6 - Section # 382.115(a) Acute Has the carrier implemented an alcohol and/or controlled substances testing program? Comments	Answer Yes
Question Driver # 7 - Section # 382.213(b) Acute Has the carrier used drivers who have used controlled substances? Comments	Answer No
Question Driver # 8 - Section # 382.215 Acute Has the carrier used a driver who has tested positive for a controlled substance? Comments	Answer No
Question Driver # 9 - Section # 382.201 Acute Has the carrier used a driver known to have an alcohol concentration of 0.04 or greater? Comments	Answer No
Question Driver # 10 - Section # 382.505(a) Acute Has the carrier used a driver found to have an alcohol concentration of .02 or greater but less than .04 within 24 hours of being tested? Comments	Answer No
Question Driver # 11 - Section # 382.301(a) Critical Has the carrier ensured that drivers have undergone testing for alcohol and controlled substance prior to performing a safety sensitive function? Comments	Answer Yes
Question Driver # 12 - Section # 382.303(a) Critical Has the carrier conducted post accident testing on drivers for alcohol and/or controlled substances? Comments	Answer N/A
Question Driver # 13 - Section # 382.305 Acute Has the carrier implemented random testing program? Comments	Answer Yes
Question Driver # 14 - Section # 382.305(b)(1) Critical Has the carrier conducted random alcohol testing at an annual rate of not less than the applicable annual rate of the average number of driver positions? Comments	Answer Yes

Verified by _____ Title _____ Date _____

U.S. DOT #: 1240815

03/04/2005

Part B - Questions and Answers

Question	Answer
Question Driver # 15 - Section # 382.305(b)(2) Critical Has the carrier conducted controlled substance testing at an annual rate of not less than the applicable annual rate of the average number of driver positions? Comments	Answer Yes
Question Driver # 16 - Section # 40.305(a) Has the carrier conducted the required return-to-duty tests on employees returning to safety-sensitive functions? Comments	Answer N/A
Question Driver # 17 - Section # 40.309(a) Is the carrier conducting follow-up testing as directed by the Substance Abuse Professional? Comments	Answer N/A
Question Driver # 18 - Section # 382.211 Acute Has the carrier used a driver who has refused to submit to an alcohol or controlled substances test required under Part 382? Comments	Answer No
Question Driver # 19 - Section # 382.503 Critical Has the carrier used a Substance Abuse Professional as required by 49 CFR Part 40 Subpart O? Comments	Answer N/A
Question Driver # 20 - Section # 383.23(a) Critical Has a driver operated a commercial motor vehicle without a current operating license, or a license, which hasn't been properly classed and endorsed? Comments	Answer No
Question Driver # 21 - Section # 383.37(a) Acute Has the motor carrier allowed it's drivers who's CDLs have been suspended, revoked or canceled by a state, have lost the right to operate a CMV in a State, or have been disqualified from operating a CMV to operate a commercial motor vehicle? Comments	Answer No
Question Driver # 22 - Section # 383.51(a) Acute Has the motor carrier knowingly allowed, required, permitted, or authorized a driver to drive who is disqualified to drive a commercial motor vehicle? Comments	Answer No
Question Operation #1 - Section # 395.8(a) Critical Does the carrier require drivers to make a record of duty status? Comments	Answer Yes

Verified by _____ Title _____ Date _____

U.S. DOT #: 1240815

03/04/2005

Part B - Questions and Answers

Question	Answer
Question Operation #2 - Section # 395.8(i) Critical Does the carrier require drivers to submit records of duty status within 13 days? Comments	Answer Yes
Question Operation #3 - Section # 395.8(k)(1) Critical Can the carrier produce records of duty status and supporting documents for selected drivers? Comments	Answer Yes
Question Operation #4 - Section # 395.3(a)(1) Critical Has the carrier allowed driver(s) to exceed the 10 and/or 11 hour rule? Comments	Answer No
Question Operation #5 - Section # 395.3(a)(2) Critical Has the carrier allowed driver(s) to exceed the 14 and/or 15 hour rule? Comments	Answer No
Question Operation #6 - Section # 395.3(b)(1) Critical Has the carrier allowed driver(s) to drive after having been on duty more than 60 hours in 7 consecutive days? Comments	Answer No
Question Operation #7 - Section # 395.3(b)(2) Critical Has the carrier allowed driver(s) to drive after having been on duty more than 70 hours in 8 consecutive days? Comments	Answer N/A
Question Operation #8 - Section # 395.5(a)(1) Critical Has the carrier allowed driver(s) to exceed the 10 hour rule? Comments	Answer N/A
Question Operation #9 - Section # 395.5(a)(2) Critical Has the carrier allowed driver(s) to exceed the 15 hour rule? Comments	Answer N/A
Question Operation #10 - Section # 395.5(b)(1) Critical Has the carrier allowed driver(s) to drive after having been on duty more than 60 hours in 7 consecutive days? Comments	Answer N/A

Verified by _____ Title _____ Date _____

U.S. DOT #: 1240815 | 03/04/2005

Part B - Questions and Answers

Question	Answer
Question Operation #11 - Section #.395.5(b)(2) Critical Has the carrier allowed driver(s) to drive after having been on duty more than 70 hours in 8 consecutive days?	Answer N/A
Question Operation #12 - Section # 395.8(e) Critical Does available evidence indicate a selected driver has prepared a false record of duty status? Comments	Answer No
Question Operation #13 - Section # Does the carrier adhere to a disciplinary policy for noncompliance with Part 395? Comments	Answer Yes
Question Operation #14 - Section # 395.1(e) Does the carrier have a system for recording hours of duty status on 100- mile radius drivers, and are they properly utilizing the 100 air-mile radius exemption? Comments	Answer N/A
Question Operation #15 - Section # 392.2 Critical Does the motor carrier ensure that drivers operate motor vehicles in accordance with the laws, ordinances, and regulations of the jurisdictions in which they are operating? Comments	Answer Yes
Question Operation #16 - Section # 392.9(a)(1) Critical Does the carrier ensure that drivers are not permitted to drive a vehicle without the cargo properly *distributed and adequately secured*? Comments	Answer Yes
Question Operation #17 - Section # 392.4(b) Acute Have any drivers operated a motor vehicle while under the influence of, or in possession of, narcotic drugs, amphetamines, or any other substances capable of rendering the drivers incapable of safely operating motor vehicles? Comments	Answer No
Question Operation #18 - Section # 392.5(b)(1) Acute Have any drivers operated a motor vehicle while under the influence of, or in possession of, intoxicating beverages? Comments	Answer No
Question Operation #19 - Section # 392.5(b)(2) Acute Have any drivers operated a motor vehicle within 4 hours of having consumed intoxicating beverages Comments	Answer No

Verified by _____ Title _____ Date _____

U.S. DOT #: 1240815

03/04/2005

Part B - Questions and Answers

Question	Answer
Maintenance # 1 - Section # 396.3(b) Critical Can the carrier produce maintenance files for requested vehicle(s)? Comments	Yes
Maintenance # 2 - Section # 396.17(a) Critical Can the motor carrier produce evidence of periodic (annual) inspections for selected vehicles? Comments	Yes
Maintenance # 3 - Section # 396.11(a) Critical Does the motor carrier require drivers to complete vehicle inspection reports daily? Comments	Yes
Maintenance # 4 - Section # 396.11(c) Acute Does the carrier ensure that out-of-service defects listed by the driver in the driver vehicle inspection reports are corrected before the vehicle is operated again? Comments	Yes
Maintenance # 5 - Section # 396.9(c)(2) Acute Does the carrier ensure vehicles that have been declared "out-of-service" do not operate before repairs have been made? Comments	N/A
Maintenance # 6 - Section # 396.19 Is the carrier using qualified inspectors (mechanic) and maintaining evidence of the inspector's qualifications? Comments	Yes
Maintenance # 7 - Section # 396.3 Can the carrier explain its systematic, periodic maintenance program? Comments	Yes
Hazardous Material # 1 - Section # 107.608(b) Is the carrier registered with the Research and Special Programs Administration, and do they have copies of all of their registrations for the previous 3 years? Comments	Yes
Hazardous Material # 2 - Section # 171.15 Critical Does the carrier promptly report hazardous materials incidents requiring immediate telephone notice to the appropriate authorities? Comments	N/A

Verified by _____ Title _____ Date _____

COMMERCIAL PAVING & RECYCLING CO LLC

U.S. DOT #: 1240815

03/04/2005

Part B - Questions and Answers

Question	Answer
Hazardous Material # 3 - Section # 171.16 Critical Does the carrier file hazardous materials incident reports when required? Comments	N/A
Hazardous Material # 4 - Section # 172.704(a) Do the HM training materials cover the minimum required elements? Comments	Yes
Hazardous Material # 5 - Section # 177.800(c) Critical Does the carrier provide HM training for its drivers? Comments	Yes
Hazardous Material # 6 - Section # 177.817(a) Critical Are the shipping papers used by the carrier properly prepared? Comments	Yes
Hazardous Material # 7 - Section # 177.817(e) Critical Does the carrier maintain proper accessibility for shipping papers? Comments	Yes
Hazardous Material # 8 - Section # 177.841(e) Acute Does the carrier transport packages bearing a poison label in the same vehicle with any foodstuff or feed for humans or animals? Comments	N/A
Hazardous Material # 9 - Section # 177.848 Is the motor carrier aware that some hazardous materials may not be transported in the same vehicle with other hazardous material? Comments	Yes
Hazardous Material # 10 - Section # 180.407(a) Critical Has the carrier transported a shipment of HM in a cargo tank that has not been inspected or tested in accordance with 180.407? Comments	N/A
Hazardous Material # 11 - Section # 180.407(c) Critical Are all of the cargo tanks used for the transportation of hazardous materials periodically inspected and tested with 180.407? Comments	N/A

Verified by _____ Title _____ Date _____

COMMERCIAL PAVING & RECYCLING CO INC

U.S. DOT #: 1240815

03/04/2005

Part B - Questions and Answers

Question	Answer
Question Hazardous Material # 12 - Section # 180.415 Critical Are cargo tanks that pass inspections or tests required by 180.407 marked?	Answer N/A
Question Hazardous Material # 13 - Section # 180.417(a)(1) Critical Has the carrier retained all of the manufacturer's data report certificates and related papers, as required? Comments	Answer N/A
Question Hazardous Material # 14 - Section # 397.5(a) Acute Does the carrier ensure that vehicles containing Division 1.1, 1.2, or 1.3 (explosive) material is attended at all times? Comments	Answer N/A
Question Hazardous Material # 15 - Section # 397.7(a)(1) Critical Has the motor carrier parked a vehicle containing Division 1.1, 1.2, or 1.3 materials within 5 feet of a traveled portion of a highway or street? Comments	Answer N/A
Question Hazardous Material # 16 - Section # 397.7(b) Critical Has the motor carrier parked a vehicle containing HM other than Division 1.1, 1.2, or 1.3 materials within 5 feet of a traveled portion of a highway or street? Comments	Answer N/A
Question Hazardous Material # 17 - Section # 397.13(a) Critical Has the carrier permitted anyone to smoke when within 25 feet of a vehicle containing Class 1 materials, Class 5 materials, or flammable materials classified in Division 2.1, Class 3, Divisions 4.1 and 4.2? Comments	Answer N/A
Question Hazardous Material # 18 - Section # 397.19(a) Critical Has the carrier furnished all drivers transporting Division 1.1, 1.2, or 1.3 (explosive) material a copy of the rules of Part 397 and/or emergency response instructions? Comments	Answer N/A
Question Hazardous Material # 19 - Section # 397.67(d) Critical Does the carrier have a system to ensure all drivers transporting Class 7 (radioactive) material, Div. 1.1, 1.2 or 1.3 explosive, or a poison inhalation Hazard zone A or B materials have a written route plan? Comments	Answer N/A
Question Other # 1 - Section # 375.211 Does the carrier participate in an Arbitration Program? Comments	Answer N/A

Verified by _____ Title _____ Date _____

HAZARDOUS WASTE/WASTE OIL TRANSPORTER PERMITS HELD BY ENPRO SERVICES, INC.

USDOT safety rating - SEA Score 66.72

Notice of violations (past 3 years)

- 9/5/03 crossover violation CMV
- 3/3/04 failure to display use decal
- 3/11/04 log book not current
- 5/3/04 violation of hazardous material regulation placard
- 5/3/04 violation of hazmat no emergency response information
- 5/3/04 air leak in brake chamber

STATE	PERMIT#	YEARS PERMITTED	EXPIRATION
Massachusetts	261	1983 to present	12/31/06
Maine	248	1985 to present	03/30/06
New Hampshire	TNH-108	1985 to present	06/30/06
Rhode Island	RI-507	1988 to present	06/30/05
Connecticut	CT-HW-529	1989 to present	06/30/05
Vermont	14604 & 14605	1992 to present	06/30/05
New York	MA-119	1999 to present	11/17/05
Pennsylvania	PA-AH0696	2002 to present	10/31/06
Alliance for Uniform HAZMAT Transportation (MI, OH, WVA., OK, MN, NV)	UPW-0315266-OH	2002 to present	01/01/06

DOT # 315266

DOT RSPA # 051603550006LN Expires 6/30/06

HAZARDOUS WASTE/WASTE OIL TRANSPORTER PERMITS HELD BY ENPRO SERVICES, INC.

USDOT safety rating - SEA Score 66.72

Notice of violations (past 3 years)

- 9/5/03 crossover violation CMV
- 3/3/04 failure to display use decal
- 3/11/04 log book not current
- 5/3/04 violation of hazardous material regulation placard
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- 5/3/04 air leak in brake chamber

STATE	PERMIT#	YEARS PERMITTED	EXPIRATION
Massachusetts	261	1983 to present	12/31/06
Maine	248	1985 to present	03/30/06
New Hampshire	TNH-108	1985 to present	06/30/06
Rhode Island	RI-507	1988 to present	06/30/05
Connecticut	CT-HW-529	1989 to present	06/30/05
Vermont	14604 & 14605	1992 to present	06/30/05
New York	MA-119	1999 to present	11/17/05
Pennsylvania	PA-AH0696	2002 to present	10/31/06
Alliance for Uniform HAZMAT Transportation (MI, OH, WVA., OK, MN, NV)	UPW-0315266-OH	2002 to present	01/01/06

DOT # 315266

DOT RSPA # 051603550006LN Expires 6/30/06

Application approved
Wm Butler 4/26/04

1.
MNHWTLN *(For Department Use Only)*

STATE OF MAINE APPLICATION / LICENSE FOR TRANSPORTATION OF NONHAZARDOUS WASTE

2. STATE	3. YEAR - MAKE	4. VEHICLE I.D. NO.
MASS		

FOR TWO OR MORE VEHICLES, USE SEPERATE FORMS OR ATTACH THE FLEET APPLICATION FORM

6. APPLICANT NAME: SAMS TRANSPORTATION, INC.
7. COMPANY NAME: SAMS TRANSPORTATION, INC.
8. ADDRESS: P.O. BOX 241
9. CITY / TOWN: GEORGETOWN, MA
10. STATE: MASS 11. ZIP CODE: 01833
12. TELEPHONE NUMBER: (978) 352-6689
13. FEDERAL I.D. NUMBER: 04-3493121

5.
☒ NEW APPLICATION
☐ RENEWAL
☐ TRANSFER
☐ DELETION

14. *CHECK ONE:* ☐ SOLE PROPRIETOR ☐ PARTNERSHIP ☒ CORPORATION ☐ MUNICIPALITY ☐ COUNTY
☐ STATE GOVERNMENT ☐ FEDERAL GOVERNMENT ☐ OTHER:

15. CATEGORY OF WASTE TO BE TRANSPORTED IN THE ABOVE VEHICLE(S):
☒ CATEGORY A -- SPECIAL WASTE (Used tires, Construction / Demolition Debris)
☒ CATEGORY B -- MUNICIPAL SOLID WASTE (Other than Category A Waste)
☐ CATEGORY C -- SEPTAGE AND HOLDING TANK WASTE
(APPROVED FOR ALTERNATE MANIFEST)

16. LIABILITY INSURANCE PROVIDER: PILGRIM INSURANCE
17. MAXIMUM AMOUNT OF COVERAGE: $ 1,000,000
18. FEES SUBMITTED: $ 1160
FEES MUST BE SUBMITTED BY CHECK OR MONEY ORDER PAYABLE TO "TREASURER, STATE OF MAINE"

SEE ATTACHED FEE SCHEDULE

19. REQUIRED ATTACHMENTS: *(PLEASE CHECK OFF)*
A. ☐ Certificate of Insurance with DEP as certificate holder
B. ☐ Disclosure Statement listing all civil or criminal violations, court proceedings or consent agreements concerning handling of waste. **IF NONE, CHECK HERE** ☒
C. ☐ Photocopy of vehicle's registration (if applicable)
D. ☐ Manifest Reporting Current OK WM

By signing this application, I certify that the information contained in and attached to this form is true, correct, and complete to the best of my knowledge.

MYRON RICKER
Name (printed or typed)

VICE PRESIDENT
Title

Myron Ricker
Signature

03/10/04
Date Signed

Mail application with fees and attachments to:

Myron Ricker
DEP
NHWTLP

4-26-04 WM
Processed

NONHAZARDOUS WASTE TRANSPORTER LICENSE
DEPARTMENT OF ENVIRONMENTAL PROTECTION
17 STATE HOUSE STATION
AUGUSTA, MAINE 04333
(207) 287-2651
THIS LICENSE IS NOT VALID UNLESS STAMPED WITH DEPARTMENT SEAL AND DATE
Authority for issuing: 38 M.R.S.A. Sections 1304 (1) and 1304 (1-A).

20. GENERAL LICENSE EXPIRATION DATE: 4/26/05
FOR DEPARTMENT USE ONLY

WM

COMMONWEALTH OF MASSACHUSETTS

Registrar 377
REGISTRAR'S SIGNATURE

OWNER SAMS TRANSPORTATION INC

ACCOUNT NO. 1876
FLEET NO. 1
SUF NO. 1
EQUIPMENT NO. 88

YEAR 2001
MAKE PTRB
BODY TYPE TR
SEATS
VEHICLE IDENTIFICATION NO. 1XP5DB9X31N560474

COMB/GROSS WEIGHT 99000
MASS REG. FEES 669.32
FOREIGN FEES 730.51

ADMIN. FEE .00
TITLE FEE .00
SPEC. PLT. .00
SALES TAX .00
TOTAL FEE 1399.83

CARRIER
SAMS TRANSPORTATION INC
2 INDUSTRIAL WAY
GEORGETOWN MA 01833

UNLADEN WEIGHT: 18000(8165 Kg)

INSURANCE COMPANY PILGRIM INSURANCE CO
COLOR RED

#10314 50M 01/03 GD03607

The vehicle described has been proportionally registered between Commonwealth of Massachusetts and the jurisdictions shown below.

EFFECTIVE 07/01/04
EXPIRES 06/2005
PLATE NO. 59747
TYPE APN

CT	080000	DE	080000	FL	080000	GA	080000
IN	080000	MA	099000	MD	080000	ME	100000
NC	080000	NH	080000	NJ	080000	NY	080000
OH	080000	PA	080000	RI	080000	SC	080000
VA	080000	VT	080000	WV	080000	**	******
**	******	**	******	**	******	**	******
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VOID IF ALTERED EXCEPT FOR CHANGE OF ADDRESS
THIS CARD MUST BE KEPT IN VEHICLE AT ALL TIMES

379

O USDOT Number ◉ MC/MX Number O Name

Enter Value: 215513

[redacted]

Company Snapshot

SAM'S TRANSPORTATION INC

USDOT Number: 268904

ID/Operations | Inspections/Crashes | Safety Rating | Insurance

Other Information for this Carrier

- SafeStat Results
- Licensing & Insurance

Carriers: If you would like to update the following ID/Operations information, please complete and submit form MCS-150 which can be obtained online or from your State FMCSA office. If you would like to challenge the accuracy of your company's safety data, you can do so using FMCSA's DataQs system.

Carrier and other users: FMCSA provides the Company Safety Profile (CSP) to motor carriers and the general public interested in obtaining greater detail on a particular motor carrier's safety performance then what is captured in the Company Snapshot. To obtain a CSP please visit the CSP order page or call (800)832-5660 or (703)280-4001 (Fee Required).

For help on the explanation of individual data fields, click on any field name or for help of a general nature go to **SAFER General Help**.

The information below reflects the content of the FMCSA management information systems as of 04/11/2005.

Entity Type:	Carrier		
Out of Service (Interstate Only):	No	Out of Service Date:	None
Legal Name:	SAM'S TRANSPORTATION INC		

DBA Name:			
Physical Address:	2 INDUSTRIAL WAY GEORGETOWN, MA 01833		
Phone:	(978) 352-6689		
Mailing Address:	PO BOX 241 GEORGETOWN, MA 01833		
USDOT Number:	268904	**State Carrier ID Number:**	
MC or MX Number:	215513	**DUNS Number:**	–
Power Units:	21	**Drivers:**	22
MCS-150 Form Date:	11/06/2004	**MCS-150 Mileage (Year):**	899,641 (2003)

Operation Classification:

X Auth. For Hire	Priv. Pass.(Non-business)	State Gov't
Exempt For Hire	Migrant	Local Gov't
Private(Property)	U.S. Mail	Indian Nation
Priv. Pass. (Business)	Fed. Gov't	

Carrier Operation:

X Interstate	Intrastate Only (HM)	Intrastate Only (Non-HM)

HM Shipper Operation:

Interstate	Intrastate

Cargo Carried:

General Freight	Liquids/Gases	Chemicals
Household Goods	Intermodal Cont.	X Commodities Dry Bulk
Metal: sheets, coils, rolls	Passengers	Refrigerated Food

Motor Vehicles	Oilfield Equipment	Beverages
Drive/Tow away	Livestock	Paper Products
Logs, Poles, Beams, Lumber	Grain, Feed, Hay	Utilities
Building Materials	Coal/Coke	Agricultural/Farm Supplies
Mobile Homes	Meat	Construction
Machinery, Large Objects	X Garbage/Refuse	Water Well
Fresh Produce	US Mail	X DEMOLITION MATE

ID/Operations | Inspections/Crashes | Safety Rating | Insurance

Inspection results for 24 months prior to: 04/11/2005

Total inspections: 32

Note: Total inspections may be less than the sum of vehicle, driver, and hazmat inspections. Go to Inspections Help for further information.

Inspections:

Inspection Type	Vehicle	Driver	Hazmat
Inspections	21	32	3
Out of Service	7	1	0
Out of Service %	33.3%	3.1%	0%
Nat'l Average %(2003)	22.92%	6.78%	5.26%

Crashes reported to FMCSA by states for 24 months prior to: 04/11/2005

Crashes:

Type	Fatal	Injury	Tow	Total
Crashes	0	1	0	1

ID/Operations | Inspections/Crashes | Safety Rating | Insurance

The Federal safety rating does not necessarily reflect the safety of the carrier when operating in intrastate commerce.

Carrier Safety Rating:

The rating below is current as of: 04/11/2005

Review Information:

Rating date:	**10/01/2003**	**Review Date:**	**09/12/2003**
Rating:	**Satisfactory**	**Type:**	**Compliance Review**

ID/Operations | Inspections/Crashes | Safety Rating | Insurance

For the most current information on the status of operating authority and insurance for this carrier, go to the **FMCSA Licensing & Insurance site**.

SAFER Links

Skip Links | Home | Feedback | Contact | DataQs | FAQ | Accessibility | Privacy Notice | Related Links | Acrobat Reader Download

Sidmore, Heather

From: Bellio, Ellen
Sent: Tuesday, April 19, 2005 2:17 PM
To: Sidmore, Heather
Subject: FW: Michael Parker

Mike is the regulatory point of contact from the Maine DEP

Michael Parker.vcf

Sidmore, Heather

Full Name:	Michael Parker
Last Name:	Parker
First Name:	Michael
Company:	Maine DEP
Business Address:	17 State House Station Augusta, ME 04333 United States of America
Business:	(207) 287-7704
Business Fax:	(207) 287-7826
E-mail:	michael.t.parker@maine.gov

ACORD CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY) 08/27/2004

PRODUCER
Circle Business Insurance Agency Inc
247 Newbury St.
Danvers, MA 01923
978-777-7030

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW.

INSURED
Sam's Transportation Inc

PO Box 241
Georgetown, M 01833
978-352-6689

INSURERS AFFORDING COVERAGE	NAIC#
INSURER A: JAMES RIVER INSURANCE COMPANY	
INSURER B: AMERICAN HOME INSURANCE	
INSURER C:	
INSURER D:	
INSURER E:	

COVERAGES

THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. AGGREGATE LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	ADD'L INSRD	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFFECTIVE DATE (MM/DD/YY)	POLICY EXPIRATION DATE (MM/DD/YY)	LIMITS	
A		GENERAL LIABILITY X COMMERCIAL GENERAL LIABILITY CLAIMS MADE X OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: POLICY PRO-JECT LOC	00005706	08/22/04	08/22/05	EACH OCCURRENCE DAMAGE TO RENTED PREMISES (Ea occurence) MED EXP (Any one person) PERSONAL & ADV INJURY GENERAL AGGREGATE PRODUCTS - COMP/OP AGG	$ 1,000,000 $ 50,000 $ EXCLUDED $ 1,000,000 $ 2,000,000 $ 2,000,000
		AUTOMOBILE LIABILITY ANY AUTO ALL OWNED AUTOS SCHEDULED AUTOS HIRED AUTOS NON-OWNED AUTOS				COMBINED SINGLE LIMIT (Ea accident) BODILY INJURY (Per person) BODILY INJURY (Per accident) PROPERTY DAMAGE (Per accident)	$ $ $ $
		GARAGE LIABILITY ANY AUTO				AUTO ONLY - EA ACCIDENT OTHER THAN AUTO ONLY: EA ACC AGG	$ $ $
A		EXCESS/UMBRELLA LIABILITY X OCCUR CLAIMS MADE DEDUCTIBLE RETENTION $	00005707	08/22/04	08/22/05	EACH OCCURRENCE AGGREGATE	$ 1,000,000 $ 1,000,000 $ $ $
B		WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? If yes, describe under SPECIAL PROVISIONS below	WC561338300	09/04/04	09/04/05	WC STATU-TORY LIMITS OTH-ER E.L. EACH ACCIDENT E.L. DISEASE - EA EMPLOYEE E.L. DISEASE - POLICY LIMIT	$ 500,000 $ 500,000 $ 500,000
		OTHER					

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES / EXCLUSIONS ADDED BY ENDORSEMENT / SPECIAL PROVISIONS

CERTIFICATE HOLDER

WASTE MANAGEMENT, INC.
4 LIBERTY LANE
WEST HAMPTON NH 03842

ATTN: KEN VERHELLE
FAX 603-929-3155

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATIC DATE THEREOF, THE ISSUING INSURER WILL ENDEAVOR TO MAIL 10 DAYS WRITTEN NOTICE TO THE CERTIFICATE HOLDER NAMED TO THE LEFT, BUT FAILURE TO DO SO SHALI IMPOSE NO OBLIGATION OR LIABILITY OF ANY KIND UPON THE INSURER, ITS AGENTS OR REPRESENTATIVES.

AUTHORIZED REPRESENTATIVE

cprc
COMMERCIAL PAVING & RECYCLING COMPANY

Old-Fashioned Quality
Journeys Into The Future

2 Gibson Road, Scarborough, ME 04074
Ph: 207-883-3325 · Fax: 207-883-1121
info@cpcrs.com · www.cpcrs.com

April 18, 2005

Commercial Paving & Recycling is listed with the Maine State DEP as a recycling facility for:

- Petroleum Containing Soil (Gas and Oil)
- Recyclers of Gypsum, Asphalt, Aggregate, Glass and Shingles
- Full Line Paving Operation

CPRC is located at:
2 Gibson Rd
Scarborough, Me 04074

Contact:
Reg Saunders Safety & Compliance Office:207-883-3325 Cell: 207-232-6242

Hours of Operation:
Winter:7-4:00 pm Summer: 6:30-4:30

State Contact:
Randy McMullan, MEDEP

NOV issued against CPRC for an end user not following our Recommended Use Guidelines in proper placement of our soils.

Last date of Reclaim inspection in January

Analytical requirements may be found on our web-site under: www.cpcrs.com

State of Maine

Department of Agriculture, Food and Rural Resources
Division of Quality Assurance & Regulations
28 State House Station, Augusta, ME 04333-0028
(207) 287-3841

SERIAL NUMBER

18411

2-17675	January 14, 2005	December 31, 2005
ID	DATE OF ISSUE	DATE OF EXPIRATION

This certifies that

Toman, Joshua J

2 Gibson RD
Scarborough, ME 04074

Public Weighmaster

Employer: Commercial Paving & Recycling
2 Gibson RD Scarborough, ME 04074

This certificate is valid only between the date issued and expiration date appearing herein and only the named holder for which issued may use it.

The person named herein is authorized to repair or sell weighing or measuring devices pursuant to 10 M.R.S.A., Chapter 501 as permitted by law for the listed authorizations.

This certificate and/or each type of authorization represented is subject to suspension, revocation or cancellation as authorized by Maine Revised Statutes.

DESCRIPTION OF LICENSE AUTHORIZATIONS	FEE
	25.00
TOTAL:	25.00

Department of Agriculture

Robert A. Spear

Commissioner

Division of Quality Assurance

David E. Dingman

Director

State of Maine
Department of Agriculture, Food & Rural Resources
Division of Quality Assurance & Regulations

Public Weighmaster

Name:	Toman, Joshua J
ID:	2-17675
Exp Date:	December 31, 2005

Authoriz:

State of Maine

SERIAL NUMBER

Department of Agriculture, Food and Rural Resources
Division of Quality Assurance & Regulations
28 State House Station, Augusta, ME 04333-0028
(207) 287-3841

18410

2-17658 — ID

January 14, 2005 — DATE OF ISSUE

December 31, 2005 — DATE OF EXPIRATION

This certificate is valid only between the date issued and expiration date as stated herein and only for the party to whom issued may use.

This certifies that
McFarland, Kenneth S
2 Gibson RD
Scarborough, ME 04074

The person named herein is authorized to repair or sell weighing or measuring devices pursuant to 10 M.R.S.A. Section 501 as permitted by law for the following authorizations.

Public Weighmaster

Employer: Commercial Paving & Recycling
2 Gibson RD Scarborough, ME 04074

This certificate and/or each type authorization represented is subject to suspension, revocation or cancellation as authorized by Maine Revised Statutes.

DESCRIPTION OF LICENSE/AUTHORIZATIONS	FEE
	25.00
TOTAL	25.00

Department of Agriculture

Robert A. Lee

Commissioner

Division of Quality Assurance

David E. Dearborn

Director

State of Maine
Department of Agriculture, Food & Rural Resources
Division of Quality Assurance & Regulations

Public Weighmaster

Name:	Kenneth S McFarland
ID:	2-17658
Exp Date:	December 31, 2005
Authority:	

State of Maine

Department of Agriculture, Food and Rural Resources
Division of Quality Assurance & Regulations
28 State House Station, Augusta, ME 04333-0028
(207) 287-3841

SERIAL NUMBER

18412

2-17657	January 14, 2005	December 31, 2005
ID	DATE OF ISSUE	DATE OF EXPIRATION

This certifies that

Trask, Michael A

2 Gibson RD
Scarborough, ME 04074

Public Weighmaster

Employer: Commercial Paving & Recycling
2 Gibson RD Scarborough, ME 04074

This certificate is valid only between the date issued and expiration date appearing herein and only the named holder for which issued may use it.

The person named herein is authorized to repair or sell weighing or measuring devices pursuant to 10 M.R.S.A., Chapter 501 as permitted by law for the listed authorizations.

This certificate and/or each type of authorization represented is subject to suspension, revocation or cancellation as authorized by Maine Revised Statutes.

DESCRIPTION OF LICENSE AUTHORIZATIONS	FEE
	25.00
TOTAL:	25.00

Department of Agriculture

Commissioner

Division of Quality Assurance

David E. Dagnon

Director

State of Maine

Department of Agriculture, Food & Rural Resources
Division of Quality Assurance & Regulations

Public Weighmaster

Name	Michael A Trask
ID:	2-17657
Exp Date	December 31, 2005

Authorize:

STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION
STATE HOUSE STATION 17 AUGUSTA, MAINE 04333

DEPARTMENT ORDER

IN THE MATTER OF

COMMERCIAL RECYCLING SYSTEMS	)	SOLID WASTE ORDER
SCARBOROUGH, CUMBERLAND COUNTY MAINE	)	
PROCESSING FACILITY	)	
#S-021243-WK-A-N	)	
(APPROVAL WITH CONDITIONS)	)	NEW LICENSE

Pursuant to the provisions of 38 M.R.S.A. Section 1301 et seq., and 06-096 CMR 400 and 409, the Solid Waste Management Regulations (May 24, 1989), the Department of Environmental Protection has considered the application of COMMERCIAL RECYCLING SYSTEMS, with its supportive data, agency review comments, and other related materials on file and FINDS THE FOLLOWING FACTS:

1. APPLICATION SUMMARY

A. Application: The applicant has applied for a license for the processing of special waste at its asphalt batching plant located on the Gibson road in Scarborough, Maine.

B. History: The Commercial Paving Co., Inc. received approval on August 24, 1992 (DEP # S-20826-WK-A-P) to process and blend virgin petroleum contaminated soils obtained from a Department supervised oil spill into their asphalt batching process. Commercial Recycling Systems is a division of the Commercial Paving Co., Inc.

C. Summary of Proposal: The applicant proposes to process and blend wastes into their asphalt batching process not currently covered under their existing license. This will include sand blast grit, petroleum contaminated residues and soils, bottom ash, asphalt roofing materials, catch basin grit, pre-shredded rubber, glass, and porcelain.

2. PROJECT DESCRIPTION

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(APPROVAL WITH CONDITIONS)	)	NEW LICENSE

3. PROVISIONS FOR STORAGE

All petroleum contaminated wastes will be stored on the concrete slab and other special wastes including sand blast grit and bottom ash will be stored within the special waste storage building. The special waste storage building is a 55 foot by 135 foot structure which overlies the lined concrete slab.

Storage of processed and unprocessed asphalt shingles , catch basin grit, pre-shredded rubber, and porcelain will take place within the bounds of the outdoor stockpile areas.

The applicant has not provided information on the proper siting of any pre-shredded rubber piles. The Department finds that the stockpiles for pre-shredded rubber shall not exceed 5000 square feet ground coverage. The waste rubber shall have a minimum mineral strip of 50 feet in width around the perimeter of the pile(s).

Depending on the type of asphalt product desired, the wastes will be introduced directly into the asphalt hot or cold mix process. For surface or binder mixes, the wastes will be used as an aggregate for asphalt cement products. The waste may also be utilized in the cold mix stabilization unit (pug mill) for use in road or shoulder base, or maintenance products.

The special waste is transported by a front end loader from the special waste storage building directly to the conveyor for the above referenced asphalt processes. No interim storage areas or additional processing is proposed. A 43 foot by 70 foot steel reinforced concrete slab has been installed for the containment of the petroleum contaminated soils and residues. The slab overlies 6 inches of well graded sand. A 30 mil high density polyethylene Gundle liner has been installed between the slab and the compacted sand. The concrete slab is sloped inward and has a total volume capacity of 4800 gallons. The surface of the slab has been treated with two coats of "Shed OX" water repellent sealant. In compliance with manufacturer's suggestions, the applicant will be cleaning and sealing the surface of the slab every 5 years.

Any leachate collected in the concrete slab from the special wastes will be pumped into the 6,000 gallon water storage trailer for introduction into the asphalt process.

4. TITLE, RIGHT OR INTEREST

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PROCESSING FACILITY)
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5. FINANCIAL CAPACITY

The applicant has estimated the cost of the construction of the special waste storage building, maintenance of existing equipment, and the surface water monitoring program to be $98,000. Yearly operational costs are estimated to be $37,000. A letter from Key Bank states the applicant is financially capable of handling this amount.

6. TECHNICAL ABILITY

The applicant has been operating a cold and hot mix asphalt plants which are licensed to accept virgin petroleum contaminated soils. Review of Department records does not indicate any compliance problems with that license. The applicant has submitted information verifying that personnel has sufficient training to properly operate the facility.

7. TRAFFIC

The facility is accessed off the Gibson road in Scarborough. It is a paved, two lane road with 32 feet of travel surface excluding shoulders. The Town of Scarborough is responsible for the maintenance of the road. Vehicle traffic will utilize Route 1, taking either Pleasant Hill road or Wallace Avenue to the Gibson road.

The Pleasant Hill road/Gibson road and Wallace Avenue/Route 1 are the first major intersections on route to the facility. Sight distances and turning radii are adequate.

The maximum size and weight of vehicles using the facility will be 8 feet by 55 feet and 90,000 lbs. There are no special weight restrictions on the Gibson road or the Pleasant Hill road.

No adverse impacts are anticipated for the movement of traffic on and off site.

8. BUFFERS

There are no residences within 1000 feet of the proposed facility. The applicant has proposed to reduce the setback between the handling area and adjacent properties to 25 feet. The applicant has requested a variance as specified in finding 10 below.

9. ADDITIONAL SITE INFORMATION

A. The facility is not located in, on or over a protected natural resource.

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B. The facility is not located on a mapped sand & gravel aquifer nor is it located on a mapped 100 year floodplain.

C. A geotechnical report for the construction of the special waste storage building was supplied with the application. Subsoils are fill underlain by sands and/or silty clay. The fill is a gravely sand with occasional cobbles. The underlying sands and clays are part of the glaciomarine Presumpscot Formation. The fill extends to a maximum depth of 4 feet with the sands extending to 8 feet. Ground water was encountered at depths of 4 to 4.5 feet.

10. VARIANCES

The applicant has requested a variance from the requirements of 06-096 CMR 409.4(B)(2) which states: "There shall be a minimum of a minimum 100-foot buffer strip between the handling site and all public roads and other property boundaries.". In support of the variance request the applicant has submitted letters from all affected abutters granting permission to the applicant for reducing the 100 foot buffer to 25 feet. The Department finds the applicant has submitted clear and convincing evidence demonstrating that the intent of the Maine Solid Waste Management Regulations have been met.

11. STORM WATER RUNOFF

The applicant has submitted a 25 year 24 hour event stormwater report. The data was calculated utilizing the SCS TR-20 methodology.

The entire site is paved. A detention basin has been installed southerly of the handling area for accepting sheet flow of stormwater runoff. Drainage ditches encompass the perimeter of the facility eventually crossing the Pleasant Hill road. The stormwater eventually discharges to the Nonesuch River.

No unreasonable impacts are anticipated from stormwater runoff.

12. SURFACE WATER QUALITY

The applicant has submitted a surface water monitoring program with the application. All surface water samples will be collected within two hours of a storm event that exceeds 0.25 inches of rainfall. Surface water samples will be collected and analyzed at the following locations:

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A. At the northeast corner of the property identified as SWSS-1 on the Storm Water Control Site Plan (SWCSP).

B. At the entrance of a 36 inch culvert transporting storm water beneath Pleasant Hill road identified as SWSS-2 on the SWCSP.

C. At the entrance of a 24 inch culvert transporting storm water beneath Pleasant Hill road identified as SWSS-3 on the SWCSP.

Parameters analyzed will include total suspended solids, total phosphorous, pH, total petroleum hydrocarbons, specific conductivity, temperature, and total lead.

13. EROSION AND SEDIMENTATION CONTROL

The facility is paved and has a slope of less than 1%. No additional earth-moving activities are planned for the facility. To control potential sedimentation from day to day use of the facility, the applicant maintains wet sweeping on an as-needed basis. The sweepings are introduced into the asphalt process. In response to concerns regarding sedimentation and petroleum contamination to the detention basin, the applicant installed a sedimentation basin upgradient.

Design specifications recommend the sedimentation basin have a maximum separation of 1 foot between the bottom of the sedimentation basin and the bottom of the outlet culvert. The applicant will take monthly readings and dredge the basin as needed to maintain this separation. An excavator will be used to dredge excess sediments from the basin. During this process the drainage outlet of the sedimentation basin will be blocked.

The applicant has indicated the dredge spoils from the basin will be stored in the crushed aggregate stockpile. No provisions for testing the spoils has been proposed. The Department finds that all dredge spoils from the sedimentation basin shall be stored on the concrete slab within the special waste storage building unless analytical data is presented to clearly demonstrate the spoils are inert.

14. OPERATIONS MANUAL

The applicant has developed an Operations Manual for the facility so that daily operations meet the requirements of Maine's current Solid Waste Management Regulations. This includes a hazardous and special waste exclusion plan and a safety plan.

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15. SCENIC CHARACTER

No physical changes are proposed to the site. Plantings of white pines have occurred along the Pleasant Hill road to screen the facility. No unreasonable impacts are anticipated for scenic character.

16. NOISE

A noise study was conducted in 1992 for the facility. Results from the study show a maximum reading of 74 decibels at the property boundaries on the C scale, which responds to frequencies ranging from 32 to 10,000 Hz. This scale indicates overall sound level including background. The applicant has stated this is in compliance with Scarborough's noise ordinance. No unreasonable impacts are anticipated from noise.

17. ODORS

The only material emitting odor will be the petroleum process residue which will be stored within the special waste storage building. No unreasonable impacts from odors are anticipated.

18. CONTRACTS FOR DISPOSAL

The applicant anticipates small amounts of waste such as metal, plastic sheets, and woodwaste will be by-passed during the asphalt process.

A. Scrap metal will be disposed at the Harcon Iron and Steel Company in Portland, Maine.

B. Wood waste will be disposed at Fuel Technology Incorporated in Lewiston, Maine.

C. Rubbish generated at the facility will be hauled to the Regional Waste System incinerator in Portland, Maine.

19. SAMPLING AND ANALYTICAL PLAN

Waste characterization shall be conducted for each waste source by the proposed generator. The applicant has developed a sampling plan which outlines the procedures for obtaining a representative sample. The plan is given to any proposed generator for the waste sampling. The pre-qualification form signed by the generator does not certify the sampling as being representative of the source. Department finds that in order to ensure

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that the sample obtained for analysis is representative, the pre-qualification form signed by the generator shall certify that the sample is representative, and has been obtained in accordance with the requirements of SW-846, or an equivalent method. Furthermore, CRS shall certify that, based on process knowledge, historical analyses of the waste stream, and a review of all available and applicable information from the generator, the information contained in the generator's certification is accurate.

The applicant in its sampling and analytical plan has not provided details for assuring the accuracy of the analytical results. Therefore, the Department finds where the analysis of a material indicates any hazardous constituent to be within 50% of the regulatory limit for that constituent, the generator shall conduct a statistical analysis to determine if the waste is acceptable for processing or reuse at the solid waste facility. Statistical analyses shall be conducted in accordance with the requirements of EPA SW-846, Test Methods for Evaluating Solid Waste, Third Edition, Volume II, Chapter 9 or an equivalent method approved by the Department. For all wastes characterized under this section, the allowable limits for the testing shall be those specified for the waste to be classified as a non-hazardous waste.

Waste may be accepted if the results of this testing are:

- PCB's less than 50mg/kg (dry weight limit)
- TCLP less than Regulatory Limit
- Corrosivity pH between 2.0 and 12.5
- Flashpoint greater than 140 degrees F
- Sulfide Reactivity less than 500 mg/kg
- Cyanide Reactivity less than 250 mg/kg

The applicant has provided information regarding the need for testing of volatiles and semivolatiles organic compounds where the Total Organic Halogens (TOX) exceed 1000 ppm. When TOX is greater than 1000 ppm, further analysis will be performed for the following parameters (chlorinated hydrocarbons which are listed hazardous wastes) utilizing Methods in EPA SW-846:

- Tetrachloroethylene
- Methylene chloride
- Trichloroethylene
- 1,1,1-Trichloroethane
- Chlorobenzene
- 1,1,2-Tricolor-1,2,2-trifluoroethane
- Ortho-Dichlorobenzene
- Trichlorofluoroethane
- 1,1,2-Trichloroethane

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- Carbon tetrachloride
- Chlorinated fluorocarbons

If any of the chlorinated hydrocarbons are present in the waste, the presumption is that a listed hazardous waste was mixed with the waste oil, and that therefore the entire batch is unacceptable for processing due to the mixing of a listed hazardous waste with waste oil. Documentation to rebut this presumption may be submitted to the Department for review and approval.

Section 3 of the Operations Manual addresses the processing, handling, and storage of special waste. This will include a sampling and analytical plan, prequalification procedures, and handling & exclusion procedures.

- Pre-qualification Form

The generator of the waste will verify the physical composition of the waste and certify that the waste is not hazardous. The waste can not contain significant quantities of metal, wood, or other debris, and it will not contain free liquid. CRS will submit to the Department a copy of the prequalification form and supporting analytical data within 48 hours of receipt by the facility.

Petroleum containing soils (PCS) includes virgin non-gasoline from the clean-up of a Department supervised spill clean-up, virgin gasoline released from an underground storage tank, virgin gasoline released from other sources, non-virgin petroleum released from underground storage tanks, and non-virgin petroleum from other sources.

Petroleum containing process residue will be accepted at the facility. One identified source will be Clean Harbors Environmental Services, Inc. in South Portland, Maine.

Bottom ash will be accepted by the facility. No generator has been identified for the waste stream.

Spent sand blast grit will be accepted at the facility. One proposed source will be Portsmouth Naval Shipyard.

- Sampling

All process materials with the exception of soil containing virgin petroleum oil from the clean-up of a Department supervised spill clean-up, glass, rubber, asphalt roofing materials, and porcelain will require sampling and analysis.

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- Analysis

The following analyses will be conducted:

Soil containing virgin non-gasoline as part of a Department supervised spill clean-up will require a Department manifest letter. Soil containing virgin non-gasoline which is not part of a Department supervised clean-up will require a TCLP for metals (Arsenic, Barium, Cadmium, Chromium, Lead, Mercury, Selenium, Silver). The continuing sampling frequency will be every 500 tons or one sample per source, whichever is more frequent.

Soil containing virgin gasoline released from an underground storage facility will be tested for TCLP Lead. The continuing sampling frequency will be every 500 tons or one sample per source, whichever is more frequent.

Soil containing virgin gasoline released from non-underground storage facilities sources will be tested for TCLP Lead and Benzene. The continuing sampling frequency will be every 500 tons or one sample per source, whichever is more frequent.

Soil containing non-virgin petroleum released from underground storage facilities will be tested for Total Organic Halogens, Flashpoint, PCB's, TCLP metals (Arsenic, Barium, Cadmium, Chromium, Lead, Mercury, Selenium, Silver), pH as Corrosivity, and Reactivity (sulfide and cyanide). Soil containing non-virgin petroleum released from non-underground storage sources will also be tested for semi-volatile organic compounds as well as Total Organic Halogens, Flashpoint, PCB's, TCLP metals (Arsenic, Barium, Cadmium, Chromium, Lead, Mercury, Selenium, Silver), pH as Corrosivity, and Reactivity (sulfur and cyanide). The continuing sampling frequency will be every 250 tons or one sample per source, whichever is more frequent.

Petroleum containing process residue from Clean Harbors of New England will require TCLP for metals (Arsenic, Barium, Cadmium, Chromium, Lead, Mercury, Selenium, Silver). All other sources containing petroleum process residue will be tested for Total Organic Halogens, semi-volatile organic compounds, Flashpoint, PCB's, TCLP metals (Arsenic, Barium, Cadmium, Chromium, Lead, Mercury, Selenium, Silver), Corrosivity as pH, and Reactivity (sulfur and cyanide). The continuing sampling frequency will be every 45 tons or one per roll-off container.

The applicant has not provided information on the analytical testing requirements or monitoring frequency for bottom ash. The Department finds the bottom ash will be tested for TCLP metals (Arsenic, Barium, Cadmium, Chromium, Lead, Mercury, Selenium, Silver, Vanadium). The continuing sampling frequency will be one sample

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per 200 tons for the first 1000 tons, and then one sample per 1000 tons or one sample annually, whichever is more frequent. If the TCLP level of Vanadium is greater than 200 ppm, the waste is unacceptable at the facility unless a Department-approved high-vanadium ash handling and air monitoring programs are implemented at the time of processing.

Spent sand blast grit from Portsmouth Naval Shipyard will be tested for TCLP Lead. All other sources will be tested for TCLP Lead, Flashpoint, pH as Corrosivity, and Reactivity (sulfur and cyanide). The continuing sampling frequency will be every 500 tons or one sample per source, whichever is more frequent.

20. ANNUAL REPORTS

The applicant has proposed to submit analytical results from the surface water monitoring program within 30 days of receipt. The applicant has not proposed any additional reporting of the facility's operations. The Department finds that records shall be maintained regarding the waste monitoring results of the facility during the previous year. Waste monitoring records shall include all analyses of the incoming waste including Quality Control and Quality Assurance and statistical inference data, pre-qualification forms and supporting analytical data, and the continuing sampling and analysis data. Upon request, all such records shall be made available for the Department to review.

In addition, one year from the date of this license and every year thereafter, the owner or operator of the facility shall submit to the Department an annual report pertaining to the operation of the facility. It shall include information summarizing the origin of the waste, quantities accepted, identity of the transporter, the date of acceptance, the date of processing, and problems encountered and methods of solution.

BASED on the above findings of fact, the Department makes the following conclusions:

A. The applicant has provided adequate evidence of financial capacity and technical ability to meet air and water pollution control standards.

B. The applicant has made adequate provision for traffic movement of all types into, out of, or within the development area.

C. The applicant has made adequate provision for fitting the facility harmoniously into the natural environment, and the development will not adversely affect existing uses or scenic character, air quality or other natural resources in the Town of Scarborough or in neighboring municipalities provided the handling area for solid waste is no closer than 25 feet to any property boundary.

COMMERCIAL RECYCLING SYSTEMS	)	SOLID WASTE ORDER
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(APPROVAL WITH CONDITIONS)	)	NEW LICENSE

D. The proposed facility will be built on soil types which are suitable to the nature of the undertaking, and will not cause unreasonable erosion of soils.

E. The applicant has made adequate provisions for the control of odors and noise.

G. The facility will not pollute any water of the State, contaminate the ambient air, constitute a hazard to health or welfare or create a nuisance provided:

a. The dredge spoils from the sedimentation basin are stored on the concrete slab within the special waste storage building.
b. The sampling and analytical plan as described in finding 19 is followed.
c. Waste management records for the previous operational year are maintained and retained, and an annual report is submitted to the Department as specified in finding 20.
d. Each pile of shredded rubber is located within a cell covering no more than 5000 square feet and is surrounded by a 50 foot wide mineral strip.

THEREFORE, the Department APPROVES the above noted application of COMMERCIAL RECYCLING SYSTEMS to construct and operate a Solid Waste Recycling Facility in Scarborough, Maine, SUBJECT TO THE ATTACHED CONDITIONS, and all applicable standards and regulations:

1. The Standard Condition of Approval, a copy attached as Appendix A.

2. The stockpiles for pre-shredded rubber shall not exceed 5000 square feet ground coverage and shall have a minimum mineral strip of 50 feet in width around the perimeter of the pile.

3. All dredge spoils from the sedimentation basin once dewatered shall be stored on the concrete slab within the special waste storage building.

4. The Sampling and Analytical Plan shall be implemented as described in finding 19.

5. One year from the date of this license and every year thereafter, the owner or operator of the facility shall submit to the Department an annual report pertaining to the operation of the facility. It shall include information summarizing the origin of the waste, quantities accepted, identity of the transporter, the date of acceptance, the date of processing, and problems encountered and methods of solution.

6. Records shall be maintained regarding the waste monitoring of the facility during the previous year. Records shall include all analyses of the incoming waste including quality control and quality assurance and statistical inference data, pre-qualification forms and

SCARBOROUGH, CUMBERLAND COUNTY MAINE	)	
PROCESSING FACILITY	)	
#S-021243-WK-A-N	)	
(APPROVAL WITH CONDITIONS)	)	NEW LICENSE

supporting analytical data, and the continuing sampling and analysis data. Upon request, all such records shall be made available for the Department to review.

7. The handling area for the solid waste shall be no closer than 25 feet to any property boundary.

DONE AND DATED AT AUGUSTA, MAINE THIS 30 DAY

OF June, 1994.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: _____
Debra J. Richard, Acting Commissioner

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURE.

Date of initial receipt of application: January 25, 1993

Date of application acceptance: February 16, 1993

Date filed with the Board of Environmental Protection

FILED
JUL 6 1994
BOARD OF ENVIRONMENTAL PROT.
STATE OF MAINE

This order was prepared by William Butler, Bureau of Hazardous Materials and Solid Waste Control

OWBDO212/wb/llg

COMMERCIAL DISPOSAL INFORMATION

(Effective July 1, 2004)

POC: Craig Worth
Public Works
9 Industry Road
Brunswick, ME
04011
(207) 725-6654

Permits: All commercial users of a Town of Brunswick waste disposal facility must obtain a commercial disposal permit for their vehicle before they access the disposal facility. Permits are available for $5.00 per vehicle at the Graham Road Landfill only and must be permanently affixed to the assigned vehicle.

Persons engaged in the business of collecting or transporting refuse to a Town of Brunswick disposal facility must obtain a license from the Town Clerk prior to obtaining a commercial landfill permit.

All commercial users must enter a landfill facility at least one-half (1/2) hour before closing

GRAHAM ROAD LANDFILL

Permit # S-008458-WC-F-N

Winter (Nov-Apr) Hrs: Mon. thru Fri., 8 am to 4 pm; Saturday 8 am to 12 pm (closed Sun.)

Summer (May-Oct) Hrs: Mon. thru Fri., 8 am to 4 pm; Saturday 8 am to 4 pm (closed Sunday)

Graham Road
Brunswick, ME 04011
(207) 725-6654

Items Acceptable at $80/ton ($5.00 minimum fee):

Solid waste generated from businesses and commercial entities;
Furniture: mattresses, chairs, sofas, etc;
Brown Goods: Plastic encased appliance (TV, stereo, computer monitor, etc.)
Construction and Demolition Materials, including pressure treated wood, sheetrock, plaster, asphalt shingles, insulation, ceiling tile, carpeting, flooring (tile and linoleum) etc..

Items Acceptable at $60/ton ($5.00 minimum fee):

Metals & White Goods: includes refrigerators, freezers, washing machines, clothes dryers, ranges, air conditioners, water heaters, metal encased appliances, car rims, gas grills, lawn mowers, metal desks, metal chairs, metal shapes (beams, angles, pipes, channels), etc.

NOTE – metal items must be separated from other items

Tires (unmounted only, that is, separated from rims):

Up to, but not including, eighteen-inch rim size:	$ 2.00
Truck tires, or rim size eighteen inches and greater:	$ 10.00
Heavy Equipment Tire (Min. charge of: $25.00)	$ 0.15 per pound

Items Not Acceptable at this Facility:

Wood, trees, brush, masonry, bricks, asbestos, liquid, special or hazardous wastes Inseparable wood waste or masonry debris will be accepted @ $160.00 per ton.

Leaves and grass clippings are accepted for composting during normal working hours at no cost.

River Road Wood & Masonry Landfill

Hours: Same as Graham Road Landfill, except **CLOSED** all year on Wednesday

Items Acceptable @ $7.00 per cubic yard:

Plywood, framing lumber, wood flooring, wood furniture, wood paneling, (nails okay), clean masonry (bricks, block), trees (4' Length, 8" Dia. Max.), brush, etc.

Items Not Acceptable at this Facility:

Stumps, pressure treated wood, plaster, metal, insulation, glass, leaves, grass clippings, refuse. Only 25 cubic yards of material will be accepted from any one job site or address during a 30 day period. All material must be delivered in vehicles no greater than two (2) axles or six (6) wheels.

For further information see the Town of Brunswick web site @ www.brunswickme.org/dpw/ or contact Public Works Department, 9 Industry Road, 725-6654

Print Date: September 24, 2004

APPENDIX 2

COVER MATERIAL

2.01 SOURCE OF MATERIAL

A. The source of the cover to be furnished shall be indicated on the Bid Schedule Form in the space indicated. The Town of Brunswick reserves the right to inspect the source at any time to test and verify the quality and quantity of material at the site. All material sources shall hold a valid mining permit as may be required by the Maine Department of Environmental Protection and/or be operated in accordance with all state mining regulations. Where the material source is a pit "grandfathered" under DEP regulations, the bidder shall submit a certified affidavit evidencing compliance with DEP regulations.

2.02 REFERENCE STANDARD

A. The term "Standard Specification" as used in this section shall mean the Standard Specifications, Highways and Bridges issued by the State of Maine, Department of Transportation, Revision of April 1995 including all addenda thereto. Where the Standard Specifications are cited such work or material shall conform in every respect except for "Method of Payment" or if cited otherwise herein.

2.03 MATERIAL

A. Granular Borrow shall consist of sand or gravel of hard, durable particles, free from vegetable matter, lumps or balls of clay, and other deleterious substances. The gradation of that portion passing a 3-inch sieve shall meet the gradation requirements of the following:

SIEVE DESIGNATION	PERCENTAGE BY WEIGHT PASSING SQUARE MESH SIEVES
No. 40	0 - 70
No. 200	0 - 20

2.04 DESCRIPTION OF BID ITEMS

A. Bid Schedule No. 1

1. Bid Item 1 shall be the amount per cubic yard (loose truck measure) loaded into Public Works Department trucks at the pit or source of material as indicated on the bid proposal form in accordance with these specifications.

2. Bid Item 2 is the cost to be ADDED to the unit price for Item 1 for the Contractor to deliver the material to the Graham Road Landfill. Include only costs for trucking in this unit price and the cost for material will be paid in addition to this price.

CPB

STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION
STATE HOUSE STATION 17 AUGUSTA, MAINE 04333

RECEIVED
OCT 16 1991
Goodard & Curran Inc.

DEPARTMENT ORDER

IN THE MATTER OF

TOWN OF BRUNSWICK Brunswick, Cumberland County SOLID WASTE LANDFILL PHASES 2, 3, AND RENEWAL S-08458-7A-F-N	)	SOLID WASTE ORDER FINDING OF FACT AND ORDER

Pursuant to the provisions of Title 38 M.R.S.A., Sections 481 et. seq. and 1301 et. seq. and the Solid Waste Management Regulations (hereinafter referred to as "the regulations"), the Department of Environmental Protection has considered the application of the TOWN OF BRUNSWICK, with its supportive data, staff summary, agency review comments, public comments, public hearing transcript, and other related materials on file, and finds the following facts:

1. PROJECT DESCRIPTION

On March 23, 1983, the applicant received conditional Board approval to site Phases 1, 2 and 3 of a municipal landfill off the Graham Road in Brunswick and to construct and use only Phase 1 of the landfill. On August 10, 1983, the Board found that the applicant had complied with approval conditions related to the design, construction and groundwater monitoring of Phase 1, thereby authorizing the initiation of construction. Phase 1 of the Brunswick landfill became operational on January 9, 1984. The facility receives municipal solid waste from businesses and residents of Brunswick as well as from the Brunswick Naval Air Station.

Phase 1 covers 7.5 acres and is of secure design, having a leachate collection system underlaid by a 40 mil high density polyethylene (HDPE) synthetic flexible membrane liner (FML), geotextile and compacted native soil. Leachate is treated onsite in a system consisting of three lagoons before being discharged to the Androscoggin River. Phase 1 is expected to reach its design capacity of 335,000 cubic yards in June of 1992. The Interim Closure Plan for Phase 1 provides for the hydraulic isolation of the wastes in Phase 1 and the Phase 1 liner from both precipitation and leachate generated from wastes to be placed in Phases 2 and 3.

The applicant has requested a variance from the final cover requirements of Chapter 401.6(B)(8)(a)(iii) of the regulations as part of its Interim Closure Plan for Phase 1 and operating plan for Phases 2 and 3. The justification given for the variance request is that final cover for Phase 1 and the other phases should be in accordance with regulatory design requirements in effect at the time this entire facility is closed. The applicant has submitted a preliminary design for its Phase 1 Interim Closure Plan.

TOWN OF BRUNSWICK	2	SOLID WASTE ORDER
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The Brunswick Municipal Landfill currently accepts approximately 40,000 cubic yards of municipal solid waste per year. The applicant's proposed operation of the landfill would provide approximately 18 years of additional disposal capacity for municipal solid waste generated in the Town of Brunswick.

The applicant proposes to begin construction of Phase 2 in October of 1991 and begin operations there in June of 1992. Phase 2 is located southerly of Phase 1, has a capacity of 191,375 cubic yards and is composed of two parts, A and B. Phase 2A is located entirely within the liner of Phase 2. Phase 2B is located between the high point of Phase 1 and the high point of Phase 2A as it would exist if Phase 2A were built to stand alone within the Phase 2 liner. Phase 2B is underlaid by Phase 2A (and the Phase 2 liner); a transitional liner between Phases 1 and 2; and the Phase 1 interim cap (which in turn is underlaid by Phase 1 waste and liner). The applicant plans to operate Phase 2 in a north to south manner with both parts being concurrently active during the life of Phase 2.

The applicant proposes to begin construction of Phase 3 in 1995 and begin operations there in 1996. Phase 3 is located westerly of Phase 1, has a capacity of 541,500 cubic yards and is composed of three parts - A, B and C. Phases 3A and 3B are located entirely within the liner of Phase 3, but are separated by a interim dike which serves to minimize the volume of leachate generated. Phase 3C is underlaid by Phases 3A and 3B (and the Phase 3 liner); transitional liners between Phase 3 and the liners of Phases 1 and 2; Phase 2B (and the Phase 2 liner); and the Phase 1 interim cap. The applicant plans to operate Phase 3 in an east to west manner with parts A and C being concurrently active during the initial stages of development and all three parts being concurrently active during later stages of development.

The areas covered by the Phase 2 and Phase 3 liners are 3.7 acres and 5.0 acres, respectively. The liner system proposed for Phases 2 and 3 is that specified by Chapter 401.4(C)(2)(b) of the regulations as the minimum design standards for secure landfills serving a population of more than 15,000 people. This liner system consists of (going from top to bottom) a leachate collection system embedded in 12 inches of sand, an 80 mil HDPE FML, a leachate detection system embedded in 12 inches of sand, an 80 mil HDPE FML and 36 inches of compacted clay. The applicant has submitted final design plans for Phase 2. The applicant has not submitted preliminary or final plans for Phase 3.

TOWN OF BRUNSWICK
Brunswick, Cumberland County
SOLID WASTE LANDFILL
PHASES 2, 3, AND RENEWAL
S-08458-7A-F-N

3 SOLID WASTE ORDER

FINDING OF FACT AND ORDER

Construction costs for the proposed expansion are estimated to be $3,076,762; $1,302,183 for Phase 2 and $1,774,579 for Phase 3. Construction costs for final closure of the facility are estimated to be $2,354,482 (all costs expressed in 1990 dollars). The town of Brunswick has submitted documentation that through utilization of revenues and bonding ability it has sufficient financial capacity to meet state air and water pollution standards and to construct, operate and maintain the proposed development of Phases 2 and 3.

2. WATER QUALITY

Groundwater monitoring data generated since Spring 1991 indicates that there may be a trend of deteriorating groundwater quality in the area east of the landfill. The groundwater monitoring program used to generate this data, although approved by the Department has not provided sufficient groundwater quality information regarding past leachate handling and storage practices or other possible leachate discharges.

3. ENVIRONMENTAL MONITORING PROGRAM

The applicant's proposed Environmental Monitoring Program, as amended, meets the requirements of Chapter 401.6(C) of the regulations as to determining whether landfilled wastes or the leachate collection and treatment system have contaminated or will contaminate groundwater or surface water outside the approved solid waste boundary.

4. OPERATIONS

The applicant has operated the facility for solid waste disposal and handling since 1984. The applicant has retained the services of Woodard & Curran Inc., Consulting Engineers of Portland, Maine to provide design, development and operations assistance. In addition, the applicant has involved the services of Robert G. Gerber, Inc. in Freeport, Maine to provide hydrogeological and geotechnical consultation in conjunction with the services of Woodard & Curran, Inc. in the design and development of the secure landfill. The landfill is managed and operated by the Town of Brunswick Public Works Department.

The applicant has not submitted an operating manual that ensures that the secure landfill is operated and maintained in a manner that meets the requirements of Chapter 401.6(B) of the regulations and protects the integrity of the engineered systems.

Operational deficiencies at the facilities in 1989 resulted in breakouts of leachate running over the edge of the liner and onto the ground. Corrective measures which were taken eliminated this problem and management of the facility has improved since then. A staff inspection of the facility on August 29, 1991 revealed that the applicant was in substantial compliance with all operating requirements of Chapter 401.6(B) of the regulations.

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Brunswick, Cumberland County
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5. CRIMINAL OR CIVIL RECORD

The applicant has submitted a disclosure statement in accordance with Chapter 400.4(H) of the regulations. The applicant has had no adjuducated violations of environmental laws.

6. WASTE MINIMIZATION

The applicant has enacted a solid waste ordinance which includes a mandatory recycling program, operates a leaf and yard waste composting program and is considering implementation of a pay per bag system to facilitate source reduction.

7. PUBLIC HEARING

A public hearing was conducted by the Department of Environmental Protection at the Curtis Memorial Library in Brunswick on September 11, 1991 pursuant to the Administrative Procedures Act, Title 5, Chapter 375.

8. PUBLIC BENEFIT

The Maine Waste Management Agency has considered the application of the Town of Brunswick to develop Phases 2 and 3 of its landfill and concluded that:

A. The proposed development will meet capacity needs identified in the State Plan in addition to capacity that is under development by the Office of Siting and Disposal Operations under Title 38, M.R.S.A., Section 2156 or by other facilities approved by the Agency at the time of this application;

B. The proposed development will be consistent with the State Plan; and

C. The proposed development is consistent with local, regional or state collection, storage, transportation, processing or disposal.

BASED on the above findings of fact, the Department makes the following conclusions:

1. The proposed facility will not pollute any water of the State, will not contaminate the ambient air, constitute a hazard to health and welfare or create a nuisance provided that the applicant receive approval from the Department on final design plans for the construction of Phases 2 and 3 and the interim closure of Phase 1 and provided that the applicant receive approval from the Department on a revised operating manual.

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Brunswick, Cumberland County
SOLID WASTE LANDFILL
PHASES 2, 3, AND RENEWAL
S-08458-7A-F-N

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)
)
) FINDING OF FACT AND ORDER

2. The volume of waste and the risks related to its handling and disposal have been reduced to the maximum practical extent by recycling and source reduction.

THEREFORE, the Department APPROVES with attached conditions the application of the TOWN OF BRUNSWICK to construct and operate Phases 2 and 3, to renew its license to operate its landfill in Brunswick, Maine and to be granted a variance from the requirements of Chapter 401.6(b)(8)(a)(iii) of the regulations in accordance with the following conditions:

1. The Standard Conditions of Approval, a copy attached.

2. In addition to any specific erosion control requirements set forth in this Order, the applicant shall take all necessary measures to ensure that its activities or those of its agents do not result in noticeable erosion of soils on the site during the construction and operation of the project covered by this approval.

3. Prior to the construction of the Phase 2 or Phase 3 liners, the applicant shall obtain Departmental approval of a) final design plans, b) construction management procedures, and c) the qualifications of the synthetic liner installation contractor, the resident construction inspection engineer, and the independent quality assurance agents who will be employed for their respective work in development of the landfill liner system.

4. Prior to implementing any construction contract "change orders" and bid addenda the applicant shall notify the Department in a timely fashion such that adequate comment on the item can be performed. If no Department response to the applicant's notification occurs within five (5) working days, approval of the "change order" is automatically granted. This condition applies to all phases of construction for Phases 1, 2 and 3.

5. Prior to operation of Phase 2, the applicant shall obtain Departmental approval of a revised Operating Manual which meets the requirements of Chapter 401, Section 6 of the regulations.

6. Prior to the operation of Phases 2B or 3C, the applicant shall obtain Departmental approval of the Interim Closure Plan for Phase 1.

Tom

STATE OF MAINE

MAINE WASTE MANAGEMENT AGENCY

EXECUTIVE DEPARTMENT

JOHN R. McKERNAN, JR.
GOVERNOR

SHERRY F. HUBER
EXECUTIVE DIRECTOR

AGENCY ORDER
IN THE MATTER OF

N OF BRUNSWICK nswick, Maine DFILL EXPANSION ject Number: DF-0006-SL-E	)	AGENCY REVIEW of PROPOSED SOLID WASTE DISPOSAL FACILITY FINDINGS of FACT and ORDER

Pursuant to Title 38, M.R.S.A., section 2157, the Maine Waste Management Agency ("Agency") has considered the application of the Town of Brunswick with its supportive data and other related materials on file and finds the following facts:

1. PROJECT DESCRIPTION / PROCEDURAL HISTORY

On March 25, 1991 the Town of Brunswick filed an application for Agency approval to expand its existing landfill on Graham Road in Brunswick, Maine.

The proposed expansion will accept the municipal, commercial and industrial solid waste generated within the Town of Brunswick. Significant industrial users currently include Brunswick Naval Air Station, Bowdoin College, Bath Iron Works and Arrowhart Industries.

The existing 7.5 acre secure landfill was originally licensed by the Department of Environmental Protection in January 1983 and will reach its approved capacity by June 1992 according to the Town. The proposed expansion will increase the capacity by approximately 735,000 yards. This increase in capacity is expected to extend the life of the landfill until the year 2014 based on current waste generation rates in Brunswick, an assumed population growth rate of one percent per year and compliance with the State recycling goals.

2. AGENCY JURISDICTION / SCOPE of REVIEW

Maine law requires the Town of Brunswick to obtain Agency approval of the proposed landfill expansion prior to obtaining approval from the Board of Environmental Protection. Specifically, under 38 M.R.S.A., Section 2157 (as amended by PL 1989, c. 867), Brunswick must demonstrate to the Agency that the proposed expanded facility:

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AGENCY REVIEW of PROPOSED
SOLID WASTE DISPOSAL FACILITY

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A. Will meet capacity needs identified in the Maine Waste Management and Recycling Plan dated July 1990, (herein "State Plan") in addition to capacity that is under development by the Agency's Office of Siting and Disposal Operations ("Office") under Title 38, M.R.S.A., section 2156 or by any other party approved by the Office at the time of application;

B. Will be consistent with the State Plan; and

C. Is consistent with local, regional or state waste collection, storage, transportation, processing or disposal.

3. NEED FOR FACILITY

In the State Plan, the Agency has identified a need for expanding existing landfill disposal capacity in the Central Maine Region. The Brunswick landfill is identified in the Plan as a facility for which the feasibility of expansion should be explored.

The Agency's Office of Siting and Disposal Operations is not developing disposal capacity designed to meet this identified need; nor has the Agency approved the development of other facilities designed to meet this need.

4. CONSISTENCY WITH STATE PLAN

Under Chapter 410, Section 5(D)(2) of the Agency's regulations, the Agency must find that the proposed expansion is consistent with the State Plan when the Town demonstrates that all practical steps will be taken to minimize the volume of waste to be placed in the expansion.

The Town of Brunswick is taking the necessary steps to minimize the volume of solid waste disposed of in the proposed expansion area. At present, the Town recycles about 15% of its MSW or 2,980 tons of the total waste stream of 19,514 tons. The projected recycling plan calls for a 25% recycling rate by the year 1992 (approximately 5,913 tons) and a 50% recycling rate by 1994 (approximately 9,386 tons). (See attachment A). By increasing the current 15% recycling rate to 50%, the Town expects to extend the life of the proposed landfill expansion by eight years. (See attachment B).

To meet these goals, the Town is actively involved in waste reduction and recycling programs. The Town received a recycling grant from the Maine Waste Management Agency that will assist in meeting the State's

WN OF BRUNSWICK) AGENCY REVIEW of PROPOSED
wick, Maine) SOLID WASTE DISPOSAL FACILITY
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waste reduction and recycling goals. The grant funds were used to expand its recycling program to include curbside collection of five categories of recyclables to all residents of the town. Previously, only one-half of the Town received this service and only one type of recyclable was collected. Curbside collection of recyclables is now available weekly to all residents.

Recycling in Brunswick is mandated by the Sanitation Ordinance. This ordinance specifies that residents, businesses and institutions within the Town of Brunswick are required to separate recyclable materials, defined as newsprint, corrugated cardboard, plastic, office paper and glass. To further encourage recycling the town offers an extensive education and assistance program, and in addition to its curbside collection service, it provides two conveniently located recycling drop-off centers. Brunswick also operates a recycling processing center which accepts recyclables at no tipping fee.

The MWMA grant provided funding to construct a compost pad and Brunswick operates a DEP licensed leaf and yard waste composting area. Residents and businesses can deliver leaves and yard waste to this facility at no cost. Finished compost is used by the Public Works Department for municipal projects and is offered to residents for their use.

Methods of expanding recycling, waste separation and waste reduction are currently being investigated. Programs being considered are: expanding the requirements and non-compliance fines of the Sanitation Ordinance, implementing a pay per bag system for the disposal of residential refuse, and implementing WasteCap, a waste reduction program for business and industry.

The Brunswick Town Council has endorsed a resolution to take all actions necessary to meet the State recycling goals of 25% by 1992 and 50% by 1994. The town anticipates that future expansion of their mandatory recycling, curbside collection, and composting (along with publicity encouraging home composting) programs will allow them to reach the State's goals.

5. CONSISTENCY WITH WASTE COLLECTION, STORAGE, TRANSPORTATION, PROCESSING OR DISPOSAL

Based on the findings set forth in paragraphs A, B and C below, the proposed landfill expansion is consistent with local, regional and state waste collection, storage, transportation, processing and

N OF BRUNSWICK wick, Maine ILL EXPANSION oject Number: DF-0006-SL-E	}	AGENCY REVIEW of PROPOSED SOLID WASTE DISPOSAL FACILITY FINDINGS of FACT and ORDER

disposal.

A. Meeting Regional Needs

The proposed expansion is intended to fill the solid waste disposal needs of the Town of Brunswick only.

B. Incineration

The Town of Brunswick has determined that incineration is not a viable solid waste disposal option. In comparing the proposed landfill expansion option to incineration, three problems with incineration have been pointed out by the town: high tipping fees, high transportation costs and limited year round capacity.

Since additional capacity is only available at the incinerators during winter months at this time, Brunswick contends that the cost of constructing a transfer center and the complexity of switching from one operation to the other make this choice expensive and impractical relative to the expansion of the Graham Road landfill.

C. Contingency Plan

Regional Waste Systems (RWS), Maine Energy Recovery Corp. (MERC) and Penobscot Energy Recovery Company (PERC) have all informed the Town of Brunswick that MSW could be accepted from November to April on a short term contract basis. In addition, Waste Management Inc. is willing to accept MSW from Brunswick during the summer months.

In the event of an emergency shutdown, the Town Council would authorize the Town Manager to sign a contract with an outside disposal facility. The Public Works Director would then arrange for the site work necessary for a transfer station at the landfill.

6. PUBLIC COMMENT

Notice of the application was published in the Times Record on March 27, 1991 and April 3, 1991. Written notice of the application was also sent to the owners of property contiguous to the project site. The notice invited interested persons to submit comments or request a public hearing.

Comments were received by the Capital Coastal Council of Governments. Although the Capital Coastal Council of Governments pointed out Brunswick's demonstrated ability to reduce waste and increase recycling, concern was raised over the Town's refusal to accept waste

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from other communities in the region. Based on its review of legislative policy as set forth in the Maine solid waste law, the Agency concluded that a regional approach is not required. A single municipality may develop disposal facilities to serve only the needs of its residents provided the disposal need cannot be reasonably met by existing disposal facilities.

A request for a public hearing was received from an abutter to the landfill. The concerns raised in the request relate to environmental issues within the purview of the Department of Environmental Protection. Therefore, the Agency determined that a public hearing was not appropriate. The comments were forwarded to the Department and a DEP public hearing notice was forwarded to the abutter.

BASED on the above Findings of Fact, the Maine Waste Management Agency CONCLUDES:

A. The proposed landfill expansion will meet capacity needs identified in the State Plan in addition to capacity that is under development by the Office of Siting and Disposal Operations under Title 38, M.R.S.A., section 2156 or by other facilities approved by the Agency at the time of this application;

B. The proposed landfill will be consistent with the State Plan; and

C. The proposed landfill is consistent with local, regional or state collection, storage, transportation, processing or disposal.

THEREFORE, the Agency APPROVES the application of the Town of Brunswick for the proposed expansion of the Graham Road landfill in Brunswick, Maine, in accordance with the following conditions:

A. Approval of Changes to the Proposed Facility. The granting of this approval is dependent upon and limited to the proposed landfill expansion described in the application and supporting documents submitted and affirmed to by the applicant. Any variation in the proposed landfill that increases or decreases its capacity, any change that alters the area served by the landfill and any change in the location of the facility is subject to review and approval by the Agency prior to approval by the Board of Environmental Protection. Changes in the engineering design of the landfill are not subject to Agency review and approval.

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AGENCY REVIEW of PROPOSED SOLID WASTE DISPOSAL FACILITY

FINDINGS of FACT and ORDER

B. Compliance with All Applicable Laws. The applicant shall secure and comply with all applicable federal, state and local license, permits, authorizations, conditions, agreements and orders, including the permit required from the Board of Environmental Protection under Title 38, M.R.S.A., section 1306(1), prior to or during construction and operation, as appropriate.

C. Initiation of Development Within Three Years. If the construction of the expansion is not begun within three years of the date of this order, this approval shall lapse and the applicant shall reapply to the Agency for a new approval.

D. Transfer of Approval. This approval may not be sold, assigned or otherwise transferred without the prior approval of the Agency. Such approval shall be granted if the applicant or transferee demonstrates to the Agency that the transferee intends to comply with the conditions of this approval.

ED AT AUGUSTA, MAINE THIS 27th DAY OF Sept., 1991.

MAINE WASTE MANAGEMENT AGENCY

BY: H E Warren

Henry E. Warren, Director
Office of Siting and Disposal Operations

ANY PERSON WISHING TO APPEAL THIS ORDER MUST DO SO WITHIN 20 DAYS OF THE RECEIPT OF THE ORDER. SEE ATTACHED SHEET FOR RIGHTS OF REVIEW AND APPEAL.

06-096 DEPARTMENT OF ENVIRONMENTAL PROTECTION

Chapter 400: GENERAL PROVISIONS

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contamination of any water of the State, contamination of the ambient air, a hazard to health or welfare, or a nuisance.

NOTE: All solid waste disposal facility expansions must comply with the siting and design requirements of these rules.

(2) Additional Criteria For Solid Waste Disposal Facilities. In addition to the above requirements, a new or expanded solid waste disposal facility is subject to the following:

(a) Public Benefit. The Department must determine in accordance with 38 M.R.S.A. section 1310-N(3-A) and section 5 of this chapter whether the solid waste disposal facility provides a substantial public benefit.

(b) Recycling and Source Reduction. Except for expansions of commercial solid waste landfills that accept only special waste, the Department must determine that the facility will be operated so that the volume of waste and the risks related to its handling and disposal have been reduced to the maximum practical extent by recycling and source reduction prior to disposal, as required under 38 M.R.S.A. section 1310-N(5) and section 6 of this chapter.

(c) Host Community Benefits and Intervenor Grants. The applicant must comply with the provisions required in section 7 of this chapter.

(d) Liability Insurance. The applicant must have proof of liability insurance as required under section 10.

(e) Financial Assurance. The applicant must meet the financial assurance requirements of section 11.

E. License Term and Annual Reporting Requirements. A solid waste license, issued pursuant to rules in effect on or after May 24, 1989, remains in effect unless modified, revoked or suspended under 38 M.R.S.A. section 341-D(3). Such a licensee is subject to the following licensing and reporting requirements:

(1) The licensee must:

(a) Comply with applicable operating rules;

(b) Pay the annual license fee pursuant to 38 MRSA section 352; and

(c) Comply with annual facility or activity reporting rules and pay all required reporting fees.

NOTE: Failure to pay an annual license fee within 45 days of the billing date contained in the Department's billing notification is sufficient grounds for modification, revocation or suspension of a license.

(2) Annual reports and annual reporting fees as required by the Department's rules shall be due on the following dates:

February 28
Chapter 419, Agronomic utilization of solid waste
Chapter 418, Beneficial use licenses
Chapter 409, Processing facility licenses

April 30
Chapter 401, Landfill facility licenses,
Chapter 403, Incineration facility licenses

October 31
Chapter 402, Transfer station facility and solid waste storage licenses, unless part of and reported with another facility.

F. **License Conditions.** The Department may impose any requirement as a license condition to assure compliance with State law or these rules. Standard license conditions for solid waste facilities are contained in Appendix 400, C.

4. **General Licensing Criteria.** This section contains general standards applicable to the licensing of solid waste facilities. This section also lists submissions required of applicants for new or expanded facilities in order for the Department to determine if the general licensing criteria are met. All applicants must demonstrate compliance with the criteria of this section and submit the listed submissions unless otherwise provided in the relevant facility chapter. Required submissions for amendments, minor revisions and limited permits will be determined by the Department on a case-by-case basis to determine if the proposal meets the relevant general licensing criteria.

A. **Title, Right or Interest**

(1) Standards. The applicant must demonstrate to the Department's satisfaction sufficient title, right or interest in all of the property which is proposed for development or use.

(2) Submissions. The applicant must submit evidence of sufficient title, right or interest as provided in Chapter 2, section 7(D).

B. **Financial Ability**

(1) Standards.

(a) The applicant must have the financial ability to design, construct, operate, maintain, close and (if applicable) accomplish post-closure care of the solid waste facility in a manner consistent with all applicable requirements.

(b) The applicant for a solid waste disposal facility shall provide adequate financial assurance for closure, post-closure care, and for corrective action for known releases in compliance with the financial assurance requirements of section 11.

Northeast SCALE COMPANY, INC.
88 PRISCILLA LANE UNIT 3
AUBURN, NH 03032-3748
(603) 622-0080

INVOICE

INVOICE #001952201
PAGE #01 BRU15

BILL TO: TOWN OF BRUNSWICK, ME
PUBLIC WORKS DEPT.
28 FEDERAL STREET
BRUNSWICK ME 04011

JOB LOCATION: LANDFILL SCALEHOUSE
GRAHAM RD, BRUNSWICK 0401
207-353-9781
CONFINED SPACE ON FILE

INVOICE DATE	YOUR ORDER NO.	WORK ORDER NO.	TERMS	SALESPERSON
12/07/04	001952201	MIKE CLAUS	NET 30 DAYS	RSL

QUANTITY	DESCRIPTION	UNIT PRICE	AMOUNT
	ME MUNICIPALITY TAX EXEMPTION		
	REGULAR SERVICE INSPECTION AND CALIBRATION OF TRUCK SCALE AT LANDFILL		
1.00	FLAT RATE CHARGE PER INSPECTION	285.00	285.00
1.00	PRORATE SHARE OF MOTEL, MEALS & TOLLS	46.80	46.80

PWD-PO# _____
Division 7520 Object 2262
Amount Approved 331.80
Date Approved 12/13
Approved By _____
14.378

TOTAL 331.80

TERMS: NET 30, HOLD @ 45 DAYS, COD @ 60 DAYS

Thank You!

TERMS: NET 30 DAYS. 1½% MONTHLY INTEREST (18% PER ANNUM) CHARGED AFTER 30 DAYS.

Northeast SCALE COMPANY, INC.
88 PRISCILLA LANE UNIT 3
AUBURN, NH 03032-3748
(603) 622-0080

WORK ORDER

00001952?
BRUCE

BILL TO: TOWN OF BRUNSWICK, ME
PUBLIC WORKS DEPT.
28 FEDERAL STREET
BRUNSWICK ME 04011
(207) 725-6654 MIKE CLAUS

JOB LOCATION: LANDFILL SCALEHOUSE
GRAHAM RD, BRUNSWICK 0401
207-353-9791
CONFINED SPACE ON FILE

DATE	WORK ORDER NO.	YOUR ORDER NO.	NEXT INSPECTION DUE
11/01/04	00001952?	MIKE CLAUS	MAY/NOV.

DESCRIPTION	
	ME MUNICIPALITY TAX EXEMPTION.
	REGULAR SERVICE INSPECTION AND CALIBRATION OF TRUCK SCALE AT LANDFILL
1.00	FLAT RATE CHARGE PER INSPECTION

arrived onsite – inspected scale, checked Cal. made minor cal. adjustedent [illegible]. and checked drain. Scale working ok. at this time see report for more info.

COMMENTS: _____

TEST TRUCK	[X]	PLACED IN SERVICE	[X] YES	PARTS INSTALLED	[ ] YES
SERVICE TRUCK	[ ]		[ ] NO		[ ] NO
MILEAGE				PARTS:	
TECH: HW		TECH: MJS			
IN JOB LABOR:	HRS.	ON JOB LABOR:	HRS.		
TRAVEL LABOR:	HRS.	TRAVEL LABOR:	HRS.		
SHOP LABOR:	HRS.	SHOP LABOR:	HRS.		
DATE: 12/1/04		CUSTOMER SIGNATURE: [signature]			

Thank You!

Northeast SCALE COMPANY, INC.
88 PRISCILLA LANE UNIT 3
AUBURN, NH 03032-3748
(603) 622-0080

Truck Scale Report

Customer: Town of Brunswick / Landfill
Address: Graham Rd.
City: Brunswick State: ME Zip: 04011
Scale Mfg.: Cardinal
Capacity: 100 K Platform size: 10 x 3

MECHANICAL SCALE

Pit Condition: OK Pump
Steel: OK
Drain Clean: Yes Sump Pump:
Pivots & Bearings: OK
Platform Condition: OK
Connections Plumb: Yes
Levers Level: Yes
Proper Clearance: Yes
Deck Clearance: OK
Approach Level: Yes
Work Parts cleaned & greased: Yes
Scale Properly Grounded: Yes

ELECTRONIC SCALE

Clean Ends:
Check Belting:
Check Rods:
Bumper Bolts:
Check Decks:
Check Bolts:
Check J-Box:
Change Dri-Pax:
No. of Loadcells:
Scale Properly Grounded:

PRINTER

Mfg.:
Model No.:
Serial No.:

Work Order No.: 19522
Date Completed: 12/1/04
Scale Tech: HW
Scale Tech: MS

ELECTRONIC INDICATOR

Model No.: 748 S/N: E06080-0007
Version No.:
Mfg.: Cardinal Asset No.:
Indicator Properly Grounded:

LOADCELL

Capacity: 1K
Mfg.: Revere MV/V: 3
Model No.: S-Type
OHMS: 350

SECTION TEST

As Found	As Sealed
21000	21000
21040	21000
20980	20980

TEST WEIGHTS APPLIED

Weights	Reading	Error	Adjustment
5000	5040	+40	-40
9000	9040		
13000	13040		
17000	17040		
21000	21040		
Empted Truck		29700	
test weight		21000	
Should be		50700	
Error		0	

REMARKS:

X _____
CUSTOMER SIGNATURE

cprc
COMMERCIAL PAVING & RECYCLING COMPANY

Old-Fashioned Quality
Journeys Into The Future

2 Gibson Road, Scarborough, ME 04074
Ph: 207-883-3325 · Fax: 207-883-1121
info@cpcrs.com · www.cpcrs.com

April 18, 2005

Commercial Paving & Recycling is listed with the Maine State DEP as a recycling facility for:

- Petroleum Containing Soil (Gas and Oil)
- Recyclers of Gypsum, Asphalt, Aggregate, Glass and Shingles
- Full Line Paving Operation

CPRC is located at:
2 Gibson Rd
Scarborough, Me 04074

Contact:
Reg Saunders Safety & Compliance Office:207-883-3325 Cell: 207-232-6242

Hours of Operation:
Winter:7-4:00 pm Summer: 6:30-4:30

State Contact:
Randy McMullan, MEDEP

NOV issued against CPRC for an end user not following our Recommended Use Guidelines in proper placement of our soils.

Last date of Reclaim inspection in January

Analytical requirements may be found on our web-site under: www.cpcrs.com

State of Maine

Department of Agriculture, Food and Rural Resources
Division of Quality Assurance & Regulations
28 State House Station, Augusta, ME 04333-0028
(207) 287-3841

SERIAL NUMBER

18411

2-17675	January 14, 2005	December 31, 2005
ID	DATE OF ISSUE	DATE OF EXPIRATION

This certificate is valid only between the date issued and expiration date appearing herein and only the named holder for which issued may use it.

The person named herein is authorized to repair or sell weighing or measuring devices pursuant to 10 M.R.S.A., Chapter 501 as permitted by law for the listed authorizations.

This certificate and/or each type of authorization represented is subject to suspension, revocation or cancellation as authorized by Maine Revised Statutes.

This certifies that

Toman, Joshua J

2 Gibson RD
Scarborough, ME 04074

Public Weighmaster

Employer: Commercial Paving & Recycling
2 Gibson RD Scarborough, ME 04074

DESCRIPTION OF LICENSE/AUTHORIZATIONS	FEE
	25.00
TOTAL:	25.00

Department of Agriculture

Commissioner

Division of Quality Assurance

Director

State of Maine
Department of Agriculture, Food & Rural Resources
Division of Quality Assurance & Regulations

Public Weighmaster

Name:	Toman, Joshua J
ID:	2-17675
Exp Date:	December 31, 2005

Authorized

State of Maine

Department of Agriculture, Food and Rural Resources
Division of Quality Assurance & Regulations
28 State House Station, Augusta, ME 04333-0028
(207) 287-3841

SERIAL NUMBER
18410

ID	DATE OF ISSUE	DATE OF EXPIRATION
2-17658	January 14, 2005	December 31, 2005

This certifies that
McFarland, Kenneth S
2 Gibson RD
Scarborough, ME 04074

Public Weighmaster

Employer: Commercial Paving & Recycling
2 Gibson RD, Scarborough, ME 04074

This certificate is valid only between date issued and expiration date given herein and only the named holder which issued any item.

The person named herein is authorized to repair or sell weighing and measuring devices pursuant to 10 M.R.S.A. Chapter 501 as permitted by law and the license authorizations.

This certificate and/or each type authorization represented is subject to suspension, revocation or cancellation authorized by Maine Revised Statutes.

DESCRIPTION OF LICENSE AUTHORIZATIONS	FEE
	25.00
TOTAL	25.00

Department of Agriculture
[signature]
Commissioner

Division of Quality Assurance
David E. Gagnon
Director

State of Maine
Department of Agriculture, Food & Rural Resources
Division of Quality Assurance & Regulations
Public Weighmaster

Name:	Kenneth S McFarland
ID:	2-17658
Exp Date:	December 31, 2005

Authority:

State of Maine

Department of Agriculture, Food and Rural Resources
Division of Quality Assurance & Regulations
28 State House Station, Augusta, ME 04333-0028
(207) 287-3841

SERIAL NUMBER

18412

2-17657	January 14, 2005	December 31, 2005
ID	DATE OF ISSUE	DATE OF EXPIRATION

This certifies that

Trask, Michael A

2 Gibson RD
Scarborough, ME 04074

Public Weighmaster

Employer: Commercial Paving & Recycling
2 Gibson RD Scarborough, ME 04074

This certificate is valid only between the date issued and expiration date appearing herein and only the named holder for which issued may use it.

The person named herein is authorized to repair or sell weighing or measuring devices pursuant to 10 M.R.S.A., Chapter 501 as permitted by law for the listed authorizations.

This certificate and/or each type of authorization represented is subject to suspension, revocation or cancellation as authorized by Maine Revised Statutes.

DESCRIPTION OF LICENSE AUTHORIZATIONS	FEE
	25.00
TOTAL:	25.00

Department of Agriculture

Commissioner

Division of Quality Assurance

Director

State of Maine
Department of Agriculture, Food & Rural Resources
Division of Quality Assurance & Regulations

Public Weighmaster

Name:	Michael A Trask
ID:	2-17657
Exp Date:	December 31, 2005

Authority:

Pine Tree Landfill Permits

ORDER DATE	LICENSE/PERMIT NUMBER	PERMIT DESCRIPTION
MAINE DEP SOLID WASTE ORDERS:		
03/12/75	49-1987-19280	Site location & solid waste order
06/04/80	07-6707-19020	Operations manual-Asbestos
08/14/80	07-6707-19020	Amendment-I (Asbestos)
07/27/81	07-6707-19020	Amendment-II (Asbestos)
09/23/81	49-1987-19280	Site application modification
09/08/82	49-1987-10280	Oil fly ash secure landfilling
03/23/83	07-6707-19020	Amendment-asbestos
08/04/83	07-6707-19020	Amendment-asbestos
08/10/83	49-1987-19280	Modification
06/12/85	L-010396-07-A-N	Secure II landfill
12/18/85	L-010396-7-D-M	Secure II amendment
05/08/86	L-001987-AR-A	Secure I & II amendment and minor revision
05/08/86	L-010396-07-W-M	Secure I & II amendment and minor revision
03/23/87	L-010396-07-AL-M	Secure II special waste
08/27/87	L-001987-07-AV-M	Secure I closure
05/24/88	L-006707-07-A-A	Asbestos disposal
10/26/88	L-010396-07-BI-M	Secure II operational changes
06/08/89	S-010396-7D-BY-N	Jackson Lab burn debris
05/14/90	S-1987-7B-AX-M	Conventional landfill asbestos
07/11/90	S-10396-7A-CB-M	MSW incinerator by-pass
09/10/91	S-01987-7A-AY-R	Secure III
10/02/91	S-010396-7A-CP-M	PERC/MERC incinerator ash
10/11/91	S-10396-7A-CQ-M	Disposal of ash
12/06/91	S-10396-WD-CR-M	Minor revision (final grade)
01/22/92	S-05017-WU-D-M	Tire shredder waste disposal
09/04/92	S-20762-WK-A-N	Processing facility
04/16/93	S-10396-WU-DT-M	Minor revision (ash mix)
01/12/94	S-01987-WD-BK-M	Minor revision (oily debris)
05/06/94	S-01987-WD-BM-M	Minor revision (leather scrap)
07/15/94	S-01987-WD-BN-M	Minor revision (filter press cake)
08/03/94	S-010396-WN-CU-N	New license (Secure II closure)
12/28/94	S-01987-WD-BO-M	Minor revision (ash)
06/16/95	S-01987-WD-BP-M	Minor revision (sludges)
11/20/95	S-001987-WR-GX-T	Transfer of licenses
02/14/96	S-020762-WK-B-T	Transfer of license (processing)
03/29/96	S-001987-WD-BQ-M	Minor revision (CDD residuals)
06/05/96	S-01987-WD-BR-M	Gas monitoring
12/04/96	S-01987-WD-BT-M	Vanadium ash
05/09/97	S-01987-WD-BU-M	Pigeon waste
06/26/97	S-01987-WD-BV-M	Water/air filtration media
08/07/97	S-020762-WK-C-M	Minor revision (processing facility)
12/11/97	S-01987-WD-GY-M	Non-hazardous chemical products
04/28/98	S-021816-WK-A-N	CDD Facility & Transfer Station
04/28/98	S-01987-WD-HA-M	Oversized bulky wastes
09/01/98	S-01987-WD-IB-M	Leachate storage tank
09/23/98	S-01987-WD-IA-M	Disposal of FEPR
10/12/98	S-001987-WD-GZ-N	New license
03/24/99	S-001987-WD-GZ-N	Secure III expansion
12/06/99	S-01987-WD-JA-M	Phase VIII-A
02/01/00	S-001987-WD-LA-C	Compliance conditions #7 & #9

Pine Tree Landfill Permits

ORDER DATE	LICENSE/PERMIT NUMBER	PERMIT DESCRIPTION
MAINE DEP SOLID WASTE ORDERS(CONT.):		
03/15/00	S-001987-WD-MA-M	Cold weather liner system
07/13/00	S-001987-WD-NA-M	Perimeter dike re-construction
02/28/01	S-001987-WD-PA-M	Condition compliance & minor revision
04/23/01	S-001987-WD-RA-C	Compliance with condition #7
06/25/01	S-001987-WD-SA-M	Active gas system
02/26/02	S-001987-WD-QA-M	MSW & public benefit
07/11/02	S-001987-WD-VA-M	Closure phases I-V
08/21/02	S-001987-WD-QA-M	Minor revision (corrected copy) MSW & public benefit
08/29/02	S-001987-WD-XA-M	Construction of phase VIII-C, stage 1
02/18/03	S-001987-WD-YA-M	Virgin oil contaminated soil revision
04/17/03	S-001987-WD-CA-M	Secure III, phase VIII-C, stage 2 construction
04/18/03	S-001987-WD-CB-M	Secure III, phase VI gas system installation
08/29/03	S-001987-WD-ZA-M	WTP sludge, dredged spoils, & burnt railroad ties
12/18/03	S-01987-WD-WA-M	Urban Fill Contaminated Soils & debris
01/02/04	S-01987-WD-EB-M	Change in analytical requirements (sludges & ash)
05/11/04	S-001987-WD-FB-M	Secure III, phase VIII-C, stage 3 construction
05/16/04	S-001987-WD-GB-M	Secure III - New force Main Installation
10/15/04	S-001987-WD-JB-M	Secure III, phase VIII-C, Stages 1 & 2 Gas System
MAINE DEP AIR LICENSE:		
06/09/03	A-850-70-A-I	Title V Air License for Landfill and co-generation
		unit to generate electricity with landfill gas
TOWN OF HAMPDEN PERMITS:		
12/03/90	NA	Conventional & Secure ii Landfills
10/07/91	NA	Secure III-Phases I-V
12/13/93	NA	Side Slope Expansion
11/07/94	NA	Secure III-Phases I-V Renewal
08/23/99	NA	Secure III-Phase VIII-A (Planning Board)
10/18/99	NA	Secure III-Phase VIII-A (Town Council)
01/18/00	NA	Secure III-Phase VIII-A (Amendment)
12/18/00	NA	Secure III-Phases VI, VII, & VIII-B
03/28/01	NA	Secure III-Phases VI, VII, & VIII-B (Planning Board)
11/14/01	NA	Secure III-Phase VIII-C (Planning Board)
12/10/01	NA	Secure III-Phase VIII-C (Town Council)
EPA PERMITS:		
02/21/01	MER05A778	NPDES Storm Water Multi-Sector Permit
WASTEWATER DISCHARGE PERMIT:		
08/09/04	S018	City of Bangor Industrial Wastewater Discharge
		Permit For Landfill Leachate
U.S. Fish & Wildlife Permit:		
10/01/01	MB670894-0	Depredation Permit for Shooting of Gulls
12/12/02	MB670894-0	Renewal
03/03/04	MB670894-0	Renewal
10/28/04	MB670894-1	Amendment to add WOTL to PTL Permit

Special Waste Acceptance - Analytical Requirements (MDEP Blanket Permits)

PINE TREE LANDFILL
368 Emerson Mill Road
Hampden, Maine 04444
Tel: (207) 862-4200
Fax: (207) 862-4207

	TCLP Metals (1311)	TCLP-Lead Only (1311) 7420/6010	TCLP-Benzene Only (1311) 8260	TCLP Vanadium (1311) 7910/7911	TCLP Volatiles (1311) 8260	TCLP Semi-Volatiles (1311) 8270	TCLP Pesticides (1311) 8082	TCLP Herbicides (1311) 8150	TOX (9020B/9022) or 8260	Flashpoint (1010)	pH (Corrosivity) (9045C)	Total PCB's (8082)	Sulfide Reactivity (7.3.4.2)	Dioxins and Furans (SW-846)	Cyanide Reactivity (7.3.3.2)	Chloride (9056) SW8	Phosphorus (4500P) STM	% Carbon (D5291)	% Moisture/Free Liquids (9095A)	Sampling Requirements & Notes
Ash Related Wastes																				
Wood\Biomass Boiler Ash	X																			Initially, then annually for <200 tons per year, quarterly >200 TPY
Fossil Fuel Boiler Ash	X			X																Initially, then annually for <200 tons per year, quarterly >200 TPY
Clean Wood Open Burn Ash	X			X																Initially, then annually for <200 TPY, otherwise every 200 tons.
Municipal Solid Waste Ash (MSW)	X													X						Initially, then every 200 tons for first 1000 tons, or quarterly if more frequent.
Biomedical Incinerator Ash	X																			Initially, then every 100 tons or annually, whichever is more frequent.
Burned RR ties & associated ash	X				X	X						X								Initially, then every 250 tons.
Contaminated Soil and Debris																				
Gasoline contam. Soil & debris (UST)		X																		One per source or 500 tons, whichever is more frequent.
Gasoline contam. surface spill		X	X																	One per source or 500 tons, whichever is more frequent.
Waste oil contam. UST or surface	X				X	X	X	X	X	X	X	X	X		X					One per source or 250 tons, whichever is more frequent.
Urban Fill Type Soils & Debris	X				X	X	X	X		X	X	X	X		X					Once per 250 tons <1000 tons, once per 500 tons >1000 tons w/no fewer than 4
Dredged Spoils	X				X	X	X	X				X	X							Initially, then every 250 tons
Virgin petroleum product contam. S & D*	X																			One per source or 500 tons, whichever is more frequent.
Sludges & Related Wastes																				
Filter press cake & collagen scrapings	X				X	X	X	X												Initially, then TCLP-metals only on an annual basis.
Pulp & Papermill Sludge	X				X	X														Initially, then quarterly for TCLP-metals and annually for TCLP-Vols. & Semivols..
Public Waste Treatment Plant Sludge	X				X	X														Initially, then quarterly for TCLP-metals and annually for TCLP-Vols. & Semivols..
Commercial & industrial laundry sludge	X				X	X	X	X					X							Initially, then TCLP-metals only on an annual basis.
Water Treatment Plant Sludge	X				X	X	X	X					X							Initially, then annually thereafter.
Miscellaneous Special Wastes																				
Sandblast Grit	X																			Initially, then annually <50 tons, per event 50-100 tons, >100 tons every 500 tons
Asbestos (non-friable type only)																				Managed in accordance with Maine asbestos rules
Leather Scrap Wastes	X																			Initially, then annually.
Construction & Demolition Debris																				No analysis required, if not contaminated with regulated substances.
Catch Basin Grit																				No analysis required, if not contaminated with regulated substances.
Air & Water Filtration Media																				No analysis required, if not contaminated with regulated substances.
Approved Land Utilization Wastes																				No analysis required, if material fits DEP land utilization criteria.
Front-End Process Residue (FEPR)																				No analysis required.
Oversized Bulky Wastes																				No analysis required.
Pigeon Waste																				No analysis required. Waste must be wet down and contained .
Off-Spec, Spent, or Spilled Chemicals																				No analysis required if msds available to confirm non-hazardous status.
Municipal Solid Waste (MSW)																				No analysis required

*Note: Virgin petroleum product contaminated soil & debris may be disposed of without the normal analytical if the cleanup is supervised by the Maine DEP and/or another State's regulatory authority, and a letter of authorization is obtained.

-PINE TREE LANDFILL CONTACTS-

Tel: 207.862.4200
Fax: 207.862.4207

Martin Drew, General Mgr. (Pricing) ext. 224
Tom Gilbert, Envirn. Mgr. (Waste Acceptance) ext.223
Betty Robinson, (Manifests & Scheduling) ext.221

casella waste systems, inc.

APPROVAL NO.

-SPECIAL WASTE CHARACTERIZATION PROFILE FORM-

PROPOSED DISPOSAL FACILITY

NEW ENGLAND WASTE SERVICES OF ME DBA Pine Tree Landfill 358 Emerson Mill Road Hampden, Maine 04444 Tel: 207-862-4200, ext. 223 Fax: 207-862-2839	NEWSME LANDFILL OPERATIONS LLC West Old Town Landfill Route 16 West Old Town, Maine 04468 Tel: 207-862-4200, ext. 223 Fax: 207-862-2839

WASTE GENERATOR INFORMATION

Generator/Site Name:	Generator/Site Address:	Contact Name: Tel: Fax:
Owner Name:	Mailing Address:	Contact Name: Tel: Fax:
Consultant or Representative:	Mailing Address:	Contact Name: Tel: Fax:
EPA Superfund Site?	Local or State DEP Supervised Cleanup?	Contact Name: Tel: Fax:

SPECIAL WASTE DISPOSAL DATA

Waste Description or Category:
Urban Fill Contaminated Soil & Debris

New MDEP Permit Required? No	Existing Generator/Facility Permit #: #S-001987-WD-WA-M

Quantity of Waste Requiring Disposal:
Tons Cubic yards

Onetime or Ongoing Disposal Proposed:	Frequency of Deliveries:

Special Handling, Shipping, Analytical, and/or Disposal Requirements:
One composite sample every 250 tons for 1,000 tons or less, and one sample every 500 tons for greater than 1,000 tons must be analyzed for the parameters checked off on page-2.

SPECIAL WASTE ANALYTICAL REQUIREMENTS

	No Analyticals Required	X	Total PCB's
	Material Safety Data Sheet (MSDS)	X	Ignitability/Flashpoint
X	TCLP Metals	X	Sulfide Reactivity
	TCLP Lead	X	Cyanide Reactivity
	TCLP Benzene		Dioxins and Furans
	TCLP Vanadium		Chloride
X	TCLP Volatile Organics		% Carbon
X	TCLP Semi-Volatile Organics		% Moisture
X	TCLP Pesticides		Phosphorus
X	TCLP Herbicides	X	Ph/Corrosivity
	Total Organic Halogens (TOX)		Other ( )

* Sample(s) must be analyzed in accordance with the most recently approved EPA method(s) for solid wastes and testing performed by a State certified laboratory.

APPROVAL STATUS

The above waste stream has been approved for disposal at the facility designated on page one of this profile. The terms of acceptance at the designated facility are based upon the waste being representative of the laboratory test results provided by the generator or their representative.

Approved By:

Tom Gilbert
Environmental Compliance Manager
Casella Waste Systems, Inc.

_____ Signature

_____ Date

GENERATOR CERTIFICATION

To the best of my knowledge, as the party responsible for obtaining representative samples and having them analyzed for the parameter(s) specified above, I certify that the attached analytical data is representative of the material being proposed for disposal at Pine Tree Landfill or West Old Town Landfill, and that both the sample collection technique, and analysis were preformed in accordance with procedures identified in U.S. EPA Document SW-846 "Test Methods for Analysis of Solid Waste," 3rd Edition, 1986, unless otherwise specified. Additionally, if this special waste is being disposed under a previously approved individual permit I certify that the process or fuel mix generating the waste has not changed to the extent that it would alter the original characteristics as approved in the permit.

_____ Name (signature)

_____ Date

_____ Title

_____ Company

Please forward completed Generator Certification form to: Tom Gilbert
Pine Tree Landfill
358 Emerson Mill Road
Hampden, Maine 04444

The completed form may also be returned by fax to: 207-862-2839

POLLUTION ABATEMENT DEPARTMENT

James Jones
Treatment Systems Manager

Patrick Cloutier
Director

David Thomes
Collection Systems Manager

Permit No.: 005

INDUSTRIAL USER WASTEWATER DISCHARGE PERMIT

In accordance with the provisions of

The Federal Clean Water Act as amended:
(33 U.S.C. Section 1251 et seq.; the "CWA"
and
The City of South Portland

ENPRO SERVICES OF MAINE, INC.
106 MAIN STREET
SOUTH PORTLAND, MAINE

is hereby authorized to discharge industrial wastewater from the above identified facility and through the outfalls identified herein into the sewer system of the City of South Portland in accordance with the conditions set forth in this permit. Compliance with this permit does not relieve the permittee of its obligation to comply with any and all applicable pretreatment regulations, standards or requirements under local, State, and Federal laws, including any such regulations, standards, requirements, or laws that may become effective during the term of this permit.

Noncompliance with any term or condition of this permit shall constitute a violation of Chapter 29 the City's "Sewer Pretreatment and Permits", of the "Code of Ordinances of the City of South Portland, Maine" and will subject the permittee to enforcement action.

This permit shall become effective on December 18, 2001 and shall expire at midnight on December 18, 2006. This permit supersedes all other permits issued to Environmental Compliance Corporation.

If the permittee wishes to continue to discharge after the expiration date of this permit, an application must be filed for a renewal permit in accordance with the requirements of Sec. 29-101, a minimum of 180 days prior to expiration date.

By: _____
Director of Pollution Abatement

Issued this 6TH day of DECEMBER, 2001.

ORIGINAL

PO BOX 9422 · SOUTH PORTLAND, MAINE 04116-9422
PHONE (207) 767-7675 · FAX (207) 767-5697

GENERATOR PRE-QUALIFICATION FORM

I TYPE OF WASTE: BOTTOM ASH & PETROLEUM CONTAINING SOIL (Non Virgin Surface Sources)

II AMOUNT OF WASTE: +/- _____ Cu Yds +/- _____ Tons

III GENERATOR INFORMATION:

a) Generator _____ Contact _____
Address _____ Phone# _____
b) Process Generating the Waste _____
c) Site of Generation _____
d) Contracting Firm _____ Contact _____
Address _____ Phone# _____

IV WASTE CHARACTERIZATION: Analytical Method - See Table 1

PARAMETER	ANALYTICAL RESULTS	ACCEPTANCE CRITERIA
a) TOX[1]	_____ ppm	<100 ppm
b) Semi-VOCs	(See Attachment A)	
c) PCBs	_____ ppm	<EQL[2]
d) TCLP - 8 RCRA Metals	(See Attachment A)	
e) Flash Point	_____ °F, °C	>140°F or >60°C
f) pH as Corrosivity	_____ s.u.	2.0> pH <12.5 s.u.
g) Reactivity-Cyanide	_____ ppm	<250ppm
h) Reactivity-Sulfide	_____ ppm	<500ppm
i) % Solids	_____ %	no free liquids
j) TCLP Vanadium	_____ ppm	<200 ppm

V GENERATOR CERTIFICATION:

The undersigned agrees that to the best of his/her knowledge the materials, as represented and described above, to be processed by Commercial Recycling Systems do not contain any hazardous waste as those terms are used in the Resource Conservation and Recovery Act, the Comprehensive Environmental Response, Compensation and Liability Act, the Hazardous Materials Transportation Act, the Toxic Substances Control Act, the Clean Air Act and the Clean Water Act, or any similar state or local law, or any regulation promulgated pursuant thereto, or any other applicable law, except those materials expressly indicated above. Samples obtained by generator for pre-qualification of this material have been obtained in accordance with the requirements of Table 1 and CRS's Sampling and Analytical Plan.

_____ _____
(Name Print/Type) (Title)

_____ _____
(Signature) (Date)

VI COMMERCIAL RECYCLING SYSTEMS ACCEPTANCE:

CRS accepts this waste in accordance with requirements set forth in its MDEP Solid Waste Facility Processing License #S-021243-WK-A-N.

_____ _____
(Name Print/Type) (Title)

_____ _____
(Signature) (Date)

[1] If TOX is greater than 100 ppm, see Attachment A for additional parameters.
[2] Laboratory "Estimated Quantitation Limit" per EPA SW846 volume 1A chapter 1

GENERATOR PRE-QUALIFICATION FORM

I TYPE OF WASTE: BOTTOM ASH (& Bottom Ash Containing Soil)

II AMOUNT OF WASTE: +/_____ Cu Yds +/_____ Tons

III GENERATOR INFORMATION:

a) Generator _____ Contact _____
Address _____ Phone# _____
b) Process Generating the Waste _____
c) Site of Generation _____
d) Contracting Firm _____ Contact _____
Address _____ Phone# _____

IV WASTE CHARACTERIZATION:

Analytical Method - See Table 1

PARAMETER	ANALYTICAL RESULTS TCLP	ACCEPTANCE CRITERIA TCLP
a) TCLP VANADIUM	_____ ppm	<200 ppm
b) 8 RCRA METALS	(see attachment A)	

V GENERATOR CERTIFICATION:

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_____ _____
(Name Print/Type) (Title)

_____ _____
(Signature) (Date)

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CRS accepts this waste in accordance with requirements set forth in its MDEP Solid Waste Facility Processing License #S-021243-WK-A-N.

_____ _____
(Name Print/Type) (Title)

_____ _____
(Signature) (Date)

ATTACHMENT A - GENERATOR PRE-QUALIFICATION FORM

ADDITIONAL WASTE CHARACTERIZATION PARAMETERS *
SAMPLE RESULTS & ACCEPTANCE LIMITS

WASTE CHARACTERIZATION:

PARAMETER	SAMPLE RESULTS	ACCEPTANCE LIMITS
CRS Required Halocarbons		
When TOX either exceeds 100 ppm or is not being done, the laboratory needs to do the following: Analyze by USEPA Method 8260. Calibrate for and report the following compounds:	Result	Limit
Tetrachloroethylene	_____ mg/kg	<7 mg/kg
Methylene Chloride	_____ mg/kg	<2 mg/kg
Trichloroethylene	_____ mg/kg	<5 mg/kg
1,1,1-Trichloroethane	_____ mg/kg	<2 mg/kg
Chlorobenzene	_____ mg/kg	<1000 mg/kg
1,2-Dichlorobenzene	_____ mg/kg	<2 mg/kg
1,1,2-Trichloroethane	_____ mg/kg	<2 mg/kg
Carbon Tetrachloride	_____ mg/kg	<5 mg/kg
If present, report the following as tentatively identified compounds with the concentration estimated from the nearest internal standard assuming a relative response factor of 1. Flag the result with a "J" qualifier:		
1,1,2-Trichloro-1,2,2-Trifluoroethane	_____ mg/kg	<2 mg/kg
Trichlorofluoroethane	_____ mg/kg	<2 mg/kg
Chlorinated Fluorocarbons	_____ mg/kg	<2 mg/kg

Semi-VOCs (from USEPA TCLP list)**

	Total mg/kg	TCLP mg/L	Total **	TCLP ***
O-Cresol			<2000 mg/kg	<200 mg/L
M-Cresol			<2000 mg/kg	<200 mg/L
P-Cresol			<2000 mg/kg	<200 mg/L
Total Cresols			<2000 mg/kg	<200 mg/L
1,4-Dichlorobenzene			<75 mg/kg	<7.5 mg/L
2,4-Dinitrotoluene			<1.3 mg/kg	<0.13 mg/L
Hexachlorobenzene			<1.3 mg/kg	<0.13 mg/L
Hexachlorobutadiene			<5 mg/kg	<0.5 mg/L
Hexachloroethane			<30 mg/kg	<3 mg/L
Nitrobenzene			<20 mg/kg	<2 mg/L
Pentachlorophenol			<1000 mg/kg	<100 mg/L
Pyridine			<50 mg/kg	<5 mg/L
2,4,5-Trichlorophenol			<4000 mg/kg	<400 mg/L
2,4,6-Trichlorophenol			<20 mg/kg	<2 mg/L

8 RCRA Metals **

	Total mg/kg	TCLP mg/L	Total **	TCLP ***
Arsenic			<50 mg/kg	<5.0 mg/L
Barium			<1000 mg/kg	<100 mg/L
Cadmium			<10 mg/kg	<1.0 mg/L
Chromium			<50 mg/kg	<5.0 mg/L
Lead			<50 mg/kg	<5.0 mg/L
Mercury			<2 mg/kg	<0.2 mg/L
Selenium			<10 mg/kg	<1.0 mg/L
Silver			<50 mg/kg	<5.0 mg/L

* Check Generator Pre-Qualification Form for parameters that apply & Table I for analytical methods and hold times.

** Testing for TCLP or Totals is acceptable. If analytical results for Totals exceed the acceptance limit, TCLP analysis is required for that compound.

*** If less than 6 composite samples are submitted, the TCLP acceptance criteria is lowered to 50% of listed limits.

Attachment B – Acceptable concentration for PAHs (polynuclear aromatic hydrocarbons)

(Based on Maine Solid Waste Regulations, Chapter 418, Beneficial Use of Solid Wastes, Appendix A

Compound	Acceptance limit mg/kg	Sample result
Acenaphtene	712 mg/kg	
Acenapthylene	n/a	
Benz[a]anthracene	11	
Benzo[b]fluoranthene	11.4	
Benzo[k]fluoranthene	110	
Benzo[a]pyrene	7.7	
Chrysene	1100	
Dibenz[ah]anthracene	1.1	
Fluoranthene	3875	
Fluorene	3875	
Indeno[1,2,3-cd]pyrene	11	
Naphthalene	105	
Phenanthrene	n/a	
Pyrene	2875	

TABLE III

(from *page-17, CRS Operations Manual–Rev. 2/21/01*)

NUMBER OF SAMPLES REQUIRED

Material Volume (tons)	Number of Composite Samples Required	Number of Subsamples Required per Composite Sample
VIRGIN PETROLEUM CONTAINING SOIL & BLASTING GRIT:		
1-100	1	3
101-200	1	6
201-300	1	9
301-400	1	12
401-500	1	15
501-1,000	2, plus 1 for every 500 tons above 1,000	15
PETROLEUM CONTAINING PROCESS RESIDUE:		
0-45	1 per roll-off container	3
BOTTOM ASH:		
1-250	1	6
251-500	2	6
501-750	3	6
751-1,000	4	6
1,001-2,000	4, plus 1 for every 1,000 tons above 1,000	24
NON VIRGIN PETROLEUM CONTAINING SOIL:		
1-100	1	3
101-200	1	6
201-250	1	8
251-500	2	8
501-750	3, plus 1 for every 250 ton above 750	8

ENPRO – Disposal Facility, RCRA TSDF for Hazardous Liquids

ENPRO Services of Maine, Inc.
106 Main Street
South Portland, ME
Tel: 207.799.0850
Fax: 207.799.5565

FACILITY US EPA ID NO. MED019051069

Permits:

RCRA Part B Hazardous Waste and Waste Oil TSDF and 10-day Transfer Facility permit (combined), License #O-000017-H1-J-R, #O-000017-HR-J-R & #O-000017-97-G-R
Expires May, 2009

Industrial User Wastewater Discharge Permit N0. 005
Expires December, 2006

City of South Portland Waste Flammable Liquids License N. 13094
Expires April, 2006

The date of the last inspection was an informal one August 2004; deficiencies are identified below.

There is no weight scale at the ENPRO Services of Maine facility

Facility POC – Dave Grant (207) 799-7377

Regulatory POC – LeeAnn DelMonte (800) 966-1102

ENFORCEMENT AND/OR COMPLIANCE ACTIONS

Compliance Notifications since those set forth in the 1995 permit renewal application include one Notice of Violation from the Maine Department of Environmental Protection on December 21, 1999; and the following Notices of Noncompliance from the City of South Portland regarding wastewater discharge permit limit exceedances:

3-4-96	Exceeded limit for Cyanide
5-14-96	Exceeded limit for Mercury
7-1-96	Exceeded limit for Oil and Grease
7-15-97	Exceeded limit for Cyanide
11-18-96	Exceeded limit for Oil and Grease
5-12-98	Exceeded limit for Copper
2-13-01	Exceeded limit for Nickel and Cyanide
8-01-01	Exceeded limit for Cyanide
11-09-04	Exceeded limit for Copper & Nickel

All Notices of Noncompliance were resolved and the facility is currently in compliance with all of its permits and limits.

The last inspection by Maine DEP was an informal inspection of on-going improvements at the facility, in August of 2004.

ENPRO – Disposal Facility, RCRA TSDF for Hazardous Liquids

ENPRO Services of Maine, Inc.
106 Main Street
South Portland, ME
Tel: 207.799.0850
Fax: 207.799.5565

FACILITY US EPA ID NO. MED019051069

Permits:

RCRA Part B Hazardous Waste and Waste Oil TSDF and 10-day Transfer Facility permit (combined), License #O-000017-H1-J-R, #O-000017-HR-J-R & #O-000017-97-G-R
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Regulatory POC – LeeAnn DelMonte (800) 966-1102

-PINE TREE LANDFILL FACILITY DATA-

Type of Facility:	Subtitle D Landfill Double synthetic liner with leak detection and leachate collection
Location of Facility:	358 Emerson Mill Road Hampden, Maine 04930 Located off Exit 180 of Interstate 95
EPA ID Number	The facility does not generate hazardous waste, therefore it is not required to have an EPA ID number
Facility Contact Information:	Martin Drew, General Manager Tom Gilbert, Environmental Manager 358 Emerson Mill Road Hampden, Maine 04930 Tel: 207-862-4200 Fax: 207-862-2839
Facility Hours of Operation:	Monday – Friday, 6:00 AM – 7:30 PM Saturday & Sunday, 8:00 AM – 3:30 PM
Maine State DEP Contact:	Cyndi Darling Maine Dept. of Environmental Protection Bureau of Remediation & Waste Management 106 Hogan Road Bangor, Maine 04401 Tel: 207-941-4570
Violations in Last 3 Years:	No notice of violations in last 3 years
Date of Last Inspection:	Last site visit by the MDEP was in November 2004
Environmental Permits:	See attached list
Facility Scales:	Last Maine certificate issued in November 2001 Last scale inspection by Sabago Scales was in November 2004
Analytical Requirements:	See attached requirements

oak
environmental
consultants, inc.

July 27, 2005

Environmental Chemical Corp.
50 D'Angelo Drive
Marlborough, MA 01752
Att: Darren Gainer

Dear Mr. Gainer,

Per the request of Frank Cellucci, at EFANE, enclosed please find a copy of our Work Plan for NAS Brunswick, ME.

Please feel free to contact me if you require further information.

Sincerely,

Bruce Newman
Director of Operations

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(856) 988-9553 • (fax) (856) 797-9303 • web address www.oakgroup.net